

**Evaluation of the
Government of Ghana - UNICEF
Integrated Approach to Guinea Worm
Eradication through Water Supply,
Sanitation and Hygiene
in Northern Region, Ghana (I-WASH)**

Final Report
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The ownership of this document lies with UNICEF, but the opinion expressed in it are the authors' and not necessarily that of UNICEF.

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Table of Contents

1	Executive Summary	6
1.1	Summary of findings.....	6
1.1.1	Relevance	6
1.1.2	Effectiveness	6
1.1.3	Efficiency	7
1.1.4	Impact.....	7
1.1.5	Sustainability.....	7
1.1.6	Visibility.....	7
1.1.7	Previous recommendations	7
1.2	Key recommendations.....	7
1.2.1	Key recommendations for action within the I-WASH closing phase	7
1.2.2	Key recommendations for future action in conjunction with other projects.....	8
2	Introduction.....	8
3	Purpose.....	8
4	Methodology	9
4.1	Document Review	9
4.2	Interviews with key informants.....	10
4.3	Interviews with beneficiaries	10
4.4	Observations.....	11
4.5	Limitations	11
5	Context.....	12
5.1	The I-WASH project.....	12
5.2	Project logframe	13
6	Findings.....	16
6.1	Relevance and quality of design	16
6.1.1	Summary	17
6.1.2	Recommendation	17
6.2	Effectiveness	17
6.2.1	Capacity building of districts and other stakeholders	17
6.2.2	Increased access to and use of sustainable safe drinking water	19
6.2.3	Basic sanitation delivery and coverage increased.....	24
6.2.4	Improved hygiene behaviour practices with focus on handwashing with soap.....	27
6.3	Efficiency	29
6.3.1	Use of human resources	29
6.3.2	Timelines.....	31
6.3.3	Cost effectiveness of I-WASH project.....	31
6.3.4	Recommendations	32
6.4	Impact.....	32
6.4.1	Health impact	32
6.4.2	Impact at organisational, policy and strategic level	34
6.4.3	Summary	34
6.4.4	Recommendation	35
6.5	Sustainability.....	35
6.5.1	Summary	37
6.5.2	Recommendations.....	37
6.6	Visibility.....	38

6.6.1 Summary	38
6.6.2 Recommendation	38
6.7 Previous recommendations	38
6.7.1 Summary	39
6.7.2 Recommendation	39
7 Key conclusions and recommendations	39
Annex A - TOR.....	42
Annex B - Itinerary for fieldwork	51
Annex C - Documents available during evaluation	52
Annex D - List of people met.....	54
Annex E - Interview guidelines	57
Annex F - Overview of interventions visited.....	61
Annex G - Revisions of logframe	70
Annex H - Mortality and diarrhoea data from health district	74
Annex I - Recommendations from previous missions	75

Abbreviations

APDO	Afram Plain Development Organisation
CLTS	Community-Led Total Sanitation
CoC	Rural Water Development Program - Church of Christ
CRS	Catholic Relief Services
CWSA	Community Water and Sanitation Agency
DA	District Assembly
DAC	Development Assistance Committee
DIMES	District Monitoring and Evaluation System
DPDT	District Project Delivery Team
EC	European Commission
EHU	Environmental Health Unit
EU	European Union
EUR	Euro
GDP	Gross Domestic Product
GES	Ghana Education Service
GHS	Ghana Health Service
GSGDA	Ghana Shared Growth and Development Agenda
GWEP	Guinea Worm Eradication Programme
HIRD	High Impact Rapid Delivery
HWWS	Handwashing with soap
I-WASH	Integrated Approach to Guinea Worm Eradication Through Water Supply, Sanitation and Hygiene in Northern Region, Ghana
KVIP	Kumasi Ventilated Improved Pit type
LMS	Limited Mechanised Systems
MICS	Multiple Indicator Cluster Surveys
NGO	Non Governmental Organisation
O&M	Operation and Maintenance
ODF	Open Defecation Free
OECD	Organisation for Economic Co-operation and Development http://www.oecd.org/
PHAST	Participatory Hygiene and Sanitation Transformation
PPP	Public Private Partnership
PSC	Project Steering Committee
ROM	Results Oriented Monitoring
RPMT	Regional Project Management Team
SHEP	School Health Education Programme
SWA	Sanitation and Water for All
TOR	Terms of Reference
UNICEF	United Nations Children's Fund
USD	US Dollars
WASH	Water, Sanitation and Hygiene
WSMT	Water and Sanitation Management Team (previously called Board)
WV	World Vision

1 Executive Summary

This report is an end-of-project evaluation of the Ghana-UNICEF Integrated Approach to Guinea Worm Eradication through Water Supply, Sanitation and Hygiene in the Northern region, Ghana (I-WASH) project. The project was implemented from 2007 to 2012 in the ten districts of the Northern Region that had the highest number of cases of guinea worm infections in 2005. The project is financed with funding from the European Development Fund (EUR 14.5 million) and UNICEF (EUR 5,050,528).

The objective of the project is to break the transmission of guinea worm infections and to ensure a decrease in childhood mortality and childhood diarrhoea. It aimed to do this with an integrated intervention of water supply provision, improved sanitation and hygiene coverage and behaviour change facilitation. The project consists of four components: i) development of the capacity of ten District Assemblies and other stakeholders; ii) increased access to, and use of, sustainable safe drinking water; iii) basic sanitation delivery and coverage increased; and iv) improved hygiene behaviour practices with focus on hand-washing.

The evaluation fieldwork took place in June 2012, at the end of the operational phase of the project.

1.1 Summary of findings

1.1.1 Relevance

The I-WASH project is relevant to the eradication of guinea worm and is in line with the priorities of the Government of Ghana. The objectives for a reduction in child mortality and diarrhoea cases in communities were unrealistically high.

1.1.2 Effectiveness

The capacity development component has effectively achieved the expected result; in one district the usefulness of the component was less obvious.

The reported number of beneficiaries with access to year-round drinking is 246,000 against an expected result of 267,000. Furthermore, not all water supply facilities visited were providing or were used year-round.

O&M structures have been put in place and funds are in general collected on a regular basis with spare parts available and minor repairs taking place.

The project has not achieved its targets for household and institutional sanitation coverage, but has facilitated processes that will enhance the acceleration and scaling up of CLTS in Ghana if the challenges are addressed.

Progress have been made towards achieving the expect result of improved hygiene. Especially the hand washing with soap interventions have been successful whereas the progress in cleaning communities has been limited.

1.1.3 Efficiency

The project made good use of existing capacities in partner organisations although delays in implementing some aspects of the project led to a one-year no-cost-extension. The cost of the activities is found to be reasonable.

1.1.4 Impact

The I-WASH project has contributed to breaking the transmission of guinea worm and is likely to have contributed to a reduction of in childhood mortality and diarrhoea. The I-WASH project has also had an impact at the organisational, policy and strategic level.

1.1.5 Sustainability

Despite the lack of an explicit exit strategy, there are encouraging signs that many aspects of the I-WASH project will nevertheless be sustainable. It is likely that the break of guinea worm transmission will be sustained and that improvements in sanitation and hygiene practises are sustained. The institutional sustainability is ensured with organisational structures being sustained as well as replicated in other sectors.

The O&M system of the water supply facilities is functioning and preventive maintenance and minor repairs are generally taking place with community contributions.

Technical support might be required to sustain the household latrines and monitoring to ensure that the agreed institutional latrine designs and standards are adhered to.

1.1.6 Visibility

Only a limited number of visibility measures had been implemented.

1.1.7 Previous recommendations

Most of the recommendations from previous reviews of the project have been implemented.

1.2 Key recommendations

Given that the I-WASH project has entered its closing phase the recommendations below are categorised into recommendations that can be undertaken by the I-WASH project and those that should be considered for future projects.

1.2.1 Key recommendations for action within the I-WASH closing phase

This section contains a shorter version of the key recommendations. For more details of the recommendations, please refer to chapter 7.

- Carry out a follow-up assessment to determine how training and other types of capacity building support provided is being used and to determine follow-up assistance.
- Initiate a small-scale research to determine the scale of the health impact.
- Urgently develop an exit strategy and start implementation immediately before end of the I-WASH project.
- The institutional latrines already constructed should be assessed, and discussions about design compliance should be undertaken

- The I-WASH project should strengthen the O&M system through the Regional Project Management team.

1.2.2 Key recommendations for future action in conjunction with other projects

- Ensure that future projects have realistic indicators for overall objectives and project purposes.
- In order to verify that year-round access to water is provided, future projects should include regular monitoring of functionality and use of water facilities based on definitions of what functionality and use entails.
- Future household water treatment interventions should be strengthened by monitoring and documenting the adoption of the household water treatment technologies and the level of compliance with appropriate use.
- Future CLTS triggering should be at a level which the Environmental Health Officers can provide sustained close mentoring and supervision in an agreed time frame.
- The CLTS process should include technical support to latrine construction for those who wish to construct and use their own latrines during the process of achieving ODF.
- Future institutional latrines should take into consideration of gender and the physical challenged. Explore avenues for complementing the facilities provided through the I-WASH project, to ensure a complete package of water, sanitation and hygiene facilities.
- Ensure that planning include realistic time for UNICEF procedures for hiring of staff and purchases and take into consideration local contractors' capacity.
- UNICEF together with partners should undertake high-level advocacy to ensure funding by district assemblies for monitoring and facilitation in communities.
- UNICEF and partners should support the establishment of a system for monitoring of the abstraction of water to ensure sustainable use.
- A clear visibility plan should be developed at the on-set of future projects and implementation should be undertaken simultaneously with implementation of activities.

2 Introduction

In June 2012, UNICEF commissioned two independent consultants to undertake an end-of-project¹ evaluation of the EC and UNICEF financed "Integrated Approach to Guinea Worm Eradication Through Water Supply, Sanitation and Hygiene in Northern Region, Ghana" (I-WASH). This report contains the findings and recommendations of the consultants' work.

The evaluation covers the I-WASH activities funded by the EU (75%) and UNICEF (25%). The I-WASH project has until June 2012 been the only UNICEF WASH project in the Northern Region.

3 Purpose

According to the Terms of References (TOR) the purpose of the external evaluation is to make an overall assessment of the past performance. It states that particular attention should be paid to the

¹ June 30, 2012 marks the end of the operational phase of the I-WASH project with additional 6 months available for closing, i.e. until December 31, 2012.

impact of the project considering its objectives and to identify key lessons learned and propose recommendations for follow-up actions. The full TOR is included in Annex A.

TOR specifies that the evaluation is carried out according to the OECD DAC criteria, i.e.:

- Relevance and quality of design
- Efficiency
- Effectiveness
- Impact
- Sustainability.

TOR also specifies that the evaluation should review the impact of the implementation of recommendations made during previous performance missions.

Furthermore, at an initial meeting in Accra the Delegation of the European Commission requested that visibility be a part of the evaluation.

4 Methodology

Taking into consideration the broad scope of the evaluation - i.e. an overall assessment covering relevance, design, efficiency, effectiveness, impact, sustainability and visibility - methodology had to be equally encompassing in order to ensure that all relevant aspects were covered. Time constraints meant that collection of statistically representative primary quantitative data from the field was not possible; instead secondary quantitative data was obtained from existing reports. The use of different data sources enabled triangulation of more than one data source, thereby providing a more detailed and comprehensive picture of the achievements and increased the validity. For selection of interventions to visit, the consultants independently selected the locations without influence by UNICEF or other project stakeholders. For more details on the different methods and limitations please see the sub-sections below.

The consultants obtained information through a mix of methods: document review, interviews with key informants, and interviews with beneficiaries, and observations.

Efforts were made to ensure that the information collected was verified using more than one source, for example progress reports and interviews or observations. Two debriefing sessions, one in Tamale in one in Accra, with main stakeholders was also used to verify the findings, providing a valuable forum for discussion of some of the details of the I-WASH project.

The fieldwork took place in Accra and Tamale from June 12 to June 30, 2012. Annex B contains a more detailed itinerary of the field work.

4.1 Document Review

A number of documents were provided before commencing the fieldwork, and additional documents were obtained during the fieldwork, including access to hard copies in Tamale. The documents are a mix of planning documents, progress reports developed prior to and during

implementation of the programme. Annex C contains a list of the main documents the consultants reviewed.

The obtained documents were reviewed with the aim of firstly, providing an overview of the project activities and secondly, determining which information was already available. This approach was used to enable the team to maximise the time available for field work and to obtain quantitative data on the results and outputs of the I-WASH project.

Most information on the quantitative outputs of the project has been obtained from reports, mainly UNICEF progress reports.

4.2 Interviews with key informants

The selection of key informants was based on references found during the document review and through initial meetings in Accra and Tamale. The key informants included UNICEF, EU, GWEP, GHS, GES, District Assemblies and implementing partners such as CoC, New Energy and CRS. Discussions during a meeting could also lead to identification of additional people to meet. A full list of people met can be found in Annex D. Key informants were generally interviewed in their offices.

Semi-structured open-ended interviews using an interview guideline were used to gather information from key informants with a separate interview guideline for interviews with district authorities in order to also assess the capacity building component of the I-WASH project. Draft interview guidelines were developed prior to the field work based on the preliminary information available from the documents made available, and were guided by the TOR. The interview guidelines were revised upon arrival in Ghana. The interview guidelines are included in Annex E.

A total of 36 key informants were interviewed from 17 different organisations.

4.3 Interviews with beneficiaries

Interviews with beneficiaries were mainly conducted 'on-the ground' in the communities where activities had been implemented. The interviews would take place under a tree, at the water facility, etc. The community members interviewed depended on who was available as no pre-arrangements were made with community members.

Based on an updated list of interventions and communities made available by UNICEF, the consultants selected four districts and 25 communities with a total of 36 interventions (water, sanitation and/or hygiene) for visits. To ensure that communities with different characteristics and different types of interventions (hand pumps, LMS, alternative water interventions, latrines, CLTS and school hygiene promotions) were selected for the fieldwork, a preliminary list aimed at ensuring that the following were covered:

- Last reported cases of Guinea worm
- Institutional sanitation interventions
- School health and hygiene promotion
- Rehabilitation of boreholes
- Construction of new boreholes

- Hand dug wells
- LMS
- Alternative (household treatment)
- CLTS triggered communities
- ODF communities
- New and old interventions
- Communities with only one type of intervention
- Communities that had had more than one type of intervention, e.g. water and CLTS
- Smaller and larger communities.

A preliminary list of interventions selected for visit was discussed with the relevant District Assembly in order to ensure also that remote locations were visited. A full list of interventions visited is included in Annex F.

In the visited communities a total of approximately 150 beneficiaries were interviewed, ranging from only 1 to 10 in each community - the exact number of beneficiaries were not necessarily recorded for large groups (the group sizes typically also varied throughout the interview as some perhaps left, or - more often - more people would come). Approximately 50 females participated in the interviews (approximately one third of the beneficiaries interviewed). A list of people met can be found in Annex D.

Typically more than one category of beneficiaries were met separately, i.e. village officials were met prior to meetings with one or more groups of beneficiaries, e.g. if there was a school with latrines, interviews would be held with teachers and students, and separate interviews would be held with women fetching water and/or CLTS facilitators. Separate interviews could also be conducted with WSMT members.

4.4 Observations

Observations were used as an additional tool to assess the quality of the facilities constructed in the communities, e.g. water facilities and latrines. Additionally, observations were used to validate information on the use of facilities, if they were being used, and the level of operation and maintenance, e.g. dirty versus clean latrines, leaking water taps, dry hand pumps, records of WSMTs, etc.

4.5 Limitations

Overall there were no major limitations to the field work; only in a few cases were the planned field work not possible, i.e. a visit to a community in Central Gonja was cancelled due to the road being impassable, and the selection of Kpandai District was changed to Central Gonja as according to the lists of interventions made available to the consultants there were no water projects in Kpandai.

The overweight in most communities of males available for interviews was due to women being busy collecting shea nuts, fetching water, etc. Beneficial to the evaluation was that the consultants consisted of a female and a male consultant, facilitating interaction with women.

Translation of questions and answers was done through various people from the districts, depending on who was available. The translators are believed to have translated the consultants' questions and the interviewees' answers as correctly as possible, taking into consideration that some of the terminologies were difficult to translate directly.

Baseline studies of varied quality had been developed by the I-WASH project as part of commencement of activities, containing a wealth of information. The time allocated for fieldwork, however, did not allow for a repetition of the baseline studies, which would have assisted in a more precise evaluation of especially the contribution of the I-WASH project to a reduction in guinea worm infection and mortality and diarrhoea cases. It should furthermore be noted that crediting changes to the contributions of specific project interventions is a complex task under the best of conditions with other organisations supporting similar and sometimes contradictory work. This is furthermore made difficult by the very ambitious objectives and purposes of the I-WASH project. It is, however, possible to ascertain the key results of the I-WASH project and attribute increases in access to water, sanitation and hygiene in the project area to the project, which ultimately contributes to the impact of the project.

5 Context

In mid 2006, Ghana had the second highest number of guinea worm cases (4,136) in the world, after Sudan, and the Northern Region accounted for almost 80% (3,086) of the cases in Ghana. In 2004, the rural and small town population of Northern Region had limited access to safe water and sanitation (45% and 17% respectively). The Northern Region with a population of 1.8 million, is characterised by lower socioeconomic and health indicators than national averages. For example under five mortality was 154 deaths per 1,000 live births against the national average of 111. The region also has a difficult terrain and a relatively small population spread over a large land area (70,000 km²). A long dry season of approximately six months per year and difficulties of finding ground water add to the challenges of safe water provision in the region.²

The Guinea worm Eradication Program had successfully reduced the national case load from almost 180,000 cases in 1989 to 4,136 in 2006. By 2005, it was observed that the pace of decrease in incidence had slowed down; villages were becoming re-infected because communities were not changing their behaviour. It was against this background, that UNICEF together with partners such as CWSA, GWEP, District Assemblies and others developed a proposal for the I-WASH project to interrupt transmission of Guinea worm using an integrated approach of water supply, sanitation and behaviour change.

