Experience sharing on Developing National Climate Change Statistics in Uganda

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Out line

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3. National Framework Development
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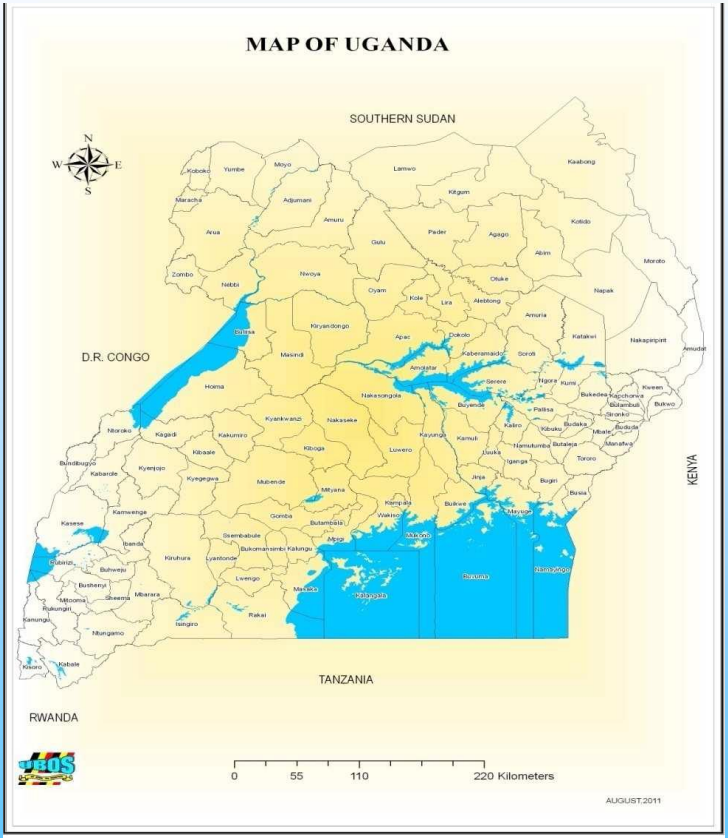
1. Introduction



1.1 General Information:

• Uganda is found within the Great Lakes region of Africa and shares common borders as seen in picture

• Area is 241,551 km2 of which land area (excluding open water & swamps) constitutes 197,097 km2 and open water and swamps constitute 43,941 km2.

• Min altitude ASL is 620m (Albert Nile) & the Max altitude ASL is 5,110m (Mt. Rwenzori peak). As a result of this high altitude, Uganda's would be tropical climate is modified considerably.

• Temp range from 15°C - 30°C , Avg = 21°C.

• Rainfall ranges 750mm to 2000mm around Victoria

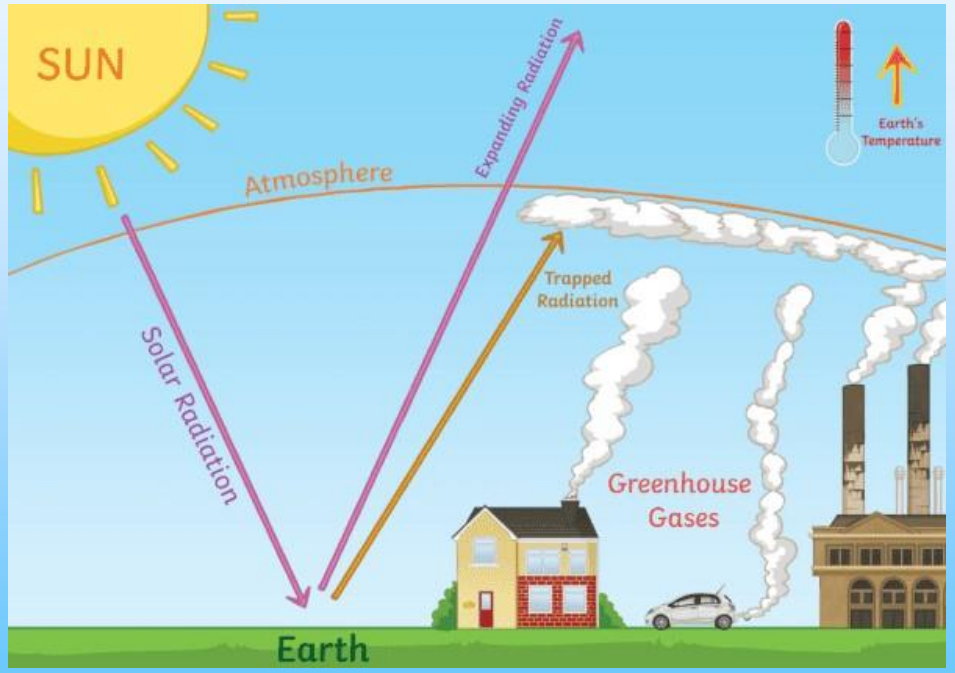
Environment and Natural Resources (ENR) Sector

