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# Environmental Health in Ghana

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# Introduction

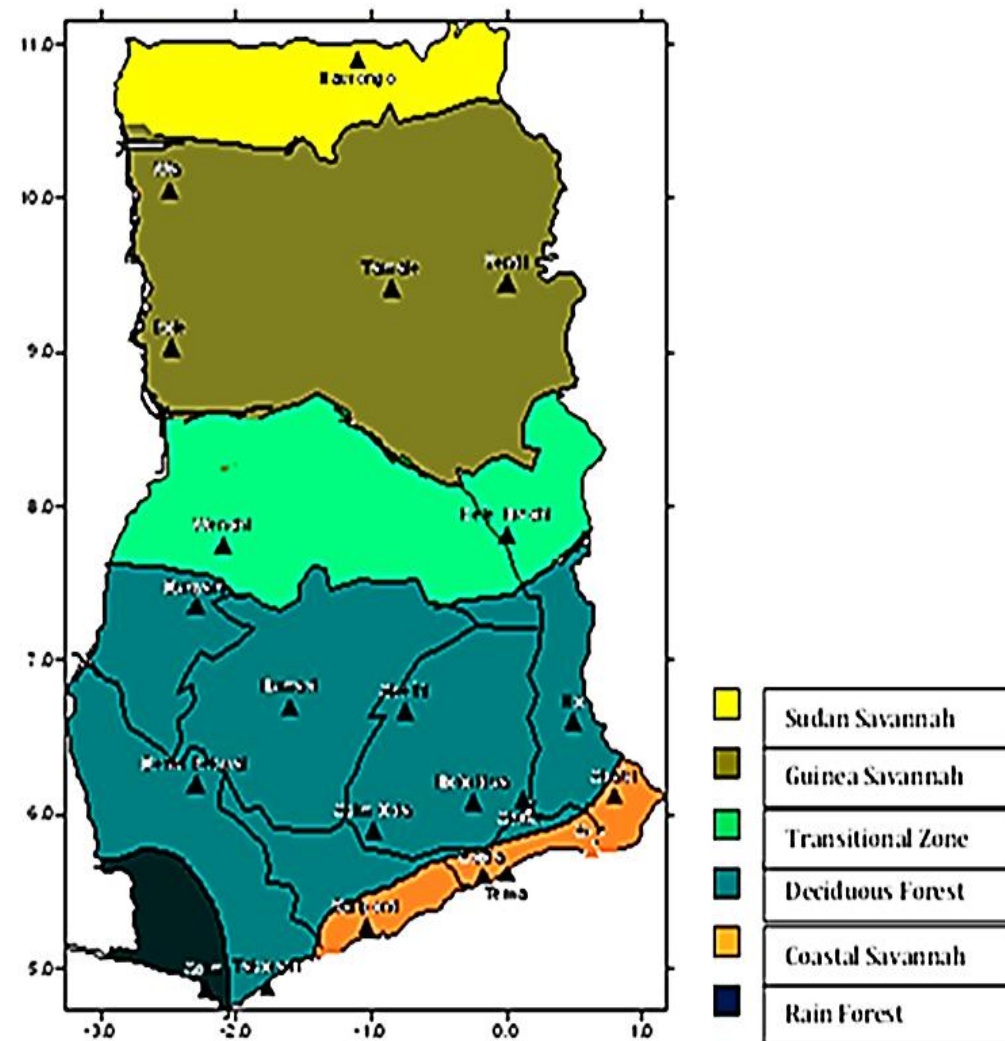
- Environmental health addresses all the physical, chemical, and biological factors external to a person, and all the related factors impacting behaviours. It encompasses the assessment and control of those environmental factors that can potentially affect health (WHO, 2015) .
- It is targeted towards preventing disease and creating health-supportive environments
- Environmental health plays an important role in the socio-economic development of a nation.
- Ghana's progress in reversing the loss of environmental resources and improving sanitation (MDG 7) has been slow (Ghana MDGs 2015 Report).
- The country is however still committed to ensuring that renewed efforts are geared towards the achievement of sustainable development as we enter into the era of the **Sustainable Development Goals (SDGs)** with the expiration of the **Millennium Development Goals (MDGs)** by close of 2015.