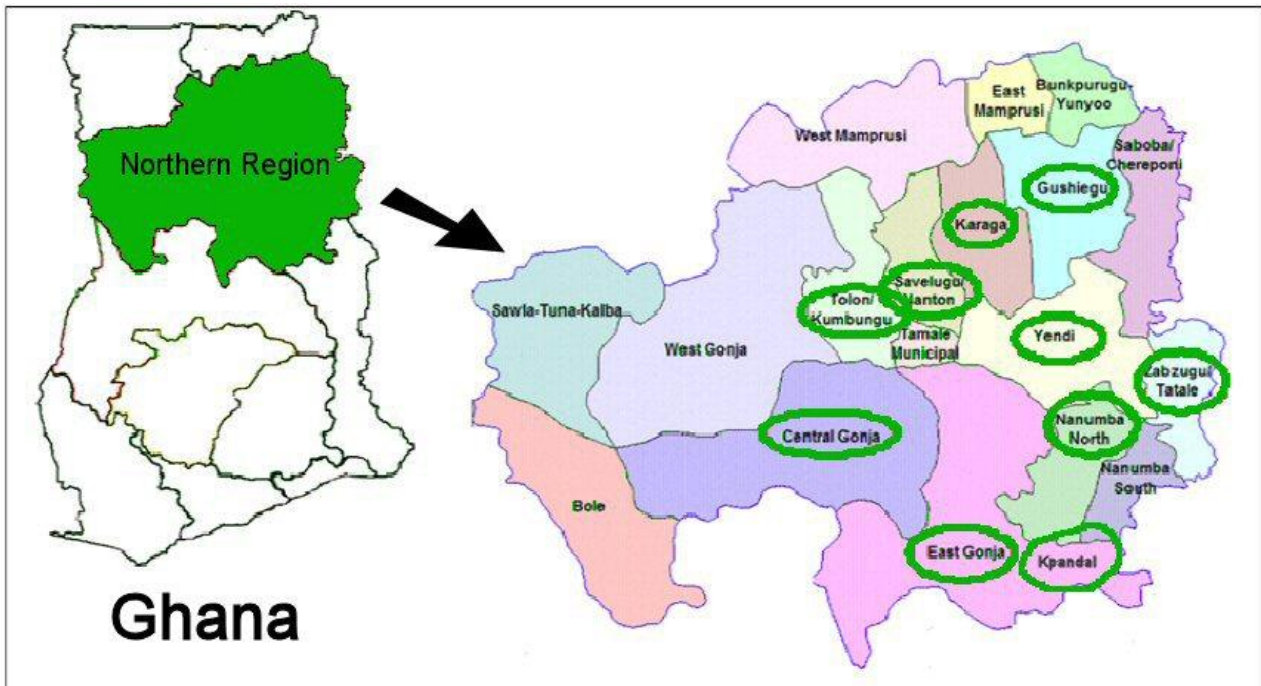
5.1 The I-WASH project

The I-WASH project is implemented in the 10 districts - out of the then 18 districts (later changed to 20 and now to 26) - that had the highest number of guinea worm cases in Northern Region. Map 1 below shows the 10 districts in which the project was implemented³.

² www.ghanadistricts.com

³ originally there were 9 districts but East Gonja District was split into East Gonja and Kpandai districts

Map 1: Map of Northern Region districts



The total budget of the I-WASH project is EUR 19,550,528, of which EUR 14,500,000 (74.17%) was provided by the EU and EUR 5,050,528 (25.83%) by UNICEF. The EU contribution was made possible through an agreement by the National Authorising Officer at the Ministry of Finance & Economic Planning allowing for funding to be channelled from the European Commission to UNICEF. The project was planned to run from June 2007 to May 2011, but a no-cost extension to June 2012 was granted. Project activities are still on-going.

The project focused on four key result areas:

Key result 1: Capacity of 9 District Assemblies and other stakeholders enhanced with requisite skills to plan, coordinate, implement and sustain a Demand Responsive Approach for Guinea Worm eradication, drinking water supply and basic sanitation/hygiene interventions.

Key result 2: Increased access to, and use of, sustainable safe drinking water.

Key result 3: Basic sanitation delivery and coverage increased.

Key result 4: Improved hygiene behaviour practices with focus on hand-washing.

5.2 Project logframe

The objectively verifiable indicators for the overall project objective and purpose, and some of the expected results changed during the course of the project in response to recommendations by previous performance monitoring missions. Annex G shows the changes and the reasons for the changes. Examples of the changes are: (a) the use of a decrease in child mortality and interruption of guinea worm transmission to measure the overall objective, instead of malnutrition; (b) a reduction of 25% instead of 40% in childhood diarrhoea (c) the reduction of latrine targets from 48,000 to 9,000 to reflect a change in approach, and (d) the use of the number of open defecation free communities as an indicator, rather than 35% points increase in sanitation coverage.

Table 4.1: I-WASH objectives and purpose

<i>Objective</i>	<i>Objectively verifiable indicator</i>
	<i>Revised log frame</i>
Overall objective	25% decrease in childhood mortality in the project area A break down of guinea worm transmission in Ghana
Project purpose	Reported 25% decrease in the incidence of childhood diarrhoea in the project area 90% decrease in number of guinea worm cases

Table 4.2 below contains the indicators for the four result areas of the I-WASH project as well as the achievements by mid-2012 and the planned achievements by end-2012, e.g. inclusive of achievements made during the closing phase of the project.

Table 4.2: Result areas and indicators

Expected Result	OVI	Reported achievement by mid-2012	Planned achievement by end-2012
Capacity of 10 ⁴ DAs +other stakeholders enhanced to plan, and implement and sustain a demand responsive approach	District Water and Sanitation Plans (DSWP) are written by all 10 districts by the end of the first year	10 DSWPs written	10 DSWPs written
	DSWP goals achieved within the given time frames	Not within control of the project	Not within control of the project
	A district based inventory of water installations with functionality levels is established and used for planning at the District Assembly level by the end of year one	Inventory of functionality not established	Inventory of functionality not established
	Key stakeholders are trained in project identification, evaluation and effective delivery by the first 1.5 year	Key stakeholders were trained	Key stakeholders were trained
Increased access to, and use of, sustainable safe drinking water	Water supply facilities with year-round supply of safe water have been constructed for 267,000 people in Guinea worm affected villages by the end of the project.	Year-round supply of safe water for 245,600 people	Year-round supply of safe water for 342,839 people
	85 percent of all the community owned and operated drinking water systems are functional at any given time from the end of the second year	To be surveyed	To be surveyed
	Community elected representatives are trained in the maintenance and management of the community water supplies	WSMTs and watsan committees are trained and functioning	WSMTs and watsan committees are trained and functioning
Basic sanitation delivery and coverage increased	2 cost effective rural sanitation promotion models developed and piloted	A 2-in-1 model developed	A 2-in-1 model developed
	9,000 household sanitation facilities constructed	4,700 household sanitation facilities constructed	16,923 households in 750 communities in 10 districts are under-going the CLTS process. An additional 8,460 household latrines with hand washing facilities are expected by December 2012.
	400 Open Defecation Free (ODF) communities	52 ODF communities	52+ additional 375 ODF communities
	A regional and national plan/strategy for scaling up of the sanitation marketing approach is developed	Plan for scaling up developed	Plan for scaling up developed
	National Environmental Sanitation Policy revised and updated by end of 3rd year	Policy revised and updated	Policy revised and updated
Improved hygiene behaviour practices with focus on hand washing with soap	70% of the target population understand the importance of hand washing and link hand washing to improved health	94% of target population do so	94% of target population do so
	Soap (or ash or other suitable media) is found to be used for hand washing in 80% of randomly selected households	49% of households do so	49% of households do so
	Promotion of hand washing with soap (or ash or other suitable media) at critical times is incorporated into the national development priorities.	National hand washing with soap strategy developed	National hand washing with soap strategy developed
	85% of the target villages certified as clean.	13 % of communities are ODF	> 13 % of communities are ODF

⁴ East Gonja District was split into two districts after the DWSP for East Gonja was completed. The new district arising out of this split (Kpandai) became the 10th target district for the I-WASH project. The remaining district of East Gonja and the new district of Kpandai agreed to split the data into two DWSPs.

6 Findings

This chapter presents the findings as per the 5 OECD/DAC criteria (Relevance and Quality of Design, Effectiveness, Efficiency, Impact, Sustainability) and findings on visibility and a review of recommendations made during previous performance missions.

6.1 Relevance and quality of design

The relevance of the I-WASH project was assessed in relation to its alignment to the policy, strategic direction and the priorities of the Government of Ghana as well as the needs of the beneficiaries.

Eradication of guinea worm is a priority of the Government of Ghana and many interviewees noted with pride that the I-WASH project had significantly contributed to this. Considering that the Northern Region had the most cases of guinea worm in Ghana and the low water and sanitation coverage as well as the lack of adequate hygiene behaviours in the Northern Region, the overall objectives of the project was relevant. The integration of capacity building, water, sanitation and hygiene and the emphasis on inter-sectoral collaboration, including with the Guinea Worm Eradication Programme, was successful in contributing to breaking the transmission of guinea worm.

The Ghana Shared Growth and Development Agenda (GSGDA) emphasises, amongst other things, human development and infrastructural development with water and sanitation being one of the priorities. Efficiency in public service delivery and decentralisation is also part of the Growth and Development Agenda as well as the Ghana Decentralisation Action Plan. The I-WASH project's emphasis on building the capacity of District Assemblies, community based maintenance system as well as the provision of water and sanitation facilities are all in line with the government's strategic priorities. Improvement in water, sanitation and hygiene as well as eradication of guinea worm infections also lead to increased productivity, and thus increases economic growth, through time saved fetching water, less sick days or tending to sick family members, etc.

The project coordination was carried out through inter-sectoral structures replicated at national, regional, district, and community level. These include the National level Project Steering Committee (PSC), the Regional Project Management Team (RPMT), the District Project Delivery Team (DPDT), and Community Water and Sanitation Management Teams (WSMTs).

The objectives of a 25% decrease in childhood mortality and in the incidence of childhood diarrhoea were, however, unrealistically high, especially considering that there are a multitude of factors that impact on childhood mortality and diarrhoea (for more on this see section 6.4 on impact).

The dual objectives of contributing to the breaking of guinea worm transmission in Ghana and longer-term objectives of reducing mortality and diarrhoea led to - based on recommendations from the second performance monitoring - implementation of emergency activities aimed at quickly being able to intervene in areas of guinea worm outbreak. An example of this is the installation of emergency treatment plants - some of which are still being used, e.g. in Fufulso - and household level treatment of water which are used only during periods with high risk of guinea worm

infection. The focus on breaking guinea worm transmission through such short-term interventions, however, potentially jeopardised some of the expected results, e.g. the provision of year-round water.

Similarly, and perhaps as a consequence of the focus on breaking guinea worm transmission, not all of the originally planned activities for alternative interventions in areas without sufficient groundwater such as rain harvesting and infiltration galleries were implemented - other alternative interventions such as connection to piped water schemes and mechanisation were, however, implemented. The integration of activities encompassing capacity building, water supply, sanitation and hygiene interventions is well designed to bring about the expected changes, including guinea worm eradication and decrease in under five mortality and diarrhoea.

Key informant interviews indicated that government, non governmental and private sector partners showed a high level of commitment and ownership of the project. Although at the earlier stages of the project, issues about the roles and responsibilities of CWSA and GWEP within the project had to be clarified, the full participation of CWSA in the Regional Project Management Team as co-chair and the fulfilment of their coordination role of water supply activities are some examples of their commitment. According to the key informants, the District Assemblies were committed to the project and were accessible for discussions during project implementation.

Interviews also confirmed that the support provided by UNICEF was well thought through and relevant to the needs of the recipients. For example, the Environmental Health Unit of Central Gonja, District did not have any computers before receiving one from the I-WASH project. Baseline studies (although developed late), District Water and Sanitation Plans, and assessments of e.g. water resources in districts also assisted in designing relevant specific interventions.

6.1.1 Summary

With regards to breaking the transmission of guinea worm transmission the I-WASH project is relevant and the project is in line with priorities of the Government of Ghana. The project was also relevant for the district assemblies involved in implementation of the project. The focus on breaking transmission has led to a somewhat reduced focus on longer-term solutions required to ensure a reduction in child mortality and diarrhoea cases in communities - the indicators for which are found to be unrealistically high.

6.1.2 Recommendation

Recommendation 1: Ensure that future projects have realistic indicators for overall objectives and project purposes.

6.2 Effectiveness

The effectiveness of the I-WASH project was assessed in relation to the achievement of targets specified in the logframe taking into consideration quantity, quality, and the use of project outputs by the beneficiaries.

6.2.1 Capacity building of districts and other stakeholders

The expected result is that the *capacity of 10 District Assemblies and other stakeholders is enhanced with requisite skills to plan, coordinate, implement and sustain a demand responsive*

approach for Guinea worm eradication, drinking water supply and basic sanitation/hygiene interventions.

The four verifiable indicators are:

- District Water and Sanitation Plans are written by all 10 districts by the end of the first year.
- Goals set in these plans are achieved within the given time frames.
- A district based inventory of water installations with functionality levels is established and used for planning at the District Assembly level by the end of the first year.
- Key stakeholders are trained in project identification, evaluation and effective delivery by the first year and a half.

Table 5.1 below shows the outputs of the project by June 2012. Though there were initial delays arising from the project's effort to improve collaboration between stakeholders, the project targets for this result area have been achieved. All the District Water and Sanitation Plans were developed as planned, all ten districts have inventories of water installations; all capacity sessions have been carried out and 4,500 persons versus the planned 400 have participated in the capacity training sessions. The much larger number of people trained compared to the target is because the original had omitted the large number of community level trainees such as hygiene volunteers and watsan committee and WSMT members. Based on these outputs, the expected result is found to have been achieved.

Table 6.1: Reported main capacity building outputs by mid-2012 against planned target

<i>Indicator</i>	<i>Target</i>	<i>Output by mid-2012</i>
No. of District Water and Sanitation Plans Prepared	10	10
No. of districts with inventory of water installations	10	10
No. of capacity building sessions carried out	40	65
No. of persons participating in capacity building sessions	400	4,500
No. of motorbikes provided to districts and partners	46	46

The I-WASH project conducted an initial assessment of capacity within the districts to identify areas for capacity building, including a validation of the results of the assessments by participants. This enhanced the relevance and ownership of the capacity building activities carried out. In one of the districts (Savelugu-Nanton) it was felt by some staff that the I-WASH project strategy of centralised procurement for water supply through CWSA did not facilitate the district's usage of the newly acquired skills, and that sustaining new IT skills was difficult due to insufficient access to computers for their daily work.

Generally, key informant interviews conducted in the districts indicated that district staff was of the view that their capacity had been enhanced to plan and implement sanitation activities and the knowledge gained was being used - an example is provided below. The district assemblies were, however, constrained in their capacity to design and construct water supply intervention by not having the anticipated engineers available.

Example 1

The Chief Executive of the Central Gonja District and members of the District Planning Coordinating Unit/DPDT, indicated that the capacity building was useful and timely because the district was newly created at the time of the training and so the capacity of the staff was low. The Chief Executive stressed that the pressure put on them by UNICEF to implement projects within an agreed time frame or refund the advanced funds, improved the projects capacity to implement projects within agreed time frames. The role played by the District Resource Person was also very much appreciated.

The District Resource Person also indicated that the project had helped him to fulfil his role of providing support to the district level staff in their duties and to improve his skills in planning and coordination of water and sanitation activities.

Motorbikes and an operational budget (for fuel, maintenance, etc) were also provided to all districts and other partners. This support was to be crucial for monitoring and facilitation activities of the districts.

Only in one of the districts visited (Yendi), the District Water and Sanitation Plan was not being used and updated. In the same district there was a feeling that the District Water and Sanitation Team had been by-passed by the I-WASH project, and that the District Resource Person was directly liaising with UNICEF without involving the District causing the district not to know what activities had been implemented where. The District Resource Person in Yendi was also frustrated with his assignment and did not have resources to monitor activities.

The CWSA water inventory database, District Monitoring and Evaluation System (DIMES) was also found to be useful and used, again with the exception of Yendi District where they did not use it due to lack of proficiency in its functioning.

6.2.1.1 Summary

Overall the capacity building component has effectively achieved the expected result and most district staff appreciated the support provided, including that training took into consideration existing capacity and needs. In one district the usefulness was less obvious and it was clear that the capacity development interventions had not been as effective as in others.

6.2.1.2 Recommendations

Recommendation 2: Ensure that future trainings are relevant for day-to-day work, e.g. only provide training in IT if there is sufficient IT equipment available in the offices.

Recommendation 3: Carry out a follow-up assessment to determine how training and other types of capacity building support provided is being used and to determine follow-up assistance.

6.2.2 Increased access to and use of sustainable safe drinking water

The expected result for this component is *increased access to, and use of, sustainable safe drinking water*.

The three verifiable indicators for the result are:

- Water supply facilities with year-round supply of safe water have been constructed for 267,000 people in Guinea worm affected villages by the end of the project.

- 85 percent of all the community owned and operated drinking water systems are functional at any given time from the end of the second year.
- Community elected representatives are trained in the maintenance and management of the community water supplies at every intervention by the end of the project

Table 6.2 below shows that by June 2012, 245,639 people (92% of the target) are reported to have gained year-round access to safe water through a mix of water supply technologies. An additional 97,000 people (36% of the target) are expected to gain access before the end of 2012, possibly bringing the total reported number in excess of the target. The functioning of the water supply facilities are, however, not known, meaning that the number of people with access to all-year round might be less (more about this on the following pages). A large number of Water and Sanitation Management Teams (WSMT) have been formed.

Table 6.2: Reported results on access to all-year drinking water against planned targets

<i>Indicator</i>	<i>End-of-project target</i>	<i>Achievement by mid-2012</i>	<i>Expected by end-2012⁵</i>
No. of people in GW endemic communities who gained access to year-round water supply	267,000	245,639	342,839
Percentage of community owned and operated drinking water systems are functional at any given time from the end of the second year.	85%	unknown	unknown
Community elected representatives are trained in the maintenance and management of the community water supplies at every intervention by the end of the project	WSMTs functional ⁶	351 WSMTs formed	351+ formed

The failure rate (54%) of drilling of boreholes was high, and finding water in hand dug wells was also difficult. The one hand dug well visited during the fieldwork confirmed this as it was dry for almost half of the year. The project responded to these challenges by revising targets of the different types of water interventions as can be seen in table 6.3 below. The project had reduced targets for new boreholes and increased the targets for rehabilitated boreholes and limited mechanised systems. The revised targets of 253 new boreholes will however not be met, but this will be offset by a larger than planned number of alternative water systems due to a permission to connect to the piped water system of the Ghana Water Company.

