MINISTRY OF SANITATION AND WATER RESOURCES

REPUBLIC OF GHANA

GUIDELINES FOR TARGETING THE POOR AND VULNERABLE FOR BASIC SANITATION SERVICES IN GHANA

June 2018

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PREFACE

This document is a national guideline for targeting and providing basic sanitation services for the poor and vulnerable in Ghana. It was developed by the Ministry of Sanitation and Water Resources with support from all stakeholders in the sanitation sector in Ghana.

The Guideline is informed by low sanitation access rates in Ghana, which is considered as one of the biggest threats to socio-economic development of the country. The Ministry is not oblivious to the urgent need for Ghana to double its steps in increasing access to toilets and work towards sustainable measures to ensure everyone living everywhere in Ghana has a household toilet facility to use.

The document is also guided by the country's resolve to ensure toilet facilities constructed in our communities are done to stand the test of time, with sustainability in mind. The Ministry believes some sections of the populace are poor and cannot afford their own toilets no matter the time and facilitation skills we put in. To ensure equity, inclusion and sustainability, this guideline is developed to provide directions for stakeholders to properly target the poor and the vulnerable without undermining strong community cohesion and strength in building their own toilets.

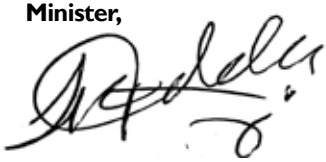
The guideline will also serve as a working document and further provide direction and guidance for all stakeholders in the sanitation and hygiene sector in Ghana. Thus, all actions would take alignment from this guideline to ensure harmonization of our collective actions and purpose, to augment our efforts in attaining the country's Sustainable Development Goals on Sanitation and Hygiene.

This guideline has highlighted for implementation the guiding principles, processes to target the poor, minimum standards to qualify households for support, technology options available for adoption, roles of key stakeholders, Financing and sustainability issues among others. The guidelines were developed through wide stakeholder consultative process and hence most concerns and inputs of stakeholders were taken on board.

The Ministry wishes to sincerely thank all WASH Stakeholders in Ghana, the Technical Working Group members, USAID, Global Communities, Ministry of Gender, Children and Social Protection, Office of the Head of Local Government Service and indeed all contributors whose valuable inputs and support made the development of this guideline possible.

Joseph Kofi Adda (MP)

Minister,



Ministry of Sanitation and Water Resources

DEFINITIONS

Poor: A person lacking sufficient resources to live a standard considered comfortable or normal life in society.

Poor and vulnerable: Refers to individuals or households living below the poverty line.

Triggered Community is one that has been facilitated with the aim of initiating community interest in ending open defaecation.

Verification entails inspection to assess whether a community is ODF-Basic, ODF, Sanitised or Sustainable Sanitised Community

Certification is the confirmation of the status (ODF-Basic, ODF, Sanitised or Sustainable Sanitised Communities) and its official recognition.

Open Defaecation (OD) Community is the one that has visible faeces within the entire community, including the school environment.

Open Defaecation Free (ODF) Basic Community is the one that has no visible faeces within the entire community including the school environment and other public places.

Open Defaecation Free (ODF) Community is the one that has no visible faeces within the entire community and other public places and 80% of households own and use improved latrines with hand washing facilities and all households have access to and use latrines.

Sanitised Community is one that has no visible faeces within the community and all households and public places (schools, market places, churches, mosque health post etc.) have improved latrines with hand washing facilities. There is proper refuse management within the entire community and at public places.

Sustainable Sanitised Community is one that has maintained its sanitised community status for three (3) successive years.

WASH Poor: A person who cannot afford basic sanitation needs and access to potable water.

Basic Sanitation: It is the lowest cost technology ensuring hygienic excreta and sullage disposal and a clean and healthy living environment both at home and in the neighbourhood of users.

Support: A term used to include a wider range of options, such as Technical guidance/ assistance, and facilitating access to land/ space/ communal resources.

LIST OF ABBREVIATIONS AND ACRONYMS

ALRI	Acute Lower Respiratory Infection
CLTS	Community-Led Total Sanitation
CONIWAS	Coalition of NGOs in Water and Sanitation
CWSA	Community Water and Sanitation Agency
DACF	District Assembly Common Fund
DALY	Daily Adjusted Life Year
DESSAP	District Environmental Sanitation Strategy and Action Plan
DOM	District Operational Manual
EHO/A	Environmental Health Officer/Assistant
EHSD	Environmental Health and Sanitation Directorate
GoG	Government of Ghana
GDP	Gross Domestic Product
GNHR	Ghana National Household Register
GSS	Ghana Statistical Service
GSOP	Ghana Social Opportunities Project
JMP	Joint Monitoring Programme
LEAP	Livelihood Empowerment Against Poverty
MMDAs	Metropolitan, Municipal and District Assemblies
MoF	Ministry of Finance
MSWR	Ministry of Sanitation and Water Resources
MTDPs	Medium Term Development Plans
NADMO	National Disaster Management Organization
NESSAP	National Environmental Sanitation Strategy and Action Plan
NHIS	National Health Insurance Scheme

NGOs	Non-Governmental Organizations
ODF	Open Defaecation Free
OVC	Orphaned and Vulnerable Children
REHO	Regional Environmental Health Officer
SDG	Sustainable Development Goals
UNICEF	United Nations Children's Fund
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization
WSMT	Water and Sanitation Management Team

EXECUTIVE SUMMARY

Introduction

The majority of poor people rely on unhygienic on-site sanitation systems with inadequate faecal sludge management systems. Poor sanitation also has a negative impact on the economy as illness reduces productivity. Globally, 40% of the world's population do not have access to basic sanitation, and one in five persons practices open defecation.

Only 15 % of the population of over 27 million people in Ghana have access to safe and improved basic sanitation. This lack of access to improved sanitation has resulted in the rather high rates of open defaecation in the country, especially among the poor.

This has been a major concern to key stakeholders who are working towards the achievement of the Sustainable Development Goal (SDG) 6, which mandates 100% attainment of basic sanitation come 2030; it therefore means that there is the need to critically work on identifying the poor to provide them with basic WASH services, in view of achieving SDG Goal 6. Currently, the WASH sector in Ghana has no guidelines for identifying and targeting the poor and vulnerable for basic sanitation, except for a few organisations.

