

**Government of Ghana**



**Ministry of Local Government and Rural Development**

# **Environmental Sanitation Policy**

(Revised 2009)



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## Abbreviations and Acronyms

BOO	-	Build, Own, Operate
BOOT	-	Build, Own, Operate, transfer
CBO	-	Community Based Organisation
CSIR	-	Council for Scientific and Industrial Research
CWSA	-	Community Water and Sanitation Agency
DA	-	District Assembly
DACF	-	District Assemblies Common Fund
DESSAP	-	District Environmental Sanitation Strategy and Action Plan
DPCU	-	District Planning and Coordinating Unit
DUR	-	Department of Urban Roads
EHSD	-	Environmental Health and Sanitation Directorate
EIA	-	Environmental Impact Assessment
EPA	-	Environmental Protection Agency
ESICOME	-	Expanded Sanitary Inspections and Compliance Enforcement
GPRS	-	Ghana Poverty Reduction Strategy
GPRSII	-	Growth and Poverty Reduction Strategy
GoG	-	Government of Ghana
GWCL	-	Ghana Water Company Limited
ICT	-	Information and Communication Technology
IEC	-	Information, Education and Communication
MDG	-	Millennium Development Goal
M & E	-	Monitoring & Evaluation
MEST	-	Ministry of Environment, Science and Technology
MoH	-	Ministry of Health
MLGRD	-	Ministry of Local Government and Rural Development
MMDAs	-	Metropolitan, Municipal and District Assemblies
MWHRH	-	Ministry of Water Resources, Works and Housing
NDPC	-	National Development Planning Commission
NEPAD	-	New Partnership for African Development
NESIMBoD	-	National Environmental Sanitation Investment Management Board
NESPoCC	-	National Environmental Sanitation Policy Coordinating Council
NESSAP	-	National Environmental Sanitation Strategy and Action Plan
NGO	-	Non- Governmental Organisation
RCC	-	Regional Coordinating Council
REHO	-	Regional Environmental Health Office
SEA	-	Strategic Environmental Assessment
SESIP	-	Strategic Environmental Sanitation Investment Plan

## Preface

The Environmental Sanitation Policy (Revised, 2009) is the outcome of reviews to address limitations of the old policy published in 1999. A result of nation-wide consultation among sector stakeholders, this new policy redirects our efforts five years to the Millennium Development Goals (MDGs) target year of 2015.

The policy was approved by Cabinet at its meeting of 31<sup>st</sup> March 2010, and on the advice of the Cabinet Sub-committees on Local Government, Health, Environment and Industry, H.E. the President directs that the following measures be given priority:

The Ministry of Local Government and Rural Development, and the Ministry of Environment, Science and Technology are to liaise with the Ministry of Finance and Economic Planning to work out modalities for accessing funds from consolidated fund for implementing environmental sanitation projects commencing 2010.

The “polluter-pays” concept be broadened and through the use of appropriate legislation to raise revenue for financing environmental sanitation.

The Ministry of Local Government and Rural Development liaise with Ministry of Information and other relevant agencies to develop a communication strategy for disseminating the policy.

Important policy provisions include giving urgent attention to enhancing the capacity of front-line actors especially environmental health staff and environmental sanitation designated as an *essential* service as we aim to attain middle-income by 2020.

A National Environmental Sanitation Strategy and Action Plan (NESSAP) and an accompanying Strategic Environmental Sanitation Investment Plan (SESIP) should be prepared to meet objectives of the policy. These are important, but hitherto missing, key elements required for effective policy implementation.

It is expected that the planning guidelines issued by the National Development Planning Commission to Metropolitan, Municipal and District Assemblies (MMDAs) for preparing and updating Medium Term Development Plans, will adequately capture priorities of District Environmental Sanitation Strategies and Action Plans (DESSAPs) to enable the implementation of measures and actions of this policy at the appropriate decentralised local government levels.

**HON. YIELEH CHIREH, MP**

MINISTER, MINISTRY OF LOCAL GOVERNMENT, RURAL DEVELOPMENT

## Overview

The Environmental Sanitation Policy published first in 1999 has been revised to update its scope to meet current development objectives and address aspirations of sector actors.

The revision also takes on board the changing context of national and international development priorities. More importantly, it seeks to re-examine and deal more effectively with the issues that have led to the persisting underlying causes of poor environmental sanitation and its vital link to health.

Emphasis is placed on the need to ensure systematic collection of data on wastes from all sectors of the economy to support relevant research and development to meet the challenges of managing wastes associated with our growing economy and rapidly changing lifestyles.

The policy supports building partnership both at international and local levels and with the private sector within an expanded network of actors through effective public sector facilitation and coordination.

### **Outline of the revised Environmental Sanitation Policy**

Part 1 presents the current context and situation of environmental sanitation in Ghana. It also covers national development priorities, and broad principles guiding policy formulation.

Part 2 which is the core of the new policy identifies the main challenges and constraints of the sector and draws objectives as well as actions and measures, to meet the challenges while adhering to basic principles.

Part 3 presents issues of policy implementation including institutional roles and responsibilities and broad specifications.

The advent of sustainable development and poverty-focused planning frameworks such as MDGs and GPRS; international agenda that prioritise country-ownership of policies, plans and programmes such as Paris declaration and Accra Agenda for Action (AAA) demand new ways of targeting for incremental improvements.

# 1. Introduction

## 1.1 CONTEXT

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.

As Ghana aspires to middle-income status by 2020, a healthier and wealthier population will tend to generate more of all waste types (domestic, commercial, institutional, industrial and hazardous). There is, therefore, need for urgent action based on a clear national strategy (policies, plans and programmes) to manage this trend, supported by sustainable financing.

Addressing poor behaviour and attitude towards environmental sanitation is critical to achieving any meaningful progress. Considering the emerging challenges of locating treatment and disposal sites and based on experiences of developed economies, a desired long term outcome of improving environmental sanitation would be to take steps that will lead to incremental reduction of the proportion of the waste stream that ends up in final disposal, beginning with waste prevention and reduction from all sources, especially at household level and re-use plan for wastewater.

Tackling the issues raised above would require significantly enhancing the capacity of sector actors at all levels – individuals, households, communities, institutions, commercial and industrial entities and service-providers including the private sector. Increasing advocacy, improving information and education, as well as promoting better enforcement management should lead to better compliance and foster greater civic responsibility towards the environment.

This revised environmental sanitation policy seeks to refocus the priorities of the sector so it is forward looking and effectively embraces the challenges of changing life-styles associated with modernization and improving wealth status. The policy lays the basis for developing a systematic approach and framework for identifying and harnessing resources for value-for-money (*economy, effectiveness and efficiency*) services to all.

### 1.1.1 Definition - components of environmental sanitation

Environmental sanitation is aimed at developing and maintaining a clean, safe and pleasant physical and natural environment in all human settlements, to promote the socio-cultural, economic and physical well-being of all sections of the population. It comprises a number of complementary activities, including the provision and maintenance of sanitary facilities, the provision of services, public education, community and individual action, regulation and legislation supported by clearly mandated institutions, adequate funding and research and development.

The principal components of environmental sanitation include:

- (a) Collection and sanitary disposal of wastes, including solid wastes, liquid wastes, excreta, industrial wastes, health-care and other hazardous wastes;
- (b) Stormwater drainage;
- (c) Cleansing of thoroughfares, markets and other public spaces;
- (d) Control of pests and vectors of disease;
- (e) Food hygiene;
- (f) Environmental sanitation education;
- (g) Inspection and enforcement of sanitary regulations;
- (h) Disposal of the dead;
- (i) Control of rearing and straying of animals;
- (j) Monitoring the observance of environmental standards.

### **1.1.2 Status of Environmental Sanitation**

Based on projections of the 2000 Population and Housing Census data, the current population of Ghana (2009) is estimated to be around 23,000,000. Ghana's five largest cities (Accra, Kumasi, Sekondi-Takoradi, Tamale and Tema) account for about 19% of the total population and their residents generate an estimated 3,200 tonnes of solid waste per day. There are around 105 other urban localities each with population above 15,000 with environmental sanitation challenges similar to those of large cities. These other urban localities comprising about 34% of the total population also generate in excess of 5,000 tonnes each day.

From the baseline environmental sanitation data gathered in 2007/8 by MMDAs close to 76% of households still rely on improper waste collection and disposal methods, with only less than 5% relying on house-to-house collection.

The Multiple Indicator Cluster Survey (2006) indicated that sixty-one percent (61%) of the population is using improved variety of household latrines ranging from flush toilets connected to sewer or septic tanks, VIP latrines and pit latrines with slabs. It also reported a high percentage of usage of improved facilities in urban areas (about 83%) as against less than 45% for rural areas.

Data from the draft report on 5<sup>th</sup> Round of the Ghana Living Standards Survey (GLSSV) gives coverage of 26.6% and 21.9% in 2006 for urban and rural areas respectively, while the the Ghana Demographic and Health Survey (DHS 2008) gave a coverage of improved sanitation facilities of 11.3%. From baseline data gathered by District Environmental Health Directorates country-wide in 2007 and 2008, the proportion of households relying on an improved variety of household sanitation technology (WC, VIP, Aqua Privies, and K-VIP) is estimated around 76%. Pan (Bucket) toilets although banned is still used by 7% of the population.

From analysis of growth of housing in Ghana, the housing stock in 2000 was reported to be 2,181,975 an increase of 159.4% over the period 1984 -2000. This trend is increasing with increasing urbanization surpassing that of growth

of population in rural areas.. This presents a challenge of effectively managing increasing volumes of sewage as most of these houses have on-plot septic tanks without adequate drain fields. The lack of adequate home latrines in many low income communities and the resort to more communal and public toilets is also contributing increased volumes of septage that is currently discharged untreated into many water courses and streams. Less than 15% of the septage generated in Accra and Kumasi, the two largest cities, is effectively treated. Generally, there is gradual increase in access to water in rural, small towns and urban areas resulting in increased sullage and wastewater generation with increasing water logging and stagnant pools of water in many towns and cities because of lack of effective drainage.

Increasing urbanization and non-adherence to planning schemes has resulted in unauthorized location of buildings along flood plains and reservations. Inadequate drainage facilities for sullage and storm water conveyance causes flooding in many localities every rainy season. The lack of effective refuse collection from premises has also led to the use of drains as refuse disposal receptacles further compounding the problem with drains turned into open sewers with putrid smells.

Management services and provision of facilities are wholly inadequate. Another area of national crisis is the lack of engineered final treatment and disposal facilities.

At the household level, poor hygienic practices by individuals and communities are compounded by insufficient and ineffective hygiene education. Vector-borne diseases such as malaria and bilharzia are rife due to the virtual absence of pest and disease vector control programmes.

These factors have a serious health impact (more than half of all reported diseases are related to poor environmental sanitation), with attendant social and economic costs. Flooding causes major damage to public infrastructure and private property. Pollution of water resources increases the technical difficulty and cost of providing water supplies. In addition, the sight and smell of inadequately managed wastes constitute a major discomfort to citizens and visitors to Ghana.

These trends are increasing with population growth, modernisation and changing life-styles. Within a period of a decade-and-half food wrapping and packaging has changed from bio-degradables like leaves to paper, to thin-film plastics, and now to more dense styro-foam and plastics. Similarly, drinking water vending has evolved from “bucket-and-cup”, to thin-film plastics, and now to more dense plastics of sachet and bottled ‘mineral’ water.