- Uganda is endowed with a rich and diverse ENR base which supports economic growth and livelihoods security.
- There are strong linkages between ENR and other sectors of the economy notably agriculture, tourism and health in addition to supporting the attainment of regional and international commitments such as the Agenda 2063/SDGs.
- Eighty five per cent (85%) of the population is highly dependent on natural resources for their livelihood.
- 80% of households are engaged in Agriculture & 44% of land is currently under Agriculture
- 94% of households depend on wood and charcoal for cooking

2. Climate Change Statistics in Uganda

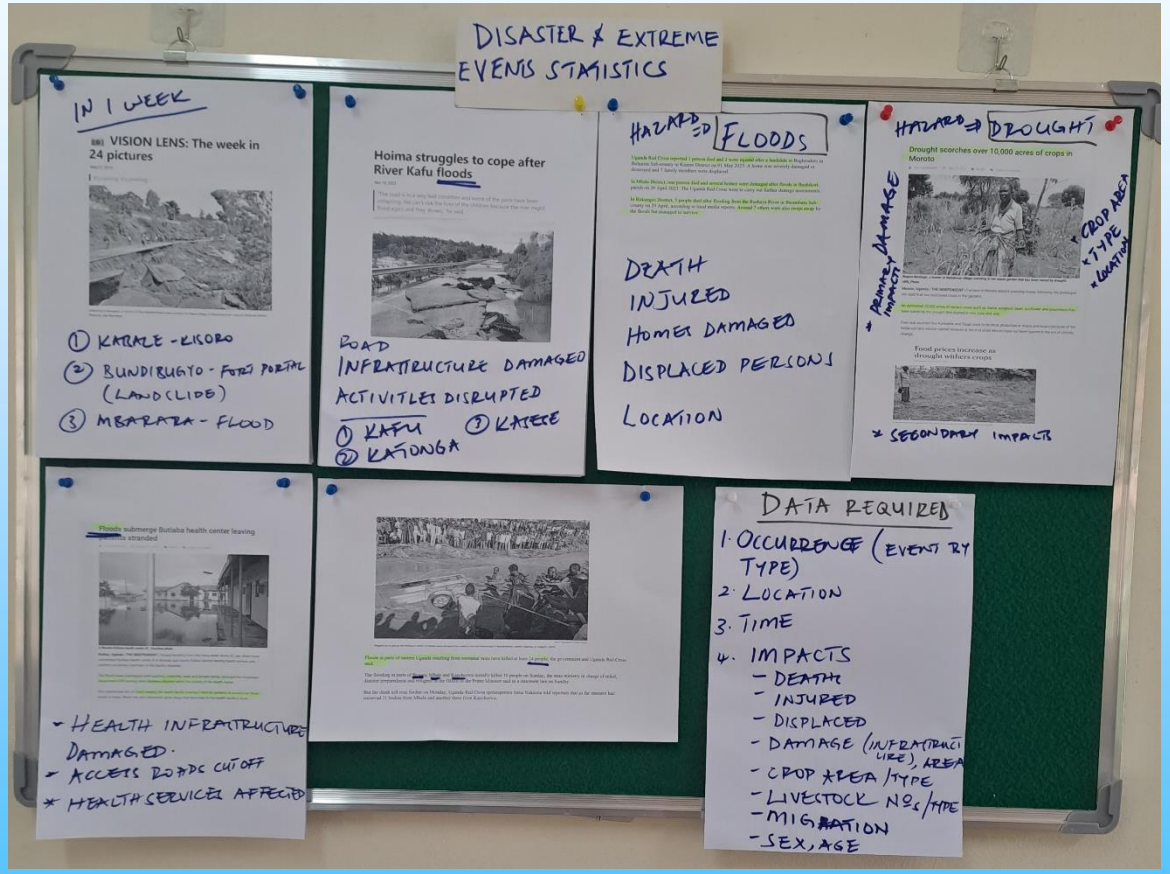
i. Definition

- "Climate change" means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed (**long-term shifts in temperatures and weather patterns)** over comparable time periods *(UNFCCC definition).*
- Green House Gases; CO_2, CH_4, N_2O, Chlorofluorocarbons (CFCs).
- Their accumulation is the reason to worry so much since they will trap more radiation increasing the temperatures on Earth



Cont.

