



PROJECT PROPOSAL

for

Water, Sanitation and Hygiene in Disaster Prone Communities in Northern Ghana.

For Submission to

Foreign Affairs, Trade and Development, Canada (DFATD)

Country: Ghana

Programme Title: Water, Sanitation and Hygiene in Disaster Prone Communities in Northern Ghana

Joint Programme Outcome(s) derived from UNDAF Outcome 5

1. Improved access to safe drinking water, basic sanitation and hygiene infrastructure and services that are resilient to climate related disasters and appropriate for flood prone communities in the three Northern regions of Ghana
2. Health education programmes and awareness of hygiene practices improve the sanitation and health conditions in the beneficiary communities and schools
3. Enhanced regional and local capacity in the beneficiary communities to sustainably manage the WATSAN facilities to be put in place.
4. Communities demonstrate a sense of disaster preparedness and minimize future risks in the communities.

Programme Duration: **3 years**
Anticipated start/end dates: **June 2014–May 2017**
Fund Management Option(s): **Pass-through**
Administrative Agent: **UNDP**

Total estimated budget*: **Can\$19,915,904**
Out of which:
1. Funded Budget: **Can\$ 19,915,904**
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* Total estimated budget includes both programme costs and indirect support costs

Source of funded budget:

- Donor: **DFATD Canada**

Names and signatures of national counterparts and participating UN organizations



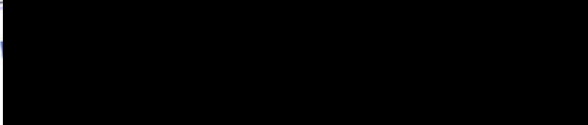
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ACRONYMS

AESOP	Annual Education Sector Operational Plan
AfD	African Development Bank
CAP	Country Action Plan
CFS	Child Friendly Schools
CFSVA	Comprehensive Food Security and Vulnerability Analysis
CIDA	Canadian International Development Agency
DFATD	Foreign Affairs, Trade and Development, Canada
CLTS	Community-Led Total Sanitation
CSEB	Compressed Stabilized Earth Bricks
CWSA	Community Water and Sanitation Agency
DIMES	District Monitoring and Evaluation System
DWST	District Water and Sanitation Teams
EHSD	Environmental Health and Sanitation Directorate
EIB	European Investment Bank
EMIS	Education Monitoring Information System
EPRP	Emergency Preparedness and Response Plan
GDHS	Ghana Demographic Health Survey
GLSS	Ghana living Standard Survey
GoG	Government of Ghana
GSGDA	Ghana Shared Growth and Development Agenda
GWCL	Ghana Water Company Limited
HACT	Harmonized Approach to Cash Transfers
HAP	Hydrogeological Assessment Project
HWTS	Household Water Treatment and Safe Storage
IWRM	Integrated Water Resources Management
JMP	Joint Monitoring Programme
JPMF	Joint Programme Monitoring Framework
MAF	Acceleration Framework
MDAs	Ministries, Departments and Agencies
MDGs	Millennium Development Goal
MICS	Multiple Indicator Cluster Survey
MLGRD	Ministry of Local Government and Rural Development
MoE	Ministry of Education
MWRWH	Ministry of Water Resources Works and Housing
NCWSSP	National Community Water Supply and Sanitation Programme
NESSAP	National Environmental Sanitation Strategy and Action Plan
NGO	Non-Governmental Organization
NORST	Northern Region Small Towns Water Supply Project
NTWGS	National Technical Working Group on Sanitation
ODF	Open-Defecation-Free
OVI	Objectively Verified Indicator
SC	Steering Committee
SHEP	School Health Education Programme
SSDP	Sector Strategic Development Plan
SWA	Sanitation and Water for All

SWAp	Sector Wide Approach
UAP	UNDAF Action Plan
UNCT	United Nations Country Team
UNDAF	United Nations Development Assistance Framework
UNDP	United Nation Development Programme
UN-Habitat	United Nations Human Settlements Programme
UNICEF	United Nations Children's Fund
UN-ISDR	United Nations Office for Disaster Risk Reduction
VIP	Ventilated Improved Pit latrine
WASH	Water and Sanitation and Hygiene
WATSAN	Water and Sanitation
WB	World Bank
WFP	World Food Programme
WHO	World Health Organization

1 EXECUTIVE SUMMARY

This project proposal is pursuant to the need to include water, sanitation and hygiene (WASH) as an urgent and complementary need in UN's overall support to disaster prone communities in the three northern regions of Ghana. It also contributes to the need for coherent vision and collective programming that the UN system seeks to achieve, in delivering as one, in support of key priorities of the Government's development agenda.

Lack of WASH facilities presents immense challenges to such communities, including the prevalence of water borne, vector borne and sanitation related diseases. This affects the health, productivity and livelihood of such communities, particularly women, children and the youth. Thus initiatives that aim to address and improve the WASH situation for people in disaster prone communities contribute significantly to address most MDGs.

The Government of Ghana has progressed in the development of the water and sanitation sector. This progress is adequately captured in key national and sector policies such as the GSGDA for 2011-2013 (to which the Ghana UNDAF is aligned), as well as Water policy, Environmental Sanitation policy and related strategy and implementation plans such as the National Environmental Sanitation Strategy and Action Plan (NESSAP), and the Integrated Water Resources Management (IWRM) Strategic Plan. An overall Sector Strategic Development Plan (SSDP) for WASH is under development to be the hub for implementing the Sector Wide Approach (SWAp) for WASH.

Within the above context, the overall objective of the project is to improve health and livelihoods in select disaster prone communities and schools by increasing access to good drinking water and proper sanitation facilities on a sustainable basis. Specifically the project will assess, identify and implement resilient WASH facilities and services for communities within the geographic scope of the project in the 3 Northern Regions, viz., Northern, Upper East and Upper West. The provision of services will target about 200,000 people in the 265 communities including about 50,000 school children in these communities.

The provision of services will be accompanied with the promotion of measures to ensure resilience of the facilities to climate related disasters, as well as measures to promote behavior change towards proper water, sanitation and hygiene practices. The capacities of relevant WASH National institutions and community structures will be strengthened to create an environment for better planning, delivery and sustainability of WASH services, and assure the full benefit to the beneficiary communities of the interventions.

The project proposal is conceived within the framework of the Joint UN programming approach. This approach is the collective effort through which the UN organizations and national partners work together to prepare, implement, monitor and evaluate the activities aimed at effectively and efficiently achieving the Millennium Development Goals (MDGs) and other international commitments. UN-Habitat, UNDP, UNICEF and WHO will be the UN Agency partners to collaborate with government institutions in the WASH sector as well as private sector and non-governmental organizations.

The Ministry of Local Government and Rural Development (MLGRD) will lead the coordination for the implementation of the Project in close collaboration with the Ministry of Water Resources Works and Housing (MWRWH) and the National Disaster Management

Organization (NADMO) who will be involved with aspects of the project relevant to their mandates on WASH and the management of disasters and emergencies. The Joint UN team's role will be to provide technical assistance, facilitation and funds management support.

The project will be implemented over a period of 3 years between 2014 and 2017. The total project budget to be solicited from DFATD amounts to Canadian\$ 19,787,404

2 CONTEXT AND SITUATION ANALYSIS

2.1 Background

This project proposal is pursuant to the need to include water and sanitation and hygiene (WASH) as an urgent and complementary need in UN's overall support to disaster prone communities in the three northern regions of Ghana. It is conceived within the framework of the Joint UN programming approach UN-Habitat, UNDP, UNICEF and WHO as the main UN Agency partners to collaborate with GoG partners on providing improved and resilient WASH facilities and services in disaster prone communities in the 3 Northern Regions. In line with the outcomes 4 and 5 of the UNDAF, this project also provides a framework for DFATD to partner with the UN team in this effort and to contribute to GoG's efforts towards the implementation of the Ghana Plan of Action for Disaster Risk Reduction and Climate Change Adaptation.

Consistent with Ghana's aspirations, the vision and collective programme of the United Nations Development Assistance Framework (UNDAF) for the period 2012-2016 seeks to advance a coherent vision for the UN system in support of key priorities of the Government's Development Agenda. The UNDAF aligns with the Ghana Shared Growth and Development Agenda (GSGDA) through four thematic areas¹ including infrastructure and human settlements development. WASH is an UNDAF outcome area under the infrastructure and human settlements development thematic area. The 2012-2016 UNDAF includes a key programme component on water, sanitation and hygiene to be implemented in the 5 most deprived regions (Central, Northern, Upper East, Upper West and Volta) of Ghana. The UNDAF Action Plan (UAP) puts some focus on the poorest regions of the country, in particular the activities of the Joint UN Office in Tamale, which focuses on the three northern regions, and includes support to disaster prone communities in these three regions.

Natural disaster occurrence in Ghana consists of droughts, epidemic outbreaks, floods, and wildfires. In the 3 Northern regions, disasters significantly impact vulnerable populations in disaster prone areas, and may lead to unnecessary losses of social and economic capital. In particular, recurrent flooding events, which are the most pervasive in terms of financial damages and numbers of people affected, usually result in the disruption of services from WASH facilities, which could lead to significant damages to property and trigger other emergency situations such as outbreaks of diarrhea, cholera, and other water related/borne diseases. The combination of these effects reduces the productivity of the population and the losses they suffer are immense and seriously affect their economic and social circumstances. These events tend to have devastating effects on the development of affected communities.

Having to ensure that when such floods occur the quality of water supply is not contaminated (during collection, handling, storage, and use) also presents immense challenges to the health of these communities. Rehabilitation costs are usually unaffordable and communities have suffered a drastic fall in their living conditions and opportunities for future development, pushing them further into poverty and deprivation.

¹ Food Security and Nutrition; Sustainable Environment, Energy and Human Settlements; Human Development and Productive Capacity for Improved Social Services; and Transparent and Accountable Governance -

The situation is further aggravated in those communities where there is a lack of WASH facilities and services. In such circumstances, the challenges include the prevalence of water borne, vector borne and sanitation related diseases as a result of poor drinking water quality and inadequate sanitation. Women, children and the youth suffer the most from the effects of this lack of access to WASH facilities and related services. Initiatives that address and improve the WASH situation for people in disaster prone communities contribute significantly to address most MDGs.

In a recent report², the National Disaster Monitoring Organization (NADMO) indicated that it had taken a census of people living in flood prone areas of the country, including the northern regions, and had allocated safe havens in these communities to prepare for the onset of the major rains.

The project will work in close collaboration with NADMO in this context, and contribute to WASH components with respect to prior preparations towards mitigating disaster events, make recommendations for interventions during such events, and implement WASH solutions that could be resilient to the effects in the disaster prone communities.

2.2 Development Context

The government of Ghana has embarked on various plans and strategies aiming at improving the living conditions of its citizenry. The Ghana Poverty Reduction Strategy (GPRS) of 2000 and the Growth and Poverty Reduction Strategy (GPRS II) of 2006 formed the basis of the policy framework for national development. In 2009 government initiated a process to formulate a medium term national development policy framework, Ghana Shared Growth and Development Agenda (GSGDA), 2010-2013, as a successor to the GPRS II.

The GSGDA is the current overarching policy framework for national development with the aim to achieve and sustain macroeconomic stability while placing the economy on a higher path of shared growth, and poverty reduction. The strategic direction is to lay the foundation for the structural transformation of the economy within the decade ending 2020. The process is to be underpinned by rapid infrastructural and human development as well as the application of science, technology and innovation.

It outlines seven thematic areas and has some focus on the environment with significant initiatives on Sustainable Natural Resource Management, Climate variability and change, and Human Settlement Development. Water, Sanitation and Hygiene, as well as settlement disaster prevention, are priority areas falling under the Infrastructure, Energy and Human Settlement Development thematic area.

