



REPUBLIC OF GHANA

Ministry of Local Government and Rural Development

# Activities of the Environmental Health and Sanitation Directorate and effects of Climate Change

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## Introduction:

- ❖ Environmental sanitation is among the powerful drivers of human development as it affects quality of life – improving health and rising wealth. It cuts across all sectors of the economy including those that concern health, environmental protection, improvement of human settlements and services, tourism, and general economic productivity.
- ❖ In Ghana, the revised Environmental Sanitation Policy, approved by Cabinet in March this year is the framework for environmental sanitation.

# The Revised Environmental Sanitation Policy

The broad principles underlying Ghana's Environmental Sanitation Policy are:

- ❖ The principle of environmental sanitation services as a public good;
- ❖ The principle of environmental sanitation services as an economic good;
- ❖ The polluter-pays-principle;
- ❖ The principle of cost recovery to ensure value-for-money ensuring economy, effectiveness and efficiency;
- ❖ The principle of subsidiarity in order to ensure participatory decision-making at the lowest appropriate level in society;
- ❖ The principle of improving equity and gender sensitivity;
- ❖ The principle of recognizing indigenous knowledge, diversity of religious and cultural practices;
- ❖ The precautionary principle that seeks to minimize activities that have the potential to negatively affect the integrity of all environmental resources;
- ❖ The principle of community participation and social intermediation

# The Revised Environmental Sanitation Policy

The principal components of environmental sanitation include:

- ❖ Collection and sanitary disposal of wastes, including solid wastes, liquid wastes, excreta, industrial wastes, health-care and other hazardous wastes;
- ❖ Stormwater drainage;
- ❖ Cleansing of thoroughfares, markets and other public spaces;
- ❖ Control of pests and vectors of disease;
- ❖ Food hygiene;
- ❖ Environmental sanitation education;
- ❖ Inspection and enforcement of sanitary regulations;
- ❖ Disposal of the dead;
- ❖ Control of rearing and straying of animals;
- ❖ Monitoring the observance of environmental standards.

# Status of environmental sanitation in Ghana

## Solid waste estimates\*

❖ Accra, Kumasi, Sekondi/Takoradi, Tamale & Tema: (19 % of the population)	3200 tonnes per day
❖ Other urban localities in Ghana: (34 % of the population)	5000 tonnes per day
❖ Rural parts of Ghana: (47 % of the population)	4400 tonnes per day
❖ Ghana total	12600 tonnes per day

At the national level, 3.7 % is buried, 16.9 % is burnt, 2.2 % is house-to-house collection, 4.1 % is dumped at a public container, 58.9 % is dumped indiscriminately, 2.0 % at public dumps, and 11.7 % is disposed of in other ways. In total, close to 85 % of all refuse generated is currently not collected or disposed of in a proper manner.

\* Draft National Environmental Sanitation Strategy and Action Plan (NESSAP), 2010. The status for the other subjects are also from the draft NESSAP.



# Status of environmental sanitation in Ghana

## Excreta management

Public toilets (mainly WCs, KVIPs, and Aqua Privies)	31 %
Access to pit latrines of different levels	22 %
Households with access to KVIPs	7 %
WCs (flush toilets)	9 %
Unhygienic pan or bucket latrines (government owned quarters of the Police, MoH and RCCs)	4 %

## Sewerage coverage

The national average for sewerage coverage is as low as 4.5 %. Tema and to a limited extent Accra are the only municipalities with a sewerage systems.

# Status of environmental sanitation in Ghana

## National coverage for sanitation

Average national coverage estimate for sanitation is **55 %**, with very low numbers for some regions (WR: 50 %, CR: 55 %, GAR: 80 %, VR: 35 %, ER: 60 %, AR: 65 %, BAR: 45 %, NR: 20 %, UER: 10 %, and UWR: 20 %).

## Sewage treatment plants

Only 7 out of 44 sewage treatment plants in Ghana work, as MMDAs generally do not have the capacity to operate and maintain them.



# Status of environmental sanitation in Ghana

## Storm Water Drainage

- ❖ The drainage situation in the 5 metropolises have improved with the provision of drainage infrastructure as part of the UESP series under the World Bank.
- ❖ The situation in smaller towns is serious, and increased urbanization and non-adherence to planning schemes and un-authorized construction have aggravated the situation further.