This document, as a national guideline for targeting and providing basic sanitation services for the poor and vulnerable will serve as a working document for all stakeholders in the sanitation and hygiene sector in Ghana.

Guiding Principles

The goal of this Basic Sanitation Guideline is to contribute to improved health, dignity and quality of life for all people; the main objective is to achieve 100% Open Defaecation Free (ODF) status and equitable and adequate access to sanitation and hygiene for all by 2030, with special emphasis for the poor and vulnerable. The following are some of the guiding principles:

- Community-Led Total Sanitation approach will be used as the entry point, to target the poor and vulnerable individuals and households within our communities;
- Support may be given on a case-by-case basis, based on issues, underpinned by proven or demonstrated poverty, and not to be given wholesale to poor and vulnerable individuals or households;
- The process of identifying and targeting poor and vulnerable persons will be done by the MMDAs, in consultation with and led by community members.
- Minimum standards and operation and maintenance protocols, as prescribed in the Rural Sanitation Model and Strategy (RSMS), will be adhered to by all stakeholders intending to provide basic sanitation services to the poor and vulnerable;

- This Guideline encourages the use of indigenous knowledge in identifying, targeting and providing basic sanitation services to the poor and vulnerable;
- User education will be given to stakeholders at the community level and the MMDAs to ensure sustainability of sanitary facilities provided;
- To track policy implementation effectively and provide continuous improvement in responding to emerging challenges in the sector, a framework for monitoring and evaluation at all levels within the sector will be developed as part of the implementation plan for this guideline;

The principal sector institutions that will lead the process of pro-poor targeting for the delivery of basic sanitation services will be the Ministry of Sanitation and Water Resources, Ministry of Local Government and Rural Development, the Metropolitan, Municipal and District Assemblies, and the development partners, NGOs and Civil Society Organisations including the Coalition of NGOs in Water and Sanitation (CONIWAS).

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INTRODUCTION

1.1 Background

The Joint Monitoring Programme (JMP) reports that globally, 1 in 3, or 2.4 billion people, are still without sanitation facilities which includes 946 million people who defaecate in the open (JMP, 2015). Open defaecation perpetuates a vicious cycle of disease and poverty.

The majority of poor people rely on unhygienic on-site sanitation systems with inadequate faecal sludge management systems. The same people are often the ones most vulnerable to polluted environments, e.g. depending on contaminated water sources.

An estimated 801,000 children younger than 5 years of age perish from diarrhoea each year, mostly in developing countries; this amounts to 11% of the 7.6 million deaths of children under the age of five, and this means that about 2,200 children die every day as a result of diarrheal diseases (Liu et al., 2012). Lopez et al (2006) reported that 88% of 1.5 million children who die each year, are as a result of faecal contamination from inadequate sanitation, hygiene and water supply. Poor sanitation also has a negative impact on the economy as illness reduces productivity, and pollution of groundwater, rivers, lakes and oceans endangers the environment (GIZ, 2015).

The WHO/UNICEF Joint Monitoring Programme (JMP, 2017) estimates that, 1.1 billion people (15 per cent of the global population) practice open defaecation. In Ghana, basic sanitation still remains one of the biggest challenges the country is confronted with. The current data indicates that only 15 % of the population of over 27 million Ghanaians have access to improved basic sanitation. Aside the regional as well as urban-rural disparities, 18. 6% of the poorest do not have access to improved sanitation, compared to only 5% of the richest not having access to improved sanitation (Ghana Statistical Service, 2011). This lack of access to improved sanitation has resulted in the high rates of open defaecation in the country, especially among the poor. Being a major concern to stakeholders and also working towards the achievement of the Sustainable Development Goal 6 which mandates 100% attainment of basic sanitation come 2030, it therefore means there is the need to critically work on identifying the poor to provide them with this basic sanitation services. Currently, Ghana has no sector guideline for identifying and targeting the poor and vulnerable for basic sanitation services except for a few organisations within the WASH sector who have developed some guiding notes to cover their areas of operation.

1.2 Framework

This document, as a national Guideline for targeting the poor and vulnerable for Basic Sanitation services, will serve as a working document for all stakeholders in the sanitation and hygiene sector in Ghana. The preparation of this document aligned itself with the following:

- The Environmental Sanitation Policy (Revised 2010)
- National Environmental Sanitation Strategy and Action Plan (2010)
- The Projects Implementation Manual of the National Community Water and Sanitation Programme (Draft 2017)
- The Community Water and Sanitation Agency's Sector Operational Documents for Rural Water Service Delivery
- The Rural Sanitation Model and Strategy(2011)
- The Ghana Shared Growth and Development Agenda (2014 – 2017)
- National Water, Sanitation and Hygiene (WASH) Emergency Preparedness and Response Plan (2016 Update)
- The Sustainable Development Goal 6: By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations (SDGs, 2016-2030).

This Guideline also lends itself and identifies with other national documents such as; the District Operational Manual (DOM), the Livelihood Empowerment against Poverty (LEAP) Operational Manual, Persons With Disabilities Act, 2006 (Act 715), The Children's Act, 1998 (Act 560), the Districts Environmental Sanitation Strategy and Action Plans (DESSAPs) and the Medium-Term Development Plans of MMDAs.

This poor and vulnerable Basic Sanitation Guideline has been developed based on the outcome of stakeholder consultations at the national, regional, district and community levels, with a leadership role from the Ministry of Sanitation and Water Resources.

This Guideline innovates at targeting the poor and the vulnerable in the delivery of basic sanitation services. Roles are clearly spelt out, minimal standards prescribed, penalties and sanctions for non-compliance and a clearly-defined strategy with set targets (with the SDGs in mind) on the delivery of the required services for the poor and vulnerable provided. Targeting the poor and vulnerable will reduce open defaecation and improve the health and dignity of the general populace of Ghana.

CURRENT SANITATION SITUATION IN GHANA

Ghana is one of the lowest ranked countries in terms of access to basic sanitation worldwide. Nationally, on the average, 19% of people in Ghana do not have access to any sanitation facility and therefore practice open defaecation (OD). One in five Ghanaians have no access to a toilet and defaecate in the open; and only 15% use improved sanitation facilities (WHO/UNCEF 2015)
.The disparities observed in the low sanitation access statistics is also a source of national worry. In Upper East region, 89% of the population practice Open Defaecation (highest rate in Ghana) and only 3% use unshared improved sanitation facilities.