The speed of implementation of water facilities has increased as also noted by the second performance mission report. The project has put mechanisms in place to increase the speed of construction of water facilities, e.g. by awarding of contracts in small lots and limiting the area of drilling new boreholes to the Eastern Corridor where higher success rates had been obtained. It is therefore possible that the target of 20 new boreholes, 91 rehabilitated boreholes and 23 LMS for the last six months of 2012 can be achieved.

⁵ As per information from UNICEF

⁶ No target is available for this indicator in the logfame

Table 6.3: Reported outputs on access to all-year drinking water against planned targets

Outputs	Original target	2009 revision target	2011 revision target ⁷	End-of-project target	Outputs by mid-2012	Outputs by end-2012 ⁸
Successful boreholes drilled	270	253	200	253	168	188
Hand dug wells completed	20	12	12	12	9	9
Improved water schemes rehabilitated	80	108	200	200	108	199
Limited mechanized schemes completed	60	60 ⁹	41	41	30	36
Alternative water systems completed	30	30	33	33	36	53 ¹⁰
System rehabilitations and expansions	0	cf. note 9	17	17	12	15
No. of functional WSMTs	400	400	400	400	351	351+

Five¹¹ out of the 18 water interventions visited¹² during the fieldwork were not providing all-year round access to safe drinking water because the water source was dry part of the year (two instances), or because the facilities (three instances) were only used during part of the year (bio-sand filters and community water solutions¹³) - the latter in two instances because the people had access to harvested rainwater. Additionally, two water sources¹⁴ out of the 18 visited had recently been drying up occasionally (see example 2 below), one water facility¹⁵ was of poor quality with only one out of three tapstands providing an adequate flow of water, and one water source¹⁶ was not used anymore because people had other sources of water; dry water sources and insufficient water forcing people to use other unsafe (surface) water sources. In order to access the implications of this on the reported number of beneficiaries a visit to all water interventions would be required, determining functionality and use throughout the year.

Example 2

In Guntili, Yendi District, the limited mechanised scheme was not functioning; the communities were using hand pumps as an alternative. The LMS was constructed in November 2010, and functioned well till March 2012, when the quantity reduced from 1,200 l/day to 200 l/day. The WSMT had notified the trainer of trainers of the scheme and asked him to put them in touch with an expert on submersible pumps, which had not yet been done. They were certain that they had sufficient funds to pay the expert for services rendered.

The WSMT indicated that if the yield of the LMS was higher, they would had started negotiations with the District Assembly to use the money collected as down payment for an additional water source, which they would pay back to the DA in instalments.

⁷ The formal sign-off of these targets was done early 2012

⁸ As per information from UNICEF

⁹ This target includes the system rehabilitation and expansion which were introduced after the 2009 budget realignment.

¹⁰ Ghana Water Company has allowed the project to connect to their systems.

¹¹ Batangyili and Kpanda in Savelugu Nanton District, Bimbila in Nanumba North District, Kamchegu in Yendi District and Yapei Yipalsi in Central Gonja.

¹² Out of a total of 373 water systems constructed/rehabilitated.

¹³ The Community Water Solutions are a form of micro-enterprise, developed to meet the safe water needs of communities and empower the women economically through the sale of water treated at the communal level (in poly tanks) to the households.

¹⁴ Guchie in Savelugu Nanton District and Guntili in Yendi District.

¹⁵ Zakpalsi in Yendi District.

¹⁶ Libga Dam in Savelugu Nanton District.

Operation and maintenance

The operation and maintenance model was in place and was evidently in use. The exact percentage of constructed water supply facilities functioning by the time of the evaluation could not be determined. An audit of the O&M systems will be done during the second half of 2012. Reportedly 88% of the planned of watsan committees/Water and Sanitation Management Teams¹⁷ were established, and management structures were in place in the locations visited by the consultants. Various methods of payment were used as examples 3 and 4 below show.

Example 3:

In Fulfuso, Central Gonja District the limited mechanised scheme used two different surface water sources. One was powered by solar system pumps, the other by generator. At the time of the evaluation, eight solar panels had been stolen from one source, while water in the other source was too low for use. The community was using handpump-fitted boreholes and rainwater. The pump operator was very familiar with the treatment system and water treatment reagents were available. A pay-as-you-fetch method was utilised when the LMS was functioning

Example 4:

In Lefaldo, Nanumba North District, the community have two boreholes supported by the I-WASH project, one new and one rehabilitated. The new one was not being used at the time of the evaluation, because of the low yield experienced outside the rainy season. Though the community had reported to the District Assembly about a month before, the District Assembly Water and Sanitation team had not responded by the time of the evaluation. The community raises funds for repairs when a problem arises by contributing non-perishable food items which are sold to raise the cash needed for repairs. They contribute cash only in situations where there is a short-fall between amount raised from crops and amount needed for repairs.

Interactions with the communities indicated that the water sources provided addressed a critical need of the community and there was indication of ownership with knowledge of what to do in case of system breakdown. There were no examples of schemes non-functioning due to lack of ownership or non-collection of funds for minor repairs in the water facilities visited.

Though the Small Communities Water and Sanitation Policy indicates that cost recovery should be 5% of capital costs and 100 % of O&M costs, the I-WASH project had been given a special waiver by the Government of Ghana because it was a guinea worm eradication intervention. Partner organisations were contracted to train the committees on how to determine tariffs to be charged with the aim of recovering operation and maintenance costs.

In one of the two community water solutions visited, only a few women indicated that they bought water from the enterprise. The cost of the water was higher than in any other intervention, perhaps because it is a profit-oriented facility designed to empower women economically, while meeting the safe water needs of the community. However the two objectives of income generation and safe water provision will not be achieved if the communities are not buying the water because they perceive the costs as too high.

Key aspects of the O&M model as revealed during the field work were:

¹⁷ Were previously called Water and Sanitation Development Boards.

- The existence of capacitated water and sanitation committees for the handpump-fitted boreholes and Water and Sanitation Management Teams for the Limited Mechanised Systems (LMS).
- Generally, funds were raised on a pay-as-you-fetch basis in the LMS, while levies were used to raise funds in communities with hand pumps.
- For larger schemes, O&M funds with records and bank accounts had been established.
- Funds in the O&M accounts might be inadequate for cost-intensive repairs to the system, and if charged on a cost recovery basis communities might not be able to afford to use the water.
- Spare parts for hand pump equipped boreholes were available at the district assemblies
- Trained caretakers existed at the community level and there were trained area mechanics for repairs that were beyond the skills of the caretaker.
- The communities visited were aware of the communication channels, calling on the area mechanic when the fault was beyond their skills or the district assembly, the latter especially when the cost of repairs was more than they could afford to pay.
- In a few cases there was local political interference in the management of the O&M operations¹⁸.
- Auditing of accounts of community water supply systems by the District Assemblies is not currently done, though visits by district staff are carried out to check records.
- Spare parts and skills for maintenance of mechanised systems are less readily available than those for the hand pump fitted boreholes (see also example 5 below)

Example 5

In Bimbila, Nanumba North District, a rehabilitated borehole and a new borehole were not functioning. The reason given was that the motor of both pumps were burnt, one as a result of a thunder storm, the other as a result of a tree short-circuiting the wires. In this instance, though the operator knew how to repair boreholes, the O&M funds were insufficient to cover the cost and the operator had approached the district assembly for support to purchase the spare parts.

6.2.2.1 Summary

The reported number of beneficiaries with access to year-round drinking is 246,000 against an expected result of 267,000: in terms of quantity the project has not achieved its expected result.

Based on the water supply facilities visited it is found that not all water supply facilities are providing or are being used year-round - especially when it comes to water treatment facilities - be it at household or community level.

O&M structures have been put in place and funds are generally being collected on a regular basis. Spare parts are available and minor repairs are taking place. The funds collected might, however, not be adequate for cost intensive repairs.

6.2.2.2 Recommendations

Recommendation 4: In order to verify that year-round access to water is provided, future projects should include regular monitoring of functionality and use of water facilities based on definitions of what functionality and use entails.

¹⁸ I.e. an area-mechanic being banned from undertaking repairs in one community due to his political views, and in another location wives of politicians insisted on fetching water for free.

Recommendation 5: Future household water treatment interventions should be strengthened by monitoring and documenting the adoption of the household water treatment technologies and the level of compliance with appropriate use.

Recommendation 6: Closer mentoring to women groups running community water solutions should be provided in future projects in order to ensure training in water treatment, maintenance of equipment and in determining appropriate prices to charge for the treated water.

6.2.3 Basic sanitation delivery and coverage increased

The expected result of this component is that *basic sanitation delivery and coverage are increased*.

Five verifiable indicators are listed in the logframe:

- At least two cost effective rural sanitation marketing models are developed in one pilot district by the end of the first year.
- 9,000 appropriate sanitation facilities are constructed by households within the 10 districts by the end of the project.
- 400 communities stop open defecation by the end of the project.
- A Regional and National Plan/Strategy for scaling up of the sanitation marketing approach is prepared by the end of the 2nd year.
- The National Environmental Sanitation Policy is revised and updated by the end of the 3rd year.

Table 6.4 below shows the achieved outputs against the planned targets by June 2012.

Table 6.4: Reported outputs toward delivery of basic sanitation and increase coverage

Reported outputs	Target	Achievement by mid-2012
No. of cost effective rural sanitation promotion models developed and piloted	2	2 ¹⁹
National Environmental Sanitation Policy revised and updated by end of 3 rd year	1	1
No. of institutional sanitation facilities constructed ²⁰	100	64
No. of household sanitation facilities constructed	9,000	4,698 ²¹
No. of Open Defecation Free (ODF) communities	400	52
A regional and national plan/strategy for scaling up of the sanitation marketing approach is developed ²²	2	2

Except for the sanitation models and policy, the outputs have not been achieved, and the expected result of increased sanitation coverage has therefore not been achieved to the extent expected.

Sanitation models and policy

One rural sanitation model versus the planned two were developed and promoted through the I-WASH project. It is, however, a blend of two approaches identified for rapid up-scaling of rural sanitation in Ghana: the community led total sanitation and sanitation marketing. The rural sanitation model has the underlying principle of changing unhygienic behavioural norms at a communal rather than at household level.

¹⁹ One document encompasses two models

²⁰ The institutional latrines are not reflected in the result indicators in the logframe

²¹ Source: UNICEF from District Environmental Health Officers reports.

A strategy for scaling rural sanitation has been developed and the National Environmental Policy has been revised and updated.

Institutional latrines

About two-thirds of the institutional latrines have been completed and though construction of the remainder is under way, it is not expected that all the latrines will be finished by end-2012²³. In general the five institutional latrines visited appeared to be cleaned on a regular basis. The institutional latrines seen in Nanumba North District and in one location in Yendi District had design challenges, the drop hole was not key shaped which may pose a challenge for hygienic use especially for female learners; and an institutional latrine seen in Central Gonja District was not being used because it was filled with water. Though the design incorporated a changing room for the female learners, there was no evidence of menstrual hygiene facilities or consideration of the needs of the physically challenged learners in the toilet design.

Household sanitation

52% of the planned 9,000 household toilet facilities have been constructed and 13% (52) of the planned 400 communities have been certified ODF at the regional level. Inspection of toilets in four communities indicated that they were being used, but that they differed in their quality as barriers to faecal contamination.

These achievements are modest, but in combination with the development of and revision of models and policies have laid the foundations for acceleration and scaling up of CLTS. The 2009 Performance Monitoring Mission had noted that outputs (quantities of latrines) are sometimes prioritised over processes and had recommended that the project "set a feasible target for communities to be covered by the community led sanitation program".

It appears that the target set for ODF communities (400) did not make sufficient allowance for the time it takes to establish and implement processes such as: (a) training, (b) developing and generating consensus on CLTS strategy, (c) coordination, monitoring and certification structures at the national, regional and district levels as well as time required to facilitate behaviour change at the community level. There were, however, indications that the changes in open defecation were spreading without external facilitation as seen from example 6 below.

Example 6

Yong community in Savulugu/Nanton is an ODF certified community where well-kept toilets, environmental sanitation, hand washing facilities were viewed. There was ownership of the behaviour changes the EHO had promoted. The tribal chief was very involved and community sanctions were imposed on people not complying with agreed communal behaviour. Neighbouring communities were reported to visit Yong to learn from them.

The defecation-related aspect of the CLTS approach focuses on changing behaviour from one in which defecating in the open is the norm to one which it becomes a taboo. Though a "dig and bury" approach is acceptable, it is important to strengthen "post-triggering" follow-ups to ensure that households that wish to use toilets are more effectively sensitised and are provided with technical support to construct safe toilets that provide a barrier between excreta and the environment (see also example 7 below). The water retention property of some of the soils in The Northern Region also

²³ UNICEF has indicated that uncompleted latrines will be completed within the regular UNICEF WASH programme.

means that the dig and bury approach does not necessarily prevent the excreta from coming into contact with the water bodies within the communities.

Example 7

Community members of Lefaldo in Nanumba North District, expressed their wish for a solution to the problems they have constructing toilets, as they would rather have toilets because of the inconvenience and risks of defecating in the open even when they dig and bury. They asked for technical support to line their toilets because the toilets they construct usually collapse, during the rainy season. They gave another example of how a school latrine constructed had filled up with water even before use and so it was used as a water source rather than for excretal disposal.

Comparisons with a similar CLTS program in Nigeria show the I-WASH project is not unique in the time lag observed. It took Nigeria one year to move from a total of 5 ODF communities (in 36 states) to 213 (an average of only 6 per state), after which there was acceleration and 1,842 communities were certified ODF between 2009 and 2012. Furthermore, the three stages of certification (district, regional and independent consultancy) may give an impression that the process is slower than it actually is due to the time lag between when a community has fulfilled the criteria for being assessed and when the three stages of certification take place.

There is indication that the I-WASH project has contributed to the establishment of the processes required for acceleration and scaling up sanitation nationally such as:

- Consensus building: CLTS is integrated into the national development plans such as the National Environmental Sanitation Strategy and Action Plan, Strategic Environmental Sanitation Investment Plan and the District Environmental Sanitation Strategy and Action Plans.
- Capacity building: In-country capacity for CLTS has been improved with the training of 123 core trainers.
- High level buy in and ownership: Northern Regional Minister committed to ensuring an open defecation free region by 2012.
- Coordination: Effective technical working groups on sanitation at all levels.
- Monitoring and certification: Harmonised indicators and process for certification.
- Acceleration and scaling up: Formulation of MDG Accelerated Framework on Sanitation. Results based performance targets established for Environmental Health Officers.
- Financing: The Ministry of Local Government and Rural Development has released funds to five districts for CLTS implementation in the Northern Region.

In spite of the progress made, some challenges remain such as:

- A first step in ODF can be digging and burying faeces; however, this does not suit younger children who are not physiologically strong enough to dig suitable holes to excrete in and alternative approaches might have to be developed.
- The triggering of too many communities simultaneously slows down scaling up and delay achievement of open defecation free (ODF) and total sanitised status due to difficulties in maintaining the required high level of mentoring and monitoring needed to sensitise communities spread over a large area.

6.2.3.1 Summary

The project has not achieved its targets for household and institutional sanitation coverage, but has facilitated processes that will enhance the acceleration and scaling up of CLTS in Ghana if the

challenges are addressed. There is evidence that the acceleration has begun: the National Technical Working Group on Sanitation certified 24 more communities as ODF on the 29th of June, 2012 - the communities were triggered only 4 months earlier.

6.2.3.2 Recommendations

Recommendation 7: Future CLTS triggering should be at a level the Environmental Health Officers can provide sustained close mentoring and supervision to in an agreed time frame.

Recommendation 8: The CLTS process should include technical support to latrine construction for those who wish to construct and use their own latrines during the process of achieving ODF.

Recommendation 9: The institutional latrines already constructed should be assessed, and discussions about design compliance should be undertaken with the contractors of the remaining 36 to be constructed before end-2012.

Recommendation 10: UNICEF should facilitate stakeholder discussions, the standardisation of designs and the inculcation of gender and the needs of the physically challenged, and subsequent adoption by the Ghana Education Services.

6.2.4 Improved hygiene behaviour practices with focus on handwashing with soap

The expected result is *improved hygiene behaviour practices with focus on hand washing with soap (HWWS)*. Four verifiable indicators are indicated in the logical framework:

- 70 percent of the target population understand the importance of hand washing and link hand washing to improved health by the end of the project.
- Soap (or ash or other suitable media) is found to be used for hand washing in 80 percent of randomly selected households by the end of the project.
- Promotion of hand washing with soap (or ash or other suitable media) at critical times is incorporated into the national development priorities by the end of the second year.
- 85 percent of the target villages are certified as clean based on agreed cleanliness score criteria by the end of the project.

A number of surveys and studies have been conducted that can be used as a basis for assessing the progress towards the result. The main indicators of progress are shown in table 6.5 below.

Table 6.5: Achievement by June 2012 as per studies and surveys

Key Indicators of Achievement	Target	Achievement
% of target population who understand the importance of HWWS and link it to improved health	70%	94%
% of households practicing HWWS (availability of soap, ash etc and HWWS facilities as proxy)	80%	49% (2010) ²⁴ 72% (2011) ²⁵ 94% (2012) ²⁶
% of villages certified as clean based on agreed cleanliness score criteria	85%	13% ²⁷

²⁴ "Baseline and Formative Study on key Health and Hygiene Themes in Three Northern Regions and Central Region of Ghana", Consolidated Report, TREND Group and Research International, August 2010

²⁵ Cleanliness scores, CRS, 2nd Assessment 2011

²⁶ "I-WASH Final Project Assessment in IWASH School - CRS Survey", CRS, Tamale, Ghana, January 2012.

²⁷ Based on the proportion of villages certified as ODF

A 2010 survey indicated that 49% of households were practising handwashing with soap. A more recent assessment (2011) indicated that 72% of the school children were practicing hand washing with soap, which had risen to 94% in 2012.

