

Institutional aspects of environment statistics

Botswana Experience

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Background

- Botswana is semi-arid country with rainfall ranging from 350mm-650 mm per annum
- Total land area 582 000 sq km
- Population 1.7 million
- Number of cattle is 2.7 million
- Mining is critical sector – constitutes 82% of exports



Introduction

Importance/Need of Environment Statistics

- Provides important information for monitoring environmental changes
- Provides necessary information for decision making
- Informs priority, target/threshold setting and necessitates intervention



Institutional Aspects

- Most central government ministries have a portfolio responsibility of some environmental aspect
- In fulfillment of their mandate they deal with some aspect of data collection and analysis
- This is not done in an integrated manner, therefore gaps are inherent and duplication is inevitable



Data providers

LAND

- Department of Land Boards – allocates tribal land
- Department of Lands – allocates state land
- Dept of Town and Regional Planning -
- Department of Surveys and Mapping

WATER AND SANITATION

- Department of Waste Management and Pollution Control
- Department of Water Affairs
- Water Utilities Corporation
- District Councils
- CSO (census data)

WASTE

- Department of Waste Management and Pollution Control
- District Councils
- CSO (census data)



Data Providers cont'd

NATURAL RESOURCE MANAGEMENT

- Department of Environmental Affairs (coordination)
- Department of Forestry and Range Resources
- Department of Wildlife and National Parks
- National Herbarium (National Museum)
- Lands Boards

AGRICULTURE

- Crop Production
- Pest Control Unit



Institutional Arrangements

NCS was established in 1990 in recognition of the need for sustainable development.

The primary goals are;

- Increase the effectiveness with which natural resources are used and managed
- Integrate the works of sectoral ministries and interest groups throughout Botswana



Institutional Arrangements

- In order to achieve the primary goals of the NCS, there is need for reliable and timely data
- The Central Statistics Office (CSO) has provided a crucial role in that regard
- Botswana government crafted the Statistics Act in 1969, which established the CSO
- The Act mandates CSO to collect, compile and disseminate official statistics through Statistical reports and the CSO website (www.cso.gov.bw)
- The Environment Statistics Unit (ESU) was established 1995 in response to Agenda 21, to which Botswana is a signatory
- The role of the ESU is to collect and compile environment related data

Institutional linkages

Census

CSO Env. Stats
Unit (individual
PCs (excel, SPSS,
word)

Env. Indicators
Wildlife Stats
Forestry Digest
Energy Stats etc

*Provide data (digital
or hardcopy to CSO)*

DWMPC
DWA
DWNP etc

- National SOERs
- D/U SOERs
- NRA

- Informs Decision
making
- Educates public
- Informs SEA

Challenges

- Environment related stats are scattered over many departments (lack of coordination)
- Data not digitized and is stored in **unlinked** systems and varied formats
- No data collection standards
- Inadequate monitoring capability
- Lack of capacity (financial and human resource) to collect data
- Unavailability of time series data
- Unreliable of measurements/methods of data collection



Strategies

- DEA through the envisaged EMA Bill to guide data collection (through environmental indicators) and request data providers to avail data.
- Develop data standards to harmonize data formats
- Develop an EIS for easy storage and retrieval
- Establish the EAC (as a directorate) to enhance the coordination capability of DEA
- Enhance institutional capacity through collaboration with other stakeholders such UNDP, UNEP, e.g ESP (collaboration between GOB and UNDP)



Conclusion

- There is a pressing need to put in indicators, norms and standards to facilitate accurate and timely reporting on environmental conditions.
- Coordination of data collection and reporting mechanisms should be clearly defined and established.