A critical analysis of the sanitation sector reveals that none of the strategies perceived to be successful were complemented by law enforcement and adherence to social norms. Also, information deduced from JMP reports (UNICEF/WHO 2015), compared with different approaches adopted since 1990 in Ghana suggests that the implementation of the Rural Sanitation Model and Strategy (RSMS)
using the Community-led Total Sanitation (CLTS), made the fastest gains in a relatively shorter duration. This achievement has been and will continue to be constrained if persons in the lowest wealth quintile – vulnerable, poor and socially excluded, are not appropriately targeted and their basic sanitation needs addressed.

Though funding is inadequate, the absence of clear political leadership and commitment, as well as the low prioritization of the sector, are some of the major challenges worth mentioning.

2.1 Disease Burden

The health risks from inadequate WASH have been documented previously (Esrey et al. 1991; Fewtrell et al. 2005; Waddington et al. 2009). Approximately 19,000 Ghanaians, including 3,559 children under 5 years, die each year from diarrhoea – nearly 90% of which is directly attributed to poor water, sanitation and hygiene (WASH). In addition, poor sanitation is a contributing factor – through its impact on malnutrition rates – to other leading causes of child mortality including malaria, Acute Lower Respiratory Infection (ALRI) and measles (WSP, 2012). According to WHO, 88% of diarrhoea cases are attributable to poor environmental factors, essentially originating from poor excreta management (Pruss-Ustun et al. 2014).

Ghana ranks lowest in sanitation levels among all lower middle-income countries, although richer than a lot. The country has however made progress providing access to improved water sources to 89% of the population and eliminating Guinea worm from the country (JMP, 2016). However, despite these successes, about 3,559 Ghanaian children die each year from diarrhoea, and about 23% of Ghanaian children suffer from stunting (chronic malnutrition linked to poor water and sanitation). Five million Ghanaians still use water from unsafe sources (WHO 2015).

2.2 Financial and economic burden

The cost of poor sanitation is inequitably distributed with the highest economic burden falling disproportionately on the poor. The average cost associated with poor sanitation, constitutes a much greater proportion of a poor person's income than that of a wealthier person (WSP, 2012). 16 million out of 27 million Ghanaians, use unsanitary or shared latrines; and 4.8 million have no latrines at all and defaecate in the open (WSP, 2012). The poorest quintile is 22 times more likely to practice open defaecation than the richest. Open defaecation costs Ghana US$79 million per year – yet eliminating the practice would require less than 1 million latrines to be built and used (WSP, 2012).

According to the Water and Sanitation Project (WSP) each person practicing open defaecation spends almost 2.5 days a year finding an obscure location to defaecate leading to large economic losses (WSP, 2012). This cost falls disproportionately on women as caregivers who may spend additional time accompanying young children or sick or elderly relatives. This cost is likely to be an underestimation as those without toilets, particularly women, will be obliged to find a private location for urination as well. This translates into an estimated US$19 million lost each year in access time (WSP, 2012).

2.3 The Benefits of Improved Sanitation

Improved water supply and sanitation can reduce deaths. Hand-washing can reduce diarrhoea and pneumonia by up to 50%, yet less than 15% of Ghanaian households have hand-washing facilities. Improved sanitation can reduce diarrhoea rates by 36%, but only 15% of Ghanaians have access to improved sanitation, well short of the 2015 MDG target of 54%. A significant proportion of diarrhoeal diseases can be prevented through safe drinking-water and adequate sanitation and hygiene (WHO, 2017). Improved sanitation in developing countries yields an average of about US$9 for every one dollar spent. Increases in female literacy (due to increased school attendance where proper sanitation facilities exist) contribute to economic growth. Improved sanitation also leads to savings in time and effort due to decrease in distant or adequate sanitation facilities, increased income from tourism (due to low risk of contamination and disease) and decreased resilience to withstand extreme weather conditions. Improved sanitation also leads to the reduction of incidence rates and mortality rates in diarrhoea (Hutton and Haller, 2004). Other health benefits include averted cases of helminths and malnutrition-related diseases (Hutton et al., 2008).

The prevention of sanitation and water related diseases could save some $7billion per year in health system costs and an additional $3.6billion per year savings in averted deaths based on discounted future earnings (Hutton et. al., 2007). Figures from Ghana and Pakistan also suggest that general improvement in environmental conditions could save 8% – 9% of GDP annually (WHO, 2008). The Disease Control Priorities Projects has found sanitation as the second most cost effective health intervention in the world at $11.15 per DALY (Disability Adjusted Life Year) loss averted, coming behind hygiene promotion which is at $3.35 per DALY averted. (Cairncross et. al., 2006). In summary, improved sanitation and sanitation practices brings about economic development on

a national scale through all the averted deaths, avoided DALY losses and money saved in disease treatment that can be used efficiently in other areas of the economy. At the household and community level, the household has more productive time from the ones saved from attending to the sick, which indirectly translates to better income generation for the family or community and therefore a better living standard.

The social benefits of improved sanitation may include: privacy, safety, comfort, cleanliness and respect (Conant, 2005). There are billions who defaecate in bushes and open places, and as a result, face daily assaults to their human dignity and safety. Jon Lane, (2008) noted that "the access and use of a humble toilet can speed social development by; aiding progress towards gender equality, promoting social inclusion, increasing school attendance, building community pride and social cohesion, and contributing to poverty eradication."

Also, studies in Alwar district of India shows that improved sanitation increased girls' school enrolment by one-third and improved academic performance for boys and girls by a quarter; so, sanitation brings about more gender equality and lessens the burden and risks on women and girls (Lane, 2008). Moreover, interventions in sanitation can help the poor and vulnerable keep healthy at all times and help them divert their resources to other critical areas, raising their economic status and reducing the gap between the rich and poor in developing countries (Lane, 2008).

2. 4 Previous Efforts and Outcomes

Various efforts and actions have been undertaken by several sector agencies with mixed results and reactions. Most of their interventions aimed at meeting the basic sanitation needs of the most deprived segments of the communities but were short on sustainability considerations. A review of some of the approaches implemented provided short term reliefs to the beneficiaries. Others were unable to specifically identify and document persons in distress. A thorough review of the work done by the National Technical Work Group on Sanitation (NTWGS) revealed relative strengths and weaknesses, and generated lessons to guide this document.