# Country Profile

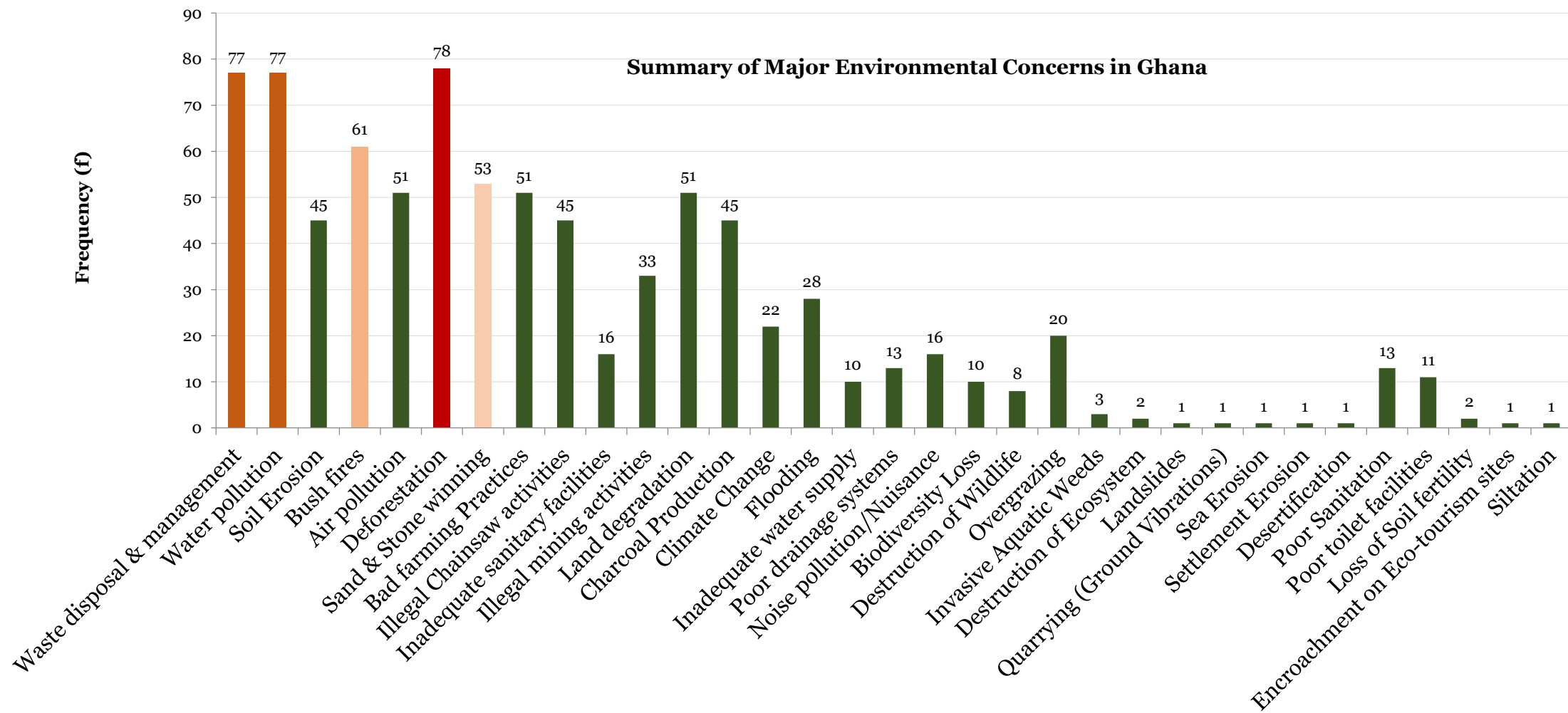
- Ghana is located between longitudes  $3^{\circ} 15''$  W and  $1^{\circ} 12''$  E, and above the in West Africa. It shares boundary with Togo to the East, Ivory Coast to the West and Burkina Faso to the North and the Gulf of Guinea.
- The total area of the country is about 238,539 km<sup>2</sup> with an Exclusive Economic Zone (EEZ) of 110,000 km<sup>2</sup> of the sea which forms the territorial area of Ghana. Ghana has a coastline of about 550 km
- The population of Ghana is about 27,670,174 million with the majority of the people living in the southern parts. Life expectancy is 62 years
- Ghana has a warm equatorial climate with mean annual temperatures ranging between  $24^{\circ}\text{C}$  and  $36^{\circ}\text{C}$ .

# Country Profile-cont'd

- There are **five major ecological zones** –
  - ✧ Rain Forest,
  - ✧ Semi-Deciduous Forest,
  - ✧ Sudan Savanna,
  - ✧ Guinea Savanna and
  - ✧ Coastal Savanna.
- A transitional zone consisting of a mixture of semi deciduous and savanna vegetation tends to occur in between the forest and the savanna.