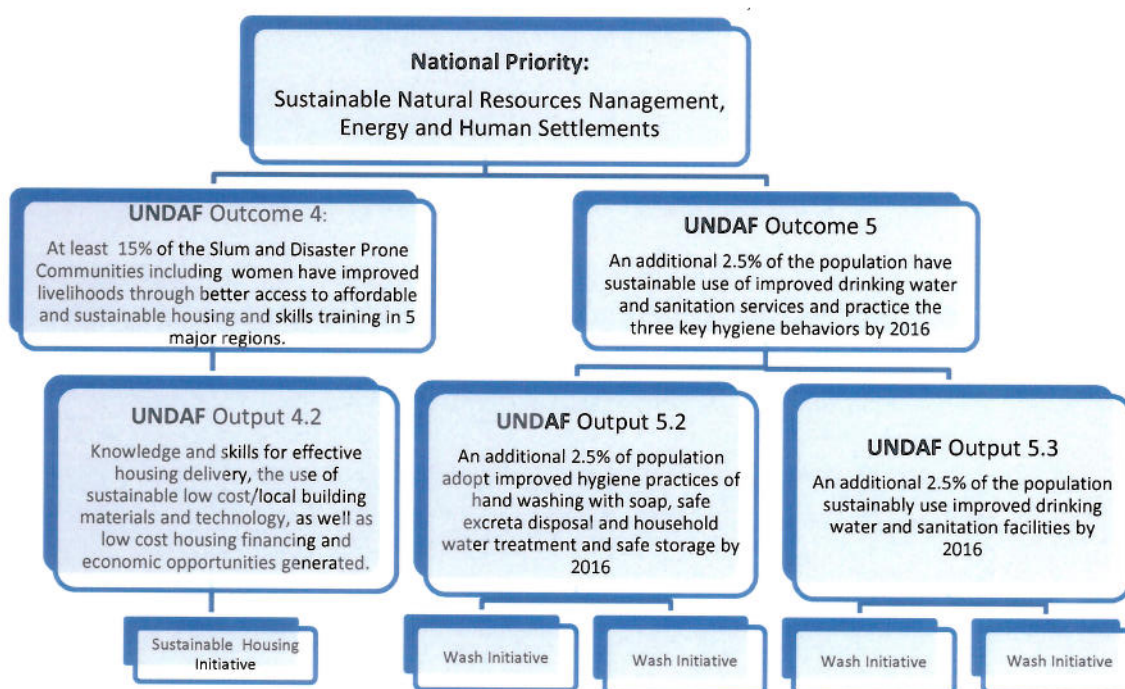
Plans and policies including budgets of the various MMDAs are expected to capture key policy objectives of the GSGDA for the respective years and to indicate clearly how such objectives are to be attained and most importantly how annual budgets and programmes of Government align with policy objectives.

² Report on the national platform for disaster risk reduction and climate change adaptation, May, 2013.
NADMO, Ghana

An analysis of the 2011 budgetary allocations by Isodec and UNICEF³, indicates that an estimated amount of US\$ 31.037 million as expenditure for the sanitation sector for 2011. This represents the highest allocation from the GSGDA to the sanitation sector for the periods between 2010 and 2013. This is an indication of an appreciable commitment on the part of Government in raising the required funding to improve sanitation outcomes in the country in the medium term. This could be a reflection of the fact that the GSGDA states that "the total economic cost of poor environmental management and sanitation is estimated at over 10% of Ghana's GDP"⁴

The same cannot be said of allocations to the water sector, where allocations in 2011 did not show any change in trend from previous years in funds expected from Government of Ghana. A chunk of allocation is donor financed and this accounts for 95 percent of overall allocation to the Ministry compared with a GOG contribution of 2.9 percent. This shows that Ghana's water sector is still donor dependent. However whilst GoG allocations for investments in 2011 dropped significantly compared to previous years, allocations expected from donor funding saw a jump of more than 300 percent. This highlights not only the country's heavy reliance on donor support for the sector but also a growing and deepening dependence.

Fig. 1 Results Chain: Sustainable Housing and WASH Initiatives.



³ The Ghana Shared Growth Agenda: an analysis of the economic policy and budget statement of the Government of Ghana - 2011 gaps and opportunities for women and children, May 2011

⁴ GSGDA Vol.1 p 41

The linkage between the National Priority on Sustainable National Resource Management, Energy and Human Settlements as set out in the GSGDA, and the UNDAF outcomes 4 and 5 and the related outputs for sustainable housing and WASH initiatives is shown in the chart in Fig. 2.

2.3 Disaster Risk Reduction in Ghana and Early Warning Systems

Disaster Risk Reduction (DRR) is an urgent and significant development issue in Ghana. In achieving Ghana's commitments under the Hyogo Framework for Action (HFA), UNDP has worked closely with the Government of Ghana (GoG), and in particular NADMO, to design a multi-sectoral integrated Plan of Action for DRR and Climate Change Adaptation (CCA) for 2011 – 2015.

Meanwhile, there are ongoing projects on DRR through support provided by various donor agencies (UK/DFID, Government of Japan/JICA), multilateral organizations (World Bank/GFDRR, UNDP), and civil society organizations (World Vision, Care International, etc.). However, there is a significant need and opportunity for a comprehensive and strategic support to enable DRR efforts to be implemented more effectively.

As a follow up to the Ghana Plan of Action for DRR, efforts are being made to mobilize funds to actualize the Plan of Action. A key component of the Action Plan is to build capacities within the country to reduce disaster risk by putting in place an integrated early warning system that is both scientific and people entered. UNDP is working with GoG and in approaching the Norwegian Government for support in this regard. NADMO will be the key actor, while the implementation will build upon partnership with non-government actors, particularly with community-based NGOs and universities.

2.4 Natural Disasters and WASH in Ghana

A national strategy on WASH in Emergency Preparedness and Response Plan (EPRP), currently being developed, refers to a report by UN-ISDR in 2013 that shows that from 1980 until 2010, 29 disasters occurred in Ghana, killing 1133 people with an average of nearly 37 people per year. The Natural disaster occurrence in Ghana consists of epidemic outbreaks, droughts, floods, and wildfires. Epidemic outbreaks lead the natural disaster occurrences with 14 events that claimed 65.8% of the lives lost, followed by floods with 13 occurrences and 33.9% of lives lost.

This strategy for WASH in EPRP is intended to give better direction and guidance on the preparedness activities, implementation of WASH emergency response after a disaster, rapid assessment, key WASH interventions in emergencies, as well as longer-term development and rehabilitation programmes after the disaster event. Hence the transition between emergency and long-term development programme can be smoothly planned.

The WASH in EPRP document will consist of description of the water, sanitation and hygiene (WASH) systems, emergency scenarios, mapping of hazards, potential disaster and emergencies, management decision to minimize further risk caused by various emergencies, and finally reduction of the risk to the tolerable level by comprehensive WASH management decision.

It is to be noted however, that in terms of financial damages and number of people affected by disasters, flooding claimed the highest financial damages and affected the most people. Furthermore, and as indicated in section 2.1, floods in northern Ghana, which is drained by the Volta River System (White Volta, Black Volta and the Oti rivers), have devastating effects on the development of disaster prone communities in the 3 regions. In the foregoing, some specific focus is put on flood hazards in the Volta Basin that affect the 3 Northern Regions.

2.4.1 Flood Hazards in the Volta Basin

The Volta river basin drains about 70% of the total area of Ghana and provides water for domestic, industrial, and hydroelectric purposes. The three major tributaries of the Volta river (White Volta, Black Volta and Oti) which drain the three northern regions substantially decline in volume during the dry season. However, during years of torrential rainfall, these tributaries tend to burst their banks causing floods in nearby villages, damaging livelihoods and putting lives at risk.

According to the United Nation Disaster Assessment Coordination Team⁵, the flood event of 2007 in the three northern regions of Ghana (Upper West, Upper East and Northern Region) claimed 18 deaths and nearly 260,000 people were affected. Damage caused by the floods included the destruction of basic infrastructure, houses, water supply facilities and loss of crop farms and livestock.

An assessment of the state of flooding in the three northern regions of Ghana for the period 1970 - 2009⁶ showed high disparities within the regions. The Upper East region recorded the highest frequency followed by Upper West, and the Northern Region.

In the 3 regions, flooding is due to high intensity short duration rains and spillage from upstream dammed reservoirs. The effects are generally along the flood plains of the major rivers and tributaries of the White Volta. Annex 1 highlights the severity and effects of flood events in the region during the period 1997-2009.

In view of the floodings over the 2007-2010 periods, a White Volta Flood Hazard assessment project (supported by the World Bank) was developed and hosted by the Water Resources Commission (WRC) in 2012. The assessment covered the genesis of floods of the White Volta, the exposures of various assets and communities to floods, the effectiveness of structural and non-structural measures to reduce the flood impacts, and an operational flood forecasting system for the White Volta from the border with Burkina Faso to the Volta Lake.

In the meantime it was assessed that communities along the White Volta that might be at risk of flooding are: Zanloo, Dibisi, Village K6, Bulbia, Kunkwa. Communities along the Sisili-Kulpawn river that might be at risk of flooding are: Sakpaba, Buguyinga, Jadima/Djardema, Gbima, Kuuba, Yagaba, Wiasi, Kandeng, Dalaasa, Gwedembisa, and Bazeesa. Fig. 2 below shows an example of a food risk map for the Volta at Yagaba.

⁵ Joint Assessment report from the Inter-Ministerial Disaster Relief Committee United Nations Disaster Assessment Coordination Team.

⁶ Climate Change, Water and Disasters: Perspectives from the three Northern Regions, Prepared by Delali B. RC Climate Change Assessment Series No.1, 2010



Fig. 1: Example of a Flood Risk Map for the White Volta at Yagaba

This assessment result however needs to be ground truthed, and the Water Resources Commission is in the process of undertaking such an activity to ascertain the situation, and to further strengthen the management of floods in the Volta basin through the Disaster Risk Management (DRM) country plan as a follow up to the White Volta Hazard Assessment and early warning system. The components of the planned follow up project include to:

- i. Improve the Flood Early Warning System for the Volta for more accurate flood forecasting information.
- ii. Enhance data sharing among relevant institutions for more accurate flood forecasting and real time information provision.
- iii. Sustain and increase technical capacity of the WRC, Hydrological Services Department (HSD), and Ghana Meteorological Agency (GMet) for flood forecasting.
- iv. Make available detailed flood risk information to the district assemblies for district planning.
- v. Communities in the White Volta Basin are timely and effectively informed about flood forecasting information, using tailored communication techniques.

NADMO sources refer to 265 communities in 21 districts with a population of about 432,000 people as being prone to flooding from spills from the Bagre Dam in Burkina Faso. This is made up of:

- 77 communities in 7 districts (West Mamprusi, Savelugu Nanton, Kumbungu, Tolon, Gonja North, Central Gonja and West Gonja) with a population of 155,000 people in the Northern Region;

- 57 communities in 7 districts (Bawku-East, Bawku Municipality, Talensi, Nabdam, Bawku-West, Binduri and Pusiga) with a population of 105,000 in the Upper East Region and
- 131 communities in 7 districts (the Lambushie-Karni, Sisala West, Wa East, Wa West, Wa Municipality, Nadowli and Jirapa districts) with a population of 172,704 in the Upper West Regions

2.5 Review of Current WASH Status

Over the past few years the Ghana living Standard Survey (GLSS), the Ghana Demographic Health Survey (GDHS), and the Multiple Indicator Cluster Survey (MICS) series have put some focus on water and sanitation statistics as it became clearly evident that lack of access to basic sanitation and water is contributing mostly to the health burden of poor people and costs to the health delivery system. The underachievement against the Millennium Development Goal (MDG) for sanitation means that more focus is now on sanitation and this is given adequate high-level advocacy support. Water, sanitation and hygiene are reflected in the National Environmental Sanitation Policy and National Water Policy as priorities.

2.5.1 Water Supply Coverage

Available data from the MICS 2011 indicates that the proportion of the Ghanaian population that uses improved drinking water had increased significantly from 56% in 1990 to an average rate of 79.3% in 2011⁷. This suggests that Ghana has already achieved the 2015 MDG 7 target (set at 78 percent of the population with access to improved drinking water). However, wide variations exist between urban and rural areas with 90.7 percent coverage in urban areas and only 68.6 percent in rural areas.

The source of drinking water for the population varies strongly by region. The key difference between northern Ghana and Ghana as a whole is that there is a much higher reliance on boreholes for drinking water in the north, whereas piped water is much more common in terms of the national average. In Upper East and Upper West, the most important source is the tube well or borehole constituting 65 percent and 70 percent respectively. In Northern region, a significant percentage of the population rely on river or stream water (an unimproved source) as their main source of drinking water and about 10 percent of the population in the Northern region depend on water from either dam or lake or pond or canal or irrigation for drinking.

The use of improved drinking water increases with educational level of the head of household: from 72 percent for those with no education to 92 percent for those with secondary or higher education.

With regards to wealth quintiles, about 92 percent of the population in the fourth and fifth wealth quintiles use improved source of water for drinking but only 56 percent of the

⁷ GHANA Multiple Indicator Cluster Survey (with an enhanced Malaria Module and Biomarker), 2011

population in the poorest quintile get the opportunity to use improved sources of water for drinking.