2.5 Lessons from the past and focus of new initiative

Whereas most approaches addressed the specific needs of families, households and individuals, the enabling environment remained undisturbed. Thus, making deprived and poor persons susceptible to relapse in due course. Others were interventions crafted and delivered by benevolent outsiders whose actions were alienated and had little chances of being replicated. Many other options had little or nothing in common with indigenous knowledge and practices. In the main, most of the interventions did not document the specific learning outcomes and therefore lost the very slim chances of ensuring learning across the sector from community, district, regional and national levels. The lessons learnt from the review process by members of the NTWGS has therefore informed the formulations and finalization of the national guideline prepared to shed more light and guidance for all sector practitioners and agencies.

STRATEGIC DIRECTION

The strategic direction of these guidelines seeks to ensure that, all stakeholders have a common guide to support them in the implementation of programme activities that includes the provision of basic sanitation services to the poor and vulnerable without going contrary to the Environmental Sanitation Policy and strategies.

3.1 Guiding Principles

The guiding principles of this document will be based on the following:

3.1.1 Aligning the Guideline to Sector Policy

In aligning with the Environmental Sanitation Policy, this Guideline also adopts participatory approaches for identifying and targeting the poor and vulnerable. Also, the guidelines require compliance to Community-Led Total Sanitation approach in both the rural and urban settings.

3.1.2 Support to the Poor and Vulnerable

Support may be given on a case-by-case and needs basis, underpinned by proven or demonstrated poverty and vulnerability, and not to be given wholesale. Some initial work should be done by the implementing agency to make it easy in identifying the poor and vulnerable. For example, priority will be given to households or individuals, and will be considered from communities that are certified as ODF Basic by the MICCS/DICCS. The support to be given to the poor and vulnerable will be guided by the following criteria:

- Beneficiaries selected under existing Pro-poor programmes (e.g. LEAP, NHIS, GSOP)
- Female-headed households without adequate social support system
- PLWDs/PLWHA) without support or means of livelihood
- The Aged (60 years and above), that have no external support
- Outcasts/marginalised groups of persons with no external support and are demonstrably poor and/or vulnerable
- Persons who are not gainfully employed and have no external, regular source of income/external support system
- Terminally ill persons, with no external support system
- Households with orphans or vulnerable children (OVC)
- Widow/widower without external support.

Support may be given wholly to communities that have identified technical challenges, such as a difficult terrain; for example, loose sandy soils or lateritic hardpan soils. This is to ensure that resilient and sustainable latrines are provided.

The targeting of the poor and vulnerable for support will be guided by the following approaches:

- Geographical targeting (identifying poor areas where all households are considered to be poor)
- Needs-based targeting (where poor and vulnerable households are identified based on one of the above-mentioned criteria)
- Explicit Work Plans describing how communities will be actively engaged in identifying, (via their own criteria) how the poorest and most deprived will be identified, will be formulated to implement contents of this Guideline.

The type of support to be given may be one or more or all of the following based on the needs identified:

- Materials for the sub-structure
- Materials for superstructure
- Cost of labour (e.g. Artisan fees),
- Sale of customized/specialized toilets at subsidized rates
- Other costs/fees of volunteers
- Construction equipment and tools (shovel, mattock, pickaxe etc.)

Slum areas are characterised by high population density and lack of basic services: entire families live in single rooms in "compound houses" that often lack sanitation facilities. Although poverty is a common feature of many slum residents, income levels vary. Individuals, Donors, organizations and any interested entity may consider such identified poor and vulnerable individuals and households and give some form of support (as specified in 3.3.2).

Any form of support that is given to the poor and vulnerable must conform to the minimum standards prescribed in the Rural Sanitation Model and Strategy.

Support to be given may be broadly categorized into the following: hardware, software, and operational.

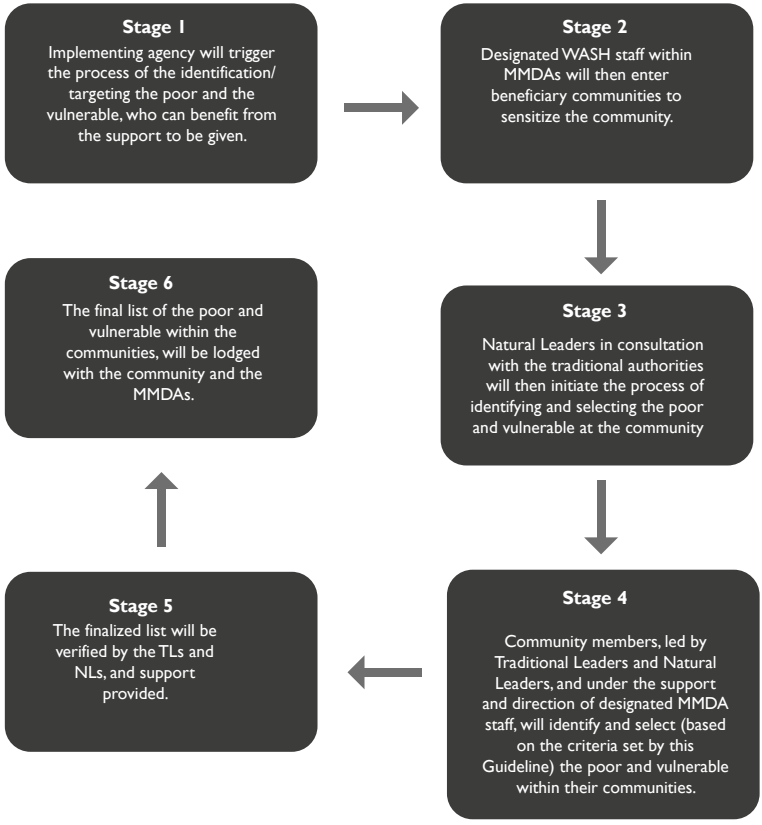
3.1.3 The process of targeting the poor

It will be the responsibility of the District Inter-Agency Coordinating Committee on Sanitation (DICCS) and other WASH related extension staff to facilitate and assist communities to play a lead role in the process. It is important for community and traditional leaders and unit committee members to be involved in the process. At the operational level, the role of the Natural leaders is important. They should also actively be involved at all stages of the process.