# Major Environmental Issues



# Importance of Environmental Health



- There has been an increasing demand for environmentally related statistics after a Country Environmental Analysis (CEA), 2006 carried out by the World Bank and State of Environment (SoE) Report published in 2004. It is expected that these information would support evidence-based policy making and decisions at all levels
- Increased access to adequate, safe and affordable water, improved environmental sanitation and hygiene education constitute critical components of policy to ensure a favourable state of health of the general population (Ghana Shared Growth and Development Agenda (GSGDA) II 2014-2017).
- In Ghana, some of the critical areas of concern with respect to environmental health include; **sanitation, water, waste, and pollution, and their related health implications.**
- **Environmental sanitation** is a major determinant for achieving improved quality of life. All the components of environmental sanitation services taken together have a greater impact on the health of the environment and people than other components.



# Current state of Environmental Health

- They are mainly caused through contamination of environmental media (water, air, soil) and food by bacteria, viruses and parasites from poor disposal of refuse.
- In Ghana, **malaria is a major cause of mortality and morbidity especially among children under five years and pregnant women**. It accounts for about **44.5%** of all outpatient illnesses, 36.9% of all admissions and 19% of all deaths in health institutions.
- Among children under age five and pregnant women, malaria accounts for 13.8% of Out Patient Department (OPD) attendance, 10.6% of admissions and 9.4% of deaths.
- Records available also indicate that cholera outbreak in 2014 affected over 23,600 people and was estimated to cost the country not less than US\$13.3 million excluding other economic implications as cost relating to loss productivity.
- Other environmental health-related diseases also include; diarrhoea, Acute respiratory tract infections, asthma, bronchitis, onchocerciasis, etc.

# Policies and Institutional framework

- The Ghana Shared Growth and Development Agenda (GSGDA) II (2014-2017) is the main medium-term development policy framework for Ghana.
- The Ghana Statistics Development Plan
- National Statistics System
- The National Health Policy
- Occupational Health & Safety Guidelines
- National Health Insurance Policy Framework
- National Environmental Sanitation Policy
- National Sanitation Strategy & Action Plan
- District Environmental Sanitation Strategy and Action Plan (DESSAP)
- Rural Sanitation Model and Strategy (RSMS)
- National Environmental Policy



MEDIUM-TERM NATIONAL DEVELOPMENT POLICY

GHANA SHARED GROWTH  
DEVELOPMENT AGEND  
(GSGDA) II, 2014-2017



GOVERNMENT OF GHA  
NATIONAL DEVELOPMENT PLANNING COMMISSIC

December 2014



**National Health Policy**

Creating **Wealth**  
through **Health**

Ministry of Health,  
Accra, Ghana  
September, 2007

Ghana

and Rural Development

Sanitation Policy  
(2010)



# Policies and Institutional Framework-cont'd

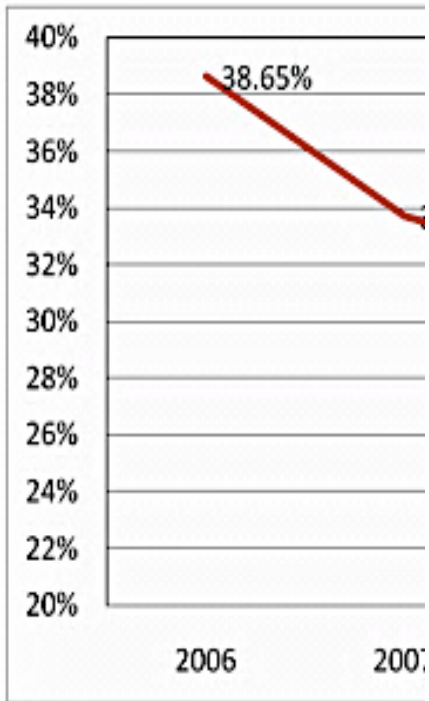


- Key institutions responsible for environment and health include the following:
  - Ministry of Health
  - Ghana Health Service
  - Ministry of Local Government and Rural Development
  - Ministry of Environment, Science, Technology & Innovation
  - Environmental Protection Agency
  - Ministry of Water Resources, Works & Housing
  - Water Resources Commission
  - Ghana Statistical Service
- Some relevant laws and legislation include;
  - Ghana Health Service Act 525,
  - Local Government Act 462,
  - Environmental Assessment Regulations, 1999 (LI1652),
  - Environmental Protection Agency Act 490, etc.