2.5.2 Sanitation Coverage

The MDGs and the WHO / UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation classify households as using an unimproved sanitation facility if they are using otherwise acceptable sanitation facilities but sharing a facility between two or more households or using a public toilet facility. This position is similar to that taken by the Government of Ghana in the revised Environmental Sanitation Policy (2010) and the National Environmental Sanitation Strategy and Action Plan (2010) in which a clear distinction is made between household toilets for domestic use, and public toilets for use at public locations. Improved sanitation facilities for excreta disposal include flush or pour flush to a piped sewer system, septic tank, or latrine; ventilated improved pit latrine, pit latrine with slab, and composting toilet.

Taking into account this definition, the 2011 MICS shows that Ghana’s improved sanitation coverage is 15 per cent and nearly 1 out of 4 households (22.9%) practice open defecation (ODF) or have no toilet facility (Fig. 2). The incidence of ODF is more pronounced in rural areas (35%) than urban areas (10%), and the practice is more common among the poor and also those with relatively lower levels of education.

Regional disparities exist with residents of Northern, Upper East and Upper West regions less likely than populations in other regions to use improved facilities. For example, in Upper East region, only 10 percent of the population use improved sanitation facilities, and the highest cases of open defecation (71.1 - 88.6 per cent) occur in the three Northern Regions (Fig. 3).

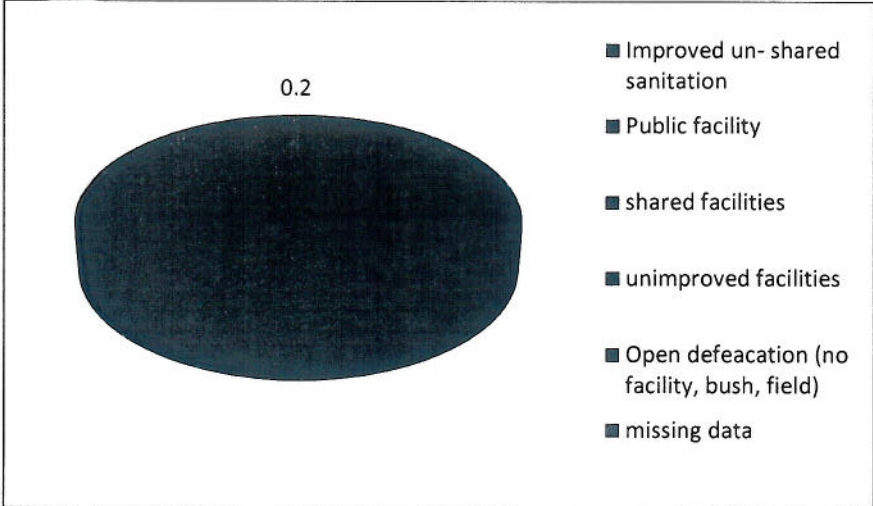


Fig 2: Per cent distribution of household population by use of facility (MICS, 2011)

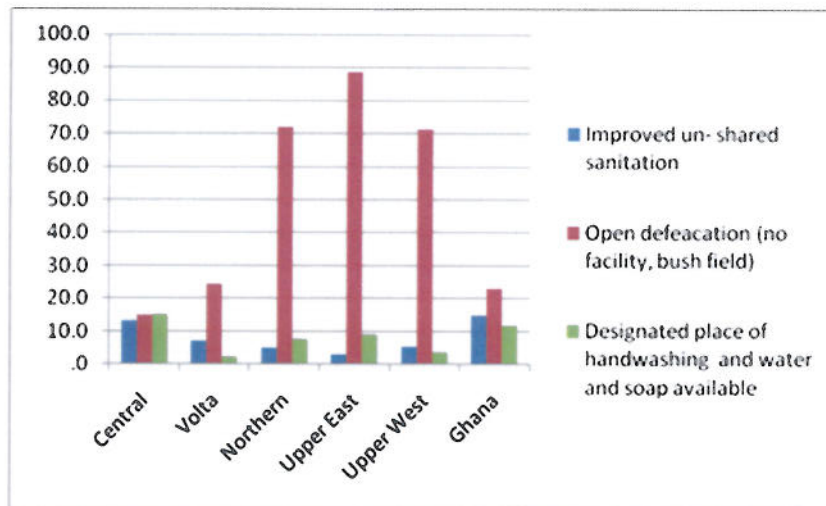


Fig 3: Sanitation practice per region in Ghana (MICS, 2011)

The MICS 2011 results also show that the use of improved sanitation facilities is strongly associated with wealth and educational level of head of households. There is also profound difference in specific facilities between urban and rural areas. In rural areas, the population is mostly using ventilated improved pit (VIP) latrine, pit latrines without slabs, or simply have no facilities. In urban areas, the most common facilities are flush toilets with connection to a sewerage system or septic tank (26%) and use of ventilated improved pit (VIP) latrine (40%).

The same pattern is observed in the case of the education level of the head of the household, where the percentage of household members practicing open defecation decreases with educational levels. In terms of regional distribution, open defecation is mostly practiced in Upper East (89%), Northern (72%) and Upper West (71%).

These poor sanitation and hygiene conditions are a special challenge in disaster prone areas such as the three Northern Regions of Ghana where flood disasters are a common occurrence. Disease outbreaks after floods are common in such conditions of poor sanitation and hygiene.

The practice of hand washing with soap is equally low in the country with only 23.8 per cent of the population practicing hand washing with soap when the proxy indicator of there being a designated place for hand washing is considered (Fig. 4). The level of practice reduces to 11.9 per cent when the proxy indicator of there being water and soap available at the designated place is considered. (MICS, 2011)

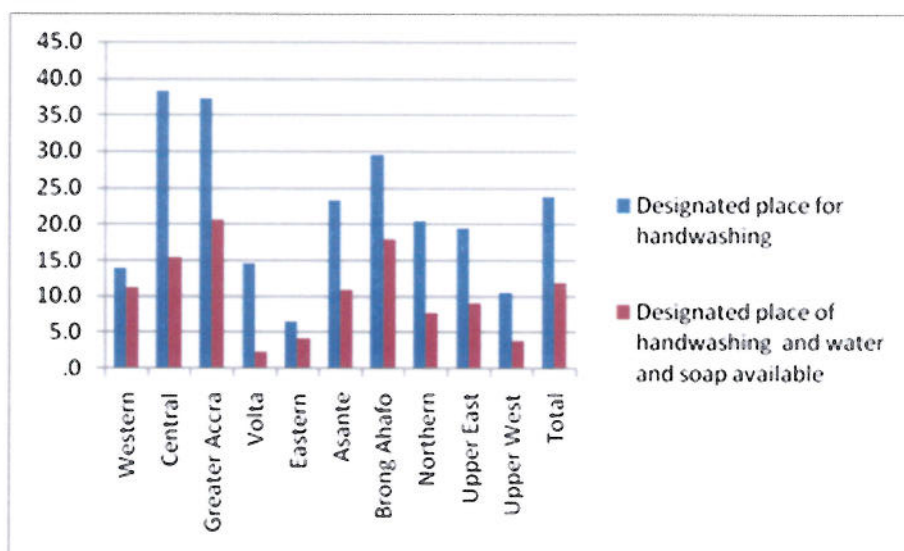


Fig. 4: Hand washing practice per region in Ghana (MICS, 2011)

2.5.3 WASH Coverage in Schools

According to the Ministry of Education⁸, in 2008, a total of 2,990,773 pupils in 13,247 public primary schools in Ghana shared 6,363 toilets and 8,347 water facilities. In the Northern region in particular, about 30% of schools do not have any form of latrine, compelling all pupils in these schools to defecate in the open. Of the 70% that had some form of a latrine, 83% did not have hand washing facilities, a situation which further compromised hygiene practices in the school. Also, existing toilet facilities mainly comprised one block with privies allocated to boys, girls and sometimes teachers, thereby compromising privacy especially for girls. Adolescent girls are particularly inconvenienced and commonly chose not to go to school when they were in their menstrual period.

2.6 National Policy / Strategic Interventions

The Government of Ghana is in the process of developing a strategy on WASH in Emergency Preparedness and Response Plan (EPRP). A draft of the strategy is currently under review, and is intended to give better direction and guidance on the preparedness activities, implementation of WASH emergency response after a disaster, rapid assessment, key WASH interventions in emergencies, as well as longer-term development and rehabilitation programmes after the disaster event. Hence the impacts of disasters can be reduced as communities become more resilient and transition between emergency and long-term development programme can be smoothly planned.

⁸ Ministry of Education, 2008; Education Management Information System (EMIS). Data accessed in November 2009

The strategy document when completed will consist of a description of the water, sanitation and hygiene (WASH) systems, emergency scenarios, mapping of hazards, potential disaster and emergencies, clear roles and responsibilities in response cooperation, coordination and information management, management decisions to minimize further risk caused by various emergencies, and finally reduction of the risk to the tolerable level by comprehensive WASH management decision.

On the specific Water and Sanitation Sector, Ghana has progressed in the development of key sector policy and strategic instruments. Notable among these are:

- The National Water Policy and the National Environmental Sanitation Policy with related policies in the health, education and environment sectors.
- The National Environmental Sanitation Strategy and Action Plan (NESSAP) with its district equivalent, the District Environmental Sanitation Strategy and Action Plan (DESSAP);
- The Integrated Water Resources Management (IWRM) Strategic Plan;
- National Strategy and Implementation model for Scaling up Community and School Led Total Sanitation and Hygiene;
- Strategy for Implementing Household Water Treatment and Safe Storage (HWTS); and
- Water Safety Framework / Community Water and Sanitation Regulations 2011
- The School Health Education Programme (SHEP) strategy with a WASH in Schools component.

Sector Investment Plans have been developed for Urban Water Supply, Rural and Small Towns Water and Sanitation and a consolidated one for the urban and rural. A Strategic Environmental Sanitation Investment Plan (SESIP) has also been finalized.

2.6.1 Sector Strategic Development Plan

The development of a Sector Strategic Development Plan (SSDP) will serve as the hub for implementing the Sector Wide Approach (SWAp) for the WASH sector. The project will contribute to support the development of key systems and processes necessary for an effective SWAp. These include issues of capacity strengthening, monitoring and evaluation, knowledge management and advocacy which are vital to the sustainable delivery of improved WASH services in Ghana. The project will also assist with the establishment of a clear link between upstream (policy, advocacy and coordination) and downstream (community level delivery of services) work and support the generation of lessons for improving these upstream and downstream interventions and upscaling and mainstreaming lessons.

2.6.2 MDG Acceleration Framework for Ghana

The poor sanitation and hygiene situation as described in section 2.4.2 needs to be emphasized when compared to the Millennium Development Goal (MDG) target for

sanitation for Ghana which is 54 Per cent. In an effort to address this situation the Government of Ghana (GoG) has developed the MDG Acceleration Framework (MAF) for Sanitation with the objective of accelerating efforts to remove the most critical bottlenecks affecting sanitation improvement in the country.

The MAF was developed by MLGRD in collaboration with development partners particularly the United Nations Country Team and other stakeholders using the National Technical Working Group on Sanitation (NTWGS) as a platform. The Country Action Plan (CAP)⁹ for the MAF identifies three critical interventions for scaling up sanitation improvements including scaling up Community Led Total Sanitation (CLTS), implementing decentralized treatment/disposal systems incorporating harvesting and re-use of by-products (e.g. biogas) and rolling out a micro-finance credit scheme to support household latrine construction. These interventions are mutually reinforcing as the lack of effective treatment and/or disposal of excreta in any facility renders the facility "unimproved".

The lack of sustainable credit was identified as a constraint hindering households to own improved sanitation facilities when they go beyond "triggering" by CLTS agents, especially poor households who want to invest "up" on the sanitation ladder¹⁰. To overcome this constraint, the rural sanitation model is built on CLTS as the main demand side intervention in Ghana and micro-finance and sanitation marketing as the main supply-side intervention.

Likewise the provision of sustainable credit will assist poor urban households to invest in clustered sanitation facilities that if appropriately linked to anaerobic digestion systems, and with effective disposal measures in place, will render them "improved".

2.6.3 Education Strategic Plan and WASH

The importance of water and sanitation is also underlined in the Education Strategic Plan (ESP) 2010-2020 of the Ministry of Education (MoE). The ESP sets targets for ensuring that all basic education schools are rehabilitated in terms of safety, sanitation and health by 2015 and 75% of schools have access to water by 2020. The MoE's Annual Education Sector Operational Plan (AESOP) 2011-2013 aims at the completion of potable water and sanitation facilities for 4,600 schools by 2013.

Furthermore, in the standards for Child Friendly Schools (CFS), water, sanitation and hygiene (WASH) are important interventions making contributions towards encouraging the enrolment, retention and learning achievement for girls. Making schools both child and girl-child friendly contributes to this effort.