Metropolitan, Municipal and District Assemblies, in consultation with the communities themselves will have the responsibility and authority of targeting and validating the poor and vulnerable to benefit from support from any interested organization, institution or individual.

Under the leadership of the community head, in consultation with the natural leaders and WASH related extension staff, a list of potential beneficiaries will be prepared and reviewed every year. The finalized list will be lodged with the MMDAs and the beneficiary communities, and made available to interested organizations, institutions or individuals.

The following is a step-by-step approach to adopt:



3.1.4 Minimum standards

Latrines to be provided by any organization, institution or individual must meet the standards prescribed by the Rural Sanitation Model and Strategy. A latrine must be a facility that removes completely human faeces from human contact in a safe and sustainable manner, and disposed of safely into the environment. The materials used for the construction of a latrine may be locally available.

The purpose of adhering to minimum standards is to ensure that existing facilities are safe to use and adequately perform their intended purposes.

3.1.5 Technology options

The choice of technologies must be consistent with the relevant policies and strategies, and of appropriate technical specification, meet local economic and cultural conditions of the intended beneficiaries and made with available local resources and within the available resources of the implementing agencies. Where there is need to provide completely new facilities, the following technologies are recommended;

- Improved Pit Latrines: Pit latrines come in different forms. However, for the purposes of this document, only improved pit latrines are recommended. Structures made out of locally available materials are encouraged but should not compromise the basic principles of interrupting faeco-oral routes – ensuring there is no ingestion of faeces via, food, fingers, flies and fluids. Such facilities should also provide safety, security, privacy, convenience, universal access including persons living with disability and above all dignity. The siting and design of such facilities should make it easy to clean and be maintained regularly. It must not contaminate drinking water sources and should not emit foul odour. Improved pit latrines or toilets should meet basic requirements that can be adapted to suit many different environmental conditions such as rocky substrates, unconsolidated sediments or non-cohesive soils and shallow water tables. Implementing agencies and Partners and Donors may consider providing pit latrines under brand names in accordance with the minimum standards set by the central and local government authorities (MMDAs). Residents with improved pit latrines will be supported to upgrade to ventilated improved pit latrines. The minimum acceptable latrine under this Guideline is the Ventilated Improved Pit Latrine. Examples of existing brands of improved pit latrines include:

- Ventilated Improved Pit (VIP) Latrine: In a VIP latrine, a vent pipe allows fresh air to flow through the latrine, reducing odour. The vent also allows light into the latrine, attracting insects into the pipe, where they are trapped by the fly screen at the top of the pipe. The screen also keeps out insects looking to enter the pipe from the outside. VIP latrines can be constructed with two pits, instead of moving the latrine when the pit is full. When the pit is full, it can be used as fertilizer and the empty pit reused. The amount of time before the compost can be used as fertilizer depends on the climate and ranges from 3–12 months.

- Pour Flush Latrine: For communities with ample supplies of water, the pour flush latrine is recommended. A pour flush toilet is like a regular cistern flush toilet except that the water is poured in by the user, instead of coming from the cistern above. The quantity of water and the force of the water (pouring from a height often helps) must be sufficient to move the excreta up and over the curved water seal. The pour flush toilet has a water seal that prevents odours and flies from coming back up the pipe.

- Aqua Privy Latrine: The aqua privy is a single pit latrine which has a watertight pit filled with water. Excreta drops into the pit and wastewater is displaced into a storage chamber, a seepage pit or a sewer line. It needs to be topped up regularly, so a nearby water supply is required. The tank can also be used to dispose of grey-water. Over time, the solid matter in the tank degrades anaerobically. A soak field absorbs the effluent; however, sludge must be removed from the tank every 1–5 years. Usually a vacuum tanker or service crew performs this difficult and potentially dangerous task. A bucket of water must be poured down the drop pipe daily to clear any build-up and maintain the water seal.

- Digni-Loo: The Digni Loo is a plastic slab that comes with a plastic lining and ventilation pipe for the construction of simple improved pit latrines. It is most suitable for people within the low and middle income groups so that they have very decent, safe and hygienic latrines to use. It is suitable for both stable and loose soils as the plastic lining/drum ensures that pits do not cave in. The plastic drums which serves as a lining can be removed and reused in the future when the pit is filled up. Depending on the number of people users, the latrine can last for between 1-5 years or more. The plastic has an expected live span of 20 years.

- Bio-Digesters: Bio-Digesters are decomposition mechanized toilet systems which decomposes human excreta in a digester tank. It normally uses bacteria which converts the excreta into methane and water. The effluent is often discharged into the environment.

  It uses relative smaller space and does not need any form of dislodging. It is hygienic and environmental friendly. It can be constructed in both good soils and water logged areas.

3.1.6 The Use of Indigenous Knowledge

In line with our known principles of self-help in Ghana, communities with known disadvantaged persons will offer help so that the whole community can be declared ODF. In a recent review of 185 articles dealing with indigenous peoples and the water, sanitation and hygiene complex, it was discovered that the literature is dramatically skewed towards water resources, and overwhelmingly focused on conflicts, at the expense of basic sanitation and hygiene (Jimenez et al., 2014). More initiatives towards the acknowledgement and use of such indigenous knowledge and institutions will be necessary in the attainment of SGD Goal 6. Many indigenous people have a long and

close relationship to specific territories, and the natural resources within them, they often hold extensive and detailed knowledge of ecosystems and environmental conditions (Peña, 2004). However, in Ghana, such studies have rarely been done. It is therefore important to begin to incorporate indigenous knowledge in our sanitation policies and plans.

Low sanitation coverage and poor hygiene behaviours may not have been studied in the context of indigenous knowledge and local cultural settings but it is important that the sector gives attention to such issues. This Guideline encourages the use of indigenous knowledge in identifying, targeting and providing basic sanitation services to the poor and vulnerable.