The growing population and consequent increasing mortality due to poor environmental sanitation practices is placing pressure on cemeteries as encroachment of land is becoming common especially in urbanised communities.

With no plan for systematic and sustainable remediation of the situation local governments often resort to ad-hoc interventions such as public clean-up campaigns and periodic evacuation of refuse heaps.

The foregoing, in addition to the very low capacity of central and local government agencies responsible for enforcement of environmental sanitation legislation is what is confronting the nation now.

### **1.1.3 Development issues - National Development Planning Policy Frameworks, MDGs, NEPAD**

The cross-cutting nature of environmental sanitation affects all aspects of human development. The Expanded Development of Production Infrastructure pillar of the Medium-Term Development Policy Framework (MTDPF, 2010 – 2013) prioritises environmental sanitation services as a key requirement for improving quality of life. This is consistent with the previous national development policy framework, the Growth and Poverty Reduction Strategy GPRSII (2006 - 2009) in which Environmental sanitation is considered as a major component of the Human Resource pillar. The development policy frameworks are informed by the Millennium Development Goals (MDGs), New Partnership for African Development (NEPAD) and above all by the underlying obligations set out in the Constitution of the Republic of Ghana.

#### **Ghana's Medium-Term Development Policy Framework**

The Medium-Term Development Policy Framework (MTDPF, 2010 – 2013) follows the Growth and Poverty Reduction Strategy (GPRS II, 2006 - 2009). Improving environmental sanitation is an important consideration in the MTDPF.

Strategies for improving environmental sanitation include promoting physical planning in both rural and urban areas, acquisition of land for final treatment and disposal in major towns and cities, supporting public-private partnerships in waste management and building capacity of Environmental Health and Sanitation Directorate and MMDAs to better manage environmental sanitation.

Further strategies to improve environmental sanitation include:

- restricting the formation of new slums
- ensuring efficient and effective management of flood control and drainage systems; and

- promoting private sector participation in flood control and coastal protection

In adherence to the requirements of sustainable development objectives of the MDGs, Strategic Environmental Assessment (SEA) principles have been applied with due consideration to participatory engagement of stakeholders from all key sectors and ensuring sustainability of policy interventions.

### **Millennium Development Goals**

The United Nations (UN) Millennium Development Goals (MDGs) launched in 2000, presents a minimum set of targets for achieving poverty reduction and sustainable development.

The Government of Ghana is committed to the principles of the MDGs and with respect to MDG 7, which seeks to ensure environmental sustainability, will work towards:

- Improving access to safe water supply and sanitation to reduce the proportion of population without access to basic water supply and sanitation by 50% by 2015 and 75% by 2025
- Achieving significant improvement in lives of at least 100 million slum dwellers, by 2020

Environmental sanitation powerfully demonstrates the linkages between all the eight MDGs and their related targets, sustained progress in any target will depend on sustaining improvements in environmental sanitation:

- improved environmental sanitation is essential for sustaining productive lives
- improving environmental services enhances and sustains enrolment and retention of girls in schools
- sustaining improvement in services enhances women's dignity and ability to lead
- sustaining improvements in environmental sanitation has great bearing on improving morbidity/mortality
- improving environmental sanitation reduces pre- and post-natal risks
- improved environmental sanitation has direct effects on health-care waste management, vector and water -borne diseases that affect millions of children and women
- environmental sanitation requires multi-sector partnerships to tackle cross-cutting issues

Investing in environmental sanitation has tremendous economic benefits, minimum returns of US\$12 accrue for every US\$1 invested and directly impact health, education, the environment and poverty reduction

Sustained investments in environmental sanitation will reduce the annual health budget of US\$85 million (2008 estimate) and relieve NHIS somewhat of covering common ailments

### **The New Partnership for Africa's Development (NEPAD)**

NEPAD, conceived by African leaders, provides a platform for a comprehensive, integrated development plan designed to address key social, economic and political priorities in a coherent and balanced manner. As part of NEPAD declaration the objectives under the socio-economic development component focuses mainly on improving human and physical resources

including:

- Better health care with priority attention to HIV/AIDs and other pandemic diseases
- Protection of environment

#### **1.1.4 Elements of sustainable environmental sanitation development**

The Environmental Sanitation Policy (1999) identified a number of basic elements and the strategies to promote accelerated development of the sector. These included:

- (a) Formal establishment of environmental sanitation as a sub-sector within the national development programme;
- (b) Rationalisation of institutional objectives and functions at all levels, including delineation of responsibilities and the establishment of inter-agency linkages;
- (c) Establishment the National Environmental Sanitation Policy Co-ordination Council within the Ministry of Local Government and Rural Development;
- (d) Establishment of a National Environmental Sanitation Day to be observed one day in a year by all citizens;
- (e) Development and strengthening of the community's role in environmental sanitation;
- (f) Development of human resources and strengthening institutional structures for managing environmental sanitation;
- (g) Assigning delivery of a major proportion of environmental sanitation services to the private sector through contract, franchise, concession and other arrangements;
- (h) Development of a strong legislative and regulatory framework, and capacity for supervising environmental sanitation activities and enforcing standards;
- (i) Promotion of research to review sanitation technologies;
- (j) Identification and dissemination of cost-effective, appropriate, affordable and environmentally friendly technologies to address environmental sanitation needs;
- (k) Adoption of the cost recovery principle in the planning and management of environmental sanitation services.

This revised Environmental Sanitation Policy is in response to the various assessments on effectiveness of implementing these policy objectives and measures. The policy also takes forward the issue of outstanding strategies and actions, particularly, those that were not implemented, sustained or have failed to yield the desired results.

In order to provide a clearer strategic framework for achieving the overall goal of the sector, this policy provides strategic elements under seven policy focus areas:

- Capacity Development

- Information, Education and Communication
- Legislation and Regulation
- Levels of Service
- Sustainable Financing and Cost recovery
- Research and Development
- Monitoring and Evaluation

Clearly listed policy focus areas enhance strategy setting and action planning of measures including those for enabling elements

## 1.2 GOAL

Consistent with the national socio-economic development framework (currently GPRSII), the overall goal of the Environmental Sanitation Policy is to develop a clear and nationally accepted vision of environmental sanitation as an *essential* social service and a major determinant for improving health and quality of life in Ghana.

### 1.2.1 Broad Policy Principles

The policy responds to the following broad principles:

- 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 minimise activities that have the potential to negatively affect the integrity of all environmental resources;
- The principle of community participation and social intermediation.

These principles are not exhaustive; the policy measures embrace other related principles that impact on delivery of improved environmental sanitation services

## 2. Policy Statements - Objectives, Actions and Measures

This section is the core of the environmental sanitation policy, and synthesises the objectives of the sector in working towards the overall goal. The set of objectives are derived from the main challenges facing the sector. These challenges have been collated from existing policies and participatory discussions among sector actors, and they fall broadly under the following themes: Capacity Development; Information, Education and Communication; Legal and Regulatory Issues; Levels of Service; Sustainable Financing and Cost Recovery; Research and Development; Monitoring and Evaluation.

The challenges under each theme are listed under the following sections.

### 2.1 POLICY FOCUS AND CHALLENGES

#### 2.1.1 Capacity Development

The capacity development theme covers all issues of institutional development including human resource and institutional strengthening. The key challenges that continue to constrain sector performance include:

- Lack of a clear national goal or vision of environmental sanitation as an essential social service and a major determinant of the standard of living;
- Lack of a formally constituted environmental sanitation sub-sector in the governmental system of sector development planning;
- Lack of a comprehensive policy assigning responsibilities for environmental sanitation to the relevant Ministries and agencies, resulting in overlaps, gaps and poor co-ordination in the management of programmes and services; Lack of technical capacity in MLGRD to orient and support the District Assemblies in the provision of environmental sanitation services;
- Attempts to transfer to the Assemblies environmental sanitation functions performed by Ministries and central Government agencies, without transferring the accompanying budgets, personnel and equipment;
- Inadequate allocation of resources for environmental sanitation services, both nationally and at district level;
- Lack of adequate professional manpower including engineers, planners and administrators, for planning, management, policy formulation and research;
- Lack of adequate systems to respond to the threat of marine pollution; and
- Lack of adequate capacity to deal with emerging diseases such as HIV/AIDs and the threat of climate change and associated risks of global warming

Institutional strengthening and capacity enhancement of all frontline and allied service providers is recognized as the number one priority for achieving sustainable services

The unresolved issues of capacity development continue to hamper the environmental sanitation sector and it is being given a high priority in this

policy to provide a solid foundation for making rapid progress.

### **2.1.2 Information Education and Communication**

Environmental Sanitation is both a public good and a civic responsibility involving all levels of human activity. Policy actions and how individuals, households and communities respond to them depend largely on how information is disseminated. Meaningful participation by citizens depends on effective education and communication processes.

The challenges and constraints identified include:

- the challenge of managing increasing waste levels associated with growing economy (middle income status by 2020) and related life-style changes
- the challenge of widespread littering and indiscriminate dumping of refuse in drains and open spaces
- the threat of the use of wetlands and water courses as waste disposal sites (e.g for land reclamation)
- the challenge of mainstreaming alternative uses of wastes through appropriate incentives
- lack of sector-wide standards for service provision
- the challenge of siting environmental sanitation facilities acceptable to communities
- the challenge of increasing disease burden from poor environmental sanitation
- the challenge of effective collaboration among ministries and agencies to jointly implement cross-sectoral policies and strategies

Changing environmental sanitation behavior is recognized as a basic strategic element for improving services

Improving the attitudes and behaviour of individuals, households and communities towards environmental sanitation remains central in any effort aimed at making sustainable progress. This policy aims at enhancing the knowledge, attitudes and practices of individuals, households and communities as partners in improving the standard of living.

### **2.1.3 Legislation and Regulation**

Environmental sanitation involves a wide range of actors with different levels of responsibilities and therefore laws are required for regulating activities. Responsive regulations that provide the right incentives are necessary to improve on enforcement management which has been identified as a critical area among others, including:

- Weak and/or outdated and poorly enforced environmental sanitation legislation;
- Non-enforcement or inadequate regulations governing marine pollution;
- Inadequate/non-enforcement of regulation preventing the use of wetlands and water courses as waste disposal sites (e.g. for land reclamation);
- Inadequate/non-enforcement of safeguards for preventing groundwater contamination from poor environmental sanitation practices;
- Lack of regulation for mainstreaming alternative uses of wastes

- through appropriate incentives;
- Inadequate sector-wide standards for service provision;
- the challenge of preventing transboundary dumping in a free-trade regime;
- the challenge of not incorporating and adhering to international conventions into domestic law;

This policy provides for actions that will lead to harmonising sector laws and promulgating appropriate and enforceable regulation. Implementing these actions together with other aspects of plans and programmes will lay the basis for improving compliance and enforcement management.

#### **2.1.4 Sustainable financing and cost recovery**

Provision of environmental sanitation facilities requires substantial investments, while their continued maintenance and use entail costs incident on individuals, households, communities and government.

A major constraint in the provision of sustainable environmental sanitation services continues to be the low levels of funds allocated to the sector, and non-economic tariffs charged for services. The situation is compounded further by low levels of revenue collection by service providers.