Specifically, under the Basic Education *thematic area on Socio-humanistic* issues with the policy objective to Improve equitable access to and participation in quality education at the

⁹ Ghana MAF – Country Action Plan for Sanitation: Go Sanitation Go!, August 2011

¹⁰ A WHO/UNICEF Joint Monitoring Programme (JMP) categorization into 4 groups as a way of presenting sanitation access figures by disaggregating and refining the data on sanitation and reflecting them in "ladder" format. This allows the JMP to report on a more nuanced picture of access that goes beyond the improved/unimproved dichotomy. The four categories are: population with no sanitation facilities at all; population reliant on technologies defined by JMP as "unimproved"; population sharing sanitation facilities of otherwise acceptable technology; and population using "improved" sanitation facilities

basic education level, the School Health Education Programme (SHEP) is responsible for implementing the strategy to ensure that all Basic Education schools meet national norms in health, sanitation and safety. The indicative activities to achieve the WASH in schools component of this objective include:

- Revising and distributing national guidelines on minimum standards for health, sanitation and safety for Basic Education institutions at all levels.
- Provide adequate safety, sanitation and basic health care facilities and access for children with disabilities, in accordance with national guidelines.
- Ensure that there is potable water within 250 m of BE school sites and that there are adequate sanitation facilities on site (especially for girls and female teachers/SMC members) at all institutions.

A complementary consideration is that if sustainable access to water and sanitation is to be achieved then the consumer (both individually and collectively) has to see that it is in their own interests to alter their value system. This can best be achieved in the long term through appropriate training and sensitisation measures that are designed to transform behavior at every level. It is here that the Human Values-Based Education (HVBE) approach, which seeks to impart information and facts on water, sanitation and hygiene through focusing on the inherent values, can play a major role. It is an approach that has potential at any level, from affecting the behaviour of young children at primary school to changing attitudes in small local communities. The HVBE technique was championed by UN-Habitat and has been mainstreamed into the primary school curricula in Ghana.

3 STRATEGIES AND PROPOSED JOINT PROGRAMME

3.1 Background and Context

The UN Joint programming approach through the UNDAF process provides specific benefits and features that could complement national processes in efforts to achieve national priorities and international commitments, including the MDGs, and humanitarian obligations, among others.

A number of partners including DFATD, the World Bank, EIB, AfD, UNDP, UN-Habitat, UNICEF, CWSA, GWCL, WaterAid, Plan International, and others have been involved with (or are currently involved with) programmes/projects on WASH (or aspects of WASH) in the 3 northern regions. Annex ... highlights some of these programmes/projects.

This project will take due cognizance and appropriately draw on lessons from these other programmes/projects in the area, in particular the ongoing UNICEF programmes in the region, the GoG/ DFATD NORST project and the UNDP/UN-Habitat projects briefly described below. This is to avoid duplication of efforts and resources.

3.1.1 UNDP/UN-Habitat Sustainable Housing and Livelihood Initiative

As part of support to disaster prone communities in northern Ghana, UNDP in collaboration with UN-Habitat is partnering a local NGO, Housing the Masses, to implement the Sustainable Housing Initiative and Sustainable Livelihood Initiative. The project seeks to improve the quality of building construction through studying conditions in communities, developing sustainable building technology based on their local materials and training of community members, especially youth and women, in the construction of buildings to resilient to water and fire related disasters. The project also designs and implements alternative livelihoods improvement project that complements the otherwise farm based economic activities in project communities. Under a pilot initiative four communities namely; Kpadjai (Kpandai District), Paga (Kassena Nankana West district), Malzeri (Yendi district) and Wechiau (Wa West district) are being supported to acquire skills and technology to develop improved housing and social facilities and improve their livelihoods.

A builder's cooperative has also been established in Malzeri in the Yendi district and members trained in the use of compressed stabilized earth bricks (CSEB) as well as various construction techniques. To enhance the livelihood of the community a resource center has also been constructed by the builder's cooperative to serve as a training and production center for the processing of shea nuts and groundnuts and the rearing of small ruminants and guinea fowls. Building on the successful implementation of these products, the UN seeks to deepen and expand these initiatives to include water and sanitation as an urgent and complementary need in these communities and to scale –up the support to other disaster prone communities in the three northern regions.

This project will take advantage of this initiative to start off the component activities in communities where the initiative is being undertaken. In particular it is envisaged to explore possibilities for taking advantage of the builders cooperative that have been established to roll out the micro finance for sanitation under the project

3.1.2 UNICEF WASH Programmes in the 3 Northern Regions

UNICEF is currently implementing a number of WASH programmes, much of which is directly relevant to this project. These programmes span across national advocacy and policy support for WASH in schools, WASH in emergencies and upscaling of WASH to significant on-the-ground delivery of water supply, sanitation, hygiene behavioural change and infrastructure and WASH in schools programs in the 3 northern regions.

An example is the Enhanced Water, Sanitation and Hygiene (WASH) Services in Schools and Communities in Ghana (2012-2016) in collaboration with the Government of Ghana and with funding support from DFATD. The initiative is designed to contribute to improved health and well-being of children in schools, and of women and men in communities, in the Upper East, Upper West, Northern, Volta and Central regions (the five most deprived regions) of Ghana.

The main beneficiaries are communities in 10 districts and specifically children and youth in 150 basic schools (i.e. primary and junior high). Through the delivery of water, basic

sanitation and hygiene (WASH) services, the project aims to enhance WASH service uptake and sanitation practices among the beneficiary population.

The initiative also aims to strengthen relevant national institutions and monitoring and evaluation systems to provide an enabling environment for better planning, delivery and sustainability of decentralized water, sanitation and hygiene services in Ghana.

Lessons from UNICEF's programmes range from political engagement at all levels, through increasing government efficiency in delivering WASH outcomes, to engaging communities and children to empower themselves to deliver WASH outcomes.

3.1.3 GoG/ DFATD: Northern Region Small Towns Water Supply Project (NORST)

The goal of the project is to increase access to sustainable water and sanitation services in northern Ghana. This in turn is expected to lead to an increase in the availability and consumption of sustainable, locally managed, potable water. Drinkable water supply and sanitation services are expected to be established in up to 20 small towns in the Northern Region of Ghana. NORST implementation is being led by the Government of Ghana, with technical assistance provided by Cowater International Inc.

The project is expected to achieve an increase in the number of people using and benefiting from reliable potable water and sanitation, work with stakeholders at regional, district, and sub-district levels to effectively fulfill their respective roles in delivering potable water and sanitation services; and install water supply and sanitation facilities to adequately supply communities.

3.2 Proposed Joint Programme

3.2.1 Justification for the Project and DFATD Funding Support

Understanding and responding to floods require a comprehensive view of intervening environmental, social and economic factors. This calls for joint and multi-sectoral approaches by all relevant national agencies, as well as the development of integrated support strategies by United Nations agencies with expertise on the subject, development partners, NGOs and the civil society.

Although the precise nature and extent of a change in climate and its relation to the flood occurrences in the Northern regions of Ghana are not yet fully certain, planners and policy-makers responsible for the water and sanitation sector need to start acting now to build capacities within the country to reduce disaster risk by putting in place an integrated early warning system that is both scientific and people-centred¹¹ in order to build for resilience and support adaptation to climate change in the sector.

¹¹ Project proposals -Community Resilience through Early Warning (CREW), UNDP

Ghana still faces a situation where relatively manageable hazards impact the vulnerable population as large-scale disasters, resulting in unnecessary loss of social and economic capital. In particular, some disaster events lead to the disruption of services from WASH facilities as a result of degradation or damage (e.g. damages caused by inundation in the case of flooding). The degradation and/or damage to these facilities after such disasters, increases the risk and vulnerability of the affected population, especially the most vulnerable groups in the communities.

As indicated earlier, disruptions in WATSAN services (or lack of WATSAN) facilities, as well as poor hygiene practices present immense challenges to disaster prone communities. Such a situation could trigger other emergency situations (such as outbreaks of diarrhea, cholera, and other water related/borne diseases) and could affect the livelihood and health of the community members, (particularly women, children and the youth) and result in low productivity. Furthermore, this could lead to increased pollution into water bodies (such as rivers, groundwater sources) and the environment in general.

However, disaster events could provide opportunities for change, and the recovery phase of WATSAN service provision can also be an opportunity to seek durable solutions to old problems. Recovery of infrastructure after a disaster in affected communities helps reconnect the populations in these communities. Furthermore, their participation in the re-establishment process contributes to generate a spirit of recovery and control of their future in the minds of the affected population. Thus the recovery and renewal of WASH infrastructure and services, requires that other WASH sector elements such as operation and maintenance, re-establishment of regulation for management purposes and on-going monitoring to ensure that recovery is effective are taken into account.

The role of women and young girls in the WASH sector is well known in general (water transporters, management of household health and hygiene) but the degree and extent of their roles in decision making or influencing decisions can vary from context to context, so each assessment would be done with sufficient preparation. Also, the role of men in the processes should also be assessed.

Thus the rapid recovery of access to WASH services after a disaster is one of a suite of actions essential to stabilizing the health of populations and ultimately assisting communities return to a normal existence. WASH in schools also significantly reduces hygiene related diseases, increases student attendance and learning achievement and contributes to achieving dignity, gender equity and improved quality of life. Initiatives that address access to water and sanitation services to people in disaster prone communities particularly women and youth therefore contribute significantly to address MDGs 1, 2, 3,4,5,6 and 7.

The above provides a sound justification of the urgent need to develop resilient WASH facilities in the disaster prone communities in order to stabilize the health of the populations, encourage the swift resettlement of residents where necessary, and ultimately assist the communities return to a normal existence during disaster events.

This proposed project is for the consideration of DFATD for a targeted support to GoG, with support from UN partners in delivering on key components of the GSGDA as it relates to the wellbeing of disaster prone communities and the resilience of their WASH infrastructure. This is in order to forestall situations where recurrent floods and droughts can undermine

the significant investments and improvements on WASH facilities and services made through the development assistance process, including DFATD’s development assistance in the 3 Northern regions.

3.2.2 WASH Solutions and Resilience Considerations

“Resilience” in the WASH context refer to the ability of WASH systems¹², to withstand and recover from ‘damaging events’. A WHO technical report¹³ assessed the main technologies used for water supply and sanitation to determine resilience. The solutions were categorized as to whether resilience was high (resilient to most possible climate change situations), medium (resilient to a significant number of possible climate change situations) or low (resilient to a restricted number of climate change situations). Fig 4 shows the resilience matrix from the report.

For the water supply technologies, tube wells were found to have high resilience, with protected springs having a medium resilience. Piped water, household rainwater collection and dug wells were considered to have low resilience as technologies.

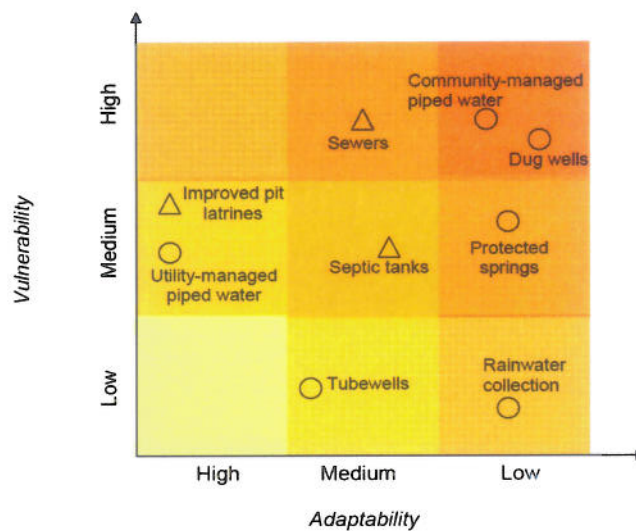


Fig.4: Resilience matrix: vulnerabilities and adaptability of improved water supply and sanitation facilities under conditions of increased rainfall

Management approaches were found to be critical to resilience for water supplies. Utility-run piped systems were found to have high resilience. By contrast, small community managed systems had low resilience. Dug wells and household rainwater collection should be considered primarily as interim or supplementary water supplies. Decentralization of water supply infrastructure will be important to hedge drought and flood risks, but should

¹² Including software and hardware components

¹³ Vision 2030: The resilience of water supply and sanitation in the face of climate change, WHO, 2010

be placed within a context of much stronger ongoing central support. Targets should also focus on increasing access for low-income groups to appropriate levels of WASH facilities and services.

The report also notes that for sanitation, decentralization of technology and management appears likely to be more resilient, although some central supporting functions will be needed; there is still a need to carry out and identify local climate risk appropriate technologies that could be used. Water supply coverage is likely to be dominated by piped supplies and tube wells. Pit latrines tend to dominate the increase in sanitation options.