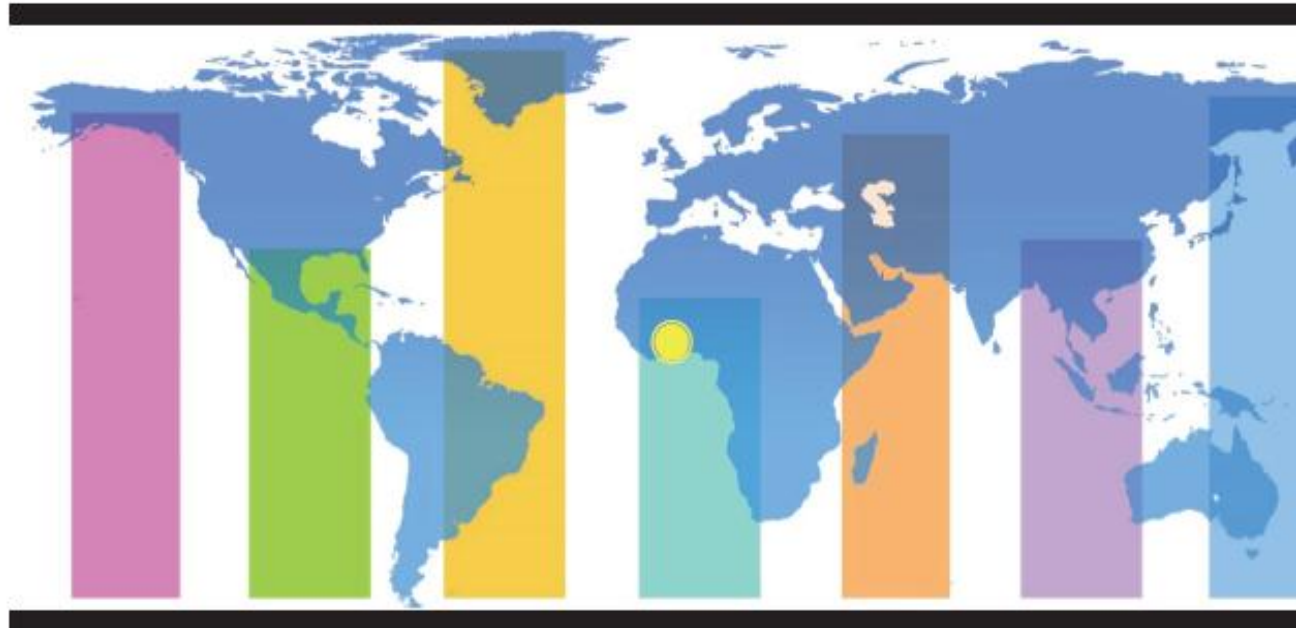
# Indicators & Data



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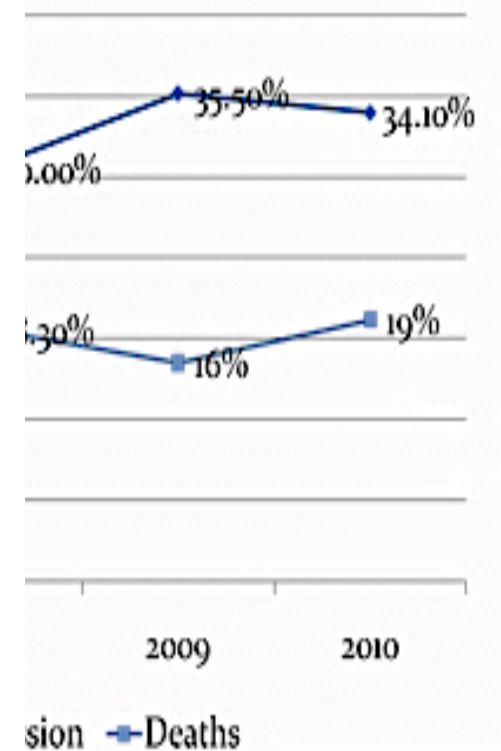
## Ghana



## Demographic and Health Survey

# 2014

DEATHS TO MALARIA, 2006-2010



# Indicators & Data

- Air Quality Index (AQI)
  - AQI is a measure of the quantity of harmful particles and chemicals in the air.
  - The AQI is an index for reporting daily air quality. It tells you how clean or polluted your air is, and what associated health effects might be a concern for you.
  - The AQI focuses on health effects you may experience within a few hours or days after breathing polluted air.
  - The EPA calculates the AQI for five major air pollutants regulated by the Clean Air Act: **ground-level ozone, particle pollution (also known as particulate matter/PM<sub>10</sub>), carbon monoxide, sulfur dioxide, and nitrogen dioxide.** For each of these pollutants,
  - EPA has established national air quality standards to protect public health .Ground-level ozone and airborne particles are the two pollutants that pose the greatest threat to human health in our country.