# Status of environmental sanitation in Ghana

## Drainage Master Plans

Drainage master plans exist for the following cities:

- ❖ Accra - Greater Accra Region
- ❖ Tema - Greater Accra Region
- ❖ Kumasi - Ashanti Region
- ❖ Takoradi/Secondi - Western Region
- ❖ Tamale - Northern Region

For the following cities no master plans have been prepared but are urgently needed:

- ❖ Ho - Volta Region
- ❖ Cape Coast - Central Region
- ❖ Koforidua - Eastern Region
- ❖ Bolgatanga - Upper East Region
- ❖ Wa - Upper West Region

# On-going and planned activities of the EHSD

## On-going activities:

- ❖ The Revised National Environmental Sanitation Policy approved by Cabinet in March this year is about to be printed and will be launched soon.
- ❖ The draft NESSAP presented in April this year has undergone peer review and is about to be finalized. Comments are still welcome.
- ❖ The draft SESIP presented in June this year is under review and comments are expected to be sent to the EHSD
- ❖ The launch of the Sanitation and Water for All, a global partnership, the so-called SWA, has been planned to take place in August this year. A compact (document), emphasizing the commitment of the Government regarding additional funding for sanitation and water has been prepared.

# On-going and planned activities of the EHSD

## Planned activities:

- ❖ In November this year, the first National Environmental Sanitation Conference (NESCON) will be held.
- ❖ The National Environmental Sanitation Week will be celebrated with the NESCON
- ❖ The NESCON is among others supported by the Royal Netherlands Embassy, but also other DPs will be contacted for possible support.

## Challenges in environmental sanitation

Below can be seen a selection of some of the serious challenges in sanitation, Ghana is facing:

- ❖ Close to 85 % of all refuse generated in Ghana is currently not collected or disposed of in a proper manner.
- ❖ Concerning excreta management, 26 % of the population still have to rely on pit or pan latrines, if used at all.
- ❖ The sewerage coverage is as low as 4.5 %.
- ❖ Average national coverage estimate for sanitation is 55 %, with very low numbers for some regions
- ❖ Only 7 out of 44 sewage treatment plants in Ghana work, as MMDAs and institutions generally do not have the capacity to operate and maintain them.

## Effects of climate change on environmental sanitation

- ❖ Flooding and heavy rainfall may lead to contamination of water with chemicals, heavy metals or other hazardous substances, either from land fills, or from chemicals already in the environment (e.g., pesticides).
- ❖ Flooding of land fills may furthermore result in breakdown of leachate collection systems and control systems for greenhouse gases.
- ❖ An area of concern is the future performance of storm water drainage systems. In regions affected by increasingly intense storms, the capacity of these systems will need to be increased to prevent local flooding and the resulting damages to buildings and other infrastructure.



## Effects of climate change on environmental sanitation

- ❖ Drainage and storm water management is important in low income urban communities, as blocked drains can cause flooding and increased transmission of vector-borne diseases. Cities with combined sewer overflows can experience increased sewage contamination during flood events.
- ❖ Flooding, and severe storms pose the greatest risks for damages to buildings in both developed and developing countries, because housing and other assets are increasingly located in coastal areas, on slopes, in ravines and other risk-prone sites.
- ❖ Higher precipitation in cities may affect the performance of sewer systems; uncontrolled surcharges may introduce microbial and chemical pollutants into water resources that are difficult to handle through the use of conventional treatment processes.

# Effects of climate change on environmental sanitation (continued)

- ❖ A significant proportion of notified water-borne disease outbreaks are related to heavy precipitation events, often in conjunction with treatment failures.
- ❖ The consequences of climate change may alter the reliability of current water management systems and water-related infrastructure. It is very likely that hydrological characteristics will change in the future. There is a need to improve modelling of climate changes related to the hydrological cycle at scales relevant to decision making.

# Conclusions and recommendations regarding climate change effects on environmental sanitation

## Conclusions and recommendations:

- ❖ There is a need to improve the status of environmental sanitation through strengthening of institutions and enforcement of laws.
- ❖ There is a need to improve the management of existing waste disposal site to control greenhouse gas emissions and groundwater contamination and take into account possible effects of climate change in design and construction of new ones
- ❖ There is an urgent need to implement the master plans for drainage for towns lacking proper drainage systems and reinforce the maintenance of existing drainage systems. Furthermore, for major towns not having master plans they should be prepared.
- ❖ There is a need to review local bye laws in relation to spatial distribution of residential, commercial, industrial and recreational areas and improve them in order to take into account possible effects of climate change

THANK YOU FOR YOUR ATTENTION