The above findings from the WHO technical report will, among others, be contrasted with the realities of the context in 3 Northern regions, and in particular in flood emergency situations. In these 3 regions, reliance is mainly on boreholes for drinking water. As indicated in section 2.4.1 the most important sources in Upper East and Upper West is the tube well or borehole constituting 65 percent and 70 percent respectively. In Northern region, a significant percentage of the population rely on river or stream water (an unimproved source) as their main source of drinking water and about 10 percent of the population in this region depend on water from either dam or lake or pond for drinking.

Improved sanitation facilities for excreta disposal include ventilated improved pit latrine, pit latrine with slab, and composting toilet, as well as flush or pour flush to a septic tank in some instances, particularly in some small and large towns. The project will work with the established decentralized structures involved in the delivery of water supply and sanitation services in assessing the resilience of systems and their appropriateness for the communities, and to document those that effectively build resilience.

3.2.3 Criteria to identify and select beneficiary districts/communities

A preliminary list criterion for identifying and selecting districts/communities to be the focus of the planned interventions under the initiative include (in no order of priority):

1. Potential risk of flooding of the district/community
2. Communities yet to benefit from proper WATSAN interventions
3. Incidence of Poverty
4. Health status of the district/community
5. Female Headed Households
6. Households Headed by uneducated

A short description of each of the above preliminary areas to inform the criteria is given in Annex 2.

4 SCOPE OF INTERVENTIONS

The envisaged actions under the initiative will be in line with the relevant National strategies and plans on disasters in human settlements, water supply and sanitation. A solid base-line study will be undertaken to establish the status of the prevailing situation on the ground, identify any potential constraints, and to assess preliminary elements for consideration to

ensure resilient WASH systems appropriate for the context of the disaster prone communities in the three Northern Regions. The baseline study will also include a preliminary assessment of the state of preparedness of the communities and contributions that the project could provide for emergency preparedness and response in order to minimize future risks and vulnerability. The following will be undertaken:

1. Facilitate the process for agreeing on criteria for the selection of beneficiary disaster prone communities and organize the selection in consultation with the regional/district authorities and communities
2. Undertake a baseline study of the 3 Northern Regions (including consultations with districts and communities) to collect relevant baseline information on disaster preparedness and WASH status of the beneficiary communities disaggregated by gender. This will involve:
 - information collection on disaster preparedness from a WASH perspective in the beneficiary disaster prone districts/communities;
 - an assessment of the state of WASH infrastructure and services in the communities and schools and establishment of their resilience characteristics (where they already exist)
 - a preliminary assessment of the characteristics of the safe havens identified by NADMO in the disaster prone communities
3. Identify resilient strategies and technologies appropriate for the communities in the 3 regions including emergency WASH kits and logistics for periods during disasters
4. Based on the information from the baseline study and the identification of resilient strategies and technologies, make recommendations for resilient WASH solutions for locations (including the safe havens to be agreed on jointly with NADMO) that require resilient technology options based on the terrain characteristics of these locations;
5. Establish a database on the services and prepare inventory of the WASH needs focusing on resilience and the specific circumstances of vulnerable, marginalized and excluded groups;
6. Review minimum standards for WASH interventions and indicators with due focus on resilience.
7. implement resilient WASH facilities and systems in schools, communities, and households in the beneficiary communities including:
 - the rehabilitation/renewal (*or recovery as necessary*) of existing WATSAN facilities and services
 - the installation of appropriate and resilient systems in communities, schools and safe havens (where there are no systems)
8. Appraise the potential capacity needs and awareness gaps in the communities and develop plans for:

- measures to strengthen the capacity of the district WASH teams as well as measures for skills transfer to Community Water and Sanitation Management Teams to address issues of management of the improved water and sanitation facilities and services, as well as hygiene promotion¹⁴;
 - in collaboration with SHEP and the decentralized MMDAs undertake hygiene education and awareness promotion programme and values based components in schools and communities to enhance the health benefits of the interventions to be undertaken;
 - work with NADMO on planning to determine appropriate response strategies at community and household levels
 - work with NADMO on sensitization campaigns in order to enhance the preparedness of the communities to flood disasters and other emergency events;
9. Institute measures to ensure post project sustainable management and operations of the resilient WASH facilities to be made available from the project interventions. This may be in the form of a sustainability protocol between the MLGRD as the lead GoG institution and the District authorities, to be monitored over a period after the project has been completed. The necessary resources to operationalize the sustainability protocol should be considered.
10. Incorporate strategies and approaches into the National and Regional EPRPs and other strategic documents

All activities will fully involve the beneficiary communities. Implementation will be by the relevant MMDAs in close collaboration with the UN partners who will provide appropriate oversight of the process. The identified interventions should be targeted to achieve solutions such that the resultant WASH infrastructure and services are resilient to flood occurrences (at the minimum), with due cognizance of the issues discussed in section 3.2.2.

4.1 Sanitation Interventions

4.1.1 CLTS for sanitation marketing to create demand

Under the MAF, the key interventions identified for dealing with basic sanitation from the national policy and strategy documents are grouped as "enabling elements" and "levels of service"¹⁵ These two categories broadly correspond to "software" and "hardware" measures and/or activities.

The enabling elements are an integral part in the delivery of the required levels of service, and the implementation of CLTS, as part of enabling element is expected to create demand

¹⁴ This will include succession planning, M&E and documentation, creating community awareness on financial sustainability mechanisms, etc.

¹⁵ see NESSAP, Chapter 5

for and enhance accelerated coverage for home latrines to meet the needs of different housing segments at different rungs of the sanitation ladder.

4.1.2 CLTS Implementation in the 21 Disaster Prone Districts

It is expected that CLTS implementation will be undertaken in close collaboration with the ongoing UNICEF programme covering five regions, but will focus on the 21 districts of the three regions identified by NADMO as being prone to disasters. Care will be taken to ensure that the effects of open defecation activities of the communities in these flood prone areas do not lead to subsequent disease outbreaks that impact on their health status.

The focus will be on declaring 265 communities Open Defecation Free. CLTS implementation also includes promotional activities on hand washing with soap (HWWS). The successes in these districts and communities will be used for advocacy for increased financing to the regions from both Government and other development partners.

4.1.3 Sanitation Campaign in the Regions/Districts

CLTS implementation in the regions using the community per community approach will be complemented by a mass media campaign aimed at getting the (21 districts) to become entirely open defecation free. The campaign is to contribute to the objective of halving the number of people in the region without access to improved sanitation facilities and who do not wash their hands with soap.

4.2 Sanitation Marketing (SanMark)

Resilient and sustainable sanitation services could thrive in an environment where services can be provided by the private sector at costs that are affordable and with a strong regulatory framework being managed by Government. Sanitation marketing will provide the required supply side services to meet the demand created for sanitation and hygiene with appropriate messages on the need for resilient interventions through implementation of CLTS and the sanitation campaign. This will help contribute to the implementation of Pillar 4 of the Rural Sanitation Model and implementation strategy.

The project will scale up sanitation marketing, which includes marketing of HWWS related products and services in rural sanitation programming using social entrepreneurs to address the supply side challenges caused by the unavailability of sustained local supply of affordable, desirable sanitation products and services. This will be done by helping local businesses to expand the private supply of the required products and services. Sanitation marketing will further increase the consumer demand generated by CLTS and encourage household investment in durable, hygienic latrines. With the SanMark approach, the project will adopt a focus on households as consumers through a user-centered approach to designing latrine products that people want and can afford with support for local businesses to profitably produce and sell them. Commercial and social marketing techniques will be

used by the private sector to address the 4Ps of marketing – product, price, place and promotion.

The project will engage private sector businesses both small scale and medium scale as key partners in accelerating improved sanitation access in activities that include latrine construction, pit emptying, latrine components production and sales etc., as well as to providing support to potential beneficiaries on the choice of the most appropriate technologies. The social entrepreneurs will be supported to undertake market research, develop their business models and products, establish their supply chains and market their products and services. Technical support will be provided for the development of disaster resilient products and their construction or installation. Financing will be provided for the initial market facilitation activities but the businesses will be expected to provide their own core funds for operation and will be linked to micro-finance forms to acquire credit for sanitation.

4.3 Building household capacity through financing options

The current national approach for sanitation as outlined in the Rural Sanitation Model and Implementing Strategy is a no-subsidy approach based on CLTS and SanMark. The no-subsidy approach has been found to be an essential strategy in the drive to ensure that there is an accelerated increase in improved sanitation uptake in the country, which is sustainable and does not create a culture of dependency. Householders are expected to build latrines in accordance with their economic standing. The only condition for this is that, minimum conditions for resilient solutions for improved latrines are met. In this context, communities will be guided appropriately to opt for at least the minimum solutions. UNICEF is currently working together with the Government of Ghana to establish the minimum standards for latrines in the country.

4.3.1 Micro- credit for sanitation

As indicated in section 4.1.1 the Sanitation MAF for Ghana identified the lack of financing as one of the three main bottlenecks preventing householders from investing in improved sanitation. Micro-finance for sanitation has consequently been identified as one of the three critical interventions for accelerating improved sanitation uptake in the country. The project will provide micro-credit for those who can afford to pay for their own improved sanitation facilities but require credit to enable them provide the up-front investments required. The design of the micro-credit scheme will ensure that the funds goes to the right beneficiaries and does not contribute to building inertia in those who could have otherwise afforded the investments without resorting to credit.

The scheme will include options such as the establishment of Village Savings and Loans Associations (VSLAs) in rural communities. Community savings schemes will be established in communities to enable them establish the culture of savings through the VSLAs. Micro-credit will also be provided to these VSLAs by Micro Finance Institutions to enable members pay for latrine products and services. The group will provide the guarantee required for

payment through their solidarity groups and will deploy their own mechanisms for retrieving loans from the groups.

The MAF Country Action Plan for sanitation, highlights lessons of project revolving fund schemes including: the Afram Plains Development Organization (APDO) microfinance scheme which was implemented for latrine promotion through a District Assembly supported micro-credit scheme, and the Community Based Rural Development Project (CBRDP) financed by IDA and GoG, as ample pointers to how to roll out a sustainable microcredit scheme for latrine promotion. The following areas are noted for moving forward on such schemes:

- Securing MLGRD, MoFEP endorsement for establishment of District Assembly Household Toilet Revolving Fund to be managed by ARB Apex Bank Ltd.
- Strengthening the capacity and skills of MLGRD, RCCs, MMMDAs, ACs and CBOs, in the management and delivery of latrines through micro-credit schemes
- Strengthening the capacity and skills of FNGOs, CUs, MFIs, for managing funds for the home improvement services focusing on latrines through microfinance schemes
- Training of artisanal enterprises small works contractors and groups in latrine construction technology and business planning and latrine promotion outreach

The project will work along these lines with the MLGRD and the MMDAS at the regional and district levels in the setting up and the management of the microcredit schemes.

4.3.2 Conditional cash transfers for sanitation infrastructure:

The project will also employ cash transfers (grants) to the poorest people living in these disaster prone areas to ensure that they can also acquire and use sustainable improved latrines. The poorest in Ghana have been identified through the Livelihood Empowerment Against Poverty (LEAP) programme in Ghana, a cash transfer programme for the poorest households in Ghana. Through the LEAP programme Government provides cash grants to the poorest households to help them meet the family's basic needs e.g. food, health and education. A targeting mechanism has been developed for the poorest families with the selection criteria including families with orphans and vulnerable children, the aged (65 years and above) and severely disabled people who cannot do any work. This will ensure that the right people are targeted so that it does not contravene the no-subsidy approach based on CLTS and SanMark. Regular cash transfers are made to these households for consumption purposes.

Currently 72,642 households from the 99 poorest districts in Ghana are benefitting from the LEAP Programme. Over 30,000 of these households are from the 3 regions in which this project will be implemented. These households, which require financial support for consumption purposes cannot afford to construct their own latrines even if they are provided with credit. This project will design a scheme to ensure that these households receive cash transfers for improving basic sanitation for their households within the framework of LEAP complementary services. The scheme will involve the disbursement of cash transfers in incremental stages, with individual household and community conditionalities to be met at each stage. These households will also be the target of focused sanitation and hygiene promotion as they are also vulnerable to diseases like diarrhoea.

4.3.3 Training and Capacity Building

Under the current DFATD Funded project with UNICEF, training is being undertaken for CLTS Facilitators. Training under this project will therefore focus on building sanitation marketing expertise in particular potentially new skills related to flood resistant infrastructure. The project will also provide support to Government both at the national and local government level to play the required leadership roles in facilitating, regulating and monitoring the sanitation market so that suppliers can continue to grow their businesses and reach more consumers long after initial market facilitation activities have ended. Government staff will be trained and supported to establish SanMark teams at all levels to oversee activities. These oversight activities will include the development of standards and regulations on sanitation marketing in the country.