# AQI PM<sub>10</sub> CALENDAR FOR ACCRA, DECEMBER 2014

06-12-14

12-12-14

18-12-14

24-12-14

30-12-14

LABADI JUNCTION		MALLAM JUNCTION		LABADI JUNCTION		LABADI JUNCTION		LABADI JUNCTION
ACHIMOTA OVERPASS				ACHIMOTA OVERPASS		ACHIMOTA OVERPASS		ACHIMOTA OVERPASS
TETTEH QUARSHIE INTER-CHANGE				TETTEH QUARSHIE INTER-CHANGE		TETTEH QUARSHIE INTER-CHANGE		TETTEH QUARSHIE INTER-CHANGE
MALLAM JUNCTION						KASOA SITE		KASOA SITE
KASOA SITE								

Air Quality Index (AQI)	AIR QUALITY GUIDE FOR PM <sub>10</sub>
When the AQI is in this range:	Levels of Health Concern/Protect Your Health
	<i>..air quality conditions are:</i>
Good (0-50)	No health impacts are expected when air quality is in this range
Moderate (51-100 )	Unusually sensitive people should consider limiting prolonged outdoor exertion
Unhealthy for Sensitive Groups (101-150)	The following Groups should limit prolonged outdoor exertions: § People with lung disease, such as asthma, § People with lung disease, such as asthma, § Children and older adults and § People are active outdoors
Unhealthy (151 to 200)	The following groups should avoid prolonged outdoor exertions: § People with lung disease, such as asthma, § Children and older adults § People are active outdoors and § Everyone else should limit prolonged outdoor exertion
Very Unhealthy (201 to 300)	The following groups should avoid all outdoor exertions: § People with lung disease, such as asthma, § Children and older adults, § People are active outdoors and Everyone else should limit prolonged outdoor exertion
Hazardous (301 to 500)	Everyone should avoid any outdoor exertion

# Challenges

- Ghana's National Statistical System does not currently produce any environmental statistical information
- The relative uncoordinated and scanty nature of data on environmental health statistics.
- Inadequate capacity and expertise in the field of environmental statistics
- No clear-cut processes or methodology for producing environmental statistics
- Lack of ownership among state institutions
- Financial resource constraints (Make resources available in the national budgeting processes)

# Present & Next Steps

- Ghana is in the process of building a **National Natural Capital Accounting (NCA) System** based on the System of Integrated Environmental and Economic Accounting (SEEA) framework of the UNSD. This activity which started this year will focus on compiling on a pilot basis a national sub-account for one sector i.e. forestry or minerals.
- Started working on estimating the Cost of Environmental Degradation (CoED) to the country on an annual basis. Focus areas so far have included estimates from the **Agricultural, Forestry, Fisheries, Environmental Health, and the Energy sectors. This activity is coordinated by the Environmental Protection Agency with twenty-one (21) institutions as members of the working group.**
- Discussion to extend the scope of the CoED to cover critical areas of **mining, water, bushfire and wildlife**
- The Environmental Protection Agency (EPA) has initiated a process aimed at establishing a Natural Resource and Environmental Economics & Statistics Unit within the Agency.



# Present & Next Steps-cont'd

- Adopt and operationalize the implementation of the Framework for the Development of Environmental Statistics (FDES), its basic set and the ESSAT in Ghana.
- Facilitate arrangements towards strengthening work on the ECOWAS Agreed Set of Environmental Indicators
- Convene a meeting of stakeholders to institutionalize Environment Statistics in all relevant Ministries, Departments and Agencies (MDAs) with Focal points (i.e. where possible set up an inter-agency committee
- Present a concept note on Environmental Statistics to the National Statistical System(NSS) to consider integrating environmental statistics into the NSS

# Conclusion

- Enhancement in technical capacity at all levels, especially in environmental sanitation.
- Strengthen awareness creation and education on environmental health issues. For instance, the National Sanitation Day
- Strengthen partnership, coordination and collaboration amongst institutions involved in environmental protection, provision of sanitary facilities, and health services.
- Harmonization of environment related data and statistics i.e. establishing a central point where data and information on the environment can be stored and harnessed to make sense to users
- Strict enforcement and compliance to laws and regulations on the environment.





Thank You for your attention!

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