3.1.7 Sustainability Issues

- In order to be sustainable, a sanitation approach must be socially acceptable and economically viable. Sustainable sanitation is an approach that considers sanitation holistically. It recognises that human excreta and wastewater are not waste products, but a valuable resource (Sustainable Sanitation, 2017).
- Sanitation issues should be dealt with separately from water issues, so that targeting the poor and vulnerable can be effectively addressed.
- Operations and maintenance protocols should be adhered to as prescribed in the Rural Sanitation Model and Strategy document.
- Action plans for ODF-certified communities should also be considered in the process of selecting poor and vulnerable people.

3.1.8 Monitoring and Evaluation

- It is recommended that the government of Ghana through the MMDAs allocates funds, for monitoring of all ODF certified communities annually, as part of the wider sector monitoring scheme, to ensure that such communities stay ODF for as long as possible. Monitoring will be done and documented by the EHOs in all MMDAs.
- To track policy implementation effectively and provide continuous improvement in responding to emerging challenges in the sector, a framework for monitoring and evaluation at all levels within the sector will be developed as part of the implementation plan for this guideline.

3.1.9 Knowledge Management

- Best practices learned from the field will be documented and shared with all sector players. The existing National and Regional Learning Alliance Platforms will be used as forums to generate, share and make commitments to practice new and working concepts for better service delivery within the sector. The new knowledge gained from such platforms can also inform future programming for sanitation interventions for the poor and vulnerable.

- This Guideline recommends that MMDAs should budget for Knowledge Management platforms within their jurisdictions, to share their experiences coming from the implementation of this Guideline. This will serve as a basis for further refinement of the Guideline, and provide valuable feedback when the Guideline is due for review.

- A national database on the poor and vulnerable will be collated and updated in conjunction with the relevant state agencies, including the Ministry of Gender, Children and Social Protection, Local Government Service, Ministry of Local Government and Rural Development and the Ghana Statistical Service.

INSTITUTIONAL ARRANGEMENTS

Sanitation is a cross cutting issue, hence the issues of provision of support to the poor and vulnerable, has to be dealt with in a multi-sectorial manner. As a result, it is important to identify the key institutions and define their specific roles.

The Principal Sector Institutions will be the following:

- The Ministry of Sanitation and Water Resources (MSWR)
- Metropolitan, Municipal and District Assemblies (MMDAs)
- Ministry of Gender, Children and Social Protection
- Office of the Head of Local Government Service
- Ministry of Finance
- Ministry of Health
- Ministry of Local Government and Rural Development
- National Disaster Management Organisation
- Community Water and Sanitation Agency
- Coalition of Non-Governmental Organizations in Water and Sanitation (CONIWAS).

4.1 Ministry of Sanitation and Water Resources

The Government of Ghana recognizes the role and significance of water and sanitation and how they enhance the national development effort. Therefore in 2017, government set up the Ministry of Sanitation and Water Resources per Executive Instrument (EI) 28 of 2017, to give focus and attention to these two sub-sectors (water and sanitation) to ensure that it is able to deliver these vital services to the good people of Ghana. The Environmental Health and Sanitation Directorate of the MSWR will lead in giving overall policy direction and show leadership in delivering basic sanitation services to the poor and vulnerable in Ghana through policy guidelines, coordination, capacity development and regulations. The MSWR will also receive and be directly responsible for managing budgeted funds meant for the provision of sanitation services to the poor and vulnerable. Additionally, it will have a Pro-poor Desk, directly responsible for leading sector pro-poor sanitation interventions. It will also monitor and manage relevant data on activities of the poor and vulnerable.

4.2 Ministry of Gender, Children and Social Protection

The Ministry of Gender, Children and Social Protection (MGCSP) was established by Executive Instrument (E.I.) 1 in 2013 which has resulted in a merger of the then Ministry of Women and Children's Affairs (MOWAC) with the Department of Social Welfare (DSW), National Council on Persons with Disability (NCPD) and the Social Protection Division of the Ministry of Employment and Social Welfare (MESW).

Consequently the MGCSP has assumed a new and expanded mandate to ensure gender equality, promote the welfare and protection of children, and to empower the vulnerable (including the poor), for sustainable national development. The MGCSP is responsible for implementing the Livelihood Empowerment against Poverty (LEAP) programme. The LEAP is a cash transfer programme introduced by the Government of Ghana (GoG) in 2008, for extremely poor and vulnerable households which have the following three categories of eligible members:

- Orphaned and vulnerable children (OVC)
- Persons with severe disability without any productive capacity
- Elderly persons who are 65 years and above

4.3 The Ghana National Household Registry (GNHR)

Ghana National Household Registry (GNHR) is a unit of the Ministry of Gender, Children and Social Protection (MGCSP) with the mandate to establish a single national household register from which social protection programs will select their beneficiaries in Ghana. It is part of the efforts by Government of Ghana to sustain and deepen the progress made in poverty reduction by ensuring that a larger share of benefits of social protection interventions goes to the extremely poor and vulnerable. The establishment of the GNHR is an attempt to streamline and make more efficient the targeting system in Ghana by using the same Proxy Mean Test indicators (Common Targeting Mechanism) in the identification of potential beneficiaries for social protection interventions.

The GNHR will provide a national updated register of all the poor and vulnerable, based on the criteria in Section 4.2 of this Guideline. The operational definition of the term 'the poor and vulnerable' will also be reviewed from time to time to reflect the current state of the economy (as the economy grows in the coming years).

4.4 Ministry of Local Government and Rural Development

The Ministry of Local Government and Rural Development (MLGRD) exists to promote the establishment and development of a vibrant and well-resourced decentralized system of local government for the people of Ghana to ensure good governance and balanced rural-based development. Through the MMDAs, the poorest-of-the-poor will be directly targeted for any support under this policy. Any donor who intends to make an intervention, will do so through a formal notification given to the assemblies through the Chief Executive.

4.5 Ministry of Finance

The MoF will ensure the timely release of budgeted funds from the National Budget to the MMDAs for direct implementation of MMDAs medium term development plans. The MTDPs of the MMDAs will feed into the National Development Planning Commission.

4.6 National Disaster Management Organization (NADMO)

The National Disaster Management Organization, in line with its constitutional mandate, will lead in any response to emergency situation, and provide resilient technologies to meet the needs of the poor and vulnerable.

4.7 MMDAs

The MMDAs should play a lead role in making resources available to support the poor and vulnerable under this Guideline. The EHOs within the assemblies will ensure that the support to be given for the poor and vulnerable conforms to the minimal standards prescribed in this guideline.