4.3.4 Water Supply Interventions

There are a wide range of potential flooding impacts on water supply technologies, including flood damage to infrastructure, increased contamination, deteriorating water quality, and increased treatment requirements. There is also the issue of reduced availability from the source particularly in the case of droughts.

In the 3 northern regions, small community managed drinking-water supplies are the common mode of supply of drinking water. The facilities are owned and managed by the community through established structures as per the National Community Water and Sanitation (NCWSP) guidelines. However, inadequate operation and maintenance can cause frequent failures and contamination, and flood occurrences could adversely affect the operation of the systems by increasing the range and severity of challenges to system management.

The strategy is to install resilient but cost effective water supply systems to the selected disaster prone communities, with accompanying measures to facilitate the preparedness of the community management structures to potential disasters, and hygiene education and awareness promotion activities.

The communities may fall under the categories of small/rural communities or small towns. For the small/rural communities, the technological options normally available include: protected communal hand-dug well with hand pump, Communal borehole equipped with hand pump, protected spring source, with or without a simple distribution network and storage, rainwater harvesting system or piped system with limited distribution network.

In the case of small towns on the other hand, these options may include: a mechanized borehole with overhead tank, limited distribution network and communal stand-pipes with or without household connections; or surface water supply system based on slow sand filtration as a treatment process.

Specific assumptions and design parameters for the subsequent designs will be based on the requirements of the 2011 CWSA regulations with appropriate consideration for resilience to disasters as indicated above. This requires that the water facility satisfies the following:

- must provide all year round safe water to community members
- Each person must have access to a minimum, 20 liters of water per day
- The location of a borehole facility, or the delivery point in the case of a piped scheme is located at a place which is within a walking distance of not more than 500 meters from the farthest house in the community must serve 300 persons and hand-dug well 150 persons
- The maximum walking distance to a water facility must be equal to or less than 500 meters.

4.3.5 Groundwater Sources

The systems will be based mostly on groundwater sources for drinking water for the select communities, and taking due cognizance of the need for resilience, such as a tube well with the wellhead appropriately raised to be above the potential flood level, and the depth of the casing is enough to forstall the entry of polluted water through the soil into the well. Groundwater (and spring) sources may generally be free from the levels of impurities, turbidity and bacteriological content associated with surface water sources which generally require the provision of full treatment facilities and could be expensive to operate and maintain.

A December 2011 report¹⁶ on investigations on the state of groundwater resources in the northern regions of Ghana, conducted by the Water Resources Commission with support from the Canadian International Development Agency (DFATD), indicates the fact that Groundwater could provide a greater supply of potable water in northern Ghana, either for rural communities or small towns. The study also notes that although current groundwater production is considered to have a minor effect on the regional water balance, efforts should be maintained and increased towards ensuring the sustainable management of groundwater resources since an increase in groundwater production is thought to be imminent.

As part of the assessment, a comparison of groundwater quality data with guidelines of the World Health Organization (WHO) for drinking water shows that groundwater in the Northern Regions of Ghana is generally of good quality and thus suitable for drinking or other uses. There is however the occurrence of fluoride, lead, and, to a lesser extent, arsenic, nitrates, manganese and elevated TDS and major ions concentrations in ground waters in some instances, which may preclude the use of the ground waters for water supplies, irrigation and animal watering in such instances

Prior to the implementation of any schemes it is imperative that the suitability of these sources is verified by further assessments in line with the CWSA regulations of 2011, and in

¹⁶ Executive Report on the State of Groundwater Resources of the Northern Regions Of Ghana, WRC, Dec., 2011

accordance with the relevant strategy under the National Community Water and Sanitation Programme.

The construction of a borehole and the installation of a pump for the supply of water to a community shall require that the minimum yield of water from the borehole is at least 10 litres per minute. Boreholes shall be drilled after appropriate groundwater investigations have been carried out. The site should be a minimum of 50 meters from a sanitation facility, any form of garbage disposal point or cemetery, a sacred grove or any other known source of real or potential contamination within the community

4.3.6 Surface Water Sources

Where surface water sources are the only alternative, the strategy would be to at least locate potential sources to minimize pollution.

Criteria for the planning, design and construction of distribution storage reservoirs, distribution systems up to the consumer points will be based on existing CWSA and GWCL processes. However in those instances where there is a need or new elements to ensure resilience of the facilities, this would be discussed with the two institutions for eventual take up.

4.4 WASH in Schools and Communities

The WASH in schools component would ensure that safe water and gender-segregated and appropriate sanitation facilities are included. Furthermore, the educational facilities are key dissemination points for collaboration in hygiene promotion, and this will require an assessment of educational curriculum either at the local / school level or up to the school policy level.

In schools, the WASH in schools under the SHEP/GES component will complement the CLTS approach to reinforce the resilience of the solutions to disaster situations. Values based components will also be included in the roll out of this component. If sustainable access to water and sanitation is to be achieved then the consumer (both individually and collectively) has to see that it is in his own interests to alter his value system. This can only be achieved in the long term through appropriate training and sensitisation measures that are designed to transform behaviour at every level. It is precisely here that the Values-Based WASH Education (VB-WASH-Ed) approach can play a major role. It seeks to impart information and facts on water, sanitation and hygiene. It is an approach that has potential at any level, from affecting the behavior of young children at primary school to changing attitudes in small local communities.

The VB-WASH-Ed will reinforce the outreach of the WASH in schools and the CLTS approach in the communities. It will be implemented in the schools and surrounding communities. Interventions in communities will be based on a community approach through the strengthening of relationships between schools and surrounding communities. Schools, colleges of education, and non-formal sector will be identified during the baseline study to be undertaken at the beginning of the project.

Water supply and construction or extension of sanitation infrastructures will be undertaken both at the schools and community level. These facilities shall take stock of the CLTS experience in the area. The infrastructures will be managed by students with management modalities defined as per the SHEP/GES approaches.

Parent/teachers and mother educators Associations, school management committees, opinion leaders, women organizations, youth groups will be fully involved in VB-WASH-ED activities. Awareness documents, brochures and other promotion materials of the programme will be produced and broadcast. The work with the community will be implemented in local languages of the community to better target the profound beliefs and values of the target groups.

Volunteers of VB-WASH-ED, organizers from the community, community-based organizations and NGOs with proven experiences in the organization and education of communities for behavioral change will be identified and involved in the implementation of the programme in each community.

To ensure that water supplies are not contaminated during collection, handling and storage, the education and awareness creation efforts will be extended to support the schools and communities on safe storage (covered containers, containers with taps) and household water treatment activities. Simple water quality testing at the point of use will also be considered as an additional measure to be put in place where needed

4.5 Strengthening Sector Capacity for WASH

Resilient WASH services could thrive in an enabling environment in which Government has oversight of all implementation activities. This initiative will facilitate measures for translating policy and coordination work (upstream work) to community level delivery of services (downstream work) and vice versa and the generation of lessons for improving both upstream and downstream work. The project will provide support to enable Government to provide the required enabling environment for resilient services to be sustained.

It is also envisaged that the project will address issues of capacity strengthening for sector planning, monitoring and evaluation, knowledge management and advocacy required as part of the implementation and ultimate delivery of improved WASH services to people living in disaster prone communities in Ghana.

As part of the baseline studies, an assessment will be undertaken to assess the existing capacity building needs to enable the GoG structures at various levels and the CBOs at the local level to provide the necessary oversight during the project duration and to facilitate the sustenance of the installed facilities post project. Based on the needs assessments, training materials will be prepared for a WASH training and capacity building for the various GoG structures responsible for WASH at the regional, district levels and the community management teams in the beneficiary communities.

4.6 Sustainability of Results

4.6.1 Institutional Sustainability

The action is designed as a joint UN approach within the established contexts of the relevant National WASH policies, strategies and plans. The capacity strengthening elements of the project will ensure that the relevant institutions at the national, regional, district and local levels have the required capacity to sustain the project. GoG Partners (and as appropriate NGOs in this action) will mobilize communities to own and manage the services and prepare Operations and Maintenance plans for the community facilities and school based operational and management plans for maintaining the installed facilities and the attendant services to be rendered in line with the Community Ownership and Management Initiative. Community Water and Sanitation Management Teams and Community based operators will ensure maintenance of the facilities with support from the District Water and Sanitation teams and the district based Area mechanics.

4.6.2 Financial Sustainability

Communities will pay for the maintenance of community facilities through agreed tariffs, or other financial arrangements as detailed out in the NCWSSP. Water and Sanitation Committees and Hand pump caretakers at the community level will be trained and supported by DWSTs and Area Mechanics to maintain water facilities effectively. The CLTS approach is a community empowerment approach, and will be used to promote the payment of the agreed tariffs by the community members to facilitate the management of the community facilities.

4.6.3 Environment Sustainability

Implementation of the project will be guided by practices which ensure environmental sustainability. The project will ensure that strategic environmental assessments results of key sector policies, strategies and plans are effectively utilized in the implementation activities. It is not expected that provision of improved drinking water sources in basic schools will have major impact on groundwater resources in the various localities. The drilling of boreholes will be guided by standards of borehole construction practice established by the Community Water and Sanitation Agency (CWSA). Guided by the regional hydrogeological studies carried out by the DFATD funded Hydrogeological Assessment Project (HAP) as well as the UNICEF funded British Geological Survey guidelines, detailed geophysical surveys and hydrogeological assessments will be carried out in order to assess the groundwater resources within and in the vicinity of the communities and schools and to establish the best groundwater abstraction approach. The safe yield of boreholes that will be mechanized will be assessed and the maximum allowable drawdowns established (in line with CWSA practices) in order to avoid mining of groundwater. These measures will enable a more effective use and management of groundwater resource in the project areas.

All water schemes to be constructed will undergo detailed water quality analysis to verify their compliance with the Ghana Drinking Water Quality Standards as well as the World Health Organization guideline values for the critical water quality parameters. Measures will be taken to ensure the siting of boreholes in a manner to mitigate the impact of

contamination from point sources including refuse dumps, latrines as well as from unprotected water points including abandoned hand-dug wells. The CLTS and hygiene promotion interventions will further take measures to avoid locating toilets and refuse dumps in locations that have potential for seepage to contaminate ground water. Old abandoned wells are particularly high risk points for ground water contamination, hence will be addressed as part of the community level interventions.

Environmental sanitation practices in Ghana are evidenced by the level of open defecation practices and the inadequate management of solid wastes and sullage; the CLTS approach will help improve environmental sanitation and hygiene in the project locations. The building of improved household and school latrines in the communities will contribute to reduction in the environmental hazards associated with open defecation practice, such as the risks of sexual harassment of women and girls and enabling girls to undertake learning in a more protective environment. The process of identifying resilient solutions will ensure a focus on sanitation technologies that preserve environmental quality.

5 RESULTS FRAMEWORK

The overall objective of the project is to improve health and livelihoods in disaster prone communities by increasing access to resilient facilities and services for good drinking water and proper sanitation on a sustainable basis.

The provision of these facilities will be accompanied with education and sensitization activities in support of efforts to make communities more conscious of the need for disaster preparedness prior to, during and after disasters, in consonance with the EPRP for WASH currently under development. It will also be accompanied with the promotion of measures and practices for good hygienic behavior and capacity enhancement of relevant institutions and community structures to ensure the full benefit to the beneficiary communities of the interventions.

This is in line with the GSGDA (2010-2013) that envisages priority policy interventions in settlement disaster prevention and WASH services. It also follows on the recommendations of national policies for human settlements, environmental sanitation, water supply and the related national strategies and action plans that have been put forth to deal effectively with the responsibilities of these sectors.

It is also in consonance with Outcomes 4 and 5 of the UNDAF, viz.

Outcome 4: At least 15% of the Slum and Disaster Prone Communities including women have improved livelihoods through better access to affordable and sustainable housing and skills training in 5 major regions

Outcome 5: An additional 2.5% of the population have sustainable use of improved drinking water and sanitation services and practice the three key hygiene behaviors by 2016"

5.1 Specific Objectives

The specific objectives of the action are to:

- a. Implement resilient WASH solutions and reduce the number of people in disaster prone communities in the 3 Northern Regions without safe drinking water, basic sanitation¹⁷ facilities and hygiene services
- b. Promote education programmes and awareness of hygiene practices to improve the sanitation and health conditions in the beneficiary communities and schools
- c. Enhance regional and local capacity in the beneficiary communities to sustainably manage the WATSAN facilities and related services to be put in place.
- d. Contribute to measures to enhance the preparedness to disasters and minimize future risks in the communities.