Interviews with community members and schools during the fieldwork confirmed that both adults and school children understood the link between HWWS and health²⁸. See also example 8 below.

Other hygiene issues the communities were familiar with were food hygiene, sanitation, water treatment (only filtration in relation to Guinea worm), excreta disposal and environmental sanitation.

Example 8

In Talani (Yendi District) in addition to the interviews with the men which demonstrated an understanding of the linkages between handwashing with soap and disease, a very elderly woman was able to relate her improved health to her use of a chamber pot which she empties into toilets; HWWS and environmental sanitation.

In Yong community (Savulugu-Nanton District) interviews with a school going child and an out-of-school cow herd, showed a similar level of knowledge of the link between handwashing with soap and diseases.

Hand washing facilities were available in schools and were used - most had soaps at least for most of the month. One of the motivators for the school health clubs are prizes awarded after competitions. If other motivators, e.g. a fun-based learning approach, are not included in the school health club strategy and funding cannot be accessed for the prizes, it might affect the children's motivation.

Though the schools that benefited from hygiene education had better environmental sanitation, understood contamination routes and barriers, and had school children acting as change agents in their communities, some of the schools did not have water within the premises to practice hand washing, and had to fetch water for the hand washing facilities from far away. The evaluation team established that this was because the project targeted only schools within Guinea worm endemic communities for water provision, and that in some cases the hydrogeology of a part of the Northern Region limits the provision of water close to the school. Nevertheless the absence of water in some of the intervention schools is a challenge to the convenient practice of HWWS.

A national strategy for hand washing with soap was developed in 2011 with participation of relevant government on non-government actors. Although hand washing is not explicitly stated as a national development priority, the Ghana Shared Growth and Development Agenda does recognise that good hygiene practices are critical to improving the health status of people. A national strategy is found to be a good step in further increasing attention to this.

Using the percentage of ODF communities as the basis for determining cleanliness, 13% versus the planned 80% of the villages were certified clean by June 2012 (Table 6.5 above). Observations during the fieldwork confirmed that communities where CLTS had been triggered were visibly cleaner than those that were not yet triggered. The potential of the cleanliness score criteria as a tool

²⁸ "I-WASH Final Project Assessment in IWASH School - CRS Survey", CRS, Tamale, Ghana, January 2012.

for generating evidence and stimulating peer benchmarking is not being maximised, for example by integrating the tool with the DIMES.

Though the school led hygiene interventions were effective, the public-private partnership activities were less evident. It was not clear how the I-WASH project's intervention of providing hand washing facilities to popular food vendors in communities and schools was being scaled up or monitored. A global campaign - involving Ghana - for promoting CLTS with funds raised from the private sector has recently been launched.

6.2.3.3 Summary

Progress have been made towards achieving the expected result of improved hygiene. Especially the hand washing with soap interventions have been successful whereas the progress in cleaning communities has been limited. At the time of the evaluation, the potential of the public-private partnership interventions to increase effectiveness have not been adequately addressed in the I-WASH project.

6.2.3.4 Recommendations

Recommendation 11: For future projects it should be ensured that water is readily available at schools for hand washing with soap.

Recommendation 12: The use of the cleanliness score criteria should be strengthened by dissemination, training and integrating with the DIMES or another feasible platform.

Recommendation 13: UNICEF should build on the PPP strategy of using local community and school based food vendors as a conduit for increasing the practice of hand washing. This can be done by engaging associations such as the transport and market women and men associations. Partnership arrangements can include the provision of hand washing facilities by the GoG and UNICEF while the associations commit to organising and dissemination of messages.

Recommendation 14: Explore avenues for complementing the facilities provided through the I-WASH project, to ensure a complete package of water, sanitation and hygiene facilities.

Recommendation 15: Explore the use of other motivators for the school health clubs, e.g. a fun based learning approach, in the school health clubs with the provision of games and fun activities with sanitation and hygiene themes.

6.3 Efficiency

The efficiency of the project was assessed in relation to use of human resources, compliance with agreed time frames and cost.

6.3.1 Use of human resources

Generally, the I-WASH project was viewed by the stakeholders as one that had made use of human resources efficiently. This view was mainly based on the allocation of responsibilities to existing Ministries, Departments and Agencies and structures based on their mandate either according to policy, area of expertise or competitive advantage, e.g. Ghana Health Services and The Ministry of Water Resources, Works and Housing co-chaired the National Project Steering committee. The Community Water and Sanitation Agency (CWSA) which has the statutory mandate to facilitate,

coordinate and ensure compliance with standards of water supplied in rural and small towns was responsible for coordinating and supervising water supply provision on the I-WASH project. The supervision of the projects CWSA implemented was carried out using technical assistance to implement a third-party monitoring system. The use of existing structures is believed to have contributed to the cost-effectiveness of the project.

This same strategy, however, had its negative aspects, for example, the need to build the capacity of the district officials, to implement the water, sanitation and hygiene component. Though this fulfilled the developmental objective of the project and will enhance the sustainability of the project, some aspects of the project had to wait for the implementation of the capacity building activities.

Examples of the efficient use of human resources for building capacity include:

- The use of skilled partner organisations to carry out the required training at regional and district level. For example, the Afram Plain Development Organisation was engaged to carry out capacity gap assessments.
- The use of a training of trainers approach ensured that skills were passed on to more people at the different levels in a cost and time efficient manner.

Examples of the efficient use of human resources in relation to the water supply component include:

- Engaging government partners with the mandate to provide water with the overall coordination and supervisory responsibility for the provision of water within the project. For example, Community Water and Sanitation Agency (CWSA) have the responsibility of coordinating and supervising water provision in rural and small towns in Ghana.
- Awarding separate contracts to skilled partner organisations to carry out the software aspects of sanitation, while ensuring that the district water and sanitation committees were involved.
- Engaging skilled partner organisations from the private and non-governmental sector to construct and monitor water supply facilities, for example Church of Christ had piloted the mechanisation of wells in Ghana, and had the required experience to adjust to the challenges encountered.

Examples of the efficient use of human resources in relation to the sanitation component include:

- The engagement of Dr Kamal Kar (the originator of CLTS) and Bisi Agberemi (Sanitation from UNICEF Nigeria) achieved more than just capacity building of 123 core trainers as lessons from Nigeria were also shared and a commitment was made by the Minister of the Northern Region to make Northern Region ODF by 2012.
- The training of duty bearers with the mandate by government to improve sanitation coverage in communities (district the environmental health officers) and hygiene education in schools (school health education programme coordinators.).

Examples of the efficient use of human resources in relation to hygiene include:

The engagement of skilled partner organisations to train regional and district level officials from the Ghana Education Services, who in turn trained and sensitised various structures at the community level, school health clubs, parents teachers associations and hygiene teachers.

6.3.2 Timelines

The project in general experienced delays in implementation. Initially there were also delays due to the UNICEF procedures for hiring staff as well as purchase of supplies. Transfer to and use of funds for monitoring and community visits by District Assemblies also caused delays

Reasons for delays to the water supply component, the main component, according to information provided by key informants, include:

- The low capacity in the region for designing and constructing limited mechanised systems;
- Contractors do not find projects in the North as attractive as those in the South;
- High failure rate of drilled boreholes which necessitated the increase in number of planned schemes;
- The time needed to facilitate differences and clarify roles and responsibilities of CWSA and GWEP.

The sanitation component experienced delays because of the UNICEF decision to purchase centrally (in Accra) the subsequent batch of materials in compliance with UNICEF regulations. Scheduling of the materials became a challenge as materials did not arrive in the needed sequence.

Due to the delays a no-cost extension of the project duration from four to five years was agreed upon.

6.3.3 Cost effectiveness of I-WASH project

Considering the total budget of EUR 19.5 million and assuming a total no. of beneficiaries of 300,000²⁹, the average cost per beneficiary is approximately EUR 65. This figure includes all costs, including administration and support to all four project components, e.g. including capacity development, water, sanitation and hygiene. Capacity development is typically relatively cheap to implement per beneficiary, and the fact that the sanitation component was changed to CLTS also reduced cost for this component.

Considering the mix of interventions (small and large systems as well as water, sanitation and hygiene interventions), the hydrogeological challenges and the geographic spread of the activities, the cost is reasonable and in line with cost for other similar interventions: the EU delegation informed that their small town project was operating at a cost of EUR 75 per beneficiary. The cost is also found to be within the ranges experienced by CSWA³⁰.

Part of the reason for the relatively reasonable cost per beneficiary is the focus on rehabilitation rather than construction of new water systems, which, all other things being equal, cost less per beneficiary. Also the extensive use of CoC, a local NGO with extensive experience in borehole drilling and rehabilitation contributed to reduced cost as CoC did not pass on all their overheads to the project.

²⁹ This is a perhaps conservative estimate based on the number of direct beneficiaries that is planned to have access to your round save water (342,000) by the end of the project minus some that no longer are or can use the facilities for all or part of the year. Additionally, there are people - many of them the same as from the water supply component - that have benefited from the sanitation interventions (perhaps 5,000 from the ODF communities, approximately 50,000 having access to household sanitation) as well as people that have benefited from hygiene education.

³⁰ App. EUR 100 for populations below 5,000 and app. EUR 50 for LMS.

Of the total budget of EUR 19.5 million, EUR 3.2 million (16%) is spent on human resources, 1% on visibility, monitoring and evaluation, EUR 0.5 million (2 %) on admin/project management³¹, and EUR 1 million (5 %) on administration cost. This adds up to 25 %, meaning that 75 % is spent directly on activities. This is considered reasonable considering the type of activities.

1.1.4 Summary

Overall, the project made good use of existing capacities in partner organisations, there were delays in implementing some aspects of the project and a one-year no-cost-extension was required. The cost of the activities is found to be reasonable, partly due to increased focus on rehabilitation of water sources rather than construction of new ones.

6.3.4 Recommendations

Recommendation 16: Ensure that planning include realistic time for UNICEF procedures for hiring of staff and purchases.

Recommendation 17: Ensure that for future projects, planning take into consideration the local contractors' capacity

6.4 Impact

6.4.1 Health impact

The indicators of whether the project has achieved its overall objective and purpose are:

- 25% decrease in childhood diarrhoea in the project area
- 25% decrease in childhood mortality in the project area
- An interruption of Guinea worm transmission and reduction of Guinea worm cases by at least 90% in the project area by the end of the project area

Guinea worm eradication

Figure 1 to the right shows the trend in guinea worm incidences from 2007 to 2012. There have been no guinea worm cases in Ghana since June 2010.

Interviews with national, regional, district and community level partners also indicated that the project had contributed significantly to the interruption of transmission of guinea worm cases in the project

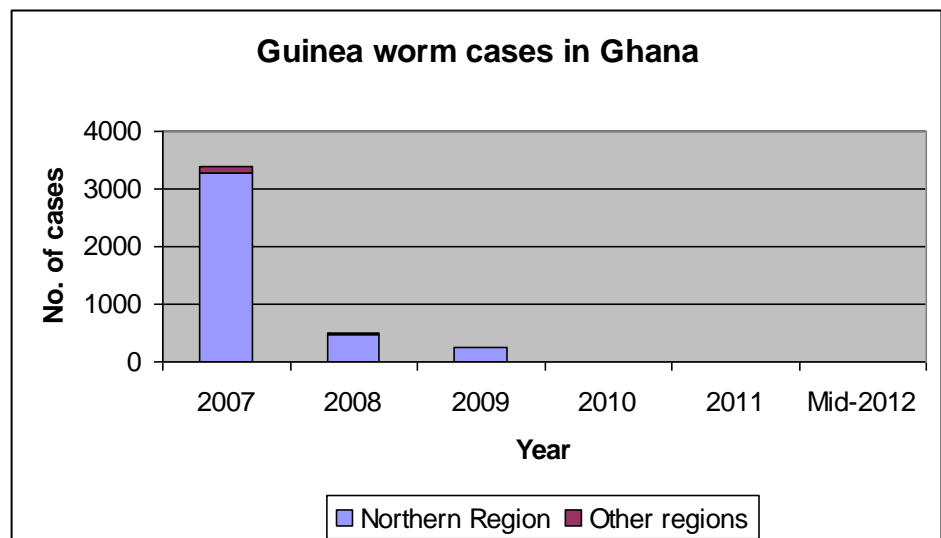


Figure 1: Number of guinea worm cases 2008-2012 (source:GWEP)

³¹ This consists of IT equipment and consumables, vehicles (including operation), and audits.

area: "I-WASH has contributed immensely to guinea worm eradication"³².

Interaction with partners such as the Guinea Worm Eradication Program at national and regional levels indicated that the I-WASH project contributed to the interruption of guinea worm transmission in the following ways:

- I-WASH project facilitated interaction, coordination, planning and reporting between key players at the various levels of government involved in the guinea worm issue.
- Training of partners in the use of a behaviour change approach to guinea worm eradication.
- The knowledge that safe water would be provided encouraged endemic communities to change their behaviour and report suspected guinea worm cases (the behaviour change resulted in some communities eradicating guinea worm even before they received safe water).
- The targeting of safe water supply to guinea worm endemic communities, preventing political interference in selection of communities as had been observed in other water supply projects.
- The provision of filtration mechanisms for unsafe water to prevent human contact and transmission.

An unintended consequence of the focus on guinea worm eradication are that some of the beneficiaries believe that filtering water through cloth makes it safe to drink - being unaware of the other risks of drinking untreated surface water.

Childhood mortality and diarrhoea

The data sources proposed in the original logframe could not be used to estimate the impact of the I-WASH project on diarrhoea and childhood mortality because:

1. The 2012 Multiple Indicator Cluster Survey (MICS) results had not been released at the time of the evaluation.
2. The available MICS and the High Impact Rapid Delivery (HIRD) surveys could not be used as their pre-intervention period differed from that of the I-WASH project.
3. The geographical scope of the MICS and HIRD differed from the project scope of the I-WASH project.
4. The district level data available from the Ghana Health Service had gaps which precluded their use for determining trends in childhood mortality and diarrhoea within the 10 I-WASH districts. For example, in 2008 only mortality data for 5 out of the 10 I-WASH districts were available. In 2009, mortality records were available for a different set of 5 I-WASH districts. In 2008 childhood diarrhoea data was missing from two I-WASH districts.
5. Further more it was not possible to establish the communities that the available data was from, which may differ from the I-WASH project locations.

Given the above, proxy indicators were used determine the impact of the I-WASH project on childhood mortality and diarrhoea. Analysis of changes in sanitation and handwashing practices between 2010 and 2011³³ indicate that:

- Safe sanitation practices increased by an average of 18%.
- Hand washing with soap increased by an average of 22%

Furthermore, the number of open defecation communities increased (from zero to 52), and all communities within the I-WASH districts have access to at least one safe water source.

³² Interview with Clement Bugase CEO, CWSA, Accra on June 12.

³³ "I-WASH Community Cleanliness Scores", first and second inspection, data from printout of CRS database data

Integrated interventions to improve water quality, sanitation and hygiene have been shown to reduce childhood diarrhoea by 57%³⁴, and standalone interventions (hand washing, water supply and sanitation) reduce childhood diarrhoea by 44%, 25% and 32% respectively³⁵.

Given the improvement in hygiene and sanitation practices and increased access to safe water, the I-WASH project is likely to have contributed to a reduction in childhood diarrhoea in the targeted communities.

As diarrhoea is one of the leading causes of child mortality in Ghana, any reduction in diarrhoea will have an impact on child mortality. Furthermore improved hand washing with soap by mothers before they handle their newborn has been shown to reduce infant mortality by more than 40%³⁶. The I-WASH project is therefore likely to have contributed to a reduction in child mortality.

6.4.2 Impact at organisational, policy and strategic level

The I-WASH project has had an impact at strategic level, for example, the establishment of Inter-agency coordinating and technical committees which focused on a central issue, not only at national but at regional and district levels. This is considered by the partners as unique and key to the achievements of the project. The Regional Project Management Team is the first of its kind in the country and key informant interviews indicated that the structure is being used by other donors as a vehicle for entry into the region, e.g. the Netherlands Football for WASH Program. The Ministry of Health indicated that they are using the lessons learnt on intersectoral collaboration and focus around a central issue for implementation of their accelerated maternal mortality program.

The I-WASH project has also led to longer-term outcomes such as the revision of the environmental sanitation policy and the inclusion of CLTS and hand washing with soap in national policy, strategies and action plans.

The I-WASH project has also stimulated high level buy-in and ownership by providing evidence for high level advocacy: an example outcome of such advocacy is the Ghana Compact on Sanitation and Water for All (SWA), and the leveraging of resources for Water, Sanitation and Hygiene Delivery. This has led to a commitment by GoG to provide up to 0.5% of GDP for capacity building for hygiene education³⁷.

6.4.3 Summary

The I-WASH project has contributed to breaking the transmission of guinea worm and is likely to have contributed to a reduction of in childhood mortality and diarrhoea in the project area; the

³⁴ Waddington, H., Snilsteveit, B., White, H., Fewtrell, L. (2009). Water and sanitation interventions to combat childhood diarrhoea in developing countries. Study Protocol. Synthetic Review 1 SR 001. International Initiative for Impact Evaluation, New Delhi, March, 2009

³⁵ Fewtrell, Lorna, Rachel B Kaufmann, David Kay, Wayne Enanoria, Laurence Haller and Jr, John M Colford, 2005. *Water, sanitation, and hygiene interventions to reduce diarrhoea in less developed countries: a systematic review and meta-analysis*. The Lancet Infectious Diseases, Volume 5, Issue 1, January 2005, Pages 42-52.

³⁶ "Impact of Maternal and Birth Attendant Hand-washing on Neonatal Mortality in Southern Nepal", Rhee et al., Arch Pediatr Adolesc Med. 2008 July; 162(7): 603–608

³⁷ "The Ghana Compact - Water and Sanitation for All: A Global Framework for Action", Ministry of Finance and Economic Planning, Ministry of Local Government and Rural Development, and Ministry of Water Resources, Works, and Housing, Ghana, April 2010

extent of which is uncertain and can only be ascertain by a repetition of baseline or through a more cost effective small-scale research.