Among the challenges the following have been identified:

- Attempts to transfer to the Assemblies environmental sanitation functions performed by Ministries and central Government agencies, without transferring the accompanying budgets,
- Inadequate allocation of resources for environmental sanitation services, both nationally and at district level; Low remuneration and poor conditions of service making the sector unattractive to professionals including engineers, planners and administrators, for planning, management, policy formulation and research
- unsustainable financing of services with increasing burden on public sources

Environmental sanitation needs clearly specified budget lines for allocating and accounting for funds under the Medium-Term expenditure Framework (MTEF)

This policy along with its implementation plan will lay the basis for developing clear strategies to attract more funding to the sector.

#### **2.1.5 Levels of Service**

Environmental sanitation services should be appropriately designed to suit the demand of different population groups, typically rural, small towns and urban, as well as specialised target groups such as industries, commercial areas and the urban poor.

The prevailing levels of service are generally poor and the sector beset with myriad of challenges including:

- increasing indiscriminate disposal of plastic waste
- the challenge of mainstreaming alternative uses of wastes through appropriate incentives
- lack of final treatment and disposal facilities;
- the challenge of managing increasing waste levels associated with

- growing economy and related life-style changes
- the threat of use of wetlands and water courses as waste disposal sites (e.g for land reclamation)
- the challenge of increasing disease burden from poor environmental sanitation including lack of appropriate household-level facilities
- the increasing threat of discharges from mining and other industrial operations;
- the challenge of meeting the needs of the vulnerable and physically challenged in service provision;

This policy aims at establishing minimum standards and guidelines for various categories of users.

### **2.1.6 Research and Development**

Continuous improvement in the provision of environmental sanitation facilities requires commitment to research and development to identify and adapt appropriate technologies and modern techniques for change-management.

Research and Development in the sector has not kept pace with technological advancement. In addition, available research findings are not adequately disseminated to sector actors.

Among the prevailing challenges are:

- developing appropriate technologies to avoid groundwater contamination from poor environmental sanitation practices
- developing the platform for adequate data collection for planning and managing environmental sanitation services
- developing appropriate tools to provide early warning and remedial measures for containing discharges from mining and other industrial operations

### **2.1.7 Monitoring and Evaluation**

The ability to appraise and assess progress in policy implementation, the effectiveness of policy actions in responding to changing life styles, behaviour and attitudes as well as demand for improved services is essential.

Monitoring and evaluation has not been formalised within the sector and has contributed to weak implementation of policy.

The main challenges include:

- developing policy-level M&E plan with relevant indicators and well-defined responsibilities
- institutionalizing a participatory M&E system
- developing a comprehensive mechanism for capturing and managing data to support Results-Based M&E
- ensuring accountability and transparency in policy implementation

Collaboration with appropriate agencies to enable tracking of end-of-life Waste-Electrical and Electronic Equipment (WEEE) and the export of items such as scrap metal will provide basis for cross-sectoral recognition of incentive schemes

## 2.2 OBJECTIVES, ACTIONS AND MEASURES

The basic objectives, actions and measures to respond to the challenges outlined above are given in this section of the policy.

### 2.2.1 Capacity Development

In order to reflect the importance of environmental sanitation in our national development, there is the need for placing the sector among top priority areas of national agenda. This will require developing and strengthening capacity and raising the profile of agencies within the sector.

Proposed objectives and related actions/measures for capacity development in environmental sanitation are:

(i) To formally establish environmental sanitation as a sub-sector in the development planning system with clearly defined institutional mandates;

- Establish Environmental Health and Sanitation Directorate in MLGRD including updated scheme of service and mandates
- Strengthen Regional Environmental Health Offices to effectively facilitate programmes of MMDAs including the appointment of qualified professional staff

The EHSD is one of most decentralized institutions with presence of staff of National, Regional and District levels. The District and Sub-district offices (including Town/Zonal area Council) function as units of MMDAs in line with Local Government Art, 1993 (Act 462).

(ii) To strengthen coordination and collaboration among sector institutions;

Although NESPoCC has been established its membership is to be reviewed to include other key stakeholders in order to play the leading role in policy coordination in the sector and expedite implementation of this policy. The proposed actions are:

- Review membership and mandates of NESPoCC;
- Provide necessary logistics and funding for its activities;

(iii) To develop capacity of the sector for effective facilitation of MMDAs and private sector for the provision of environmental sanitation services;

To be able to effectively support MMDAs and private sector providers, the EHSD and its regional offices should be abreast with current sector issues and developments. The proposed actions are:

- Upgrade Schools of Hygiene to tertiary institutions for Hygiene and Environmental Sanitation – including curriculum, structure and staffing
- Reinforce the role of the private sector in service delivery
- Provide specialised training in the areas of environmental protection, contract management and supervision, planning, public relations, monitoring and evaluation
- Support effective implementation of ESICOME and related programmes
- Mainstream the use of ICT through training to enhance information management

(iv) To ensure transfer of adequate resources to MMDAs for environmental

sanitation functions;

- Appoint appropriately qualified staff to MMDAs including, sanitary engineers, environmental health technologists, planners etc
- Provide logistics and appropriate working tools for management of environmental sanitation services

(v) To mainstream the management of the mitigation of marine pollution in environmental sanitation strategies

- Review the mandates of port health inspections to include marine pollution
- Update knowledge and skills of environmental health officers to deal with marine-pollution related issues

### **2.2.2 Information Education and Communication**

Attitudinal and behavioural change is central to achieving sustainable progress in environmental sanitation. Therefore, environmental sanitation education, effective communication and dissemination of information are considered as integral elements of all environmental sanitation activities. Whilst environmental education is not in itself sufficient to ensure improvements in environmental sanitation, neither is the provision of sanitary infrastructure and services unless they are properly used.

Awareness raising and participatory engagement of all stakeholders to ensure informed-decision making on policies, plans and programmes is also critical.

Proposals to achieve the above include:

- (i) To raise the awareness of the benefits of improved environmental sanitation especially as related to health, food hygiene and general environment
  - Raise the profile of the Environmental Sanitation Day (ENSADA) by declaring it as statutory cleanup day at all levels.
  - Every community shall adapt environmental sanitation practices consistent with the national environmental sanitation policy
  - Promote awareness of the important roles of households, communities and the private sector in environmental sanitation services
- (ii) To provide sector-wide standards for service provision, taking into consideration local conditions and needs
  - Develop and/or update standards and guidelines for all components of environmental sanitation services at all levels and segments
  - Ensure widespread dissemination of all standards and guidelines
  - Establish monitoring and evaluation framework for implementation of standards and guidelines (including the of use environmental sanitation assessments and audits procedures)
- (iii) To raise awareness on the increasing waste levels associated with growing economy and related lifestyle changes
  - Develop framework for raising awareness on volumes and types of

Collaboration with the Ministry of Information and the media to sustain information sharing on the economic, environmental and social benefits including the value of wastes and job creation potentials of improving environmental sanitation services will contribute to enhancing positive behavioural change

waste streams generated from all segments of the economy and their impacts

- Support advocacy on effects of changing life-styles on waste streams
- Promote benefits of alternative uses of wastes through Reduction, Re-use, Recycling and Recovery
- Promote use of biodegradable materials and minimise use of plastics

(iv) To raise awareness of the importance (functions and benefits) of wet lands and water courses

- Support advocacy on interventions aimed at restoring and improving wetlands and watercourses, including the National Water Policy, National Wetlands Strategy etc.

(v) To enable effective community participation in the siting of environmental sanitation facilities

- Develop participatory tools for identification and selection of sites in accordance with strategic environmental assessment principles
- Ensure the involvement of traditional authorities and the consideration of diversity of religious beliefs and cultural practices at all levels

### **2.2.3 Legislation and Regulation**

Environmental sanitation reflects the way of life of a society. Given the prevailing high levels of non-compliance with laid down environmental sanitation rules and regulations, there is the need to reinforce the legal regime and its enforcement. The roles of the judiciary and law enforcement agencies are of critical importance in this regard.

Law enforcement shall play complementary role to objectives and actions proposed for IEC and for service provision. The proposed objectives and actions are:

(i) To develop legislation in support of institutional structures required for managing environmental sanitation

- Identify all existing and proposed institutional arrangements that require legal backing for effectiveness
- Ensure enactment of necessary legal instruments to support institutional functions including public-private partnerships, financing and funding arrangements, licensing, monitoring, control and ownership of wastes, point and non-point discharges
- identify appropriate legislation on the acquisition of land for treatment and disposal sites and develop procedures to facilitate site valuation, negotiation and payment of compensation

(ii) To make available to all sector actors updated sector-wide standards, laws and regulations on environmental sanitation

- Enact, disseminate and enforce laws and regulations governing sector-wide standards
- Ensure that all developments comply with EPA environmental assessment regulations

Effective enforcement management is a critical element of engendering behavior change

- Support the strengthening of the capacity of the judiciary and law enforcement agencies in dealing with environmental sanitation and related issues
  - MLGRD shall develop model bye-laws covering all aspects of environmental sanitation
  - MMDAs shall promulgate bye-laws consistent with model bye-laws taking into consideration specific local conditions
- (iii) To mainstream alternative uses of wastes (liquid and solid) through appropriate technologies and incentives
- Develop regulation to support waste reduction, re-use, recycling and recovery
- (iv) To institute regulatory mechanisms that safeguard wetlands and water courses
- Enact and enforce legislations/regulations/bye-laws prohibiting the dumping of waste in wet lands and water courses (including drains)
- (v) To safeguard groundwater from contamination from poor environmental sanitation practices
- Enforce existing statutes and regulations on prevention of pollution of ground water sources
- (vi) To institute a means of incorporating, and adhering to, international conventions into domestic law
- institute adequate measures to protect beaches and prevent marine pollution
  - develop rapid response systems for adopting emerging international regulations on issues such as global warming, , Waste Electrical and Electronic Equipment (WEEE), ICT as well as special hazardous waste etc
- (vii) To ensure effective regulation for prevention of transboundary dumping in a free-trade regime
- Enforce anti-dumping conventions and protocols
  - Enact statute for compulsory participation of environmental sanitation officers in destination inspections at entry points

## **2.2.4 Sustainable financing and cost recovery**

### **Basic Principles**

Regularity and reliability are a fundamental aspect of environmental sanitation services. Affordable services which are consistently provided will almost always yield better results than more expensive services provided irregularly. It is therefore essential that levels of service are economically appropriate and that mechanisms for funding them are sustainable.

Direct cost recovery from users should be applied where it is possible to charge a full commercial price covering all operating and capital costs, for services such as liquid and solid waste collection, public toilets, issue of

permits etc.

Assemblies are to encourage private sector service providers to participate in the setting of tariffs for services.

Where full direct cost recovery is not possible, the shortfall or the cost of any services not charged for shall be subsidised by the Assembly, from additional revenues generated in other sanitation zones or from other revenues of the Assemblies. The Assemblies shall actively pursue the establishment of systems to generate sustainable revenue to cover the costs of sanitation services. Amongst options to be considered are the inclusion of an element to cover environmental sanitation in other fees, rates or other charges levied by the Assembly; direct levies on producers of pollutants, especially non-biodegradable pollutants such as plastics; the use of a reasonable proportion of the Assemblies' share of the District Assemblies' Common Fund to subsidise the cost of sanitation services.

District Assemblies should establish active co-operation with other support agencies (CBOs, NGOs etc.) working in the environmental sanitation sector and examine ways of developing partnerships between their programmes and those of the Assembly for mutual benefit. This might include joint training activities, provision of equipment, etc. Clearly defined environmental sanitation programmes and a framework for their implementation at national and district levels will be developed. These can be expected to facilitate and stimulate the participation of external donors.

