



Food and Agriculture Organization
of the United Nations

Addressing MRV in the AFOLU sector under the ETF

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Mitigation of Climate Change in Agriculture (MICCA) Programme

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"How to strengthen MRV capacities and prepare for the Enhanced Transparency Framework"

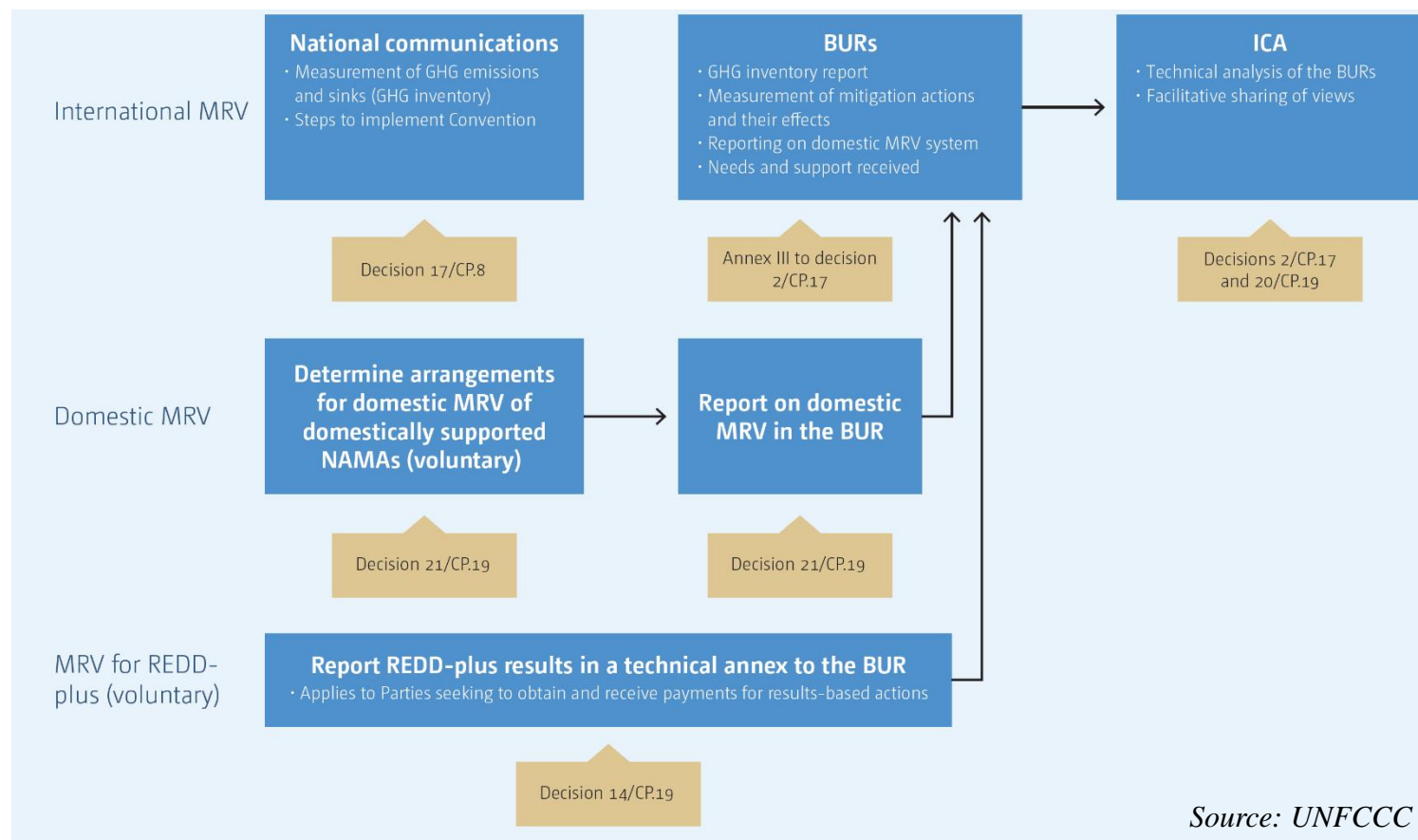
Harare (Zimbabwe), November 6-8, 2018

Measurement, Reporting and Verification

- **Measurement:** collecting data on GHG fluxes and on non-GHG impacts, as well as on financial flows, needs and implementation progress of mitigation actions
- **Reporting:** transparent and complete information on GHG emissions/mitigation action submitted to UNFCCC
- **Verification:** assessment of TACCC principles of the reported information through ICA; comparison with independent estimates



Key elements of the MRV framework



Source: UNFCCC



Paris Agreement

Article 13: New requirements under the Enhanced Transparency Framework

	National inventory report	Information to track progress on implementing NDC	Information on climate change impacts and adaptation	Information on support provided	Information on support needed and received
Developed country parties	mandatory	mandatory	encouraged	mandatory	–
Developing country parties	mandatory	mandatory	encouraged	encouraged	voluntary

with built-in flexibility which takes into account parties' different capacities



“Enhanced” objectives

- Increase the **transparency** of mitigation efforts made in order to build **mutual trust** and confidence and to promote **effective implementation**
 - Important to identify **areas of improvements** and **capacity building needs**
 - Decision 1/CP.21 states that the **modalities, procedures and guidelines** of the transparency framework of action and support must build on