The I-WASH project has also had an impact at the organisational, policy and strategic level such as the inclusion of CLTS in national policy and increased government funding for water, sanitation and hygiene.

6.4.4 Recommendation

Recommendation 18: Conduct a small-scale research to determine the scale of the health impact.

6.5 Sustainability

This section contains the findings in terms of sustainability impact and institutional, technical, socio-economic and environmental sustainability.

No explicit exit strategy was developed for the I-WASH project. A group of stakeholders, including I-WASH partners, have developed a sustainability project proposal for water supply which will contribute to a successful exit strategy. Components include: a survey of functionality of LMS, a database, a loan mechanism and other innovative funding mechanisms for major repairs, ensure spare part supplies, and follow-up support to WSMTs including annual audits. The total budget is USD 4 million. The government is discussing funding with the World Bank, and UNICEF has incorporated some aspects in their WASH programme. As funding is not guaranteed for such a follow-up proposal - in fact, it is often difficult to obtain funding for projects focusing on O&M - the lack of integration of an exit strategy in the I-WASH project might jeopardise some of the achievement of the project.

Sustainability of impact

The breaking of guinea worm transmission, eventually leading to full eradication will be sustainable. There is, however, a risk of re-introduction of guinea worm from neighbouring countries: the unrest in Mali with population movements was mentioned as a potential source of such re-introduction - this is, however, outside the control of the I-WASH project.

The beneficiaries understanding of the linkages between sanitation and hygiene practices and especially diarrhoea is likely to be sustained, especially with the increased government attention and the emphasis on behaviour change. The fact that children in particular have been involved in and have taken note of the improved practices also bodes well for the future - children are powerful drivers of changes and will one day grow up to be responsible for their own households and their own children.

Although most of the water supply facilities constructed are still functioning, a number of water sources are dry during (part of) the dry season. In such cases the population is reverting to using surface water, potentially leading to an increase in diarrhoea cases.

Institutional sustainability

The high level of ownership and the support to development and revision of government strategies such as the I-WASH project's support of government policies and strategies such as the Decentralisation Action Plan and the Shared Growth and Development Agenda will also contribute to ensure institutional sustainability.

The building of capacity of district assemblies and other government partners as well as the inter-sectoral collaboration is likely to be sustained, and there is already evidence that the latter is in fact spreading also to other sectors, e.g. the accelerated maternal mortality program of the Ministry of Health, the continuation of the District Project Delivery Teams in some districts, and the regional Interagency Coordination Committee.

Furthermore, the commitment by partners, including government offices and NGOs, and especially the roles and responsibilities taken on by CWSA and GWEP in coordinating project activities, will assist in ensuring sustainability.

Provision of fuel for vehicles and motorbikes for monitoring, CLTS triggering, and follow-up support will be a challenge if the districts do not set up a sustainable financing mechanism. The Ministry of Local Government and Rural Development's financing of five districts is for CLTS implementation, however, is a major step towards sustainable financing by government.

Technical sustainability

Operation and maintenance systems are in place for water supply facilities. In general, spare parts - at least for hand pumps - are available as are care takers and area mechanics. It is too early to determine if the parts and skilled mechanics will remain available, but good progress has been made. In the second half of 2012 a survey of the functioning of the water facilities will be undertaken.

Sanitation facilities are being used and maintained, though challenges remain about quality of toilets built by the households and the provision of water in some of the schools where hygiene education was carried out but water was not available close by. The changing rooms for girls are not being used, and are unlikely ever to be.

The school latrines visited were of the Kumasi Ventilated Improved Pit type (KVIP)³⁸. However, the operation of the latrines was not as intended: all drop-holes were used at the same time.

The hand washing facilities at schools are still being used and ODF is spreading to other communities, indicating a likelihood of sustainability.

Financial

The I-WASH project has provided support to district for their monitoring and facilitation/triggering missions to communities. There are, however, indications that the future financial support from districts funds will not be at the same level after the I-WASH project closes.

In most locations watsan committees and Water and Sanitation Management Teams are in place, and water is paid for, ensuring that structures and funds will be available for preventive and minor replacement cost of water supply facilities. Not all communities operate on a pay-as-you-fetch basis as example 9 below illustrates. Major repairs and replacement, however, remain out of reach of most communities. As funds starts accumulating additional support to auditing the accounts will be required.

³⁸ A twin-pit type of latrines where only one pit is used at a time while the other is left for de-composting.

Example 9

In Taleni community, Yendi district, the community pay regular levy. They indicated they currently had 4,000 GHC in their account.

Environmental

An increased number of water sources had dried up recently, possibly compounded by the longer than usual dry period in 2012. However, there is a risk that the installation of medium-capacity limited mechanised schemes on water sources previously fitted with low-capacity extraction mechanisms such as hand pump is drawing an unsustainable amount of water. This is possibly compounded by a movement of people to locations with (more) reliable water sources.

6.5.1 Summary

Despite the lack of a clear exit strategy for the I-WASH project, there are encouraging signs that many aspects of the I-WASH project will nevertheless be sustainable.

Unless there is a threat of external introduction of the guinea worm it is likely that the break of guinea worm transmission will be sustained. The improvements in sanitation and hygiene practises are also likely to be sustained although future progress might be limited by inadequate district level funding.

The institutional sustainability of the I-WASH project appears to be ensured with organisational structures being sustained as well as replicated in other sectors.

The O&M system of the water supply facilities is functioning and preventive maintenance and minor repairs are generally taking place with funds paid by communities.

Technical support might be required to sustain the household latrines and a re-design of future institutional latrines should be considered.

6.5.2 Recommendations

Recommendation 19: UNICEF together with partners should undertake high-level advocacy to ensure funding by district assemblies for monitoring and facilitation in communities.

Recommendation 20: Urgently develop an exit strategy and start implementation immediately before end of the I-WASH project.

Recommendation 21: The I-WASH project should assist with the development of a system for regular auditing of O&M accounts for water supply facilities.

Recommendation 22: UNICEF should link up with other programmes to ensure that capacity and recruitment of qualified staff, including engineers and District Resource Persons, is increased in district assemblies. Options can be explored through the Regional Project Management Team.

Recommendation 23: The I-WASH project should strengthen the O&M system by ensuring that through the Regional Project Management team, responsibilities for key activities, and sustained funding are identified and communicated to the District Assemblies. Examples include regular auditing of records of the Water and Sanitation committees, ensuring spare parts are available, system audits and logistics support.

Recommendation 24: The I-WASH project should ensure that rotation of pits is implemented for existing and future KVIP.

Recommendation 25: UNICEF should develop a mechanism to provide technical support for construction of household latrines.

Recommendation 26: UNICEF and partners should support the establishment of a system for monitoring of the abstraction of water to ensure sustainable use.

6.6 Visibility

According to the European Union (EU) Communication and Visibility Manual, all actions funded by the EU must include activities aimed at raising awareness about the reasons for the actions and the EU support provided. Facilitating the visibility of the EU funding is done by erecting signboards, stickers, t-shirts with EU logos, press releases and newsletters.

In three of the four districts visited, the evaluators noted signboards and stickers related to the I-WASH project. The observations made were:

- A total of 8 signboards were seen in the three districts.
- Of the communities visited, two had signboards and one location had faded stickers.
- Stickers are visible on vehicles and on some motorbikes.
- School health clubs have T-shirts with EU/I-WASH logo for all activities.

The IWASH project indicates that stickers of the EU logo are affixed on all assets and office equipment provided to partners (like computers, cars, motor bikes) and acknowledgement of the EU support is continuing in all media coverage of the IWASH project in particular and the WASH component of the Government of Ghana - UNICEF country programme in general.

6.6.1 Summary

Overall, only a limited number of visibility measures had been implemented; more will be implemented towards the end of the project.

6.6.2 Recommendation

Recommendation 27: A clear visibility plan should be developed at the on-set of future projects and implementation should be undertaken simultaneously with implementation of activities.

6.7 Previous recommendations

There have been three previous review missions of the I-WASH programme, each of which put forward a number of recommendations. The ROM mission report of June 2010 put forward 12 recommendations, the second performance monitoring in July 2009 had 26 recommendations, and the first performance monitoring report from April 2008 had 24 recommendations. A list of the main recommendations from previous missions is included in Annex I.

Overall, the recommendations were agreed to by UNICEF and many of them were implemented, including revisions of some of the targets, outsourcing of emergency guinea worm outbreak actions, and improvements in procedures to ensure quality of contractors.

Steps have been taken to address the recommendation about finding a solution to the high fluoride level of four of the boreholes. The option of treating the water sources by entering into an agreement with World Vision has not been successful. The treatment option will be explored under the development of a drinking water quality framework in the regular WASH program. The recommendation of developing an exit plan was not fully implemented although a follow-up sustainability proposal has been developed (see also section 6.5 on sustainability above).

The recommendation from July 2009 of ensuring improved management of project information has not been implemented to the extent that it is easy to get a complete overview of locations and interventions - information is scattered in different formats in different spreadsheets.

6.7.1 Summary

A total of 62 recommendations have been made by the previous reviews of the I-WASH project. The recommendations were fully or partially agreed to by UNICEF and most of them have been implemented. Annex I gives the response to the recommendations and reasons why some were not implemented.

6.7.2 Recommendation

Recommendation 28: Clear decisions on which recommendations to follow up on should be made, and once a recommendation has been agreed to, implementation should be ensured.

7 Key conclusions and recommendations

This chapter contains all the recommendations put forward in chapter 6. For details of the recommendations, please refer to the relevant sections in chapter 6.

The recommendations are sorted as per evaluation criteria, and for effectiveness also per project component, i.e. capacity building, water, sanitation and hygiene.

<i>No.</i>	<i>Recommendation</i>	<i>For action within the I-WASH closing phase</i>	<i>For future action in conjunction with other projects/programmes</i>
Relevance and quality of design			
1	Ensure that future projects have realistic indicators for overall objectives and project purposes.		X
Effectiveness			
2	Ensure that future trainings are relevant for day-to-day work, e.g. only provide training in IT if there is sufficient IT equipment available in the offices.		X
3	Carry out a follow-up assessment to determine how training and other types of capacity building support provided is being used and to determine follow-up assistance.	X	

No.	Recommendation	For action within the I-WASH closing phase	For future action in conjunction with other projects/programmes
4	Recommendation 4: In order to verify that year-round access to water is provided, future projects should include regular monitoring of functionality and use of water facilities based on definitions of what functionality and use entails.		X
5	Future household water treatment interventions should be strengthened by monitoring and documenting the adoption of the household water treatment technologies and the level of compliance with appropriate use.		X
6	Closer mentoring to women groups running community water solutions should be provided in future projects in order to ensure training in water treatment, maintenance of equipment and in determining appropriate prices to charge for the treated water.		X
7	Future CLTS triggering should be at a level the Environmental Health Officers can provide sustained close mentoring and supervision to in an agreed time frame.		X
8	The CLTS process should include technical support to latrine construction for those who wish to construct and use their own latrines during the process of achieving ODF.		X
9	The institutional latrines already constructed should be assessed, and discussions about design compliance should be undertaken with the contractors of the remaining 36 to be constructed before end-2012.	X	
10	UNICEF should facilitate stakeholder discussions, the standardisation of designs and the inculcation of the needs of the physically challenged, and subsequent adoption by the Ghana Education Services.		X
11	For future projects it should be ensure that water is readily available at schools for hand washing with soap.		X
12	The use of the cleanliness score criteria should be strengthened by dissemination, training and integrating with the DIMES or another feasible platform.		X
13	UNICEF should build on the PPP strategy of using local community and school based food vendors as a conduit for increasing the practice of hand washing. This can be done by engaging associations such as the transport and market women and men associations. Partnership arrangements can include the provision of hand washing facilities by the GoG and UNICEF while the associations commit to organising and dissemination of messages.		X
14	Explore avenues for complementing the facilities provided through the I-WASH project, to ensure a complete package of water, sanitation and hygiene facilities.		X
15	Explore the use of other motivators for the school health clubs, e.g. a fun based learning approach, in the school health clubs with the provision of games and fun activities with sanitation and hygiene themes.		X
Efficiency			

No.	Recommendation	For action within the I-WASH closing phase	For future action in conjunction with other projects/programmes
16	Ensure that planning include realistic time for UNICEF procedures for hiring of staff and purchases.		X
17	Ensure that for future projects, planning take into consideration the local contractors' capacity		X
Impact			
18	Conduct a small-scale resource in order to determine the scale of the health impact.	X	
Sustainability			
19	UNICEF together with partners should undertake high-level advocacy to ensure funding by district assemblies for monitoring and facilitation in communities.		X
20	Urgently develop an exit strategy and start implementation immediately before end of the I-WASH project.	X	
21	The I-WASH project should assist with the development of a system for regular auditing of O&M accounts for water supply facilities.	X	
22	UNICEF should link up with other programmes to ensure that capacity and recruitment of qualified staff, including engineers and District Resource Persons, is increased in district assemblies. Options can be explored through the Regional Project Management Team.		X
23	The I-WASH project should strengthen the O&M system by ensuring that through the Regional Project Management team, responsibilities for key activities, and sustained funding are identified and communicated to the District Assemblies. Examples include regular auditing of records of the Water and Sanitation committees, ensuring spare parts are available, system audits and logistics support.	X	
24	The I-WASH project should ensure that rotation of pits is implemented for existing and future KVIP.	X	
25	UNICEF should develop a mechanism to provide technical support for construction of household latrines.		X
26	UNICEF and partners should support the establishment of a system for monitoring of the abstraction of water to ensure sustainable use.		X
Visibility			
27	A clear visibility plan should be developed at the on-set of future projects and implementation should be undertaken simultaneously with implementation of activities.		X
Previous recommendations			
28	Clear decisions on which recommendations to follow up on should be made, and once a recommendation has been agreed to, implementation should be ensured.	X	

Annex A - TOR

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Summary

Title	Integrated Approach to Guinea Worm Eradication through Water Supply, Sanitation and Hygiene in the Northern Region" (IWASH Project)
Purpose	External Evaluation of the IWASH Project- Team Leader
Expected fee	P-4 level Consultancy based on UN Salary Scale
Other costs	DSA will be paid for Accra and Tamale (Northern Ghana)
Location	Accra and Tamale Ghana with field travel to 10 districts of the Northern Region
Duration	25 working days
Start Date	June 1, 2012
Reporting to	Chief of WASH Specialist
Budget Code/PBA No	GC (Non Grant Funds)
Project and activity codes	PCR 9, IR 34, Activity 34.1

1. Background

The European Commission Country Strategy Paper and National Indicative Programme for the period 2002-2007 identify rural development, road transport and macroeconomic support as the focal sectors of the European Commission (EC) in Ghana. Broadly, the EC response strategy draws from the conclusions of the Ghana Poverty Reduction Strategy and aims at reducing poverty particularly in the rural areas where the incidence of poverty is highest. The strategy is to focus on increasing basic service delivery. Water and sanitation has been one of the areas identified by the Government of Ghana and the EC.

Towards Guinea Worm Eradication in Ghana, UNICEF in collaboration with the Ghana Guinea Worm Eradication Programme has been implementing the "Integrated Approach to Guinea Worm Eradication through Water Supply, Sanitation and Hygiene in the Northern Region" (IWASH Project) in close collaboration and coordination with pertinent governmental institutions responsible for Guinea Worm eradication, water supply, and sanitation and hygiene. The project is financed with a European Development Fund grant of € 14.5 million over a four-year period (2007 - 2011). An additional €5,050,528 grant is provided by UNICEF. The IWASH project officially started on June 06th 2007 when UNICEF signed the Contribution Agreement. The project had been developed in response to a pre-feasibility study issued by the European Commission in September 2005 which called for an integrated programme approach for Guinea Worm eradication through safe water, sanitation and hygiene education in the Northern Region, Ghana. The implementation period was subsequently extended to June 2012.

The project focuses on achieving results in four key result areas as outlined in the project documents:

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- i. Capacity building
- ii. Access to and use of safe water
- iii. Basic sanitation coverage, and
- iv. Hygiene behaviour change.

Guinea worm transmission was broken in June 2010, and Ghana is now under-going a three-year guinea worm eradication certification period. Under the key result area of capacity building, capacity assessment of the target districts were carried out and training sessions for capacity building were undertaken. The project provided logistics support as well as complementary budget support to the ten target district assemblies. Through the other key results areas, more than 200,000 people have gained access to safe drinking water through various water supply schemes provided by the project (new boreholes, rehabilitated boreholes, limited mechanized water schemes and home-based filtration of drinking water), and the project is spearheading behaviour change and increasing basic sanitation coverage in the target communities.

The project is now in its final phase. There have been two performance evaluations and one results oriented monitoring mission by the EC during the implementation the project. The present evaluation focuses on the outcomes of the project.

2. Justification

The external evaluation will provide the decision-makers in the Government of Ghana, UNICEF, the relevant external co-operation services of the European Commission and the wider public with sufficient information to:

- a) make an overall independent assessment about the past performance of the project, paying particular attention to the impact of the project actions against its objectives;
- b) identify key lessons and to propose practical recommendations for follow-up actions.

The evaluation will assess the relevance, effectiveness, efficiency, impact and sustainability of the IWASH project with regard to its purpose, objectives, expected results and impact (as established in the Development Assistance Committee guidelines). In addition the evaluation consultants will review the impact of the implementation of recommendations made during performance evaluation missions.