Private sector investment shall be encouraged by a flexible approach to public-private partnership arrangements and by ensuring fair competition between private sector service providers and between the public and private sectors.

Sanctions against polluters shall follow the "polluter pays" principle. Such payments should correspond to the costs of restoring any damage done to the environment. The mechanisms adopted must ensure that the cost of pollution increases progressively with the amount of pollution emitted, and that the cost of mitigating measures is lower than the cost of payment for the amount of pollution that is mitigated.

### **Cost Recovery**

This shall be treated as a major factor for achieving sustainability where the services can be designed to earn revenue. However, tariffs should be set at levels that will not discourage the use of the services, especially where this would create health risks.

### **Public Sector Funding**

All economic development activities have direct impacts on the state of environmental sanitation. It is therefore essential that mechanisms are developed to source funds from all sectors of the economy to remedy the current state of deterioration and begin a programme of incremental progress that matches economic growth towards a middle-income status by 2020.

In order to achieve the above, forward looking objectives and actions are proposed, including;

- (i) To ensure sustainable financing of environmental sanitation services
- Apply direct cost recovery from all users as far as possible covering all operating and capital costs, for services such as liquid and solid waste collection, public toilets, issuance of permits etc.
  - MMDAs shall set tariffs with full participation of private sector service providers and users
  - MMDAs shall establish separate environmental sanitation accounts and actively implement systems to generate sustainable revenue to cover the costs of services
  - MMDAs shall provide subsidies where full cost recovery is not possible
- (ii) To develop a strategy and financing plan with clear allocation of resources (and costs) for households, communities, MMDAs and central government
- Use “polluter- pays” mechanism in determining levels of charges and fees for environmental sanitation services
  - Ensure “fair play” practices in the promotion of investments by all sector actors; private-private and private-public ventures
  - Identify and implement options for generating sustainable revenue to support environmental sanitation such as levies on producers and importers of pollutants especially plastics
  - MMDAs shall establish separate budget lines for the components of environmental sanitation services and manage revenues for such services separately and exclusively for expenditure directly related to these services
  - MMDAs shall identify additional sources of revenue for sustaining environmental sanitation including rates, fees, water-surtax etc.
  - Develop and implement a Strategic Environmental Sanitation Investment Plan (SESIP)
- (iii) To improve public sector financing of environmental sanitation services
- Government shall progressively increase its portion of public sector funding through greater budgetary allocations to DACF-targeted environmental sanitation services
  - Establish an effective mechanism for sourcing and managing funds from existing and planned sources for financing the SESIP

Determining service levels and their costs is important for cost and resource allocations in line with “polluter –pays” principle

### **2.2.5 Levels of Service**

The environmental sanitation needs of various target groups vary and so are the corresponding facilities and services provided. The underlying principle of this policy is to ensure that choices by all segments of the population for any level of service reflect effective demand, while the choice of technologies for all levels of service adhere to regulations in order to safeguard public interest and the rights of all.

In order to achieve the above, the following objectives and actions have been proposed:

(i) To effectively contain and decrease the negative impact from poor environmental sanitation

- All MMDAs shall prepare District Environmental Sanitation Strategies and Action Plans (DESSAPs)
- MLGRD shall prepare a National Environmental Sanitation Strategy and Action Plan (NESSAP) based on DESSAPs
- Ensure that all environmental services at all levels meet minimum prescribed sector standards
- Ensure that the bulk of environmental sanitation services shall be provided by the private sector under regulation by the public sector agencies
- MMDAs shall maintain adequate capacity to intervene and provide the services in the event of failure of the private sector to deliver services due to industrial actions in their establishments or other reasons.
- Ensure that services meet the needs of specific target groups including vulnerable people, women and children and the poor
- Ensure that various levels of service meet the health needs of people and the environment and are consistent with related services such as water, energy, transport etc.
- Ensure that sites for treatment and disposal of wastes (landfills, composting facilities, waste stabilisation ponds, trickling filters, septage treatment plants, etc.) are located so as not to create safety and health hazards or aesthetic problems in the surrounding area

Defining incremental service Improvement Options (ISIOs) reflecting local conditions will contribute to enhanced targeting for improving pro-poor services

(ii) To support adequate treatment and final disposal of all wastes;

- Ensure that development and siting of communal storage and transfer depots, treatment and disposal facilities conform to statutory land-use norms and regulations
- Ensure acquisition of appropriate sites for treatment and disposal facilities (landfills, composting facilities, waste stabilisation ponds, trickling filters, septage treatment plants, etc.) using participatory principles including SEA
- Ensure that treatment and disposal facilities are provided and used in accordance with prescribed standards including the preparation of Environmental Impact Assessments.
- Ensure that the facilities are managed so as to satisfy approved environmental protection standards

(iii) To respond effectively to increasing waste volumes and changing waste streams due to growing economy and varying life-styles

- Provide services and facilities for primary separation of solid wastes at household, community and public levels
- Develop and ensure provision of programme for incremental coverage of, and access to services to meet increasing population and growing economy
- Ensure that removal of solid wastes from households increases progressively from current 5% nationwide to minimum 50% by 2015
- Ensure adequate systems for managing wastewater treatment, re-use and disposal

(iv) To support remedial strategies for all wetlands and water courses under threat from indiscriminate disposal of waste

- Identify all environmentally sensitive areas such as wetlands and water courses prone to impact from waste-abuse
- Provide adequate targeted services in areas close to wetlands, water courses and other vulnerable water resources prone to waste-abuse
- Ensure that DESSAPs address issues of pollution of water resources

(v) To meet the needs of vulnerable and physically challenged individuals in provision of services

- Ensure adequate options of facilities are available for all segments of the population especially vulnerable and physically challenged persons
- Develop mechanisms for integrating the activities of ‘scavengers’ in improved waste collection, transfer, treatment and disposal facilities

## 2.2.6 Research and Development

(i) To develop an effective framework for capturing, reporting of sector statistics and performance to users at all levels

- Develop framework for tracking the volumes and types of waste streams generated from all segments of the economy
- Support the development of platform for transparent and credible assessment and reporting of sector performance
- Examine and assess the capabilities of existing research and service institutions and provide appropriate support for research on environmental sanitation
- Continue to strengthen and support the Schools of Hygiene, Institute of Local Government Studies (ILGS), University departments to provide accurate and regular data on environmental sanitation;
- Ensure effective dissemination of results of operational research and studies on waste stream composition and volumes from research institutions

Enabling physically challenged persons to better access of services and highlighting the importance “value pickers” will contribute to improving livelihoods

(ii) To support research in appropriate technologies to meet the needs of all segments of society, especially vulnerable and poor people

- Carry out assessments to determine effective demand of communities (urban, small towns and rural) for environmental infrastructure
- Support studies on alternative technology options for improving services to low-income urban areas, small towns and rural areas
- Support local private sector entrepreneurs and artisanal entities to produce machines, equipment and tools appropriate for local use
- Support the strengthening of local human resource capacity for research in environmental sanitation

(iii) To respond effectively to increasing waste volumes and changing waste streams due to growing economy and varying life-styles

- Support research and studies in volumes and types of waste from predominant sectors and segments of the economy (especially sources of non-biodegradable-organic-fractions, special and hazardous wastes)
- Support research in handling and alternative uses of existing and changing composition of waste streams

- Ensure that relevant agencies, at all levels, provide timely and reliable data and information for tracking sector progress for national development planning
- Support research in identifying fractions of waste streams with appropriate thermal values for waste-to-energy systems

Waste – Electrical and Electronic Equipment (WEEE) is a category of special waste that needs attention

### **2.2.7 Monitoring and Evaluation**

To track policy implementation effectively and provide continuous improvement in responding to emerging challenges in the sector, the objectives and measures to be pursued include:

(i) To develop framework for monitoring and evaluation at all levels within the sector;

- Assess how existing M&E platforms can integrate environmental sanitation
- Develop appropriate indicators for each of the policy focus areas
- Institute procedures for carrying out participatory M&E at all levels;
- Monitor and evaluate the performance of facilities and services and institute remedial measures where required;

(ii) To strengthen capacity to implement M&E;

- Assess capacity for implementing M&E at all levels
- Establish/strengthen structures for effective M&E including mechanisms for DA- and community-level monitoring

Supporting RCCs and MMDAs to implement and manage appropriately designed MIS and M&E systems will enhance evidence based performance and program reporting

(iii) To develop a responsive reporting and feedback mechanism for Results-Based M&E

- Define appropriate strategy for communicating information on M&E in collaboration with other allied institutions
- Ensure that relevant agencies, at all levels, provide timely and reliable data and information for tracking sector progress and contributing to periodic sector updates

## **3. Implementation Arrangements**

### **3.1 HOUSEHOLD AND COMMUNAL LEVEL RESPONSIBILITIES**

#### **3.1.1 Role of the Community**

Environmental sanitation is a public good. Improper waste disposal by one individual affects all community members; mosquitoes that breed in one place may bite people in another; contamination of foodstuffs will affect all who consume them, not just the seller. Ensuring good sanitation is therefore the responsibility of all citizens, communities, private sector enterprises, NGOs and institutions of Government. All these actors have an essential part to play in maintaining a high standard of environmental sanitation, so that domestic and commercial activities have no prejudicial effect on the health or the living and working environment of others.

#### **3.1.2 Individual Responsibilities**

Every individual, establishment or institution shall be responsible for:

- (a) Cleansing within and in the immediate environs of the property they occupy, including access ways and the drains and roads abutting the property;
- (b) Temporary storage of wastes within the property and disposal thereof outside the property, as may be directed by the competent authority;
- (c) Taking measures to prevent the breeding of pests and disease vectors within and in the immediate environs of the property they occupy;
- (d) Ensuring that the wider environment is not polluted or otherwise adversely affected by their activities;
- (e) Hygienically disposing of all wastes they generate in public areas by use of an authorised public toilet or solid waste container as appropriate;
- (f) Participating in all communal environmental sanitation exercises organised by the community or its representatives.

Where individuals, establishments or institutions fail to discharge these responsibilities, the competent authorities shall take any necessary remedial action at the expense of those in default. The competent authorities shall also assume responsibility for the maintenance of specified public areas in a sanitary condition and charge fees for the use of such areas.

#### **3.1.3 Community Programmes**

Every community shall:

- (a) Establish community environmental sanitation norms in line with national sanitation policy;
- (b) Undertake community sanitation and hygiene education to create awareness of environmental sanitation issues;
- (c) Maintain a clean, safe and pleasant physical environment in their settlement;
- (d) Under the leadership of Urban/Town/Area Councils, organise participatory neighbourhood cleansing once every two months on dates determined by communities;
- (e) Mobilise all citizens to participate in observing National Environmental Sanitation Day (ENSADA) once every year on a date to be fixed by Government;

- (f) Sanction citizens who fail to participate in neighbourhood cleaning exercises or ENSADA, or who omit or commit acts contrary to community sanitation norms;
- (g) Take the necessary steps to develop appropriate environmental sanitation infrastructure such as domestic and public toilets and waste disposal sites;
- (h) Prevent soil, water and air pollution.

### **3.1.4 Community-Based Organisations**

Community-based organisations and NGOs shall:

- (a) Assist communities in community mobilisation;
- (b) Assist the District Assemblies, Town Councils, Unit Committees and communities in the planning, funding and development of community sanitation infrastructure for the safe disposal of wastes and the prevention of soil, water and air pollution.