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What new?

- ETF is envisaged as a **common-to-all-countries** MRV framework.
 - Not yet defined but should contain:
 - ✓ National GHG Inventory report
 - ✓ Information to track NDC progress (mitigation/**adaptation**)
 - ✓ Information on financial, technology transfer and capacity-building support provided/received
 - ✓ Indication on the technical review of the above
 - ✓ IPCC guidelines
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ETF in keyword

Flexible

Simple

Respectful

Step-wise

Double-
counting

TACCC



Sustainable MRV system

- collect, analyze, verify and report in a **timely manner** information on implementation and achieved results of mitigation actions
 - **national** circumstances
 - **available** technical and financial resources
 - **simple and robust**, accurately reports emissions building upon current institutions and institutional arrangements
 - be operational under current technical and financial capacity
 - consider future improvements through capacity building activities and long-term climate finance (i.e. carbon markets)
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How does MRV look like?

The infographic is divided into three main sections. The left section, 'EMISSIONS', features a pie chart with segments for Buildings, Energy Supply, Transport, Industry, Forestry, Agriculture, and Waste & Wastewater. The bottom-left section, 'MITIGATION ASSESSMENTS', contains a line graph showing an upward trend from 0 to 70 over 10 years, and a bar chart with five bars of varying heights. The right section, 'MITIGATION OPTIONS', includes icons for solar panels, trees, wind turbines, and a train.

EMISSIONS

- Buildings
- Energy Supply
- Transport
- Industry
- Forestry
- Agriculture
- Waste & Wastewater