MMDAs will draw and include sanitation plans that directly target the poor and vulnerable in their District Environmental Sanitation Strategic Action Plans (DESSAPs) and District Medium Term Development Plans (DMTDPs).

4.8 Other National Agencies

The Ministry of Roads and Highways, the Ministry of Transport, Ministry of Education/ Ghana Education Service, the Ministry of Health, the Ministry of Tourism, the Ministry of Environment, Science and Technology, the Office of the Head of Local Government Service, the Environmental Protection Agency, the Ghana Statistical Service, the Town and Country Planning, the Community Water and Sanitation Agency, and the Centre for Scientific and Industrial Research, will continue to play their roles as prescribed in Section 3.2.2 of the Environmental Sanitation Policy (ESP, 2010).

The Environmental Health and Sanitation Directorate (EHSD) and the Regional Environmental Health Offices shall play the leading role in supporting the targeting of and delivery of basic sanitation services to the poor and vulnerable.

4.9 The Private Sector

The Guideline encourages the private sector to be engaged by the Government of Ghana and its Development Partners to prioritise sanitation as part of their corporate social responsibility. Additionally, the private sector should be encouraged to support in sale of quality but affordable basic sanitation facilities and services to facilitate the provision of services to beneficiaries.

4.10 The Civil Society

The absence of a clear mechanism for gathering and disseminating the growing experiences of NGOs in the sector makes it difficult to use field lessons to influence the sector and advocate for social changes. CONIWAS will coordinate lessons learned from field experiences, document and share on an annual basis, and work to influence policy direction for the sector. CONIWAS will also ensure that all civil society organisations in the sanitation sector has adequate capacity to deliver pro-poor services. It will also embark on social accountability initiatives, budget and expenditure tracking and ensure that all people in Ghana benefit equitably from public investments. Development partners and sector players are encouraged to support CONIWAS with adequate funds to support, monitor and evaluate processes and outcomes.

FINANCING AND OTHER MEASURES

5.1 Financing

The cost of providing support for deprived and vulnerable segments of the population is expected to be integrated into existing programmes to ensure sustainability of the initiative. All implementing agencies should work through existing agencies specialized in identifying, targeting and meeting the needs of the disadvantaged population.

- The MMDAs in consultation with the Ghana National Household Registry, will map all poor and vulnerable households and individuals within communities. Such individuals and households will benefit from direct support by the Government of Ghana (GoG) through national level budget allocations, funds or other statutory bodies that may be created by law, or by the MMDAs such as the National Sanitation Fund under the National Sanitation Authority.
- This Guideline should guide the involvement of local small-scale private sector providers of sanitation services.
- This Guideline encourages the introduction of water tariffs in communities that have reliable water supply. Part of this tariff can be used to provide support to the poor and the vulnerable in the provision of basic sanitation services.

Other financing options may include micro financing sanitation and the traditional sources (taxes, tariffs and transfers). Microfinancing sanitation has not been very effective here in Ghana. However, lessons can be learned from India and elsewhere, where this approach has been very successful. Sanitation financing for the rural poor provides significant social and economic benefits, helps governments and donors stretch their investments further, and allows households to more easily access critical sanitation services (White, 2017). This Guideline encourages the incentivising of the private sector to engage in microfinancing sanitation.

5.2 Enforcement

All MMDAs will draft and gazette sanitation bye-laws to include issues on Pro-poor targeting. All stakeholders and partners are encouraged to adhere to this Guideline to ensure the acceleration of progress towards the attainment of the SDG Goal 6.

5.3 Training and Certification

Training and re-training of CLTS facilitators will continue to be conducted by the lead sector agency in collaboration with interested sector players on a regular basis to ensure up-to-date knowledge transfer. All CLTS facilitators will be certified by the Ministry of Sanitation and Water Resources.

5.4 Sanitation Plans

District Environmental Sanitation Strategy and Action Plans (DESSAPs) shall incorporate a Pro-poor strategy for the provision of basic sanitation services to the poor and vulnerable at the local assembly level.

5.5 Research and Development

- The Environmental Health and Sanitation Directorate will develop an effective framework for the capturing and reporting of all activities that involve the poor and vulnerable in the provision of sanitation services within the sector. This will ensure that real-time accurate and reliable data is available for planning purposes.
- The EHSD in collaboration with CONIWAS, will also develop a platform for the transparent and credible assessment and reporting of all sector interventions aimed at the poor and vulnerable.
- The EHSD in collaboration with CONIWAS, will support all research institutions in Ghana to research and provide data on sanitation-related issues affecting the poor and vulnerable.
- The EHSD will be the repository of all sanitation-related research affecting the poor and vulnerable, and will ensure the effective dissemination of same to the relevant agencies and the general public.
- The EHSD will support research in appropriate technologies to meet the needs of all segments of society, especially the vulnerable and poor people.
- The EHSD will support research into general attitudes and perceptions on sanitation and why we are where we are as a nation as far as sanitation is concerned.

5.6 Sanitation in Emergencies – criteria for support

Emergency situations, including those due to natural hazards (e.g. earthquakes, hurricanes, floods, landslides, wildfires and droughts), technological hazards (e.g. chemical spills, disruption to infrastructure), complex situations (produced by conflict) and outbreaks, lead to health-related diseases and affect populations in all aspects Depending upon the nature of the event, vulnerability of the people affected and capacity of local and national systems, deterioration in environmental conditions often results in a steep increase in sanitation-related diarrhoeal disease (W.H.O., 2017). This Guideline aligns with the protocols for responding to emergencies outlined in the National Water, Sanitation and Hygiene (WASH) Emergency Preparedness and Response Plan (2016 Update). All persons affected during any emergency, will be provided with resilient latrines that are climate-adapted and suitable.

5.7 Review and Revision of this guideline

This guideline shall be reviewed as regularly as practicable but it shall be subjected to revision and updates every five (5) years or earlier when the social, cultural and economic contexts or indicators change and as directed by the Ministry of Sanitation and Water Resources. Any two (2) major sector-implementing partners with valid indicators may also petition the Ministry to trigger the process.