## **3.2 INSTITUTIONS, ROLES AND RESPONSIBILITIES**

The institutions concerned with implementing environmental sanitation policy have been divided into the “principal sector agencies” with direct responsibility for aspects of environmental sanitation, and the “allied sector agencies” which play a supporting role. Under these arrangements, some existing responsibilities will be transferred from one institution to another. In most cases, human resources capacity will have to be developed within the institutions to enable them to meet their responsibilities effectively.

### **3.2.1 Principal Sector Institutions and Functions**

#### **Ministry of Local Government and Rural Development**

*MLGRD* shall be the lead sector agency. Its functions shall include:

- (a) Co-ordination and formulation of environmental sanitation policy including monitoring and evaluation;
- (b) Developing and issuing technical guidelines on environmental sanitation services and their management;
- (c) Promulgation of national legislation and model bye-laws;
- (d) Direction and supervision of the National Environmental Sanitation Policy Co-ordination Council
- (e) Facilitating the mobilization of funds for sector plans and programmes

The National Environmental Sanitation Policy Coordinating Council (NESPoCC) shall include representatives from relevant Government agencies<sup>1</sup>, NGOs and private sector groups, and shall be responsible for;

- Coordinating policy and ensuring effective communication and co-operation between the many different agencies involved in environmental sanitation, within the context of a coherent national programme
- Expediting implementation of the national environmental sanitation policy including overseeing the preparation of a national strategy and its related financing plan for investments at MMDA level;

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<sup>1</sup> MLGRD, EHSD (Secretariat), Metropolitan, Municipal and District Assembly representatives, MEST, EPA, CSIR, MWRWH, Hydrological Services Department, GWCL, CWSA, Ministry of Roads and Transport, DUR, Ministry of Education, Ministry of Health, Ministry of Women and Children, Ministry of Information, MoFEP, Ghana Statistical Service, Ghana National Development Planning Commission.

- A Ministerial Committee of the NESPoCC supported by a Technical Working Group shall constitute the National Environmental Sanitation Investment Management Board (NESIMBoD) with representation of co-opted Government agencies to oversee the performance of service delivery and the related investments nation-wide.

Within MLGRD, the *Environmental Health and Sanitation Directorate* (EHSD) and the Regional Environmental Health Offices (REHOs) shall play the leading role in supporting environmental sanitation. They shall have units for Environmental Health and Management, Technical Services and, Environmental Education and Applied Research. The functions of the EHSD shall include:

- (a) Provision of guidance to MLGRD on environmental sanitation sector planning, policy and legislation;
- (b) Provision of technical assistance to District Assemblies and service providers;
- (c) Co-ordinating and disseminating the results of research in the environmental sanitation field;
- (d) Regulation of all service providers both public and private

The EHSD will maintain a “critical mass” of in-house capacity and institutional memory and should draw on specific outside expertise as and when necessary. To enable EHSD perform these roles its establishment will be reviewed to be consistent with its new structure and status.

## **Metropolitan, Municipal and District Assemblies**

### ***Internal Organisation***

A generic organisation chart is attached in Annex 1. This is intended not as a blueprint, but rather as a guide for Assemblies in the establishment of structures tailored to their own individual situations. When setting up these structures, effective mechanisms must be established for co-ordinating waste management with the other aspects of environmental sanitation, and to allow for effective monitoring of environmental sanitation activities with respect to environmental quality standards.

The Assemblies shall carry out five distinct functions with respect to environmental sanitation, as follows:

### ***Waste Management***

Waste management (covering 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) shall be carried out by Waste Management Departments, within Metropolitan and Municipal Assemblies, or by Waste Management Departments of District Works Departments (DWDS) and District Environmental Health and Management Departments of District Assemblies. They may provide the services either directly or indirectly through private contractors or franchisees. The Assemblies shall in all cases maintain an in-house capacity to provide at least twenty (20) per cent of the services directly.

### ***Public Health Management***

All other environmental sanitation tasks within Metropolitan, Municipal and District Assemblies, comprising the public health management functions (covering 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 and port-health services), shall be carried out by Environmental Health and Management Departments of Metropolitan, Municipal and District Assemblies, with private sector inputs where appropriate.

### ***Environmental Monitoring***

Within the Environmental Health and Management Department, an Environmental Protection and Standards Enforcement Division shall, in collaboration with the EPA, be responsible for monitoring and enforcing environmental standards and regulations set by the EPA and other national regulatory agencies, and for organised and continuous public education on safeguarding the environment. This includes responsibility for monitoring the environmental impact of Assemblies' own waste management activities.

Where the Waste Management Department/Division contracts, franchises or licenses private sector service providers, it shall be responsible for imposing sanctions on and correcting any infractions against environmental standards by such service providers according to the provisions of the relevant agreement or license.

### ***Provision of Works related to Environmental Sanitation Facilities***

At the District Assembly level, the District Works Department (DWD) shall be responsible for the provision of infrastructure facilities. The District Environmental Health and Management Departments will liaise with DWDs in preparing plans and costs for environmental sanitation facilities.

### ***Planning, Monitoring and Public Relations***

As well as providing environmental sanitation services, the Assemblies shall also monitor their effectiveness, take action to resolve any problems identified, make short term and strategic environmental sanitation plans to respond to community needs and wider environmental considerations, and ensure good public relations. In smaller Assemblies, these functions may be undertaken by the head of the Environmental Health and Management Department, whilst in larger Assemblies, a small specialised unit may be established under the Waste Management Department/Division.

### ***Functions of District Assembly Sub-Divisions***

Some aspects of environmental sanitation services need to be provided and managed at the local level, within the Assembly's subdivisions. Whenever possible, operational subdivisions for service provision should be coterminous with the political-administrative subdivisions. Responsibilities to be exercised at these levels include:

#### ***Sub-Metro/Zonal/Urban Councils***

These entities should be assigned responsibility for selected common services best rendered from the sub-district office, such as:

- (a) Food hygiene and other inspection work;
- (b) Environmental sanitation education;
- (c) Cleansing;
- (d) Supervision of contractors;
- (e) Co-ordination, support and supervision of services within the sub-district.

### ***Town/Area Councils***

These provide services for the towns and adjoining villages, including:

- (a) Supervision of Assembly workers;
- (b) Supervision of the performance of contractors and franchisees;
- (c) Operation of facilities not franchised or contracted to the private sector;
- (d) Community mobilisation and fee collection;
- (e) Promoting clean-up and self-help programmes.

### **Roles of the Private Sector**

The bulk of environmental sanitation services shall be provided by the private sector, including NGOs and community based organisations under the supervision of the Public Sector, especially the Metropolitan, Municipal and District Assemblies.

The private sector shall operate within policies, regulations, supervisory and licensing arrangements set up by the public sector to promote efficiency and competitiveness.

In all cases the engagement of service providers shall be in accordance to the laws of Ghana and the Public Procurement Act.

### **Services to be Provided by the Private Sector**

Where possible, environmental sanitation services shall be provided by the private sector on full cost recovery basis, under franchise, concession agreements or through contracting. The following services shall be undertaken by the private sector:

- (a) Provision and management of septage tankers, on a fully commercial basis subject to licensing and the setting of maximum tariffs by the Assemblies;
- (b) Construction, rehabilitation and management of all public baths and toilets, subject to the supervision and setting of maximum tariffs by the Assemblies;
- (c) Solid waste collection from individual institutional or domestic customers, subject to the supervision and setting of maximum tariffs by the Assemblies;
- (d) Solid waste collection from communal containers under contract to the Assemblies, Unit Committees or community groups or as part of a franchise covering both high and low income areas;
- (e) Cleansing of designated areas and facilities (streets, drains, markets, lorry parks, etc.) and maintenance of drains, under the agreements covering solid waste collection;
- (f) Provision and management of waste treatment, recycling and disposal facilities, transfer stations and bulk waste transfer to disposal under contract, franchise, concession, BOT, BOO, BOOT or other arrangements;
- (g) Pest control for public areas, under contract with the Assemblies, or for individual customers, subject to licensing by the Assemblies;
- (h) Operation and maintenance of sewerage collection and treatment systems by contract, franchise or concession, supervised by the Assemblies;
- (i) Equipment leasing and maintenance/workshop services;
- (j) Provision and management of abattoirs and meat shops subject to regulation by the Assemblies;
- (k) Management of cemeteries and crematoria, regulated by the Assemblies in accordance with current legislation.

### **3.2.2 Allied Sector Institutions and Functions**

The following section summarise the functions of allied institutions and their roles in environmental sanitation:

- i) The Ministry of Health (MoH) and the Ghana Health Service are responsible for health. They are responsible for managing and providing health data, supporting health education activities, and contributing to regulation and standard-setting for health services. They use environmental sanitation information to contribute to disease prevention and control.
- ii) The Ministry of Education, and tertiary education institutions are responsible for hygiene education. The School Health Education Programme (SHEP) supports nation-wide education and provides Training and Learning Materials.
- iii) The Ministry of Environment, Science and Technology (MEST) is the principal environment ministry responsible for the formulation and coordination of policies covering the environment, and supporting environmental sanitation in regulation and provision of technical standards and manuals.
- iv) The Ministry of Water Resources, Works and Housing (MWRWH) is the principal water sector ministry responsible for overall water policy formulation, planning, coordination, collaboration, monitoring and evaluation of programmes for water supply.

The Water Directorate is the focal point for coordination of the water sector, while the Housing Directorate is the focal point for housing.

- v) The Ministry of Finance and Economic Planning (MOFEP) administers all public investments in environmental sanitation including negotiating for grants and loans.
- vi) The Ministry of Trade and Industry (MOTI) is responsible for broad issues of trade, industries and the private sector. The ministry has oversight responsibility for the National Plastic Waste Task Force.
- vii) The Ministry of Women and Children (MOWAC) is the lead agency responsible for implementing the National Gender and Children's policy. Policy issues on environmental sanitation that affect the wellbeing of women and children is within the mandate of MOWAC.
- viii) The Ministry of Roads and Highways is responsible for road-sector agencies in charge of constructing roads and associated structures such as road-side drains, bridges, culverts etc. Affiliates like the Ghana Road Transport Coordinating Council coordinates private road transport organizations.