- There's a lot of evidence that Uganda is experiencing Climate Change
- The country experiences droughts, floods, landslides, erratic rainfall and/or intense rainfall patterns, and projections estimate that the frequency and severity (including geographical coverage) of climate hazards and disasters is likely to increase significantly



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- Uganda is **ranked 12th on vulnerability and 49th on readiness**,
- The country is very vulnerable, sadly, unprepared to respond to climate change impacts *(Notre Dame Global Adaptations Initiative Index 2021)*
- Uganda is a signatory to the United Nations Framework Convention on Climate Change like most countries that acknowledge that Climate Change is a global issue which requires combined efforts from all countries to address.
- This has enhanced its awareness and participation in Climate related initiatives like the development of National Mitigation and Adaptation Actions and supporting frameworks like a Climate Change Act, Integration into the NDPs, Institutional capacity; Climate Change Department (CCD).

Cont.

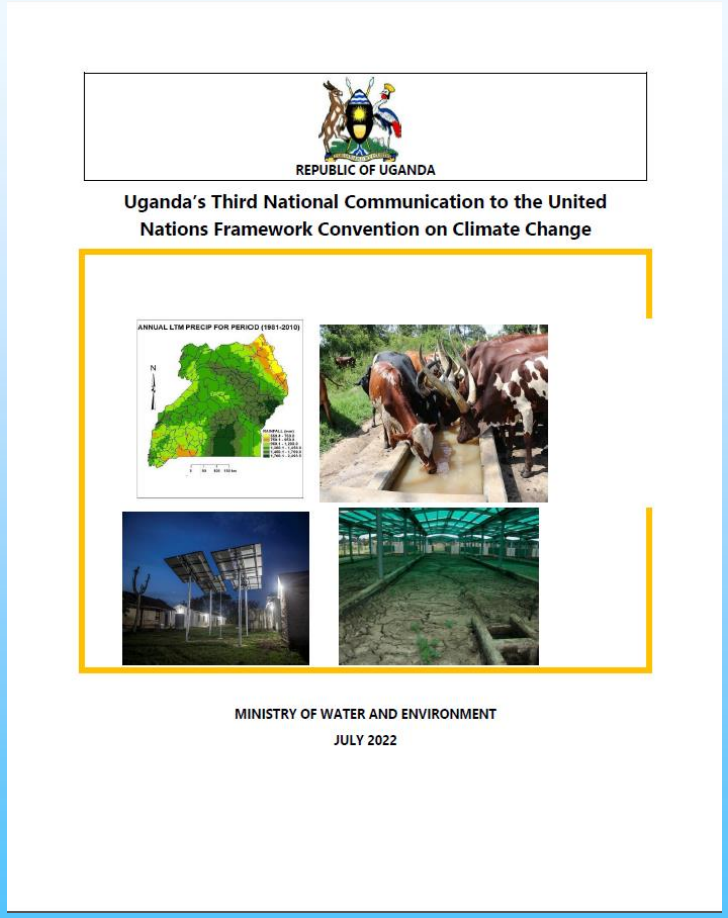
- **Definition:** Environment and Climate change statistics describe the quantitative and qualitative aspects of the state of the environment and its interaction with human activities and natural events by integrating data from a multitude of different subject areas and sources.
- It is an emerging statistical field in official statistics in most countries and it is indispensable for evidence based policies and decision making to support sustainable development.
- In UBOS, the Environment Statistics unit was established in 2012. However at the time, Climate Change was not a key consideration until very recently in NDP III and the SDGs dispensation where indicators were developed under the NSI.

ii. Relevance of Climate Change Statistics

- Policy formulation & decision making; mitigation (enhance low greenhouse gas emissions and green growth development) & Adaptation (build resilience of people and ecosystems)
- Monitoring and Evaluation of Government Programmes and actions of Government on Climate Change
- Assess impacts; temperature changes, disasters, physical damage, Economic Loss etc.
- Assess Climate Risk; hazard, exposure, vulnerability
- Climate Change Finance mobilization
- Strengthen disaster Preparedness & Response capacity at local and national level
- Enhanced Transparency Reporting at all levels; Local Government Climate Action plans, NDP III, EAC vision 2050, Agenda 2063, SDGs, UNFCCC

