

Standardized Methodologies for Climate and Disaster-Related Statistics at KNBS

Introduction

- The **Kenya National Bureau of Statistics (KNBS)** employs and promotes standardized methodologies for collecting, analyzing, and sharing climate and disaster-related statistics. These methodologies ensure consistency, comparability, and accuracy across data sources while supporting national planning and policy-making efforts. Below is an outline of these methodologies:

Data Collection

Primary Data Collection Methods

- **Surveys and Censuses:**
 - Climate-specific modules integrated into national surveys (e.g., Kenya Integrated Household Budget Survey) to capture climate impacts and vulnerabilities.
 - Conducting Agricultural surveys to assess drought or flood impacts on production and food security.

Real-Time Monitoring:

- Collaboration with agencies like the Kenya Meteorological Department (KMD) and the National Disaster Management Authority (NDMA) to collect real-time data on weather patterns and disaster occurrences.
- Use of **remote sensing** and **geospatial tools** to collect satellite data on land use, deforestation, and desertification trends.

Data Collection

Secondary Data Sources

- **Administrative Records:**
 - Data sourced from Government agencies (e.g., Ministry of Environment, Climate Change Directorate) and County Governments.
- **Global and Regional Databases:**
 - Integration of international data sources such as IPCC reports, UNEP databases, and climate projection models.

Standardized Tools and Techniques

- Adherence to guidelines provided by the **United Nations Framework for the Development of Environment Statistics (FDES)** and the **Sendai Framework for Disaster Risk Reduction**.
- Use of the **System of Environmental-Economic Accounting (SEEA)** for integrating Environmental and Economic data.

Data Analysis

- **Quantitative Analysis**
- **Trend Analysis:**
 - Monitoring long-term changes in rainfall, temperature, and extreme weather events.
- **Impact Assessment Models:**
 - Using statistical models to link climate variables with socio-economic outcomes such as GDP, health, and migration.
- **Geospatial Analysis:**
 - Mapping disaster-prone areas using GIS tools to visualize risks and vulnerabilities.

Data Analysis

- **Qualitative Analysis**
- **Community-Based Assessments:**
 - Integrating participatory approaches to understand localized climate impacts, especially on vulnerable groups.
- **Scenario Planning:**
 - Utilizing scenario-building techniques for disaster risk reduction planning.

Indicators and Frameworks

- Adherence to climate-related indicators under the **Sustainable Development Goals (SDGs)**, including SDG 13 (Climate Action).
- Disaster impact indicators aligned with the **Sendai Framework Targets**, such as mortality rates and economic losses from disasters.

Data Sharing

- **Data Dissemination**
- **National Reports:**
 - Publishing findings in reports such as the **Kenya Economic Survey, Compendium of Environment and Statistics Report**, and periodic disaster impact reviews.
- **Online Platforms:**
 - Open-access portals like the KNBS website to provide datasets and reports to the public.
 - Collaboration with Kenya Open Data Initiative to ensure broader access to climate and disaster data.

Data Standards

- **Metadata Documentation:**
 - Ensuring datasets include clear descriptions of methods, sources, and limitations for transparency.
- **Harmonization Across Agencies:**
 - Aligning data standards with regional frameworks (e.g., African Climate Policy Centre) to facilitate cross-border collaboration.
- **Stakeholder Engagement**
- Regular consultations with Government, NGOs, and academia to share data and gather feedback on methodologies.
- Collaboration with international bodies such as UNECA, FAO, and UNDP to ensure compatibility with global climate data initiatives.

Challenges in Standardization

- 1. Fragmented Data Systems:** Inconsistent methodologies across agencies can lead to mismatches in data quality and formats.
- 2. Resource Constraints:** Limited funding for modern technologies, such as AI and advanced Geospatial tools.
- 3. Capacity Gaps:** Insufficient training in specialized areas like Environmental accounting and disaster modeling.
- 4. Timeliness:** Delays in data collection and sharing due to reliance on manual processes or under-resourced local offices.

Opportunities for Enhanced Standardization

- 1. Adopting International Guidelines:** Strengthening adherence to frameworks like SEEA, FDES, and the Global Framework for Climate Services (GFCS).
- 2. Technological Innovation:** Scaling up the use of AI, satellite imagery, and IoT devices for real-time monitoring.
- 3. Building Capacity:** Investing in training programs for KNBS staff on climate statistics and disaster analytics.
- 4. Integrated Systems:** Developing centralized data platforms to streamline collection, analysis, and dissemination.
- 5. Regional Collaboration:** Aligning methodologies with East African Community (EAC) and African Union initiatives for cross-border data harmonization.

Conclusion

- KNBS's ongoing commitment to standardized methodologies is crucial for generating reliable and actionable climate and disaster statistics that support Kenya's resilience and sustainable development goals.

THANK YOU