

December 2024

Cost-Benefit Analysis Training for County Directors of Meteorology: Use of Climate Information Services with a Gender Equality and Social Inclusion (GESI) Lens

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Key messages

- The Institute for Meteorological Training and Re-search (IMTR-Nairobi), a branch of the Kenya Meteorological Department, is a World Meteorological Organization Regional Training Centre (WMO - RTC) for English-speaking countries in Africa. It is responsible of training personnel in meteorology, and related geo-sciences.
- IMTR conducts regular syllabus reviews for all its courses to ensure that they remain relevant and embrace emerging technological changes and advancements. Currently, the syllabi have been revised to adopt the competency-based training approach that has been recommended by the WMO. In addition, the review is also guided by post course evaluation and market demands.
- By mainstreaming GESI in CBA, meteorology directors can advocate for inclusive policies that enhance resilience for all community members.

Climate change is increasing mean temperatures and the incidence of extreme temperatures, heat waves, and drought across Africa. In the agricultural sector in sub-Saharan Africa, climate change is reducing crop yields and productivity, depressing economic growth. Adapting to climate variability and change is essential to safeguard food security, ensure economic growth, and advance climate resilient development in Africa.

Climate Information Services (CIS), which involve the “production, translation, transfer, and use of climate knowledge and information in climate-informed decision making and climate-smart policy and planning,” can help societies adapt to climate variability and change.

Context

Climate information services are pivotal for informed decision-making in agriculture, disaster risk reduction, and resource management.



However, the utilization of CIS remains limited due to challenges in demonstrating their economic value and ensuring they meet the diverse needs of all societal groups, including women, youth, and marginalized communities.

The County Director of Meteorological Services (CDMS) are responsible in overseeing and managing meteorological activities within the county, ensuring that weather-related services are delivered effectively and efficiently.

Training the CDMS in cost-benefit analysis provides a structured approach to evaluate the return on investment of CIS while embedding GESI principles to ensure inclusivity in service delivery and policy design.

Collaboration Between IMTR and AICCRA

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IMTR expressed strong needs to document the costs and benefits of weather shocks and stresses, in terms of their impacts on socioeconomic outcomes; and of investments that are being made in CIS.

IMTR and AICCRA therefore see a promising opportunity for a collaboration, in which AICCRA and IMTR will work together to tailor this course to be delivered by IMTR, first internally, and later also to its external stakeholders. Efforts will first focus on ensuring the course is adequate for stakeholders in Kenya, after which it can potentially be rolled out also for other countries in the region.

Training Period

Online Session November – December 2024

IMTR/KMD resource persons participated in an online training that was offered through five 4-hour sessions held once a week from 2pm – 6pm EA time, in the period November 11th to December 6th, 2024.

After end of online training, the training materials will be polished for review by the IMTR curriculum office to assess whether they meet its standards, and then start marketing the course to the CDMS.

County Directors of Meteorological Services, (CDMS) Training

A 4-day physical training workshop for twenty-one (21) CDMS from selected Kenya counties (Fig 1) was conducted in December 2024 with an aim to pilot, downscale and domesticate the module for launch.

After launch, the CDMS are expected to collect more data for refinement of the course and application of the knowledge learnt during March – May 2025 seasonal Participatory Scenario Planning (PSP Co-production) workshops. In the future, after successful implementation, the course can be rolled out to other English-speaking countries.

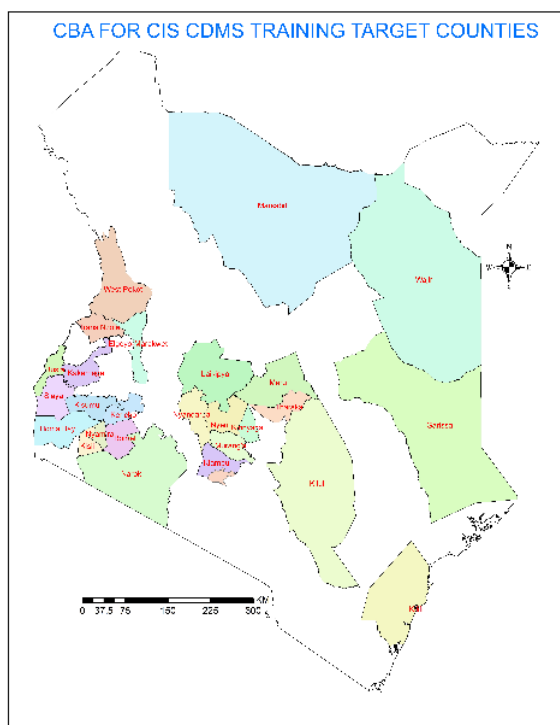


Figure 1. Target training counties

Objectives of the Training

1. **Enhance Capacity in CBA:** Equip CDMS with tools and methodologies to conduct CBA that demonstrate the economic, social, and environmental benefits of CIS.
2. **Integrate GESI:** Employ frameworks that incorporate gender and social equity dimensions into CBA, ensuring that the benefits of CIS are equitably distributed.
3. **Strengthen Advocacy:** Illustrate to participants the use of CBA results to advocate for increased investment in CIS, emphasizing their value to diverse stakeholder groups..

Approach

The training adopts a participatory and practical methodology, blending technical instruction with real-world applications.

Module 1: Fundamentals of Cost-Benefit Analysis—Key concepts, metrics, and tools.

Module 2: Application to CIS—Evaluating the impact of CIS on agricultural productivity, disaster preparedness, and climate adaptation.

Module 3: GESI in CBA—Identifying barriers faced by women, youth, and marginalized communities in accessing CIS and quantifying inclusive benefits.

Module 4: Communication and Policy Advocacy—Crafting compelling narratives using CBA outcomes to influence policy and attract funding

Integration of GESI

The training emphasizes the following GESI aspects:

Data Disaggregation: Use of gender- and group-specific data in CBA to high-light differential impacts.

Stakeholder Engagement: Inclusion of diverse voices, particularly those of mar-ginalized groups, in the evaluation pro-cess.

Equity Metrics: Development of indica-tors to measure the equitable distribution of CIS benefits.



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Expected Outcomes

The expected outcomes of the training are as follows:

- Produce increased capacity among directors to conduct CBAs that highlight the value of CIS.
- Develop policies and programs that address the needs of all societal groups.
- Support enhanced advocacy for CIS funding and integration into national and sub-national development plans

Conclusion

By combining technical skills in CBA with a strong CIS-GESI focus, this training prepares CDMS to champion inclusive, evidence-based climate services. The approach ensures that CIS not only mitigate climate risks but also advance social equity and resilience for the most vulnerable.

This initiative contributes to sustainable development by fostering equitable access to climate information, empowering communities, and maximizing the societal impact of CIS investments.

About the authors

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Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA) is a project that helps deliver a climate-smart African future driven by science and innovation in agriculture. It is led by the Alliance of Bioversity International and CIAT and supported by a grant from the International Development Association (IDA) of the World Bank. Explore our work at aiccra.cgiar.org