Reporting Frameworks

- Various reporting needs for effective policy formulation, decision making and their monitoring; locally to global on the GHG emissions, Mitigation and Adaptation etc. have triggered a great demand for Climate Change data and statistics
- Locally; NDP III, Climate Vulnerability assessments, National Communications, Disaster and Preparedness (Annual Disaster Statistics Report)
- Regional EAC Vision 2050, Africa Agenda 2063,
- Global SDGs, UNFCCC including National Communications



iii. Current Climate Change data challenges

- Inadequate data vs the current overwhelming data demands at all levels; The NSI midterm evaluation revealed that environment performed worst and that most data users requested for more of this data
- Weak collaboration and coordination among the various players
- Methodological gaps
- Limited capacity to collect this data; knowledge and skills in NSOs
- Lack of a national Framework for Climate Change Statistics
- Inadequate funding towards data collection

iv. Solutions

- Developed a set of census and survey questions for Climate change
- For the first time, Integrated a set of Climate Change questions in the NPHC 2024, community module. They included; awareness, experiences, multihazard surveillance systems, disaster occurrences and impacts; ; A Thematic report to be produced
- Integration of Climate change questions in the community module of the Community Information System that collects data from parish level
- Development of a National Framework for Climate Change Statistics
- Development of a harmonized tool and a manual for collecting climate disaster data from the Local Governments. A training is also scheduled for the district officials on the tool in collaboration with other key stakeholders
- Proposed use of GIS and Remote sensing as an NSO for Climate change data collection

3. National Framework development

- The crosscutting nature of climate change and related statistics characterized by a variety of data producers calls for a comparative analysis of data availability and the co-ordination of data collection, processing and dissemination.
- The systematic development and organization of a complex field of statistics has been in many occasions addressed by means of statistical systems, frameworks, or rigorous methodological guidelines
- Various efforts towards developing a framework of Environment Statistics have been made by the United Nations Statistics Council resulting into the preparation of the UN-Framework for Development of Environment Statistics (UN-FDES); 1984 and revised in 2013
- In March 2022, the Global set on Climate Change Statistics and Indicators was developed by the UNSD and adopted by the UN Statistics Council

National framework for Climate change Statistics

Purpose

- The main purpose of developing a national programme of Climate Change statistics is to ensure that the high quality, transparent and sustained production of such statistics is set in place
- This can be achieved through integration in the NSS for all the statistics needed to monitor climate change and its impacts
- This later supports the implementation of mitigation and adaptation actions

i. Justification

A Climate change statistics framework;

I. marks out the comprehensive scope of climate change statistics relevant to a country;

II. facilitates a synthesized presentation of data from various subject areas and sources;

III. simplify the complexity of climate change appropriately so that it can be measured more easily;

IV. helps to identify the range of statistics relevant to societal decision-making regarding the environment and climate change;

V. is consistent with statistical frameworks already used in other domains to facilitate the integration of climate change statistics; and

VI. is conceptually based.

ii. Objectives

The primary objective of the National Framework for Climate Change Statistics is to guide the formulation of Climate change statistics programmes in Uganda by;

- Identifying the scope and constituent components, subcomponents, statistical topics, statistics and indicators relevant for Uganda in reference to national and global development frameworks;
- Developing of the relevant metadata for the framework
- Contributing to the assessment of data requirements, sources, availability, methods used and gaps;
- Guiding the development of multipurpose data collection processes and databases; and
- Assisting in the coordinating and organizing of Climate Change statistics, given the inter-institutional nature of the domain.

iii. Outcomes

- Annual compilation of the Compendium of Climate Change Statistics for Uganda.
- A comprehensive list of Climate Change statistics and indicators integrated in various strategic plans for Statistics at all levels; sub national to national level
- Strengthened coordination, harmonization, standardization and quality assurance in the production of Climate Change data and statistics
- Enhanced advocacy and resource mobilization for Environment and Climate Change Statistics
- Support the development of a national set of census and survey questions for climate change

Outcomes Cont.