5.2 Expected Results

The action will deliver an integrated package of WASH infrastructure and services improvements to communities and schools, with due consideration for solutions that are resilient particularly to Climate related disasters, hygiene promotion, and capacity building activities for the main stakeholders, within the framework of National WASH priorities. It will provide tangible improvements in living conditions for an estimated 200,000 women and men living in 265 disaster prone communities and contribute to the achievement of the Millennium Development Goals for poverty reduction and environmental sustainability in the region.

Within the above context, the expected results are:

1. Beneficiary communities in disaster prone communities selected based on agreed criteria (to be agreed with the local authorities)
2. Baseline information available on current water supply, sanitation and hygiene situation in the select beneficiary communities
3. 200,000 people, disaggregated by gender, have access to sanitation facilities and adopt good hygiene practices in 265 disaster prone communities for improved health
4. Established functional microfinance schemes providing credit facilities for household sanitation in at least 21 disaster prone districts
5. 200,000 people have access to safe drinking water facilities in 265 disaster prone communities for improved health
6. 50,000 children in basic schools in 265 disaster prone communities have access to WASH facilities in schools and adopt good hygiene practices for improved health

¹⁷ For basic sanitation this includes people who practise open defecation, do not use improved sanitation facilities and do not practice handwashing with soap

7. Strengthened and functional structures at the community and school levels manage installed facilities and provide sustainable services to the beneficiary communities
8. WASH Technical officers in the 21 districts and National and Local government WASH authorities in the 3 northern regions are able to plan and facilitate implementation of WASH programmes in disaster prone communities
9. Enhanced preparedness of beneficiary communities as a result of contributions of the project to disaster preparedness efforts

5.3 Underlying Assumptions and Associated Risks

The success of the project will depend to a large extent on:

- the willingness of the UN Agency partners, GoG partners, Local Authorities and Service Providers to effectively engage in order to implement the components of the initiative in line with existing national policies, strategies and plans in order to achieve the envisaged project outputs and the desired outcomes.
- the willingness of local institutions, community-based organizations and project beneficiaries to utilize the project outputs and embrace potentially new ideas, technologies and approaches that will influence the project.
- the fact that the communities are generally poor and may not be able to contribute the mandatory 5% of the cost of interventions, as per the laid down policy procedures of the National Community Water and Sanitation Programme
- the need for GoG not to renege on its contribution, which is expected to be mostly in-kind, consisting of technical support, on-ground implementation, project management and local taxes.

These perceived risks will be mitigated by a combination of:

- clearly defined and agreed roles for all partners involved in the planning, design, implementation and M&E of the various components of the project
- active engagement of the national implementation partners and project beneficiaries in all facets of the project planning, design and implementation;
- capacity building targeting policy and strategic issues for the GoG partners, local authorities and community-based organizations; and
- facilitated empowerment of communities and beneficiaries to ensure local ownership and utilization of project outputs.
- a necessary precondition for the project will be for GoG to make the necessary budgetary arrangements for the counterpart contributions.

5.4 Results and Logical Framework Analysis

The overall and specific objectives, expected results, related activities, underlying assumptions/risk analysis and mitigation measures are further elaborated in the logical framework analysis in Annex 3.

5.5 Sequencing of Work

Annex 5 shows the work programme to implement the project activities over the three year period. The project will start in the first year with WASH in Schools, Community Led Total Sanitation and Mechanized Water facilities in communities in the three northern regions starting from where the UNDP/UN-Habitat housing initiative is being undertaken. These communities include; Kpadjai, Lonto, Lolonto in the Kpandai District, Malzeri in the Yendi District and Bejemse in the Bejemse Chendre District Assembly, Paga in the Kassena Nankana West District and Wechiau in the Wa West District.

The microfinance for household sanitation facilities will cover these communities initially and gradually cover other communities to be determined by the MMMDAs in the three regions in the subsequent years.

For these subsequent years, District Assemblies will confirm other communities (using the agreed criteria in annex 1 as appropriate) where the various components of the joint project will be carried out.

6 MANAGEMENT AND COORDINATION ARRANGEMENTS

6.1 Partnership Approach

Within the framework of the UAP and the Joint Programming four UN agencies (UN-Habitat, UNICEF, UNDP and WHO) will collaborate to support the Ministry of Local Government and Rural Development and Ministry of Water Resources Works and Housing to implement this Programme, in partnership with other relevant Ministries, Departments and Agencies (MMDAs) at the national, regional and district levels.

The Government of Ghana and partner UN agencies will bring together their respective skills, expertise and experience to improve health and livelihoods in disaster prone communities in the three northern regions of Ghana. Taking the UN coordinated approach is not only in line with United Nations' commitment to "Deliver as One," but will also enable the type of interagency collaboration for knowledge building and implementation that is much needed in the interdisciplinary field of WASH, livelihood improvement and Disaster Risk Reduction.

Each participating UN agency brings their own comparative advantages to take on specific roles in the Programme as follows:

- UN-Habitat:** program development; overall program management; support the provision of mechanized water systems in communities and communal sanitation facilities including in safe havens; VB education to complement the WASH in schools component; collaborate with UNICEF on the microfinance for household sanitation facilities and capacity development of national and local level WASH officers
- UNDP:** program development, financial management, and DRR issues including elements on early warning and preparedness
- UNICEF:** Lead the roll out the CLTS process, trigger demand for improved sanitation in communities through Community Led Total Sanitation (CLTS), microfinance for household sanitation facilities, capacity development of national and local level WASH officers, WASH in Schools
- WHO:** Technical guidance on environmental sanitation and health improvement monitoring; water safety planning and household water.

On the Government Side:

- MLGRD:** lead role in coordination and harmonization of this project in close collaboration with the UN team; technical direction and guidance for the implementation of the project; implementation of the environmental sanitation components of the project.
- MWRWH:** implementation support on the water supply components through CWSA in particular, and the GWCL and WRC as appropriate.
- NADMO:** disaster preparedness of the communities prior to, during and after disaster events, contributions to ensuring resilience the WASH solutions to be adopted, particularly in safe havens.
- GES/SHEP** Implementation of WASH in schools component of the programme

On the NGO side:

- CONIWAS:** CONIWAS and its members with WASH activities in the northern regions will be engaged as necessary on various components of the project.

6.2 Project Management

The Steering Committee, co-chaired by GoG and the UN, will be responsible for providing guidance and advice to the Implementing Agencies. The project steering committee will meet at least once every six months. The annual progress report will be one of the basic documents for discussions during the SC meeting. It will be presented to the SC by the Joint Project Manager, highlighting policy issues and recommendations for the decision of SC. The Project Manager will also inform the members of any agreement reached by stakeholders during the preparation of the report on how to resolve operational issues. During the first

year a mid-year report will be prepared to ensure that the design and inception activities are closely monitored.

A terminal SC review will be held in the last month of project operations. The Project Manager is responsible in preparing the Terminal Report, and to submit to the SC. It shall be prepared in draft form in advance to allow review and clearance by the project team at least two months prior to the terminal review by the SC. This terminal review will consider the implementation of the project as a whole, paying particular attention to whether the project has achieved its immediate objectives and decide whether any actions are still necessary.

In meetings with the Government of Ghana representatives, it was agreed that the MLGRD will take on the lead role of coordination and harmonization of this project from the Government side in close collaboration with the UN team. It will also be the main GoG partner providing technical direction and guidance for the implementation of the programme under the auspices of a sub-committee of the Water and Sanitation Working Group to be established for the project and to be co-chaired by the MWRWH. MLGRD will also support the implementation of the environmental sanitation components of the project through its Environmental Health and Sanitation Directorate and the Department of Community Development.

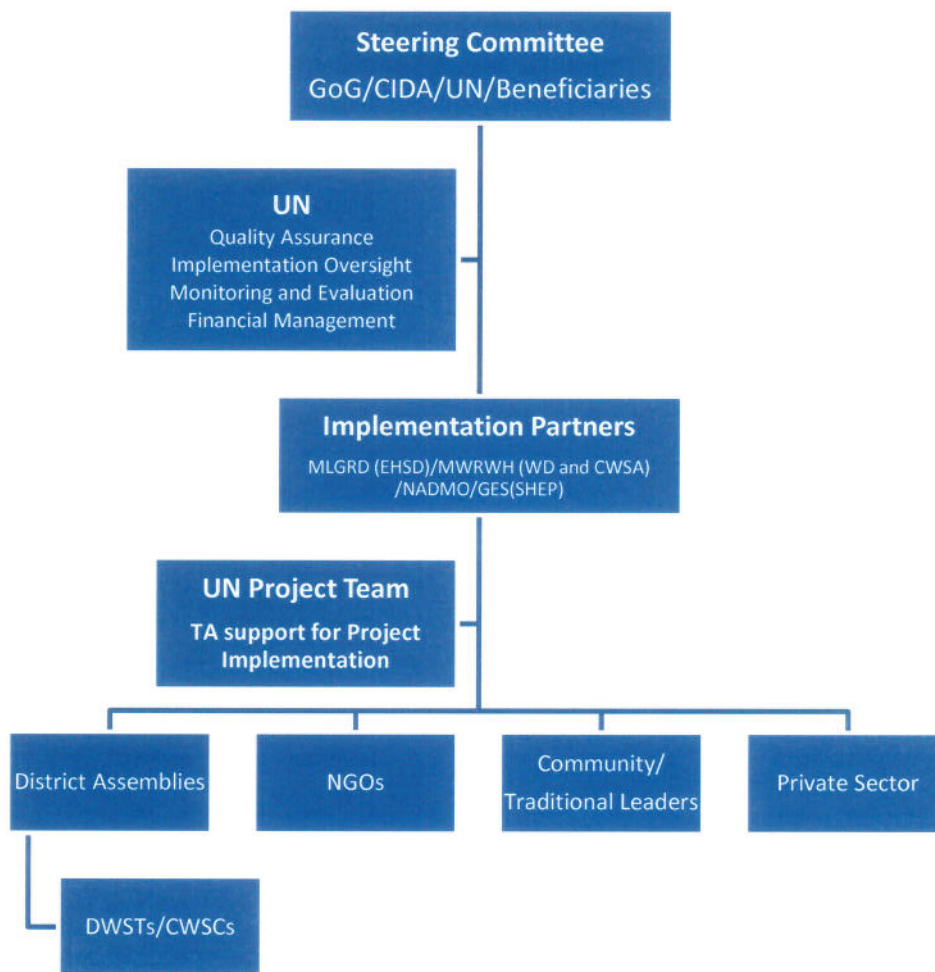
The Ministry of Water Resources Works and Housing will provide the necessary implementation support on the water supply components through its Agencies including the Community Water and Sanitation Agency in particular, and the GWCL and WRC as appropriate. NADMO will be the main GoG partner on issues relating to the disaster preparedness of the communities prior to, during and after disaster events, and on the resilience characteristics of the WASH solutions to be adopted. As the Draft Emergency Preparedness and Response Plan is finalized, it is anticipated that this role may shift to the WASH in Emergency Technical Working Group.

Additionally, the School Health Education Programme (SHEP) of the Ghana Education service will lead the School WASH programme. Other complementary partners from the GoG will include the Ghana Health Service, Ministry of Women and Children's Affairs (MOWAC) and Ministry of Finance and Economic Development (MoFED). From the NGO community, the Coalition of NGOs in Water and Sanitation (CONIWAS) and its members with WASH activities in the northern regions will be engaged as necessary on components of the project.

Project Implementation team will be accountable to UN policies and procedures, financial management of the project, project contracting, personnel management, procurement, and travel, etc. It is also required that the Project Manager reports to the Project Steering committee, and the United Nation's System. Fig. 5 above shows the implementation structure to be adopted.

The UN team support for the management of the project will be undertaken by a WASH project team comprising the following drawn from the UN partners involved in the programme:

Fig. 5 Implementation Structure



- CTA WASH (International)
- WASH specialist (International)
- Project Manager (National)
- WASH specialist (3, National) to support the regions
- WASH MIS Officer (National)
- Programme Assistant (2)
- Drivers (4)

The above staff will complement the already existing structure of UNICEF currently involved with a number of WASH programmes in 5 regions, including the 3 Northern Regions, to form the project team. In addition to the project team that will be directly involved in managing

the support for implementation of the project, senior level strategic management support will be provided by the UN Agencies. The UN Agencies operations teams will also provide support in human resources, administration, finance, travel, supplies procurement and ICT support to the WASH team.

As is the case of the ongoing UNICEF programme, the UN team will work with the EHSD (MLGRD), WD (MWRWH), CWSA (MWRWH) and SHEP (GES/MOE) and NADMO to implement this project directly. The UN partners will support the GoG through these institutions to engage the services of both local and international consultants to provide specialist input for implementing key activities.