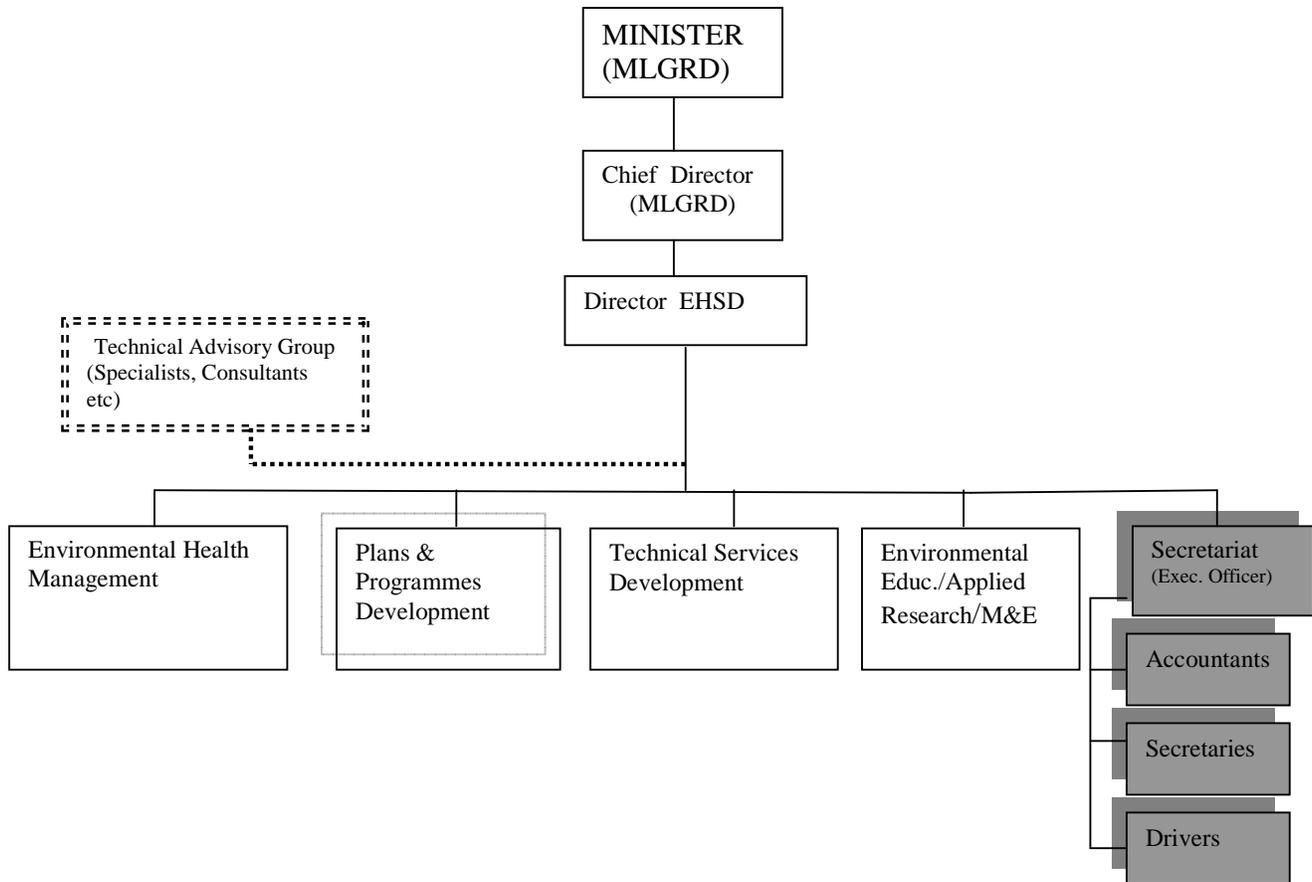
- ix) The Ministry of Transport is responsible for water transport and navigation and regulates activities within both in-land and the coastal territory of Ghana. The Ghana Maritime Authority is responsible for regulating both in-land and marine transport and related activities.
- x) The Ministry of Energy is responsible for regulating all energy sources including renewables and waste-to-energy and its distribution.
- xi) Ministry of Information is responsible disseminating national policies.
- xii) Ministry of Food and Agriculture has responsibility for policies related to food and agriculture and farmer organizations including provision of inputs. Through its extension services it supports farmers in the application of inputs including fertilizer and compost.
- xiii) Ministry of Tourism is responsible for tourism development and promotion. The ministry regulates the hospitality industry including the quality of services provided. Improved environmental amenities enhance tourism.
- xiv) The Environmental Protection Agency (EPA) is the regulatory agency for the protection of the environment. The functions of EPA are set out in the Environmental Protection Agency (EPA) Act, 1994 (Act 490).
- xv) The Town and Country Planning Department is responsible for all land-use planning in the country. It supports DAs in physical planning of towns and provides layouts of towns that give land-use and directs development of services like roads, drainage and sewerage networks, disposal sites and water supply distribution lines.
- xvi) The Ghana Statistical Services (GSS) is the statutory institution responsible for demographic data and official government statistics. GSS provides coverage data on environmental sanitation services.
- xvii) The Hydrological Services Department (HSD) is responsible for managing information on hydrology as well as planning and design of primary drains throughout the country.
- xviii) The Community Water and Sanitation Agency (CWSA) of the MWRWH the lead facilitator of the rural water supply and water-related sanitation (in rural communities and small towns), and is responsible for external liaison and co-ordination of the National Community Water and Sanitation Programme (NCWSP). The key functions of CWSA are set out in the Community Water and Sanitation Agency (CWSA) Act, 1998 (Act 564).

- xix) The Council for Scientific and Industrial Research (CSIR) and its member institutions support and undertake research and development activities related to environmental sanitation.
- xx) The Ghana Standards Board is responsible for developing and setting quality standards for machinery and equipment.
- xxi) The Food and Drugs Board regulates quality of food and drugs including food hygiene.
- xxii) The Wildlife Division of the Forestry Commission is responsible for the regulation and management of all wetlands.

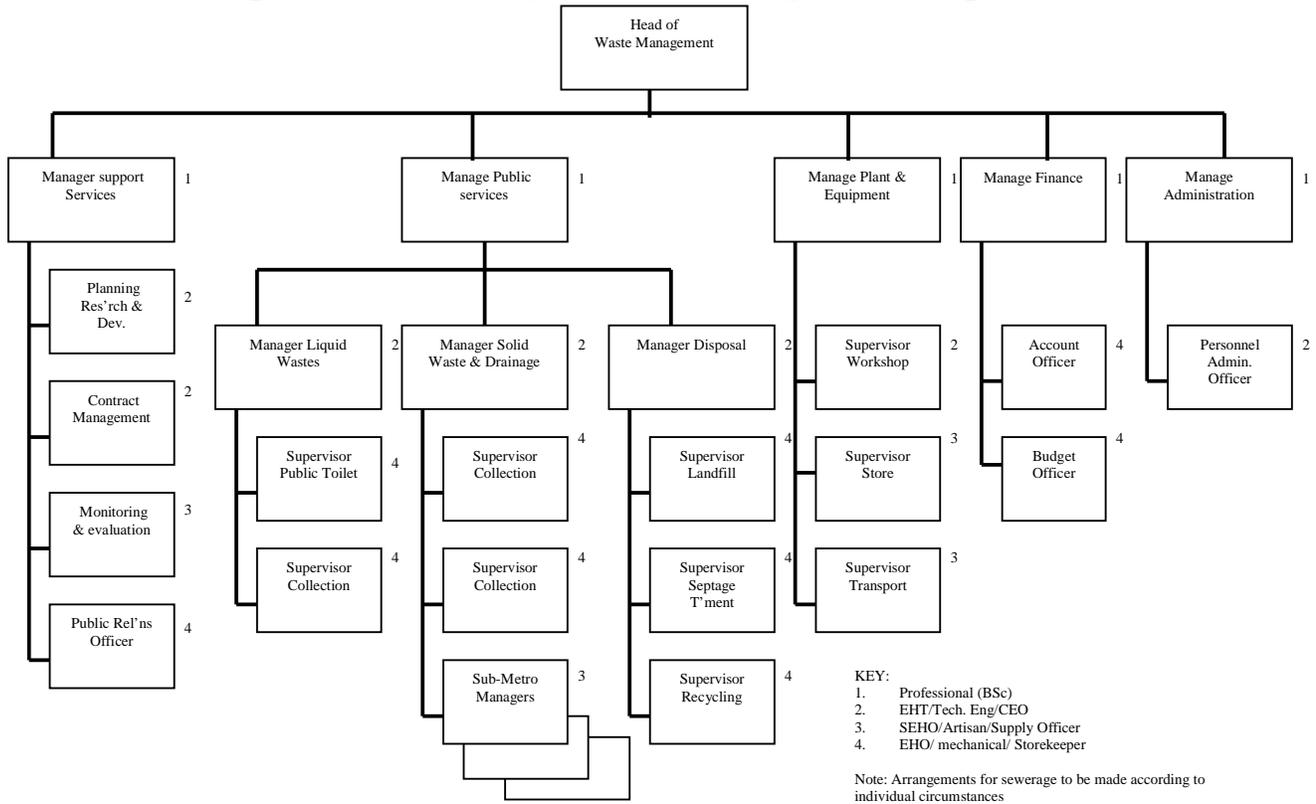
The Parliamentary Committees on Local Government and Rural Development, and Environment provide legislative oversight over the environmental sanitation sector.

# Annex 1: Generic Organisational Charts

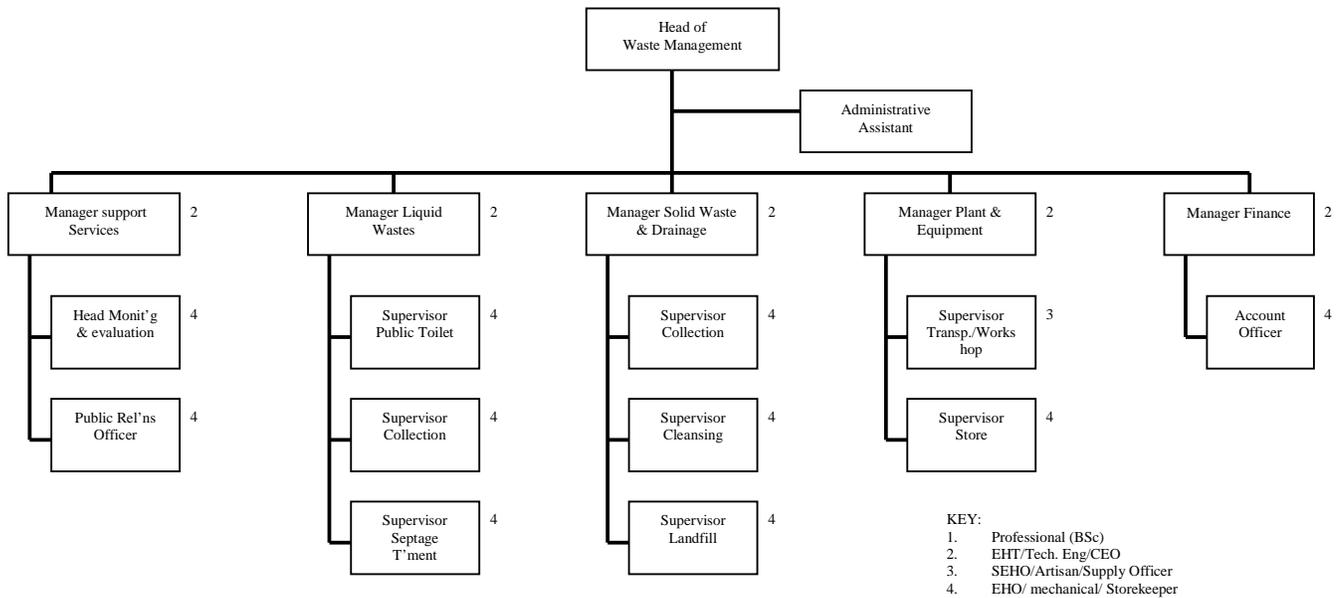
## ORGANIZATIONAL STRUCTURE OF THE ENVIRONMENTAL HEALTH AND SANITATION DEPARTMENT OF MLGRD