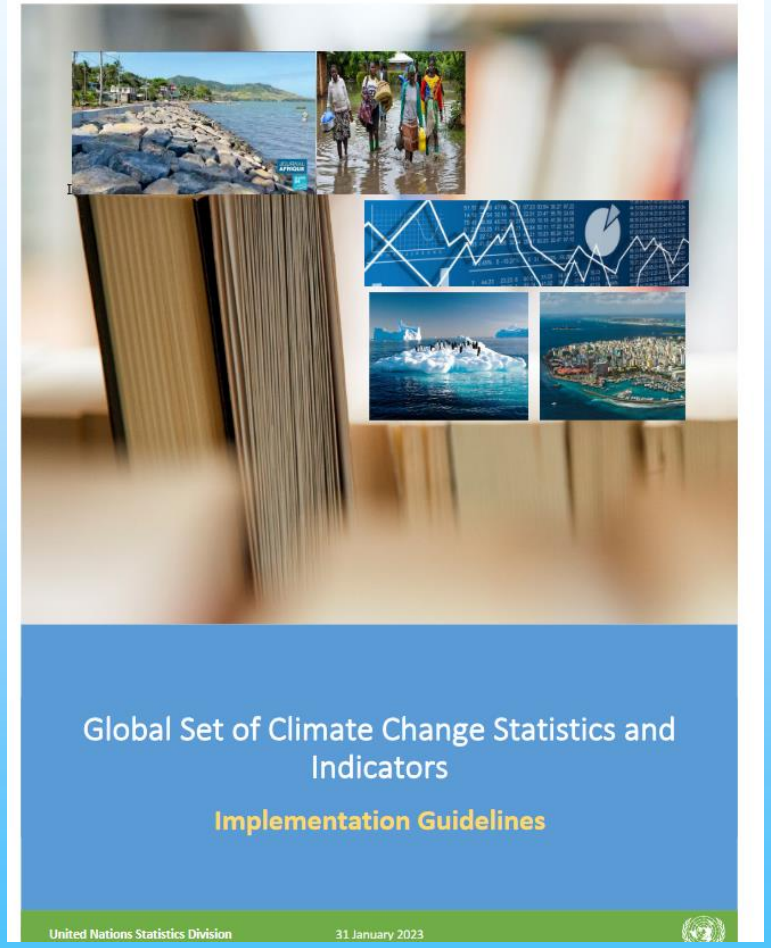
- Enhanced reporting for various frameworks; NDP, District Climate Change Action Plans, Enhanced Transparency Reporting Framework of the IPCC and UNFCCC, SDGs etc.
- Enhanced capacity building of the NSO and other Statistics units involved in Environment and Climate Change data and Statistics production; MDAs, Local Governments, Private Sector, CSOs etc.
- Support the annual compilation of the EAC Regional Compendium for Environment and Climate Change Statistics
- Enhanced Methodological developments for Climate Change data and Statistics for identified data with gaps

iv. Conceptual Framework

The proposed framework of Climate Change Statistics for Uganda is being developed in reference to the Global Set of Climate Change Statistics and Indicators.

Global Set of Climate Change Statistics and Indicators

- Adopted by UNSD in March 2022
- Global warming is expected to reach 1.5°C between 2030 & 2052. There's need to limit it to below 2°C.
- Climate change is a major threat facing humanity. It affects all countries and disrupts
  national economies and the well-being of communities
- There has not been a framework linking the reporting requirements arising from the Paris Agreement and the statistics or indicators needed to support climate policy action.



Global Set Cont.

- The Global Set thus serves as the statistical framework for monitoring and reporting climate action with suitable indicators to serve as guidance for countries to prepare their own sets.
- The Global set is designed to support the implementation of the Enhanced Transparency framework and the global stock take of the of the Paris Agreement as well as climate related SDG indicators.
- The Paris Agreement is a legally binding international treaty on climate change was adopted by 196 Parties at the 21st Conference of Parties

Structure

- 158 indicators and 195 Statistics
- Drivers (26)
- Impacts (54)
- Vulnerability (28)
- Mitigation (18)
- Adaptation (32)

Note: Not all are Applicable to Uganda and requires stakeholder consultations to customize

Relevance of the Global Framework

- The Global set has been designed to support countries in preparing their own sets of climate change statistics and indicators according to their individual concerns, priorities and resources.
- It assists countries embarking on the development of climate change statistics programmes by providing the scope and coverage as to what may be considered relevant to climate change.
- Also assists countries already involved in this area of statistics by providing a reference list.