3. Specific Tasks

The Lead Consultant will conduct the following tasks:

- design of the methodological framework outlining key questions on project efficiency, effectiveness, accountability, implementation and arrangements, and achievement of project results. This will be done prior to the field visits;
- a quantitative and qualitative assessment of the work carried out under the project;
- an identification, description and assessment of the problems (technical and/or managerial) encountered by the project and measures taken to overcome them;
- an evaluation of the project implementation modality and compare this with other possible modalities expressing an opinion on the appropriateness of the project structure
- an evaluation of the project impact

The Lead evaluation consultant is required to carry out this assignment in accordance with the Integrated Approach to Project/Programme Cycle Management which is based on the “logical framework” method. The evaluation shall be based on a participatory approach, involving beneficiaries and all stakeholders concerned as well as in accordance with the OECD's Development Assistance Committee's agreed set of standard international criteria to guide evaluations of development assistance. The DAC criteria are shown below:

With reference to the above, the evaluators shall carry out, inter alia, the following overall tasks:

3.1 Relevance and Quality of design:

- 1) Study all related documentation and reports and familiarize with the project's specifications, its beneficiaries and stakeholders.
- 2) assess the relevance of the project with regard to the economic, socioeconomic and environmental context in the project areas;
- 3) Assess the relevance of the project in view of the 'Ghana Shared Growth and Development Agenda'
- 4) Visit and consult the different stakeholders including, but not limited to:
 - the National Authorizing Officer;
 - The Delegation of the European Commission in Ghana;
 - UNICEF;
 - The Water Directorate;
 - The Ministry of Health;
 - The Ghana Guinea Worm Eradication Programme;

- Relevant Regional and District authorities;
- Other Development Partners active in the Health Sector;
- Community Water & Sanitation, HQ and Northern Region;
- Local communities in Guinea worm endemic areas including but not limited to traditional Leaders, WatSan Committees, and District Water & Sanitation Teams etc.

The visit to the different stakeholders will enable the evaluation team to assess the effectiveness of the programme with regard to perception of programme results and achievements.

3.2 In assessing the programme efficiency, the evaluation team will analyze the programme implementation with special emphasis on:

- 1) Achievement of project's outputs in terms of quantity, quality and timeliness, as stipulated in the TOR.
- 2) Comparison of intended and achieved outputs. Relevant constraints and bottlenecks that were encountered and actions taken for their solutions.
- 3) Has the project produced value for money in the specific context of the Northern Region?
- 4) Assess the organization, management and follow-up of the programmes activities, as well as the management of budget, human resources, and relations with stakeholders
- 5) Compliance with the rules governing project implementation as outlined in the Financing Agreement and the FAF (with special reference to contractual procedures).
- 6) Respect of deadlines, and accuracy of reporting.

3.3 In assessing the programme effectiveness, the project evaluation team will analyze the programme implementation with special emphasis on:

- 1) Perception of programme results and achievements by beneficiaries, local Authorities and other stakeholders;
- 2) Degree of participation of beneficiaries.
- 3) Assess the degree of ownership by beneficiaries;
- 4) Assess the commitment of the Ghana Guinea Worm Eradication Programme, District Assemblies, Traditional Councils, Community Water & Sanitation Agency and Ghana Health Service and other partners in the implementation of the project;
- 5) Analyze the appropriateness and impact of the interventions implemented by the project.
- 6) Analyze the effectiveness of the collaboration and support provided by UNICEF to the Regional Assemblies, Ghana Health Services and other partners for the execution of the project objectives.

3.4 The project evaluation team will assess the impact of the programme on:

- 1) The target populations in general and more specifically on the likely health benefits of the programme to these communities such as the reduction in the number of cases of diarrhoea, among other indicators.
- 2) The eradication of Guinea worm in targeted Districts and in Ghana as a whole.
- 3) The organizations involved in the implementation of the programme, such as whether the capacity of these organizations improved etc.

3.5 The project evaluation team will assess the sustainability of the programme's impact and outcome with regard to:

- 1) Socio-economic viability;
- 2) Ownership by beneficiaries of programme objective and achievement;
- 3) Appropriateness of the programme strategy and modality of implementation
- 4) The institutional strengthening of the Ministry of Health, District Assemblies and other partners
- 5) Cooperation with others donors, consistency of the approaches.

4. Methodology

The Consultants will work under the guidance of the Project Steering Committee and the Regional project Management Team. Consultations are required to consult with key stakeholders at the community, district, regional and national levels in the Ghana Guinea Worm Eradication Programme and the water and sanitation sector in Ghana.

Within UNICEF, the consultant will report to the Chief of WASH but will hold consultative meetings with entire WASH team in Accra and Tamale field office. The Consultants will travel to the Northern Region.

5. Expected Deliverables

A concise "Executive Summary" and a "Final Report" shall be produced (in six hard copies and a soft copy) that addresses the above objectives and provide lessons learnt, and makes recommendations for the Water and Sanitation Sector as well as the sustenance of the achievements of the project.

6. Reporting

Before preparing the final report, the Consultant will be required to submit a draft report and make a presentation to the Project Steering Committee and the European Commission.

7. Expected background and Experience

The evaluation of the Integrated Approach to Guinea Worm Eradication in Ghana is to be executed by a team comprising a Team Leader and another expert with the following profiles and experiences:

7.1 Team Leader – Evaluation Expert

The Team Leader will be an international consultant (minimum of P4 level) with the following education background and experience:

- Masters or Advanced Degree in Research,
- The team leader is expected to be fully familiar with the Project Cycle Management and logical Framework Approach, with at least 10 years relevant professional experience in health related issues in developing countries (preferably sub-Saharan Africa) with an emphasis on the eradication of water borne diseases.
- The Lead expert should have a sound experience and knowledge of planning, implementation, follow-up, and performance monitoring of health care related, water and sanitation, or equivalent projects in sub-Saharan Africa.
- Extensive experience in conducting evaluations of development and research projects, and ability of combining different evaluation tools to capture project outcomes and processes as well as a proven record in delivering professional reviews.
- Leadership and strong interpersonal skills, and excellent English writing and editing skills.
- Good analytical, interpretation and data analysis skills.
- Significant knowledge and proven ability in the areas of participatory methods, networking, capacity development and policy influence.
- It is desirable that the candidate is familiar with the procedures used by UNICEF in the implementation of health related, or water and sanitation projects.

7.2 Support Consultant – Water, Sanitation and Hygiene (Monitoring and Evaluation) Expert.

The Water, Sanitation and Hygiene (Monitoring and Evaluation) Expert will be an international consultant at P3 level, and will assist the Lead Consultant in the different

aspects of the performance monitoring, and provide specific specialist knowledge on the appropriateness of the project activities. The support consultant should have the following education background and experience:

- An expert with a Master's degree in the area of water and sanitation or related fields. A minimum of 5 years professional experience in the field of water supply and sanitation in sub-Saharan Africa; experience within Ghana is desirable.
- Demonstrated experience in in planning, implementation, follow-up, monitoring and evaluation of rural development projects in sub-Saharan Africa. Experience in evaluation of water resources management will be an added advantage.
- Strong interpersonal skills, and excellent English writing and editing skills.

General Conditions: Procedures and Logistics

The latest start of the assignment is planned for 1 June 2012.

Location for the assignment includes Accra and Tamale (capital of Northern Region, and base of the Project), as well as visits to the previously Guinea Worm Endemic districts. It is expected that most of the experts' time will be spent in the Northern Region reviewing the activities that have been undertaken and that may still be in progress.

The duration of the consultants' assignments will be of 25 working days for both consultants and comprises

- 5 days review of documents and evaluation design
- 10 to 15 days field work activities related to the evaluation exercise in Ghana (place of assignment)
- 5 days analysis and validation of data, concurrently with the field work
- 5 days report writing
- 2 days present report, and prepare final report, concurrently with report writing.

The Estimated Work Plan is as follows:

Activity	Location	Weeks				
		1	2	3	4	5
review key documents and design evaluation	Accra and Tamale					
Field work activities related to evaluation	Tamale					
data analysis and validation	Tamale					
report writing	Tamale and Accra					
present draft report and finalize report	Accra					

The Consultants will mainly work from UNICEF Office in Tamale, Northern Region and Accra. The assignment will include travel to the previously Guinea Worm endemic districts. Transport will be provided for official field travels but not for commuting to office within Accra or Tamale.

The consultants will be required to provide his/her computer for the assignment. All materials and software required to be used by third parties in the execution of this assignment will however be provided by UNICEF.

Schedule of payment: The Consultants will be paid DSA at the start of the assignment and the fees on the completion of deliverables for the assignment. The rate of DSA payable for the period spent in Accra is at the daily UN rate for Accra (elsewhere). The rate of DSA payable for the period to be spent in Tamale is the UNICEF monthly lump sum rate for Tamale (currently \$1,700 per month).

Policy both parties should be aware of:

- Under the consultancy agreement, a month is defined as 21 working days, and fees are prorated accordingly. Consultants are not paid for weekends or public holidays. DSA will be paid in accordance with prevailing Country Office policy. A fixed lump sum rate per month or prorated for a part of a month will be paid for Tamale and the Northern Region. The prevailing DSA rate for Accra will be paid for the period spent in Accra
- Consultants are not entitled to payment of overtime. All remuneration must be within the contract agreement.
- No contract may commence unless the contract is signed by both UNICEF and the consultant or Contractor.
- For international consultants outside the duty station, signed contracts must be sent by fax or email. Signed contract copy or written agreement must be received by the office **before Travel Authorisation is issued.**
- No consultant may travel without a signed travel authorisation prior to the commencement of the journey to the duty station.
- Unless authorised, UNICEF will buy the tickets of the consultant. In exceptional cases, the consultant may be authorised to buy their travel tickets and shall be reimbursed at the "most economical and direct route" but this must be agreed to beforehand.
- Consultants will not have supervisory responsibilities or authority on UNICEF budget.
- Consultant will be required to sign the Health statement for consultants/Individual contractor prior to taking up the assignment, and to document that they have appropriate health insurance, including Medical Evacuation.
- The Form 'Designation, change or revocation of beneficiary' must be completed by the consultant upon arrival, at the HR Section.

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- ***** Please consult with HR on entitlements as many are set by UNICEF rules.

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Annex 1 Key Documents to be consulted during the assignment

The consultant shall consult key document including, but not limited to:

1. IWASH Project Document 2007-2011
2. Preliminary Project Performance Monitoring Mission Report 2008
3. Second Performance Monitoring Mission Report
4. Project Progress Reports, 2008
5. Project Progress Report 2009
6. Project Progress Report 2010
7. Project Progress Report 2011

Annex B - Itinerary for fieldwork

The below table provides an overview of the fieldwork in Ghana. For details of people met, please refer to Annex D.

<i>Date</i>	<i>Activity</i>
June 11	Travel to Ghana
June 12	Meetings with key informants in Accra
June 13	Meetings with key informants in Accra Travel to Tamale Meetings with key informants in Tamale
June 14	Meetings with key informants in Tamale
June 15	Meetings with district assembly and communities in Savelugu-Nanton District
June 16	Visits to communities in Savelugu-Nanton District
June 17	Refinement of interview guidelines and document review
June 18	Meetings with district assembly and communities in Nanumba North District
June 19	Meetings with district assembly and communities in Nanumba North District
June 20	Meetings with district assembly and communities in Yendi District
June 21	Meetings with district assembly and communities in Yendi District
June 22	Meetings with district assembly and communities in Central Gonja District
June 23	Meeting with communities in Central Gonja District
June 24	Preparation of first debriefing
June 25	First debriefing in Tamale Meetings with key informants in Tamale
June 26	Preparation of second debriefing Travel to Accra
June 27	Second debriefing Meeting with key informants
June 28	Meeting with key informants
June 29	Preparation of draft report
June 30	Preparation of draft report
July 1	Submission of draft report Travel to home base

Annex C - Documents available during evaluation

"Funding Proposal for an Integrated Approach to Guinea Worm Eradication Through Water Supply, Sanitation and Hygiene in Northern Region, Ghana", UNICEF, September 2006

"Preliminary Project Performance Monitoring Mission - I-WASH", European Commission, April 2008

"Second Performance Monitoring Mission - I-WASH", European Commission, July 2009

"Monitoring Report - I-WASH", European Commission, June 2010

"Progress/Utilization Report No. 1", UNICEF, June 2008

"Progress/Utilization Report No. 2", UNICEF, June 2009

"Progress/Utilization Report No. 3", UNICEF, June 2010

"Progress/Utilization Report No. 4", UNICEF, June 2011

"Small Communities Water and Sanitation Policy", Ministry of Works and Housing, Ghana, May 2005

"Ghana National Decentralisation Action Plan", Ministry of Local Government and Rural Development, 2010

"Communication and Visibility Manual for European Union External Actions", European Union, 2010

"The Ghana Compact - Water and Sanitation for All: A Global Framework for Action", Ministry of Finance and Economic Planning, Ministry of Local Government and Rural Development, and Ministry of Water Resources, Works, and Housing, Ghana, April 2010

"Integrated Approach to Guinea Worm Eradication Through Water Supply, Sanitation and Hygiene in Northern Region, Ghana - School Health Education Program (SHEP): Report on I-WASH Final Project Assessment in I-WASH Schools", CRS, Ghana, January, 2012

"Design Report for Tutingli and Kpanvu: Design, preparation of tender documents and tender evaluation reports for award of contract for mechanised/alternative water supply systems - Under the I-WASH project in the Northern Region of Ghana", TA Consultant, September 2010.

"Development of a Rural Sanitation Strategy and Model for Ghana - Rural Sanitation Model and Costed Scaling Up Strategy for Community-Led Total Sanitation (CLTS) & Hygiene in Ghana", Aquaconsult Ltd & MAPLE Consult, Ghana, March 2011

"Report of Capacity Assessment - Tolon/Kumbungu District", APDO, Tamale, Ghana June 2008

"Report of Capacity Assessment - Gushegu District", APDO, Tamale, Ghana June 2008

"Water Resources Assessment in Six Districts in the Northern Region of Ghana (Zabzugu-Tatale District)", BEZA-LEL, Tamale, Ghana, November 2008

"Water Resources Assessment in Six Districts in the Northern Region of Ghana (Yendi District)", BEZA-LEL, Tamale, Ghana, November 2008

"Water Resources Assessment in Six Districts in the Northern Region of Ghana (Gushegu District)", BEZA-LEL, Tamale, Ghana, November 2008

"Water Resources Assessment in Six Districts in the Northern Region of Ghana (Karaga District)", BEZA-LEL, Tamale, Ghana, November 2008

"Data entry and training of relevant stakeholders in the use of the district monitoring and evaluation system (DIMES)", CWSA, Northern Region, Ghana, December 2011.

"Construction Supervision Tools - report prepared for CWSA and UNICEF", Consultant Samuel Koram Asare, August 2009

"Regional Inception Workshop (20/07/07 - 22/06/07) - Workshop Report I-WASH", unknown author, June 2007

"Report on the training of area pump mechanics in the 9 I-WASH districts from 17th-20th December 2008", Church of Christ Rural Water Development Project, Yendi, Ghana, December 2008

"Report on the baseline study conducted in Kikale in the Central Gonja District of the Northern Region for the UNICEF/EC small towns", Dansman Business Consultancy, 2010

"Micro assessment of UN implementing partners - final report Central Gonja District Assembly", PriceWaterhouseCoopers, March 2010

"TA services in two small towns in the Savelugu/Nanton and West Mamprusi districts - End of phase one report (January to April, 2010)", Alternative Initiative for Development, Tamale, Ghana, 2010

"WATSAN mapping report - Tolon/Kumbingu District", APDO, Tamale, Ghana, April 2009

"Report of Baseline Study/Formative Research on Hygiene Behaviour and Hygiene Practices", University for Development Studies, Tamale, Ghana, March 2009.

"Baseline Report on Water, Sanitation and Hygiene Situation in Basic Schools of Northern Region, Ghana", University for Development Studies, Tamale, Ghana, December 2007.

"Water, sanitation and hygiene plan for 2008", Savelugu/Nanton District Assembly - District Planning and Coordinating Unit, January 2008

Annex D - List of people met

The table below provides details of the people met. For some of the group meetings names of participants were not recorded, instead it is indicated how many females and males were present. The date indicated is the date of the first meetings, subsequent meetings are not recorded.

<i>Date</i>	<i>Name</i>	<i>Title</i>	<i>Organisation/location</i>	<i>Contact details</i>
12/6	Dr. Iyabode Olusanmi	Representative	UNICEF	iolusanmi@unicef.org
12/6	Rene Van Dongen	Deputy Representative	UNICEF	rvandongen@unicef.org
12/6	Othniel Habila	Chief of WASH	UNICEF	ohabila@unicef.org 0245352975
12/6	Clement Bugase	Chief Executive Officer	CWSA	clementbugase@gmail.com
12/6	Atsu Dartey	HR Officer	CWSA	-
12/6	Mr. Harold Clotney	Director of Water	The Water Directorate	-
12/6	Susi Aberda	WASH Programme Officer	The Water Directorate	0243 63 90 26
12/6	Ransford A. Danquah	Head of ACP-EU Unit	Ministry of Finance and Economic Planning	rdanquah@mofep.gov.gh
12/6	Edward A. Bortey	Senior Economics Officer	Ministry of Finance and Economic Planning	eabortey@yahoo.com
12/6	Dr. Sylvester Anemana	Chief Director	Ministry of Health	damemana@gmail.com
12/6	Afisah Zakariah	Ag. Director of PPME	Ministry of Health	0243540606
12/6	Bart Missine	Head of Operations	EC Delegation	
12/6	Herve Delsol	Programme Officer	EC Delegation	0544703201
13/6	Samuel Amoako-Mensah	WASH Specialist	UNICEF	0244257985
13/6	Kabuka M. Banda	WASH specialist	UNICEF	0277 81 22 50, kbanda@unicef.org
14/6	Mr. McCarthy	Director - Tamale	CWSA	0244277132
14/6	Gilbert Derby	GWEP		
14/6	Bernadette Kafari	SHEP Director	SHEP	0244712519
14/6	Siman Laari	WASH Advisor	CRS	0279239886
14/6	William Alagma	Community Development Director	Regional dept. of Community Development	006277359
14/6	Dr. Seidu Korkor	National Programme Manager	GWEP	0208161258
15/6	Sulemana B. Saake	MCD	Savelugu North District	0248498183
15/6	Abucari Bebe	MPO	Savelugu North District	0243883567
15/6	Eric Dykote	MWE	Savelugu North District	0244222123
15/6	Laar Salaam	DEHO	Savelugu North District	0266536354
15/6	Atta Abdul Karim	Community Dev. Officer	Savelugu North District	0244508870
15/6	Abib Hamisu	DWST	Savelugu North District	0244150241
15/6	Baba Issah	Works Department	Savelugu North District	0200322347