Where NGOs are best suited for certain activities, the UN partners will support the engagement by the GoG for the implementation of the project activities.

In the 3 target regions, the Regional Coordinating Council (RCC) will coordinate the management of this project with implementation through the relevant lead Agencies. The RCC will have responsibility for overseeing the day-to-day management and implementation of the project in their region. It will facilitate the implementation of activities in collaboration with the partners and associates.

At the District level, the District Planning and Coordination Units (DPCU) will oversee project implementation using already existing structures in the various districts. Monthly project reviews will be held as part of monthly WASH coordinating committee meetings in the districts. The DPCU shall appoint a focal person to be in charge of project implementation. The DPCU in each district will have overall responsibility for project delivery in their respective districts and be the channel through which the UN, its partners and associates at the national level work.

7 FUND MANAGEMENT ARRANGEMENTS

7.1 Fund Management Option

The Pass-through fund management option will be utilised for this Joint Programming effort with UNDP as the Administrative Agent to be responsible for the financial management of the project. Under the pass-through fund management arrangement funds will be channelled through UNDP for onward disbursement to the UN partners. This has been discussed with the GoG partners. The activities to be supported by each of the UN partners is indicated in the results framework in Annex 3, and the work plan and budget in Annex 5, and the indirect costs to be charged by each Agency partner is reflected in the respective budgets. The programmatic and financial accountability will rest with the UN Agency partners and (sub-) national partners that would be managing their respective components of the joint programme.

7.2 Transfer of cash to national Implementing Partners:

Cash transfer modalities, the size and frequency of disbursements, and the scope and frequency of monitoring, reporting, assurance and audit will be agreed prior to programme implementation, taking into consideration the capacity of implementing partners, and could

be adjusted in its course in accordance with applicable policies, processes and procedures of the participating UN organizations.

For the ExCom Agencies involved in the Project (UNDP, UNICEF) the provisions required under the Harmonized Approach to Cash Transfers (HACT), an integral part of the common country programming processes, will apply. It involves a series of steps, taken together with partners, to assess financial management risks, identify capacity development needs, and build assurance mechanisms into the design of project elements at the planning stage. The HACT makes for operational simplification, puts focus on national systems, and leads to reduced transaction costs, particularly for partners. Government and most other implementing partners in the three targeted Regions are currently registered and have received training in the HACT process, so it is anticipated that lead time on fund transfers would be short.

With its focus on using national systems and working with partners to enhance their financial management capacity, the HACT is a major response of the UN system to the commitments of the Paris Declaration on Aid Effectiveness.

8 MONITORING, EVALUATION AND REPORTING

The joint project will be monitored throughout its duration and evaluated in accordance with established Government of Ghana and UN Joint programming procedures. The M&E process will be coordinated by the project team and the UN Administrative Agent (UNDP), with support from other UN Agencies, who should share information, and progress updates, and undertake joint field visits where appropriate. A Monitoring and Evaluation Plan will be prepared that aligns with monitoring and evaluation requirements of UNDAF and other relevant policies and action plans. Existing indicators and targets will be used wherever possible.

The UNDAF Evaluation will include a specific assessment of the joint programme, looking in particular at UN System collaboration. The scope of the assessment will depend on the size and strategic importance of the joint programme. For the evaluation of a joint programme, traditional evaluation criteria (relevance, efficiency, effectiveness, impact and sustainability) will apply with an emphasis on results and on the joint programming process.

8.1 Monitoring

Project Monitoring will be done at various levels, in communities including schools, at the district level and at the regional and national levels. Project communities including schools will be empowered to undertake internal monitoring of interventions using simple tools to behavior change. However, the main project monitoring will be undertaken at the district level by district teams. This will include:

- Monitoring project interventions using the OVIs developed in the logical framework
- Monitoring project implementation using the project action plan and logical framework.

Database management for the monitoring information gathered will rely on the resources of existing Sector Monitoring and evaluation systems such as the MINTESSA for Environmental Health and Sanitation, the DIMES for rural water supply and sanitation and the EMIS for WASH in Schools.

At the Regional and National Levels, project monitoring will focus on regional and national level activities and particularly on coordination and capacity building interventions. Monitoring at these levels will also focus on progress towards achievement of project results.

Periodically, joint field monitoring visits involving the GOG, DFATD, the UN partners as well as the implementing MMDAs will be undertaken to provide opportunity for the key project partners to see progress on the ground, provide information on implementation of the key components of the project, the immediate contribution of the project to the beneficiary communities and schools and to enable project partners to be more informed in discussions on the project schedule, processes, progress, constraints and the way forward.

Monitoring will be an on-going activity with regular meetings being held on a monthly basis to discuss key monitoring data. The information from monitoring will be used to refine project processes to make them more effective and efficient and will also feed into project evaluation.

Annex 4 shows the Joint Programme Monitoring Framework (JPMF) to be utilized.

8.2 Evaluation

Following on the baseline conducted at the beginning of the project, and a mid-term review, an independent final Project Evaluation will be undertaken just prior to the completion of the project. The Evaluation will be participatory and will involve key project stakeholders in project communities. Data from monitoring will feed into project evaluation. The evaluation will assess the relevance, efficiency, effectiveness, outcome and sustainability of project interventions. Focus will be on delivery of the project's results against those planned, and will look at the impact and sustainability of project outcomes. It will include recommendations for any follow-up activities, lessons learnt and future programming.

8.3 Reporting Arrangements

Reporting arrangements and accountabilities will be in accordance with UN Joint Programming procedures. A common format for reporting based on key principles such as results-based annual programme level reporting¹⁸ would be used to the extent possible. All reports (including outputs delivered, expenditure and issues to be addressed) will be submitted through the UN coordination mechanism to the Steering Committee and DFATD and, as appropriate, will be shared with all relevant stakeholders.

¹⁸ For the ExCom Agencies (UNDP, UNICEF, UNFPA and WFP), the Standard Progress Report incorporates these principles.

8.3.1 Inception Report

The inception report is to be prepared by the project team with the assistance of relevant experts. This report will be prepared no later than three months after project start-up and will include a detailed Workplan and Budget for the duration of the project, progress to date on project establishment and start-up activities and any proposed amendments to project activities or approaches. The report will be circulated to all the parties who will be given a period of one calendar month in which to respond with comments or queries. The report will also be reviewed by the UN partners to ensure consistency with the objectives and activities indicated in the Project Document.

8.3.2 Quarterly Progress Reports

Findings of periodic monitoring will be reflected in six monthly progress reports and timely remedial actions will be taken as appropriate.

8.3.3 Annual Implementation Report

An annual implementation report will be prepared by the project team documenting progress towards objectives and outcomes according to the agreed indicators. The annual report will look at the effectiveness, efficiency, and timeliness of project implementation and will highlight issues requiring decisions and actions. It will include a review of the risk management framework and present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the remainder of the project's term. The evaluation component of this report will be used to inform the development of a manual for handover to government.

8.3.4 Periodic Status and Technical Reports

As and when called for by the the government, DFATD or UN joint project team, the Project Manager will prepare Status Reports, focusing on specific issues or areas of activity as stipulated in the request, which should be in written form, and clearly state the issue or activities which need to be reported on. These reports can be used for specific oversight in key areas, or as troubleshooting exercises to evaluate and overcome obstacles and difficulties encountered. The parties should minimise their requests for Status Reports, and when such are necessary should allow reasonable timeframes for the preparation of these Reports.

Detailed technical reports covering specific areas of analysis or scientific specializations within the overall project will be prepared. As part of the Inception Report the Project Manager will prepare a draft list, detailing the technical reports that are expected to be prepared on key areas of activity during the course of the Project, and tentative due dates. Where necessary the list will be revised and updated, and included in subsequent annual progress reports. Technical reports may also be the final reports of technical inputs prepared by external consultants, and should be comprehensive, specialized analyses of clearly-defined areas of research within the framework of the project and its activities.

8.3.5 Project Publications

Project Publications will form a key method of crystallizing and disseminating the results and achievements of the Project. These publications will be scientific or informational texts on the activities and achievements of the Project, in the form of e.g. journal articles or multimedia publications. These publications could be based on technical reports, depending upon the relevance, scientific worth, etc. of such reports, or may be summaries or compilations of a series of technical reports and other research. The Project Manager will determine if specific technical reports merit formal publication, and will also (in consultation with the government and other parties and with the help of external specialists and staff where necessary) plan and produce these publications in a consistent and recognizable format and identity. These Publications will form the most visible public output of the Project, and as such should be prepared and presented to the highest scientific and technical standards.

8.3.6 Project Completion Report

During the last three months of the project the Project Manager will prepare the Project Terminal Report. This comprehensive report will summarize all activities, achievements and outputs of the Project, lessons learnt, objectives met and missed, structures and systems implemented, etc. and will be the definitive statement of the Project's activities over the five-year duration. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the Project's activities.

8.3.7 Other Publicity Documents and Activities

In order to ensure a wide dissemination of project results, a publication of results will be prepared, based upon the Project Completion Report and previous publications. It will also be useful to hold at least a workshop at which policy makers from other countries could be invited to share in the results of the joint project results.

9 BASIS OF RELATIONSHIPS

The legal basis for the relationships between the GoG and the UN Organisation partners in the joint project will be as follows:

- the standing cooperation agreement between Government and the ExCOM Agencies (UNDP and UNICEF)
- For the specialized Agencies, this will be the text that is normally used in their programme/project document

10 WORK PLANS AND BUDGETS

The Project will require inputs comprising:

- a. Long term experts for project management;
- b. Local staff for project management and administration;

- c. Short term experts for design and supervision as well as training and capacity building;
- d. Furniture and equipment for project management offices;
- e. Goods and Equipment for infrastructure works;
- f. Construction services for infrastructure works and demonstration projects;
- g. Inputs such as supplies, airline tickets and allowances for project operational costs; and
- h. Specialist consultancy services for audit and monitoring and evaluation.

The Project Budget has been prepared based on the activities and is summarized below with a detailed Budget at Annex 5.

Categories	DFATD contribution \$ (000)	Percentage of Total
Activities under Outcome 1 (Disaster prone communities and schools in 3 Northern Regions sustainably use improved and resilient sanitation and drinking water facilities and services by 2016)	11,177,500	56.12%
Activities under Outcome 2: (Education programmes and awareness of hygiene practices improve the sanitation and health conditions in the beneficiary communities and schools)	595,750	2.99%
Activities under Outcome 3 (Enhanced regional, district and local capacity in the beneficiary communities ensure sustainable management of installed resilient WASH facilities and services)	591,000	2.97%
Activities under Outcome 4 (Disaster prone communities in 21 districts adopt measures that ensure disaster preparedness and minimize future risks in the communities)	1,388,500	6.97%
Operating costs	3,927,901	19.72%
Audits	20,000	0.10%
Monitoring evaluation and complementary	740,000	3.72%
Programme support cost	1,475,253	7.41%
TOTAL	19,915,904	100,0%

ANNEX 1: Severity and Effects of Flood Events in the 3 Northern Regions

Year	Description	Severity	Effects
1997	Combined excessive and continuous rainfall spillage from Bagre Dam (B. Faso)	Very Severe	<ul style="list-style-type: none"> i. Loss of productive agricultural land and property. ii. Displacement of people especially along the major drainage rivers ii. Several communities in Bongo district flooded v. An estimated 3,000 people in the three northern regions displaced.
1999	Spillage of the Bagre dam	Very Severe	<ul style="list-style-type: none"> i. Farmlands inundated and livestock killed with large bodied ones drowning ii. Dams were also severely damaged.
2007	Late August to mid September, Flooding of the Upper East and Upper West regions partly following op'ning of flagre Dam coupled with heavy rains in the Upper East region	Very Severe	<ul style="list-style-type: none"> i. Inundation of farmlands and erosion of the productive topsoil ii. Washing away of farmlands in the Upper West Region. iii. Mud homes and livestock pens collapsed. iv. The flooding affected 39 communities in the Upper West region with some caused by breached dam walls (22 dams). v. Loss of human life vi. Damage to / or destruction of 39 dams in the Upper East region.
2008	April-October rains resulted in flooding	Severe	<ul style="list-style-type: none"> i. Destruction of farmlands along the banks of rivers. ii. Increased deposition of silt on farmlands. iii. Affected about 10 communities in the Upper West Region e.g. Sissala East district
2009	A sharp increase in rainfall recorded in August and September and additional water from the Bagre dam	Very Severe	<ul style="list-style-type: none"> i. 105 cattle, 2,074 small ruminants and 11,911 were carried by the floods. ii. A total area of 7,117.4 hectares of farm lands was destroyed by the flood. . iii. Affected areas six (6) districts in the Upper East Region were affected