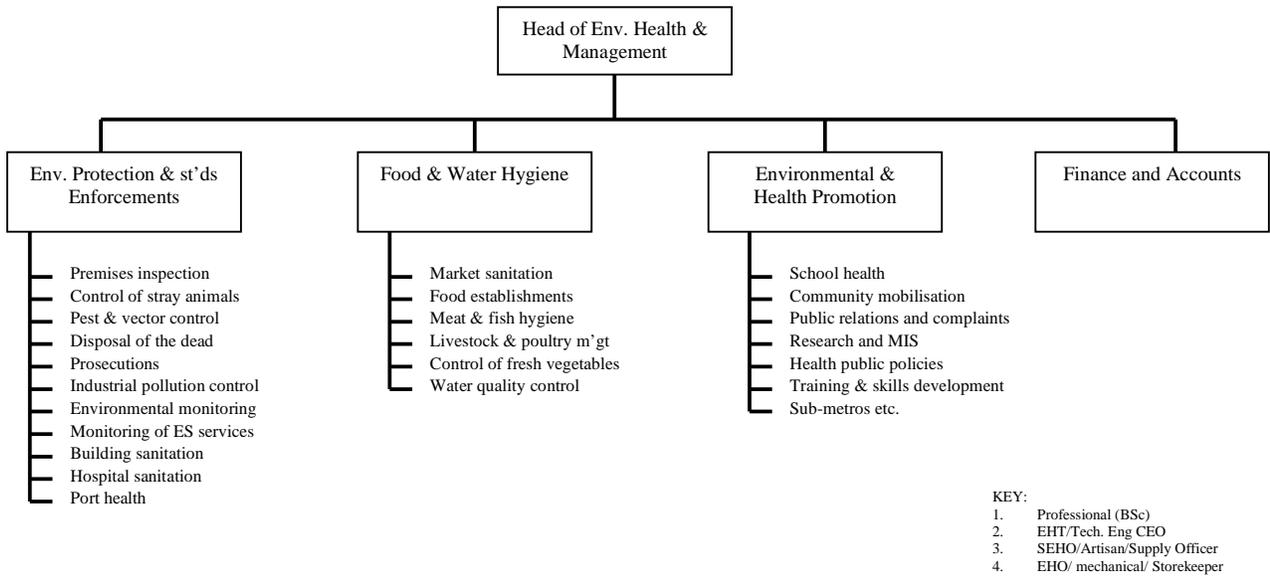
# Metropolitan Assembly: Waste Management Department



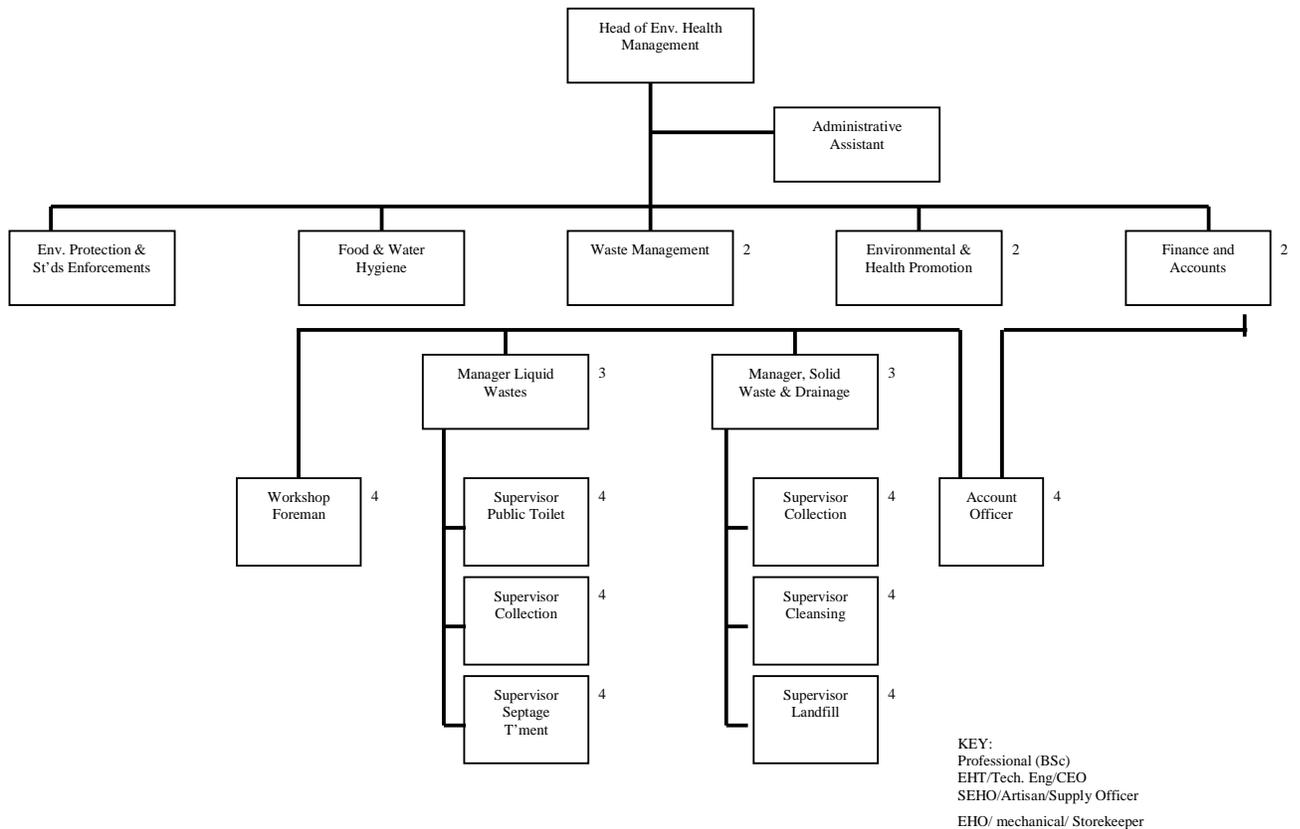
# Municipal Assembly: Waste Management Department



## Metro/Municipal Environmental Health Department



## District Environmental Health and Management Department



## **Annex 2: Specifications and Guidelines for Environmental Sanitation Services**

Environmental sanitation services, including the selection of technologies for waste treatment and disposal shall be governed by specifications and guidelines to be issued from time to time by MLGRD or its designated agencies.

The specifications and guidelines currently available include:

Expanded Sanitary Inspections and Compliance Enforcement (ESICOME) Programme, May 1999, MLGRD

Notes on Latrine Technology, October 1999, MLGRD

Environmental Assessment Regulations, LI1652, June 1999, EPA

Manual on Health Promotion, December 2001, MLGRD

Management of Environmental Sanitation Services Guidelines, March 2002, MLGRD

Manual on Prosecution, May 2002, MLGRD

Trainers Note for Training on Landfills, June 2002 MLGRD/EPA

Best Practice Environmental Guidelines Series No.1, Ghana Landfill Guidelines, July 2002, EPA/MLGRD

Best Practice Environmental Guidelines Series No.2, Guidelines for the Management of Health Care and Veterinary Waste in Ghana, July 2002, EPA/MLGRD

Best Practice Environmental Guidelines Series No.3, Manual for the Preparation of District Waste Management Plans in Ghana, July 2002, EPA/MLGRD

Manual on Environmental Health Inspections, October 2002, MLGRD

Management of Public Toilets Guidelines, January 2003, MLGRD

Environmental Sanitation Services Monitoring Guidelines, January 2003, MLGRD

Manual for the Operation of Septage Treatment Plants, May 2003, MLGRD

Health Care Waste Management in Ghana, MoH Policy & Guidelines for Health Institutions, 2006, MoH

### **Strategic Environmental Sanitation Planning**

To guide the systematic development and implementation of programmes and services, MMDAs shall develop District Environmental Sanitation Strategies and Action Plans (DESSAPs). The DESSAPs shall address the needs of all segments of the population through application of a range of service types appropriate to the different areas within the District, whilst recognising resource constraints. Priorities change over time and strategies must be refined as experience is gained. Accordingly, the DESSAPs shall not be static but rather be updated regularly. They shall:

- (a) Identify the facilities needed to provide comprehensive services, tailoring the recommended technical options to each type of area to be served;
- (b) Consider user preferences and willingness to pay;
- (c) Break the overall plan into components that can be implemented independently but which together provide full service coverage, and set priorities;
- (d) Describe the implementation and financing arrangements for each component, including private sector participation;

- (e) Use a relatively short planning horizon (10-15 years), emphasising actions that can be taken immediately.

For urban areas and large settlements environmental sanitation assessments and audits will be applied in strategic planning. For rural and small settlements the Community Led Total Sanitation (CLTS) approach will be adopted. This involves engaging local communities in the identification of environmental sanitation problems and transmission routes to wider public health effects.

### **Standardisation and Procurement**

Equipment and supplies to be procured for use by Assemblies and the private sector shall be standardised to facilitate and reduce the cost of operation and maintenance. All procurement shall be in line with the Public Procurement Act, 2003 (Act 663).

EHSD, in consultation with the Assemblies, private sector and other relevant agencies, shall develop standard specifications and selection criteria for equipment and supplies. These shall include requirements for the local availability of spare parts and technical support services. They shall be issued periodically by MLGRD as national guidelines. Consideration shall be given to an annual prequalification of suppliers to be undertaken by MLGRD.

MLGRD, the Assemblies and the private sector shall make arrangements, through a co-ordinating body fairly representing all stakeholders, for the joint procurement of essential equipment and supplies for environmental sanitation service providers. Whilst the service providers (Assemblies or private sector) shall have primary responsibility for procurement, subject to the guidelines on specification and selection issued by MLGRD, joint procurement arrangements will be more effective for large purchases or imported items. The co-ordinating body shall agree on occasions when joint procurement is to be preferred.

## **Annex 3: Definitions of Components of Environmental Sanitation**

### **Solid Waste Management**

Solid wastes comprise all solid waste material generated by households, institutions (including health-care waste from hospitals and clinics), commercial establishments and industries, and discharged from their premises for collection; all litter and clandestine piles of such wastes; street sweepings, drain cleanings, construction/demolition waste, dead animals and other waste materials.

Hazardous wastes comprise those wastes that are toxic, flammable, corrosive, radioactive, explosive or otherwise dangerous as defined by the EPA. They also include motor oil, diesel fuel, gasoline (petrol), paint, solvents, dry cell and vehicle batteries, pesticides, infectious or medical wastes from hospitals and clinics, metallic and/or oily sludges or solvents, and asbestos materials.

Primary responsibility for solid waste management rests with the Assembly. However, in general, the private sector shall be invited to provide the actual services under contract or franchise, as appropriate. In the case of franchise, the franchisee may propose services above the minimum specified standard, as long as the users' willingness and ability to pay can be relied upon. The franchisee may also propose tariffs and subsidy levels, subject to final approval by the Assembly.

### **Waste Treatment and Disposal**

#### **Site Acquisition**

Sites for treatment and disposal of wastes (landfills, composting facilities, waste stabilisation ponds, trickling filters, septage treatment plants, etc.) shall be located so as not to create safety and health hazards or aesthetic problems in the surrounding area. In order to ensure adequate provision of such sites, all District Assemblies shall be required to:

- (a) Produce medium and long term plans for the provision of treatment and disposal sites, including the preparation of Environmental Impact Assessments;
- (b) Acquire sufficient land and secure title with payment of due compensation for the land for immediate and future use and protect such acquisitions by proper demarcation, fencing, etc.;
- (c) Ensure that the sites are managed so as to satisfy approved environmental protection standards.

Relevant legislation on the acquisition of land for treatment and disposal sites shall be reviewed and legislative and administrative provisions established to facilitate site valuation, negotiation and payment of compensation by District Assemblies.