Date	Name	Title	Organisation/location	Contact details
15/6	Ham Aska Prince	MCE	Savelugu North District	0266533102
15/6	Abdulai Fuseni	WSMT Accountant	Diare	
15/6	Iddrisu Mussah	Village chairman	Guchie community	
15/6	Idrissi Salifu	Watsan technician	Guchie community	
15/6	Adam Alhassan	Watsan treasurer	Guchie community	
15/6	Zebtem Zihuretu	Watsan cleaner	Guchie community	
15/6	Iddi Sanatu	Watsan secretay	Guchie community	
15/6	Alhassan Abubakar	Watsan organizer	Guchie community	
15/6	Mohamed Illiasu	Watsan accountant	Guchie community	
15/6	App. 25 men and 10 women	Villagers	Yong community	
16/6	Three male	3 village chiefs	Libga Dam community	
16/6	Sochi Fuseini	Community Secretary	Libga Dam community	
16/6	Idrisu Seblin	Sanitation committee secretary	Libga Dam community	
16/6	8 young men	Community members	Kpanya community	
16/6	25 men and boys + 1 old woman	Community members	Batangyili community	
18/6	Beata Winpole Akanyawi	Programmes Director	APDO	0277 33 64 41
18/6	Patrick Afulani	District Director of Education	Nanumba North	
18/6	Ahmed Alhassan	District School Health Education Officer	Nanumba North	
18/6	Mr Bayel	Environmental Health Officer	Nanumba North	
18/6	7 women and 10 men + 9 children	Community members	Karaga, Nanumba North	
18/6	12 men, 1 woman + 4 children	Community members	Badule	Nanumba North
18/6	Mohammed Yakubu Fisaini	Head teacher	Chamba primary school	Nanumba North
18/6	Abdulahi Chirazu	Circuit supervisor	Ghana Education Service	Nanumba North
18/6	12 people	Community members	Lefaldo community	Nanumba North
18/6	1 woman and 1 man	Manager and member of water and sanitation management team	Bimbili	Nanumba north
18/6	1 male	Operator of LMS and non mechanised boreholes	Bimbila	Nanumba North
18/6	Solomon Buar	Finance and Admin Manager	New Energy	0244 48 84 40
19/6	Steve Adongo	Retired (recently) Regional Director	EHSD	0278 24 00 06
19/6	Workshop participants	Learning lab participants	World Vision	
19/6	Daniel Nunoo	WASH Coordinator	World Vision	0208 16 24 83
20/6	Sammi Mahana	DWST Head	Yendi District Assembly	
20/6	Fati Baba Sibdou	EHU Director	Yendi District Assembly	0247 526 456
20/6	Abuba Kari	EHU Officer	Yendi District Assembly	0200 433 327
20/6	Nathaniel Adams	Associate Director	Rural Water Development Programme of Church of Christ	0264 504 131

<i>Date</i>	<i>Name</i>	<i>Title</i>	<i>Organisation/location</i>	<i>Contact details</i>
20/6	Miche Bootseng		Rural Water Development Programme of Church of Christ	
20/6	Adam Isokoko	Head Teacher	Zakpalzi community	
20/6	App. 10 women	Water fetchers	Zakpalzi community	
20/6	Mussa Abdalaman	Watsan committee chairman	Gunti community	
21/6	Iddrissy plus 8 more men, 1 old woman.	Chairman of community plus community members	Kamshegu community	
21/6	Felix Gbevillah	DRP	Yendi district	
21/6	Abdul Rahman	Storekeeper	Yendi district	
21/6	Issa and Sammy	Chief and deputy chief	Talani community	
21/6	Chief Tontea Dallabra		Lantan community	
21/6	Mr. Jophn and Hussein Adukari + an old man	WSMT secretary and accountant	Guntili	
22/6	A.M. Abukari	DCD	Central Gonja District	
22/6	Mashod F. Rahman	DRP	Central Gonja District	
22/6	Mahmuna Ardada	EHSU	Central Gonja District	
22/6	Dassah Clement	District Works Engineer	Central Gonja District	
22/6	Issah Justina	SHEP Coordinator	Central Gonja District	
22/6	Head teacher and students		Old Buipe School	
22/6	Head teacher and students		Bupei Primary A school	
22/6	Fufalso	WSMT operator	Fufalso community	
22/6	Benjamin Rahman	District assembly representative	Yapei Yipalsi community	
22/6	A group of women		Yapei Yipalsi community	
22/6	Mr. Zedu	Area Mechanic	Sankpala community	
23/6	Jabuni P. A. Gafaru	DA representative	Wambong community	0249 22 85 14
25/6	Jacob Mahama	Director of Public Health	Regional GHS, Tamale	
25/6	Isaac Larley	GHS Director of Communication	Regional GHS, Tamale	
25/6	John C. Abatig	Hydrologist	CWSA	0243 71 02 44, jondukg@yahoo.com
25/6	Simon	Program manager	New Energy	
26/6	Jane Mwangi	M&E Specialist	UNICEF	0243678435
27/7	Dr. A. Chatterjee	Chief, Health	UNICEF	

Annex E - Interview guidelines

E.1 - Key informant interview guideline

For government officials, partner staff, community leaders, watsan committee members, partners, etc.

Introduction

Doing an evaluation of the UNICEF project

Here to get more information.

Note: Date, location, meeting participants

Four key areas: capacity development, water, sanitation, hygiene

Has the project reduced Guinea worm by 90%, increased access to sanitation by 35%, reduced U5 diarrhoeal diseases by 20%, contributed to an increase in understanding of importance of hand washing?

How do you know?

How are the activities and impact of the project aligned to the Ghana growth strategy

What pro-poor relevance does the project have?

Has the project reached its intended number of beneficiaries

How has the project contributed to policies, strategic planning, development of models

Has the project contributed to behaviour change, give examples

If not which ones are slow and which ones have not started

Please give reasons why

Are other actors using the same approach? If not, how do they do it?

Was anything changed during implementation, i.e. targets, approach, etc?

What impact has the project had on implementing capacity, O&M, financial and monitoring

How has the project affected women and children? E.g. empowerment, opportunities for economic development etc

What is the coordination mechanism for Key result area () at national, regional, district and community levels.

What lessons learnt.

What worked best?

What innovations developed or used during this project would you like to share?

Have activities been implemented within total budget

Have activities been implemented within budget line items

How does cost of activities compare with implementation by other organisations

Are there examples or reasons why costs may be higher but local economic development or capacity building is additional outcome?

How has the project maximised human and financial resources

What would you do differently

Quality of outputs

Are the outputs being used

What would you do differently

How is it being financed and how will it be financed after the project
What is the operation and maintenance mechanism for Key result area () at national, regional, district and community levels.

How is O&M being financed and how will it be financed after the project

What aspects of Key result area () have been institutionalised? Give examples

How is the capacity built in partners being used

What synergies and partnerships have been established during this project

How is adherence to standards enforced, monitored?

Anything you think should be done differently next time?

E.2 - Interview guideline for district assemblies

For District assembly members, staff, district teams, partners etc., that have received support to capacity development).

Introduction

Doing an evaluation of the UNICEF project

Here to get more information.

Note: Date, location/district, meeting participants

Four key areas: capacity development, water, sanitation, hygiene

Has the project reduced guinea worm by 90%, increased access to sanitation by 35%, reduced U5 diarrhoeal diseases by 20%, contributed to an increase in understanding of importance of hand washing?

How do you know?

Have you received any training and/or equipment to support you in doing your work, which?

Was the support useful?

What else would you have wanted, why?

Was there anything that was less useful, e.g. training or equipment?

How is the coordination mechanism with other types of support, have you received other types of support?

Are other actors using the same approach? If not, how do they do it?

Are the roles and responsibilities of the different partners clear?

How often do you have coordination or other meetings with UNICEF or other project staff?

How are the activities and impact of the project aligned to the Ghana growth strategy

What pro-poor relevance does the project have?

Has the project reached its intended number of beneficiaries

How has the project contributed to policies, strategic planning, development of models

Has the project contributed to behaviour change, give examples

If not which ones are slow and which ones have not started

Please give reasons why

Are other actors using the same approach? If not, how do they do it?

Was anything changed during implementation, i.e. targets, approach, etc?

What impact has the project had on implementing capacity, O&M, financial and monitoring
How has the project affected women and children? E.g. empowerment, opportunities for economic development etc

What is the coordination mechanism for Key result area () at national, regional, district and community levels.

What lessons learnt.

What worked best?

What innovations developed or used during this project would you like to share?

Have activities been implemented within total budget

Have activities been implemented within budget line items

How does cost of activities compare with implementation by other organisations

Are there examples or reasons why costs may be higher but local economic development or capacity building is additional outcome?

How has the project maximised human and financial resources

What would you do differently

Quality of outputs

Are the outputs being used

What would you do differently

How is it being financed and how will it be financed after the project

What is the operation and maintenance mechanism for Key result area () at national, regional, district and community levels.

How is O&M being financed and how will it be financed after the project, not only water but also sanitation (full latrines in small towns)?

Do you know if facilities are functioning? Are they being maintained?

Are spare parts available, and will they continue to be so?

How do you know, how is the monitoring of the functioning of facilities done?

What aspects of Key result area () have been institutionalised? Give examples

How is the capacity built in partners being used?

What synergies and partnerships have been established during this project

How is adherence to standards enforced, monitored?

Anything you think should be done differently next time?

E.3 - Interview guideline for communities

Introduction

Doing an evaluation of the UNICEF project

Here to get more information.

Note: Date, location: district, community, meeting participants

Basic information

No. of people and/or households in community

Other source of WASH-related assistance?

Water supply

Where do you get drinking water from?

When was this water source constructed

Who else uses this water source?

Do you do anything to the water from this source before drinking?

Do you do anything to other water sources before drinking?

How has the drinking water source affected you, your household and your community?

How were you involved in the development of the water source?

Has the water source been unavailable to you in the past year?

Why was this?

What did you do when this happened

When was the last time you heard about Guinea worm in your community or any other community around you

Why do you think the incidence has reduced?

Anything you would wanted done differently

Sanitation

Do you have a toilet in your household?

Tell us how you were able to construct the toilet

Why did you decide to have a toilet in your household?

Which times do you think are critical to wash hands ?

What do you use to wash hands at those times

What roles did community members play in the water supply and sanitation?

What difference do you think having a toilet and washing hands has made to you , your household and your community?

If your toilet develops a problem who will you tell or call to assist you?

Anything you would wanted done differently

O&M

Is there a watsan committee:

How many members are there in the committee

When was the last meeting in the watsan committee

Is money collected, how much, how often

What is the money spent on?

When was the last time the facility was repaired?

What was wrong?

Anything you would wanted have done differently

Annex F - Overview of interventions visited

Table F.1: Capacity Building interventions

District	Summary of information obtained				
	Planning and coordination	Equipment support	Training	Operational support	Other/summary
Savelugu Nanton	There is no longer a DRP. DRP role was a bit unclear and was taking over from DWST head. Monthly coordination meetings continue; very useful. Experiences with integration have been very good and will continue it.	Was given vehicle, motorbikes and IT equipment.	Training in BCC (very useful), CLTS training, IT (Only 2 computers provided although many were trained. Computers broken down.). Training in management less useful as they were not able to use is as they did not implement.	Lack of incentives for community volunteers.	Harmonisation of latrine design. District did not implement, CWSA did. 1 LMS does not function (WHICH??) Wish there were funds for major repairs as some LMS communities do not pay and they will break down. O&M for HPs is working
Nanumba North	Most members were away at meetings in Accra. The SHEP officer and Environmental health officer indicated that the capacity building activities assisted with planning and coordination	In addition to motorbikes and cars, the SHEP was provided with materials for the school hygiene intervention	Training was useful		

<i>District</i>	<i>Summary of information obtained</i>				
	<i>Planning and coordination</i>	<i>Equipment support</i>	<i>Training</i>	<i>Operational support</i>	<i>Other/summary</i>
Yendi	<p>The DSWT felt sidelined and was not involved.</p> <p>Feels interaction was between DRP and DA and UNICEF: "he who pays the piper...".</p> <p>DWST found that the inter-sectoral concept was brilliant, but did not do implementation and was not informed so could not monitor.</p> <p>The DRP (has been there 1.5 years) was frustrated and did not have funds for fuel for monitoring and feel the DA is not supportive.</p> <p>Have DWSP and is in the process of having it updated.</p> <p>Would like assemblies to be more involved, including in selecting contractors - selection of contractors from Tamale created conflicts with local contractors.</p> <p>No DPDT meetings after I-WASH activities ended.</p>	<p>Was given vehicle, motorbikes and IT equipment.</p> <p>Not enough motorbikes for CLTS so have to use their own.</p>	<p>Was trained in database but need refresher course so do not use it - is using their own old database. Did not see baseline reports.</p> <p>Half EHS unit staff has been replaced so need also training</p>	<p>Not enough funds for fuel for monitoring and CLTS triggering.</p>	<p>Institutional latrines included a changing room for menstruating girls, but as there were no options for disposal of sanitary tools, it was not used. Would have been better partitioning the two dropholes.</p> <p>A LMS is not functioning, but do not have drawings etc.</p>

<i>District</i>	<i>Summary of information obtained</i>				
	<i>Planning and coordination</i>	<i>Equipment support</i>	<i>Training</i>	<i>Operational support</i>	<i>Other/summary</i>
Central Gonja	<p>Is updating DWSP regularly, enables them to see where there is a need. Training in CLTS, BCC, hygiene facilitation.</p> <p>Use DIMES database and is updating it. They were involved as a team. Realised that the DPCU was the same members as DPDT, so did it through DPCU instead.</p> <p>DRP will leave when project ends - appears very committed and they would like to keep him, but DRP has helped develop capacity so they can do it themselves.</p> <p>GW focus ensured less political interference in selection of locations. The structure of I-WASH was beneficial.</p>	<p>Was given vehicle, motorbikes and IT equipment.</p>		<p>Worried that funds of monitoring and maintenance of motorbikes will not be there in the future.</p> <p>Will continue to follow up with WSB and committees as well as auditing of accounts also after I-WASH ends.</p>	<p>It was a new district so training was very much needed. For EHS unit, BCC was very useful.</p> <p>Worried that the area mechanics might not be paid in the future.</p>

Table F.2: Water supply interventions

<i>District</i>	<i>Location</i>	<i>Classification</i>	<i>Description</i>	<i>O&M</i>	<i>Other/summary</i>
Savelugu Nanton	Diare	LMS connected to electricity grid.	Serving one part of town. The rest have a pipes system. The original BH was flushed.	Users pay 1.25 Cedi/m ³ . Have a saving of 10,000 Cedi. Bought new pump last year.	Is functioning, O&M is in place.
	Libga Dam	Alternative - Hydrant for trucks	A number of communities took water from dam. Now the pipeline is there - so far nobody has taken water in 2012.		Not used anymore
	Batangyili	Alternative - bio-sand filters	Were given bio-sand filters. Use them in dry season when water from dam is highly polluted. Otherwise only use cloth filters. Use straw filters in fields.	Clean bio-sand filter with sponge.	Only use in dry season, otherwise use cloth filter.
	Kpanya	BH with HP	Rocky area, attempts have been made to find more water.	Use stream when source is dry.	Source is providing water app. 5 months/year.

<i>District</i>	<i>Location</i>	<i>Classification</i>	<i>Description</i>	<i>O&M</i>	<i>Other/summary</i>
	Guchie	LMS with solar panel	System had been working until 4 days ago. Operator thought it was the panels that were not functioning, but was water shortage according to indicators on control panel. Nearby hand pumps also running dry.	Users pay 1 Cedi/HH/month. Money are deposited in bank,	Source is dry now, users fetch from stream. Filter it through cloth, think it is safe.
Nanumba North	Bimbila	LMS with rehabilitated borehole	Functioning , town relies on it and consider it more reliable than the water supplied through the main supply lines of town,	Sold for 10 pesewas	
	Bimbila	2 boreholes one new one rehabilitated	Not working, short circuiting of the motor that runs the pump, due to tree fall and thunder		
	Lefaldo	2 Boreholes one for school one for community	New one not working due to low yield (it was not clear to evaluator whether it was I-WASH supported borehole	Fault has been reported	
Yendi	Guntinli	LMS connected to electricity grid	Have three tap stands, each with an overhead tank. Have been dry occasionally since March. Knew from the beginning that there was not a lot of water. Were originally 2,000 people, but more now.	Have WSB, appears very active. Pay for water (1.2 Cedi/m3). Have 10.000+ Cedi in bank. Would like to do extension, but not sure there is enough water, and due to the limited water now, will be long before they have saved enough water for that.	
	Zakpalsi	LMS connected to electricity grid	3 overhead tanks; 2 only with very little water flow. Tanks are leaking. Has always been like that.	Was not functioning for 1 month as there was no electricity. Have WSB. Do not know area-mechanic. Pay 3 pesawas for 3 drums to be used for payment for electricity. Collect app. 8 Cedi/day.	

<i>District</i>	<i>Location</i>	<i>Classification</i>	<i>Description</i>	<i>O&M</i>	<i>Other/summary</i>
	Gunsi 1	Borehole with HP rehabilitation	4 HPs, 1 at dam very far away.	2 HPs often have problems with handle - have been welded. 1 HP is hard to lift. Have been repaired several times but does not last - possibly due to overuse as 3,600 + people. Do not pay for water, but collect when needed.	
	Talani	BH with HP	Stagnant water in drainage.	Has been trained to maintain it. Will contribute when repairs are needed. Know the area mechanic.	
	Latam	BH with HP	Already had their own BH. Got a new one from UNICEF. Both are functioning, also in dry season. Needed the second borehole for times of high demand, e.g. construction, weddings, etc.	Functioning. The caretaker repairs it. Have not needed any spare parts yet. If care taker can not repair it they will go to DA. They will contribute if repairs are needed.	The hand pump was perhaps not strictly necessary as it is only used in times of high demands.
	Kamshegu	BHs with HPs	HPs far away and dry in dry season when people take from streams. Other communities are using them too. Not all HPs are from I-WASH.	Has money that the contributed 2 years ago. Caretaker can do basic repairs. Have not yet had problems. If have big problems they will call DA.	

