



Presentation by
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TOPIC 2(b) KJWA
METHODS, TOOLS AND APPROACHES FOR ASSESSING
ADAPTATION, ADAPTATION CO-BENEFITS AND
RESILIENCE

Global Goal on Adaptation (GGA)

Paris Agreement Article 7

Raise ambition of adaptation Capacity

Strengthening Resilience and reducing vulnerability

Contributing to Sustainable Development

Ensuring adequate adaptation response in the context of the temperature goal

Global Goal on Adaptation (GGA)

Country Driven. Gender responsive, participatory and transparent

Strengthening institutional arrangements and scientific knowledge

Utilisation of local knowledge systems

Utilisation of traditional knowledge

Mitigation levels reducing the needs for additional adaptation efforts

Sharing of information

Elements of the
GGA

Adaptation in Africa's Agriculture

- ❖ In the African context, CC risks threaten the development of the **economies of our rural areas** where majority of the population live and depend on agriculture
- ❖ **climate interacts with other drivers especially the underlying socio-economic conditions** and changing patterns of land use threaten sustainability of Agriculture

Africa's Agriculture is highly vulnerable to climate change

- Dominated by Smallholder farmers
- Largely rain-fed
- Low use of external inputs (such as improved seeds, agro-chemicals and fertilizer).
- Key driver of deforestation
- Rudimentary production tools which contribute to low agricultural productivity
- Limited Agro-processing capacity

Africa has low agricultural productivity of just about 35% of the global average

Adaptation Co-benefits in Agriculture

Multiple socio-economic, environmental and ecological benefits that accrue from adaptation actions in agriculture

- Reinforce positive public-good outcomes
- Scale (local, regional and global)

A range Adaptation Co-benefits in Agriculture

Co-benefit type	Co-benefits
Social	<ul style="list-style-type: none">▪ Increased income and quality jobs from adapted crop and livestock systems.▪ Increased investment and social development (Education, health, assets)▪ Improved gender equity and social harmony
Economic	<ul style="list-style-type: none">▪ Increased quality jobs from adapted crop and livestock value chains▪ Efficiency and profitability of Agricultural systems (water, energy, nutrient efficiency)▪ Enhanced Technology and Capacity building
Environmental	<ul style="list-style-type: none">▪ Increased Soil carbon and above ground carbon stocks▪ Halt land degradation increased water and nutrient retention
Ecological	<ul style="list-style-type: none">▪ Maintenance of biodiversity (Hedge rows, pollinators, diversification avoided deforestation)

WHY MEASURE CLIMATE CHANGE ADAPTATION, ADAPTATION CO-BENEFITS AND RESILIENCE

Need for mechanisms to prioritize adaptation actions and to keep track of their progress and outcomes in line with stated objectives

To ensure the effectiveness and accountability of CCA investments.

Monitor impacts of agriculture climate change adaptation actions and lessen Mal adaptation

Monetize and value adaptation co-benefits

To allow countries periodically update adaptation communications

To enhance implementation of adaptation actions at national, sub national and local levels.

METHODS AND APPROACHES

Challenges in identifying suitable Methods and Approaches

There too many tools, approaches and methods globally with different objectives and expected outcomes

Different countries have their own development agendas, agricultural policies and priorities

Different vulnerability context and projected climate scenarios of countries, sub-regions and regions.

The differentiated scale of assessment of Vulnerability and adaptation by the various methods.

Different definitions and concepts for key terms

Some of the Methods and Approaches for measuring Adaptation and resilience

1. **Historical or Geographic Climate Analogues**
2. Vulnerability Indices
3. DIVA Tool
4. **Vulnerability and Capacity Assessment**
5. Decision climate envelopes (SEI)
6. **Cost-benefit Analysis**
7. Cost-Effectiveness Analysis
8. Multicriteria Analysis (MCA)
9. Adaptation Decision Matrix
10. CRiSTAL
11. Livelihood Sensitivity Exercise
12. Consolidated Livelihood Exercise for Analyzing Resilience (CLEAR)
13. Adaptation Policy Frameworks
14. **Sustainable Livelihoods Framework**
15. CLIMSAVE Integrated Assessment (IA) Platform
16. The Livelihood Vulnerability Index
17. Policy exercise
18. Tool for Environment Assessment and Management (TEAM)
19. Regional Integrated model of Climate and the Economy (RICE)
20. Uncertainty and risk analysis
21. Expert judgement
22. Multi stakeholder processes
23. Global sustainability scenarios
24. Screening for adaptation options
25. Agent based social simulation
26. **Estimating Adaptation Costs:**
M-CACES
27. Robust Decision Making

Some of the Methods and Approaches for measuring **Adaptation Co-Benefits**

1. Sustainable livelihood
2. Clean development mechanisms SD tool (CDM-SD tool)
3. Participatory Monitoring, Evaluation, Reflection, and Learning (PMERL)
4. UNDP NAMA SD tool
5. CDM SD Tool
6. Results framework and baseline guidance
7. Participatory Performance Tracker (PPT)
8. The Real Value of Robust Climate Action

Limitations in use of existing Methods and Approaches for measuring Adaptation and Resilience

- Mainly based on the conventional monitoring and evaluation (M&E) framework for projects and programmes.
- Have varied indicators at different scales and are therefore difficult to compare and scale up bearing in mind the diversity of African agricultural systems.

Limitations in use of existing Methods and Approaches for measuring Adaptation Co - benefits

- Are more focused / emphasis on *documenting co-benefits* from adaptation actions
- Have limited focus and/or emphasis on quantifying the co-benefits of adaptation strategies.
- Are mainly qualitative in nature

Challenges of Tracking Adaptation, Adaptation Co-benefits and Resilience

**Mainly drawn from
FAO, 2017 perspective**

Baselines change over time

No agreed universal indicators

Many actors having different requirements

Uncertainty of climatic and non-climatic drivers and risks

Difficulty of attribution of specific policies and action outcomes

Diversity of adaptation programmes

Shorter and longer time-frames of impacts and adaptation

Summary Observations on existing Methods approaches for measuring adaptation, adaptation Co-benefits and Resilience

- ❖ In-adequate for assessing the whole spectrum of adaptation, adaptation co-benefits and resilience in agriculture (are not systematic, rigorous and/or transparent)
- ❖ There is need for both quantitative and qualitative methods and approaches

RECOMMENDATIONS TO SBI AND SBSTA 50

1. Take stock and identify the gaps of the existing methods and approaches for assessing adaptation, adaptation co-benefits and resilience.

RECOMMENDATIONS TO SBI AND SBSTA 50

2. Develop an appropriate framework to guide tracking adaptation, adaptation co-benefits and resilience in the agriculture sector across scales for effective implementation of NDCs, NAPs and Climate Policies and that also would make it possible to assess the progress, adequacy and effectiveness of adaptation efforts at a global level (Global Goal on Adaptation – GGA) in a way that is systematic, rigorous and transparent.

RECOMMENDATIONS TO SBI AND SBSTA 50

The developed framework should also be

- Credible
- Transparent
- Accurate
- Reproducible analysis
- Measurable
- Capable of identifying trends
- Readily understood

RECOMMENDATIONS TO SBI AND SBSTA 50

3. Facilitate international cooperation and support with regards to financial resources and capacity building on the application of the framework/methods or guidance for tracking adaptation, adaptation co-benefits and resilience in order to enhance implementation of the NDCs, NAPs and climate policies.

THANK YOU