## **Liquid Waste Management**

District Assemblies shall ensure the availability of facilities for the safe handling and disposal of human excreta (nightsoil and sewage), industrial waste, animal manure, industrial sewage and domestic/commercial wastewaters. These include excreta disposal facilities and systems for the conveyance (sewerage, vehicular, manual), treatment and final disposal of liquid wastes.

The District Assemblies shall have authority to regulate, control, and co-ordinate the activities of all agencies involved in liquid waste management services. MLGRD shall issue technical guidelines from time to time specifying which technologies may be used, including design parameters and recommended operating procedures.

### **Excreta Disposal Facilities**

Recommended technologies are the water closet and septic tank system, the pour flush latrine (where water is used for anal cleansing), the ventilated improved pit latrine (VIP), the aqua privy, and any other proven technologies recommended by MLGRD. Bucket (pan) and open trench latrines are actively discouraged and must be phased out as they do not meet minimum sanitary standards.

District Assemblies shall regulate technologies for domestic toilets by legislation and application of the building code. Assemblies shall arrange for the provision of public facilities in central business districts, major commercial and light industrial areas, local markets and public transport terminals (lorry/bus stations). District Assemblies shall promote the construction and use of household toilets, including the conversion of pan latrines to approved types.

District Assemblies shall transfer management and maintenance of all public toilets to the private sector, either by franchising existing facilities or granting concessions for the construction and operation of new ones.

### **Sewerage and Septage Removal**

District Assemblies shall ensure the hygienic transfer of liquid wastes from the point of generation to the point of treatment and disposal. Where appropriate, they shall provide and maintain sewerage and stormwater drainage systems. Desludging of septic tanks and VIPs shall be regulated by the Assemblies, but in general carried out by the private sector.

#### **Sewerage Systems**

Small scale sewerage systems may be provided for high density areas where other on-site options are not technically feasible, institutions (schools, colleges etc.), and small estate developments. Simplified and small-bore sewerage systems will be adopted to cater for other areas including low-income high-density housing areas.

#### **Septage Removal**

The hygienic desludging of septic tanks and VIP latrines are essential services that require regular availability of machinery and equipment.

In order to ensure adequate hygienic standards, equipment and protective clothing for staff should be inspected regularly. Staff should also be adequately trained and provided with

vaccinations and regular medical check-ups. These matters should be regulated and enforced by the Assembly's Health Department. Assemblies may establish licensing systems, to facilitate enforcement.

### **Sullage Conveyance and Disposal**

In order to limit sanitary nuisances and vector breeding District Assemblies shall ensure that communities and households provide sullage conveyance drains (gutters) and soakage pits to minimise puddles and use of earth ditches. Tertiary drains shall be provided to carry sullage into secondary and primary drains. The Assemblies shall ensure, through appropriate bye-laws that communities and occupiers of premises maintain and tidy all drains and gutters abutting their properties.

### **Treatment and Disposal Systems**

#### **On-Site Systems**

Acceptable technologies include VIP latrines and septic tanks with soakaways or subsurface drainfields. District Assemblies, however, shall decide on the acceptability and extent of use of VIP latrines in urban areas.

For both the technologies mentioned, sludge must be periodically removed. This should be done by tanker service in the case of septic tanks and single pit VIPs. Where the user population is low to allow sufficient time for sludge digestion prior to manual removal, alternating pit VIP can be used.

#### **Off-Site Systems**

Waste stabilisation ponds are the recommended technology for the treatment of large volumes of nightsoil and septage. For daily volumes of less than 50 cubic metres, other methods such as ponding and co-composting with municipal solid waste may be considered.

Where there is no reasonable alternative, marine disposal of sewage shall be permitted, provided primary treatment to an acceptable standard is provided.

“Conventional” sewage treatment technologies (eg. trickling filters, activated sludge, etc.) shall only be used where there are limitations on the use of waste stabilisation ponds. District Assemblies shall adopt such systems taking due consideration of the capital and replacement costs, operation and maintenance costs and skilled manpower requirements.

### **Stormwater Drainage**

In order to limit sanitary nuisances, vector breeding and the physical hazards of flooding, District Assemblies shall ensure that communities are provided with adequate and consistently functioning drainage works in accordance with nationally defined design standards. The Assemblies shall ensure, through appropriate bye-laws and control mechanisms that faecal and solid wastes are not discharged into stormwater drainage systems.

## **Industrial Wastes**

Industrial wastes of significant importance include wastes from sawmills, food processing factories (canneries, etc.), breweries, metal works, etc. These wastes may be classified as solid, liquid or gaseous wastes.

### **Solid Wastes**

The disposal of solid wastes specific to an industry shall be carried out in compliance with the standards and procedures prescribed by the EPA and any other relevant regulatory agencies. The industrial houses shall undertake or arrange for the conveyance of their wastes to an approved disposal site.

### **Liquid Wastes**

Liquid industrial effluents shall be pre-treated by industries to prescribed standards before discharge into the environment, ie. land, public drains, sewers, water courses and other receiving water bodies.

### **Gaseous Wastes**

Gaseous emissions from industrial activities and processes which may have adverse effects on the environment shall be treated to the prescribed standards specified by the relevant regulatory agencies.

### **Toxic, Radioactive and Other Special Wastes**

All generators of toxic, radioactive and other special wastes shall be required to comply with the standards prescribed by the relevant regulatory agencies for storage, collection, transportation and final disposal.

## **Public Cleansing**

District Assemblies shall ensure the provision of public cleansing services to maintain a clean environment within the District, covering all facilities used by the general public, eg. lorry parks, markets, public gardens, streets, public beaches, drains, river banks etc.

The heavy human traffic and commercial activities at markets and transport terminals (lorry and car parks) generate large quantities of solid and liquid wastes, thus exposing the public to health hazards and inconveniences. District Assemblies shall give priority to the maintenance of a clean and pleasant environment at these public places.

## **Vector and Pest Control**

### **Control of Insect Infestation**

District Assemblies shall make arrangements, both directly and through the private sector, for the effective and continuous control of insect vectors and pests, especially mosquitoes and flies. This shall include the provision of infrastructure and services (eg. drainage, waste

management etc.), public education and action campaigns, and the application of chemicals or other control measures to critical sites.

### **Control of Rodents**

The District Assemblies' primary concern shall be given to the control of rats and mice in the markets where they threaten food storage and property. The Assemblies shall allow private participation in this and other pest control services and make bye-laws for the registration and control of private pest control operators.

## **Food Hygiene**

### **Prepared Foods**

District Assemblies shall run programmes to control the sale of prepared foods, including the specification of utensils and display containers. Effective mechanisms for monitoring and enforcing standards shall be put in place, and appropriate bye-laws shall be enacted to support the programmes.

### **Eating and Drinking Establishments**

The District Assembly shall register all eating establishments and food premises and specify the standards to be observed. Effective mechanisms for inspection, monitoring and the enforcement of standards shall be put in place, and appropriate bye-laws enacted to support them.

### **Slaughtering Facilities**

District Assemblies shall ensure that all communities that need slaughtering facilities have access to them, either as public or private facilities. These are to be registered and regularly inspected by the District Assembly. The District Assembly shall undertake regular inspection of meat and fish.

### **Provision of Markets**

District Assemblies shall ensure the availability of suitable and hygienic market facilities. The private sector shall be encouraged to build and manage such facilities. Provision for the handling, display and preservation of meat, fish and other perishable foods shall be such as to prevent contamination and decomposition. District Assemblies shall make bye-laws allowing for the development of markets by the private sector and providing for their control.

## **Environmental Sanitation Education**

The provision of sanitary infrastructure alone is not sufficient to ensure improvements in environmental sanitation unless there is sufficient access to the facilities and they are properly used. Environmental sanitation education is therefore an integral element of all activities. Environmental sanitation education is complementary to regulation, which is ineffective unless coupled with explanation and persuasion.

Improved approaches of environmental sanitation education based on problem-solving and active participation by the target groups must be developed and implemented.

### **National Level Programmes**

MLGRD shall support environmental sanitation education programmes at the national level, with the co-operation of other relevant agencies, using both the mass media and local structures. It shall also co-ordinate training, materials development and research to support both local and national programmes.

### **Local Level Programmes**

District Assemblies shall carry out environmental sanitation education programmes within their districts. These programmes shall be co-ordinated with those of other Government agencies, NGOs, churches, social groups, etc. Community based organisations shall also be involved as an aid to achieving coverage in all communities.

## **Sanitary Inspection and Law Enforcement**

To make progress in behaviour and attitudinal change towards environmental sanitation, education for raising awareness on hygienic practices will go hand in hand with sanitary inspection and enforcement of sanitary regulations. Sanitary inspection and law enforcement programmes shall be applied at all levels of service provision. These shall be backed up by education and information campaigns as well as technical assistance for developing appropriate plans and programmes for enforcement.

### **Inspection of Premises**

The Health Department of the District Assembly shall inspect the plans of all new buildings to ensure that they conform to sanitary regulations and approve the issuance of the Certificate of Habitation when the buildings are completed.

All premises (residential, commercial, institutional and industrial) shall be periodically inspected to ensure that the provisions of the relevant laws and the building code are observed by occupants.

### **Public Open Spaces**

All undeveloped and vacant lots within the Assembly's boundary, as well as public parks, gardens, beaches, recreational areas, etc. shall be inspected periodically to ensure the maintenance of hygienic environment and amenities.

### **Enforcement of Sanitary Legislation**

All District Assemblies shall enact appropriate sanitary legislation and bye-laws to facilitate inspection and enforcement programmes and empower relevant officers to perform their functions effectively.

## **Disposal of the Dead**

District Assemblies shall regulate the burial and cremation of the dead and the provision of all facilities and services related to the handling, transportation and preservation of the dead.

There shall be national and local legislation empowering District Assemblies to perform relevant functions.

### **Burial Legislation**

All District Assemblies shall make adequate and appropriate arrangements for the registration of deaths and the control of burials and cremations as specified in the Registration of Births and Deaths Act. 1965 (Act 301) and adhere to all relevant legislations.

### **Cemeteries**

District Assemblies shall ensure that all communities have approved cemeteries as well as make provision for the approval of private burial grounds. Standard specifications for the siting of cemeteries, works for the protection, drainage, and beautification of these facilities and provision of access roads shall be issued by MLGRD. Appropriate national legislation shall be enacted to facilitate the acquisition of lands for public cemeteries.

### **Crematoria**

The provision of crematoria by the District Assemblies shall not be mandatory. However, the Assembly shall be responsible for regulating the provision and operation of such facilities in accordance with the national legislation in force. Private organisations shall be allowed to provide and operate crematoria.

### **Private Mortuaries and Funeral Homes**

The provision and operation of private mortuaries shall be allowed subject to the provisions of relevant national legislation.

## **Control of Rearing and Straying of Animals**

District Assemblies shall make and enforce regulations to control the rearing and straying of animals, so as to protect humans from the health hazards and sanitary nuisances arising therefrom.

### **Rearing of Animals**

The relevant regulations applicable to the rearing of specified animals in designated areas of a community or limiting the number of animals to be allowed shall be enforced.

### **Control of Straying Animals**

The relevant regulations and bye-laws applicable to control the straying of animals shall be enforced with adequate penalties for offences.

### **Control of Dogs and Other Pets**

The relevant regulations and bye-laws applicable to control and keeping of dogs shall be enforced. Existing legislation shall be reviewed and strengthened when necessary.