<i>District</i>	<i>Location</i>	<i>Classification</i>	<i>Description</i>	<i>O&M</i>	<i>Other/summary</i>
Central Gonja	Fufulso	Community emergency treatment plant of water from 2 dams	Is installed as an emergency system. Two dams used as sources: 1 with genset, 1 with solar. Water is pumped to 4 polytanks for sedimentation and then to the treatment plant for adding alun and chlorine (aquatabs). Have 8 tabs. Have ceramic filters, but do not use them as no GW - system operator said he used it, but turned out to be only the container. Have cloth filters for dam water.	Half of the 16 solar panels were stolen in April 2012, so they removed the others in order not to have them stolen too. Genset was replaced. Still have chemicals from installation. People pay for water (10 pesawas for 1 bassin, 20 for three basins). Money is collected by Red Cross volunteers and is then put in bank, App. 30 Cedis collected/day. Have 500 Cedis in bank.	Only used a few months/year. Not used during rainy season as people do water harvesting and have their own small HDWs. Has not been used since January as dam was dry. People prefer dam water as do not like the taste.
	Yapei Yipalsi	Community treatment	2 drums for chlorination. Then transfer to polytank for fetching. Attempts to drill boreholes were unsuccessful.	Not used in rainy season. Only used by very few because of too high price after the rainy season until dam dries up. Pay 10 pesawas/bucket,, Only a handful of people are using it. Tap has broken of polytank.	Only used 3-4 months/year by a few people.
	Sankpala	BHs with HPs	Have two HPs, one not working for 2 weeks. Also have a LMS installed by somebody else.	Do not ay for water, but contribute if broken. Area mechanic not allowed repair by village chief	
	Wambong	Community treatment	2 drums for flocculation and chlorination. Then transfer to polytank for fetching. Attempts to drill boreholes were unsuccessful. Most people do not filter water after GW was eradicated. The dam is close by.	Used throughout the whole year Pay 10 pesawas/bucket, money used to buy chemicals (organised by some white people). Only 10 or so people are using it, others can not afford it.	Only used by a few people.

Table F.3: Sanitation interventions

<i>District</i>	<i>Location</i>	<i>Classification</i>	<i>Description</i>	<i>Others/Summary of information obtained</i>
Savelugu Nanton	Diare	Institutional latrines and hand washing	2 x 5 compartments with 2 dropholes in each. Hand washing facilities available.	Latrines were locked (school closed)
	Libga Dam	CLTS	CLTS triggered. Not all villagers are listening to hygiene messages. Hand washing has improved, app. half are doing it. Children are less sick, less malaria. Latrines provided by WV for some with own contribution of 12 Cedi, now WV wants 30 Cedi and nobody will pay that.	Now cover children's faeces. Latrines seen are clean. Children have changed the most.
	Yong	CLTS	CLTS triggered. ODF. Latrines provided by WV. Were often sick before. Village is clean. Utensils are washed now, and hand washing it practices.	People come from other communities to learn.
	Kpanya	CLTS	CLTS triggered, wash hands more often now as they were told it reduces diseases - think it is better now.	Still practice OD.
Nanumba North	Kariga 1	CLTS	Had scored 83% in cleanliness score 2 nd assessment, farming community, which was very neat, the community based health volunteers were facilitators trained by the ditrict. They have 15 toilets for 21 households and they indicated that there is sharing. Benefits they sati they saw include fly reduction, odour reduction	Conviction about benefits of the sanitation and hygiene promotion they received was apparent and behaviour change apparent
	Lefaldo	CLTS	Had scored 57 in cleanliness critieria score, not as clean as those that had scored 80 and above. It was clear that they aspects of behaviour had changed, open defecation was not a norm, toilets had been dug but they indicated that they had challenges, toilets were collapsing because of the waterlogged soil. they requested for technical solutions to lining their pit	Request for technical support
	Badule	CLTS	Clean community, evidence of behaviour change could be seen. They attributed their success to the conviction by their leader that it was beneficial and they have now seen benefits. Sanctions imposed by community for open defecation etc. decrease in malaria incidence and vomiting are some of the benefits they attribute to the change in behaviour	

<i>District</i>	<i>Location</i>	<i>Classification</i>	<i>Description</i>	<i>Others/Summary of information obtained</i>
	Jilo	Institutional latrines	Design challenges in relation to shape of the drop hole	
Yendi	Zakpalsi	Institutional latrines	2 x 4 compartments with 2 dropholes in each. 300 students. Hand washing facilities available. Cleaned twice a week. Have hygiene club and hand washing facilities.	
	Kamshegu	CLTS	UNICEF gave them slabs for latrines 4 years ago. Some latrines are full. Some are caving in. They are not sure how to make pits.	Use latrines. Are less sick now (less cholera, less malaria)
	Kamshegu	Institutional latrines	2 x 4 compartments with 2 dropholes in each. Changing room for girls with menstruation, used for storage. Cleaned twice a week. Hand washing facilities available with soap in the office. Have hygiene club and hand washing facilities.	Latrines and hand washing facilities are used.
	Yapei Yipalsi	CLTS	Triggering not sustained. Slabs were provided, but many superstructures were not done. Cloth filters are worn out so use scarfs.	No more GW and trachomia due to improved hygiene. Better cleanliness and hygiene and food hygiene.
Central Gonja	Bupei Primary A School	Institutional latrines	2 x 5 compartments with 2 dropholes in each. Unused and locked as can not be used because they are full of water.	

Table F.4: Hygiene interventions

<i>District</i>	<i>Location</i>	<i>Classification</i>	<i>Support provided</i>	<i>Summary of information obtained</i>
Savelugu Nanton	Diare	School hygiene	Hand washing facilities available	Hand washing facilities available (school closed)
Nanumba North	Chamba	Evidence of hygiene intervention and acceptance	Handwashing facilities are available and used	Water not available in school
	Lefaldo		Handwashing facilities available with water in it	Pupils are aware of handwashing with soap and other aspects of hygiene, there is water in handwashing facility but no safe source of water in the school

<i>District</i>	<i>Location</i>	<i>Classification</i>	<i>Support provided</i>	<i>Summary of information obtained</i>
Central Gonja	Old Buipe Primary School	School hygiene	Have hand washing facilities that are used. Have soap in office, but not always at the end of the month (1 piece/week). Have school health club. No latrines.	The water tank for the hand washing is too small, so often empty. Others have the view that because children fill the facilities with water, the size is appropriate and not too difficult for them to fill, carry or clean as the need arises. Students also pass messages on at home.
	Bupei Primary A School	School hygiene	Have 2 hand washing facilities for 450 students. Have soap.	

Table F.5: Visibility

<i>Location</i>	<i>Type of visibility</i>	<i>Visited</i>
Libga Dam, Savelugu Nanton	Signboard	X
Sang, Yendi	Signboard	
Guntili, Yendi	Signboard	X
Yendi District Assembly, spare part outlet.	Signboard,	X
Central Gonja, spare part outlet	Signboard	
Ffulso, Central Gonja	Stickers on solar system (almost faded away)	X
Nyanwuripe, Central Gonja	Signboard	
Mile 40, Central Gonja	Signboard	
Kampong, Central Gonja	Signboard	

Annex G - Revisions of logframe

The table below contains the original logframe as well as subsequent changes.

Objective	Objectively verifiable indicator			Reasons for changes	Basis for changes
	Original log frame	2009 revised log frame	Revised Targets 2012 ³⁹		
Overall objective	20% reduction in proportion of children under 5 who are malnourished	25% decrease in childhood mortality in the project area	No change	2nd IWASH Performance Monitoring Mission recommendation. Second Performance Monitoring Mission, page 9	Childhood mortality rate is a measurable alternative impact target for the project. This statistic is being tracked region-by-region by several periodic surveys. Furthermore district-level childhood mortality data is available from the databases of the Ghana Demographic and Health Survey or similar studies.
	At least 20% of households feel better able to survive a crisis.	A break down of Guinea worm transmission in Ghana	No change	2nd IWASH Performance Monitoring Mission Recommendation (Section 2.1.2 at Page 6)	No perceived direct causal linkage between project outputs and poverty reduction
Project purpose	Reported incidence of U5 diarrhoea decreases by at least 40% from baseline	Reported 25% decrease in the incidence of childhood diarrhoea in the project area	No change	2nd IWASH PMM Recommendation (Section 2.1.3 at Page 7)	40% reduction not realistic
	Guinea worm incidence decrease by 90%	90% decrease in number of Guinea worm cases	No change	No substantive change	No change

³⁹ Budget Re-alignment Ref Addendum No. 6 to Grant contract No. 2007/196 868

<i>Objective</i>	<i>Objectively verifiable indicator</i>			<i>Reasons for changes</i>	<i>Basis for changes</i>
	<i>Original log frame</i>	<i>2009 revised log frame</i>	<i>Revised Targets 2012³⁹</i>		
Key result area 1	Capacity of 9 District Assemblies and other stakeholders enhanced in sustainably using a demand responsive approach	Capacity of 10 District Assemblies and other stakeholders enhanced in sustainably using a demand responsive approach	No change	Split of East Gonja district into two in 2008	Kpandai as a new and separate district hacquired its own district administration
	9 District Water and Sanitation plans developed	10 district water and sanitation plans developed	No change	As above	As above
Key result area 2	Water supply facilities with year-round supply of safe water have been constructed for 267,000 people in Guinea Worm affected villages by the end of the project.	No change	No change	No change	No change
	85 percent of all the community owned and operated drinking water systems are functional at any given time from the end of the 2 nd year.	No change	No change	No change	No change
	Community elected representatives are trained in the maintenance and management of the community water supplies at every intervention by the end of the project.	No change	No change	No change	No change

<i>Objective</i>	<i>Objectively verifiable indicator</i>			<i>Reasons for changes</i>	<i>Basis for changes</i>
	<i>Original log frame</i>	<i>2009 revised log frame</i>	<i>Revised Targets 2012³⁹</i>		
Key result area 3	At least 2 cost effective rural sanitation marketing models are developed in one pilot district by the 1st year	No change	No change	No change	No change
	48,000 appropriate sanitation facilities constructed by households within the 9 districts	20,000 sanitation facilities constructed within the 10 districts	9,000 sanitation facilities constructed within the 10 districts (ROM)	Reduction in toilet construction targets related to the focus on ODF of change in behaviour with toilets as evidence	Recommendation of 2nd performance monitoring mission. 2009 request for approval of realigned budget 3. ROM
	Open defecation is reduced by 35% points	400 communities stop open defecation by the end of the project	No change		No change
	A regional and national plan/strategy for scaling up of the sanitation marketing approaches is prepared by the end of the 2nd year				
	National Environmental Sanitation Policy revised and updated by the end of the 3rd year				
Key result area 4	70% of the target population understand the importance of hand washing and link hand washing to improved health by the end of the project.	No change	No change	No change	No change

<i>Objective</i>	<i>Objectively verifiable indicator</i>			<i>Reasons for changes</i>	<i>Basis for changes</i>
	<i>Original log frame</i>	<i>2009 revised log frame</i>	<i>Revised Targets 2012³⁹</i>		
	Soap (or ash or other suitable media) is found to be used for hand washing in 80% of randomly selected households by the end of the project.	No change	No change	No change	No change
	Promotion of hand washing with soap (or ash or other suitable media) at critical times is incorporated into the national development priorities by the end of the 2 nd year.	No change	No change	No change	No change
	85% of the target villages certified as clean based on a developed and agreed cleanliness score criteria by the end of the project.	No change	No change	No change	No change

Annex H - Mortality and diarrhoea data from health district

Year	2008		2009		2010		2011	
	Child mortality	Diarrhoea	Child mortality	Diarrhoea	Child mortality	Diarrhoea	Child mortality	Diarrhoea
Bole		858	38	2,653	54	3,515	79	5,228
Bunkpurugu Yunyoo		6,000		5,076		6,264		8,988
Central Gonja		514		1,256		1,207		2,736
Chereponi		2,671		2,883		1,910		1,025
East Gonja	20	3,780	41	967	23	802	15	1,485
East Mamprusi	476	6,504	317	5,053	275	7,529	295	9,839
Gusheigu	29	2,316	73	2,293	92	480	90	3,365
Karaga		2,956		386		677		678
Kpandai			11	4,859		3,551		3,460
Nanumba North		863	79	718	87	1,786	104	2,500
Nanumba South		655		978		1,134		2,161
Saboba	55	4,382	66	6,626	61	3,639	40	2,806
Savelugu Nanton	86	4,069	109	6,950	97	7,438	112	6,294
Sawla-Tuna-Kalba		1,632		2,252		2,932		3,890
Tamale	333	1,066	470	10,437	450	9,536	397	4,250
Tolon/Kumbungu				3,932	38	3,169	77	5,250
West Gonja	29	2,445	33	2,807	22	4,697	30	8,224
West Mamprusi	37	1,297	41	2,486	57	1,039	50	1,468
Yendi	73	7,006	58	6,821	54	9,915	48	12,663
Zabzugu-tatale		2,190		3,915		4,096		1,213
Total	1,138	51,204	1,336	73,348	1,310	75,316	1,337	87,523
10 I-WASH districts	208	23,694	371	32,097	391	33,121	446	39,644

Annex I - Recommendations from previous missions

This annex contains the main recommendations from the three previous evaluations of missions of the I-WASH project.

ROM mission - June 2010

There were 12 main recommendations from the ROM mission in June 2010, including:

<i>Recommendation</i>	<i>Action</i>
Allow a no cost extension of one year	Done
Develop an exit plan	An exit plan for the I-WASH programme has not been fully developed. UNICEF has, however, incorporated sustainability in the current Country Programme (WASH component of the annual work plan) - and advocacy will be done towards CWSA and District Assemblies to formalise institutional support for management of O&M of water supply schemes. The WASH sector has also developed a Sustainability Proposal
Consider working with World Vision on high fluouride levels in groundwater.	Consultations were made with WV and CoC, but patent and intellectual property rights blocked implementation. It was decided not to install hand pumps on boreholes that had high fluoride levels but instead, where feasible, explore alternative schemes such as filtration of surface water sources.
Consider reviewing progress in capacity building of district assemblies so far and revising strategy.	The capacity assessments were completed
Quality assurance procedures for all contracted work, particularly in relation to water supply facilities should be clear and adhered to.	Through CWSA and design consultants quality assurance procedures were improved
Consider revising latrine construction targets down to 9,000.	Done

Second performance monitoring - July 2009

There were 26 recommendations from the second performance monitoring, including:

<i>Recommendation</i>	<i>Action</i>
Revise the high level targets and indicators.	Done
The approaches to outbreak control and disease elimination on one hand, and long-term development on the other should find a reflection in the management structure. This could involve signing an agreement with a partner to take responsibility for all emergency responses.	Done, an agreement was signed with CoC
Develop and apply a uniform procedure for the quality control of contracted work that is applicable to all contracts financed from the I-WASH budget. Studies or reports that do not meet the terms of reference of the contract should not be accepted.	Done, tendering documents were in some cases rejected due to poor quality
UNICEF's own practice of maintaining and communicating project management information should be improved.	Not fully done yet, it remains difficult to obtain consolidated project information as it involves sorting data from different spread sheets.
Should engage fully in the development of DWSP with District Assemblies and with CWSA.	Done
Review the usefulness and appropriateness of providing and installing software for a Geographic Information System in each district.	Not done, however, GPS units were distributed
Develop procedures for funding the activities of District Assemblies that are better able to bridge the differences between the financial management of UNICEF and the District Administrations. Districts should always receive their quarterly budget advances before the beginning of the quarter. The team should provide immediate on-site management assistance to districts whenever there are signs that they may fall behind in receiving the next quarterly advance.	Despite increased support to the district, there continued to be a lack of timely liquidation of previous expenditure by the districts, delaying transfer of additional funds.
Targets for new boreholes should be reduced, unless the British Geological Survey study finds a more successful method of siting groundwater sources.	Done
When new technologies or systems are piloted by the I-WASH project (e.g. ceramic household filters, bio-sand household filters, surface water treatment plants, etc.), the findings of performance monitoring should be translated into recommendations and guidelines.	Lessons learnt are shared at review meetings. Full documentation of lessons learnt will be done as part of the final reporting in the last quarter of 2012.
When exploring the installation of a new water supply system, the feasibility study should always include an estimation of the cost of operation and maintenance, and a consultation with the community about the acceptability of the chosen option.	Due to water related constraints there were in many instances no options to choose from
Support the development of a monitoring and maintenance system for limited mechanised water systems, including training of technicians and stores for spare parts.	A funding proposal as been put together by the sector
Target for latrine construction should be replaced by a target that is more appropriate to the CLTS approach.	The target was revised downwards to 9,000 latrines.
The need for "developing marketing models" for sanitation should be reviewed with the consideration of replacing it with a greater emphasis on rolling out the Community-Led Total Sanitation approach.	Done

<i>Recommendation</i>	<i>Action</i>
I-WASH in consultation with the District Assemblies and the Regional Environmental Health Department, should fix a feasible target for the numbers of communities to be covered with a full range of CLTS programmes before the end of the project.	Done, the target fixed is 400.
Explore the option of including a subsidy for latrine ventilation pipes in its programme of latrine floor slab subsidies.	The CLTS approach does not include subsidies
Realign the programming framework by moving the environmental sanitation activities and results from the hygiene promotion area to the sanitation area.	Not done due to budget complications.
The community hygiene promotion component of the I-WASH project labelled “Public Private Partnership” should be reviewed. The partnership should be revived by engaging with national and multi-national private sector companies and their regional representatives with the aim of developing effective joint communication	Not done, however, PPP is being being revived nationally

First performance monitoring - April 2008

There were 24 recommendations from the first performance monitoring, including:

<i>Recommendation</i>	<i>Action</i>
Clarify the CLTS strategy for the Northern Region and define the concept of “latrine”.	A latrine was defined as a facility for confining faeces.
Review the target and budget regarding the construction of latrines.	Was done - revised downward.
The accountability lines between DRPs and DPDTs need to be clearly defined and respected to avoid potential conflicts.	Roles were clarified
Ensure that UNICEF administration and finance constraints are anticipated by project coordinators.	There continued to be delays, hence the extension of the project period.
Prepare a rapid water response strategy and appropriate resources to support the GW eradication.	Emergency equipment was provided to CSWA.
Identify support organizations who have expertise in specific capacity building areas.	Done, e.g. CRS. APDO, CoC
Check the quality of baseline surveys currently in progress.	Further improvement is needed.
Put in place quality monitoring plans for systematic quality control of every activity implemented (software and hardware).	The number of project monitors was increased