BIBLIOGRAPHY

Abanyie S. K., Anang R. C. and Boateng A. 2016. Menstrual Health Management in some selected Schools in Ghana. 39th WEDC International Conference, Kumasi, Ghana.

Cairncross S, Valdmanis V (2006) Water supply, sanitation and hygiene promotion. In: Jamison DT, Breman JG, Measham AR, et al. (2006) Disease control priorities in developing countries, 2nd Ed. New York: Oxford University Press.

Conant J, (2005). Sanitation and cleanliness for a healthy environment. Hesperidian Foundation, UNDP. www.hesperidian.org

Esrey SA, Potash JB, Roberts L & Shiff C (1991) Effects of improved water supply and sanitation on ascariasis, diarrhoea, dracunculiasis, hookworm infection, schistosomiasis, and trachoma. Bulletin of the World Health Organization 69, 609–621.

Fewtrell L, Kaufmann RB, Kay D, Enanoria W, Haller L & Colford JM (2005) Water, sanitation, and hygiene interventions to reduce diarrhoea in less developed countries: a systematic review and meta-analysis. The Lancet Infectious Diseases 5, 42–52.

Ghana Statistical Service, 2011. Population and Housing Census Report, 2010. Ghana Statistical Service.

GIZ, 2015. Sustainable Sanitation global commitment to human dignity. Available at http://www.giz.de/expertise/html/11139.html. Date assessed: 01-02-2018.

Mansour G. and Esseku H. 2017. Situation analysis of the urban sanitation sector in Ghana. Water and Sanitation for the Urban Poor.

Hutton G, Haller L, Bartram J (2007). Economic and health effects of increasing coverage of low-cost household drinking-water supply and sanitation interventions to countries off-track to meet MDG target 10. Geneva: World Health Organization.

Hutton G et al, (2008). Economic Impacts of Sanitation in Southeast Asia. Washington D.C. World Bank, Water and Sanitation Programme.

Hutton G and Haller L, (2004). Evaluation of the cost and benefits of water and sanitation Improvements at the Global Level. World Health Organization, Geneva.

Jiménez A., Cortobius M. and Kjellén M., 2014. Water, sanitation and hygiene and indigenous peoples: a review of the literature. Water International, 39 (3). DOI10.1080/02508060.2014.903453

Joint Monitoring Programme (JMP), 2017 Updates. Progress on Drinking Water, Sanitation and Hygiene. Available at http://www.who.int/water_sanitation_health/publications/imp/jmp-2017/en/. Date assessed: 01-02-2018.

Joint Monitoring Programme (JMP), 2015. Progress on sanitation and drinking water: 2015 update and MDG assessment.

JMP, 2008. UNICEF/WHO JMP (Joint Monitoring Programme for Water Supply and Sanitation). 2008. Progress on Drinking Water and Sanitation: Special Focus on Sanitation. Geneva: WHO.

Lane J, (2008). The economic and social benefits of improved sanitation. Speech delivered at the fourth Caribbean Environmental Forum and Exhibition. St. George's University, Grenada. Available at www.wsscc.org. Accessed on February 20, 2017.

Liu L, Johnson HL, Cousens S, Perin J, Scott S, Lawn JE, Rudan I, Campbell H, Cibulskis R, Li M, Mathers C, Black RE; Child Health Epidemiology Reference Group of WHO and UNICEF. Global, regional, and national causes of child mortality: an updated systematic analysis for 2010 with time trends since 2000. Lancet. 2012 Jun 9; 379 (9832):2151-61.

Livelihood Empowerment against Poverty (LEAP) Operational Document, 2008. www.leap.gov.gh.

Lopez, A, C. D. Mathers, M. Ezzati, D. T. Jamison, and C. J. L. Murray. 2006. Global Burden of Disease and Risk Factors. Washington, DC: The World Bank, Disease Control Priorities Project.

Maina-Ahlberg, B. (1979). Machakos project studies. Agents affecting health of mother and child in a rural area of Kenya. XII. Beliefs and practices concerning treatment of measles and acute diarrhoea among the Akamba. Tropical and Geographical Medicine, 31, 139–148.

Environmental Sanitation Policy, 2010, Revised.

National Water, Sanitation and Hygiene (WASH) Emergency Preparedness and Response Plan (2016 Update).

Peña, F. (2004). Pueblos indígenas y manejo de recursos hídricos en México. Revista MAD, 11, 20–29.

Pruss-Ustun A., Bartram J., Clasen T., Colford Jr J. M., Oliver C., Curtis V., Bonjour S., Dangour A. D., De France J., Fewtrell L., Freeman M. C., Gordon B., Hunter P. R., Johnston R. B., Mathers C., Mausezahl D., Medlicott K., Neira M., Stocks M., Wolf J., and Cairncross S., 2014. Burden of disease from WASH. Tropical Medicine and International Health. Volume 19 no 8 pp 894–905.

Sustainable Development Goals, SDG Goal 6, 2016.

Sustainable Sanitation, 2017. Available at www.sswm.info/category/concept/sustainable-sanitation.

UNICEF, 2017. Available at www.newsghana.com.gh/tag/.

Waddington H., Snilstveit B., White H. and Fewtrell L. (2009) Water, Sanitation and Hygiene Interventions to Combat Childhood Diarrhoea in Developing Countries. The International Initiative for Impact Evaluation (3ie), New Delhi, India.

White G., 2017. Sanitation Financing: An Opportunity to Accelerate an End to Open Defecation. The Blog, 'Huffpost'. Available at https://www.huffingtonpost.com/gary-white/sanitation-financing. Accessed on 23-02-2018.

WHO, 2017 Factsheet. World Health Organization Fact Sheets. Available at http://www.who.int/mediacentre/factsheets/fs330/en/. Date assessed: 01-02-2018.

W.H.O., 2017. World Health Organization. Available at www.who.int/water_sanitation-health/emergencies/en/. Date accessed: 20-02-2018.

W.H.O., 2008 Factsheet. World Health Organization Fact Sheets.

WSP, 2010. Financing On-Site Sanitation for the Poor: A Six Country Comparative Review and Analysis. WSP Sanitation Global Practice Team. Water and Sanitation Programme: Technical Paper.

WSP, 2012. Water and Sanitation Programme, Ghana. Available at www.wsp.org.

www.sanitationdrive2015.org. Accessed on February 20, 2018.

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