v. Current Status on developing a national framework for Climate Change Statistics

i. A concept Note developed; Detailed and abridged version

ii. Road map: Phase one (development); Phase Two (Implementation). Activities to commence in this Financial Year

iii. Budget;

iv. TORs for the National Technical Working Group

v. List of Key stakeholders to participate in the consultative meetings

vi. List of Stakeholders

Stakeholder List	
Uganda Bureau of Statistics	Ministry of Finance, Planning and Economic Development
Bank of Uganda	Ministry of Gender, Labour and Social Development
Cities	Ministry of Internal affairs
Civil Society Organisation	Ministry of Tourism, Wildlife and Antiquities
Climate Change Department (MWE)	Uganda Wildlife Educational Centre
Directorate of Geological Surveys and Mines	Insurance Regulatory Authority
Electricity Regulatory Authority	Parliament
Kampala City Council Authority	Office of the President
Ministry of Local Government	National Planning Authority
Ministry of Agriculture, Animal Industry and Fisheries	Ministry of Science, Technology and Innovation
Ministry of Education and Sports	Academia
Ministry of Energy and Mineral Development	World Bank
Ministry of Health	Food and Agriculture Organisation
Ministry of Lands, Housing and Urban Development	United Nations Environmental Programme
Ministry of Water and Environment	Environment Alert
Ministry of Works and Transport	Africa Innovations Institute
Municipalities	Red Cross
National Environment Management Authority	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
National Forestry Authority	World Health Organisation
National Water and Sewerage Cooperation	United Nations Development Programme
Office of the Prime Minister	International Organisation for Migration
Private Sector	Uganda National Farmers' Federation
AirQo	Uganda Communications Commission
Uganda National Meterological Authority	Ministry of Foreign Affairs
Uganda Revenue Authority	Petroleum Authority Uganda
Uganda Wildlife Authority	Uganda National Bureau of Standards

vii. Next steps

i. Establishment of a NTWG; Approx. 20 members

ii. Review of activity documents; concept note, road map, budget, TORs etc. by the NTWG

iii. Finalize the documents

iv. Submission to ED/EXCOM for approval and internal adoption

v. Commencement of activities

- ❑ Stakeholder consultations
- ❑ Administering the Climate statistics and Indicators Self Assessment Tool (CISAT)

4. Lessons learnt

- The strong linkage between Socio-economic pillars of development, the Environment and Climate change and the broadness of their related statistics requires a comprehensive Environment and Climate Change Statistics framework to effectively produce them.

Figure 1. 17 sustainable development goals clustered into three pillars: economic, environmental, and social.

Lessons learnt Cont.

- Climate Change statistics is a relatively new field in statistics compared with other branches; economic & social. In spite its infancy, the demand for the statistics has rapidly grown with the increased Climate change challenges faced by societies
- Human well being & development depend on the environment hence an increasing emphasis on Environment sustainability decision making including climate change mitigation and adaptation.
- Regular production of climate change statistics of the highest quality to monitor the performance of national, regional & international development plans, policies & programmes for sustainable development

Lessons learnt Cont.

- A regular National Climate change Statistics report provides a timely comprehensive picture of the climate change situation of the Country and is an instrument for policy integration & informed decision making
- The Framework strengthens coordination and collaboration in the Environment Statistics System (ESS)
- The framework is a tool for identifying critical data gaps in the ESS as established from the CISAT
- The framework is a tool for advocacy and resource mobilization for the development of Climate Change statistics
- A very strong collaboration between the NSO and the UNFCCC Focal Point is very key to the success of Climate Statistics development especially reporting to the UNFCCC

5. Role of the NSO

- The key role of the NSOs is to lead the processes of expanding and consolidating the national statistical system to include climate change statistics
- Strengthen coordination and statistics development; support MDAs and Local governments to develop strategic plans for statistics that integrate Climate Change data collection and statistics compilation
- Quality Assurance; Develop standards, guidelines and metadata to ensure harmonization, comparability, reliability, timeliness of Climate change data
- Undertake Data Needs assessments in reference to various development frameworks through stakeholder engagements
- Methodological Development
- Advocacy & Resource mobilization for Statistics
- Capacity building

References

UN-FDES

https://unstats.un.org/unsd/envstats/fdes.cshtml

Global set of Climate Change

https://unstats.un.org/unsd/envstats/climatechange.cshtml

Thank you