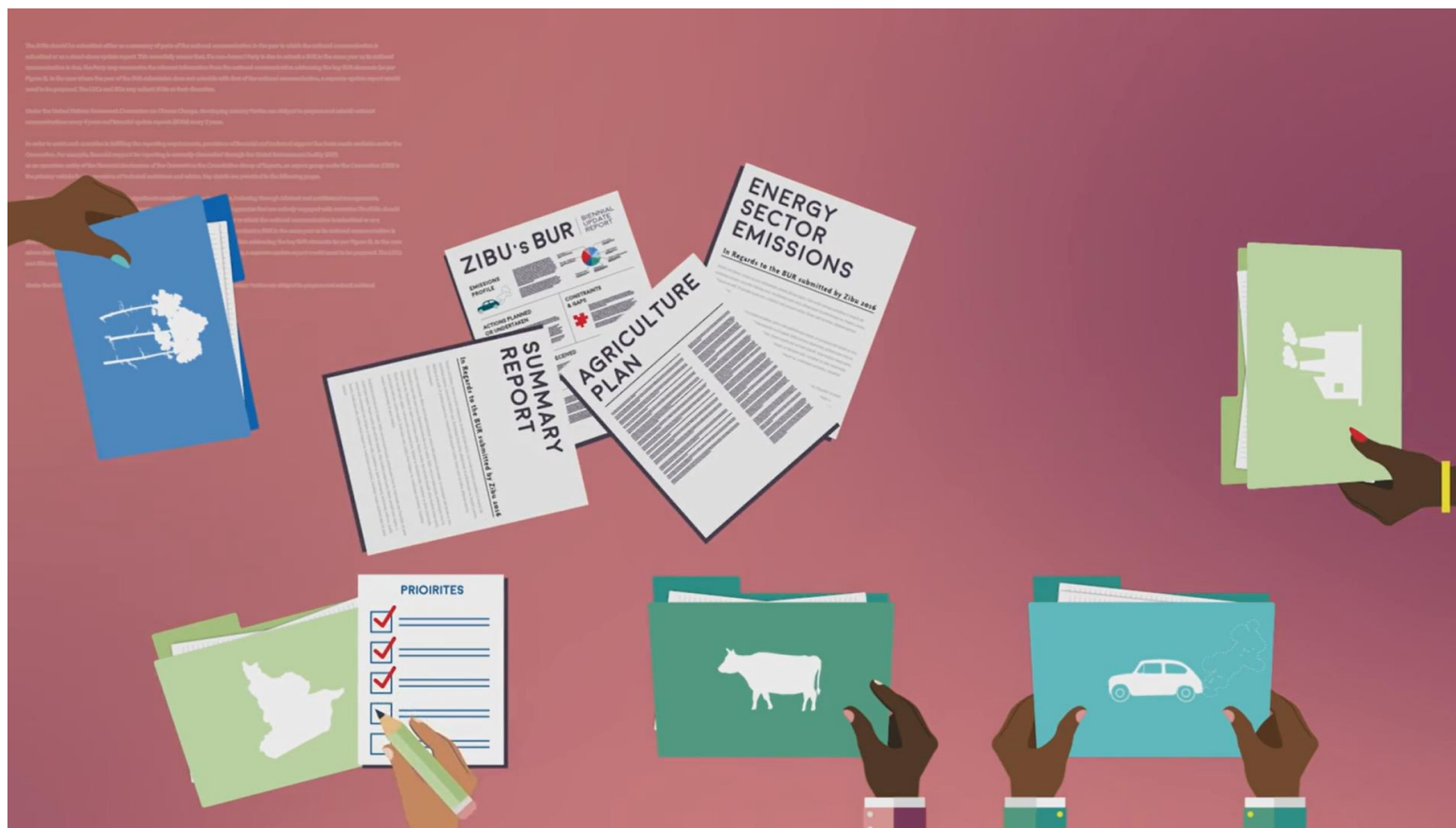
MITIGATION ASSESSMENTS

MITIGATION OPTIONS

- Solar Panels
- Trees
- Wind Turbines
- Train

Source: UNFCCC

How does MRV look like?



Source: UNFCCC



National system as MRV keyword

- It is not advisable to set up a single monitoring system for each mitigation action
 - Duplications
 - Unjustifiable loss of resources and efficiency
 - Discrepancies
 - It is suggested to use the **national system** that cover **all sectors**, based on **existing** technical, financial and human capacity but **flexible** and **inclusive** to accommodate specific needs
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Inclusive MRV

An **inclusive** MRV can result in a number of benefits at the national level.

Source: UNFCCC

THE BENEFITS OF PARTICIPATING IN MRV



INFORMING POLICIES,
PLANS, STRATEGIES
AND PROGRAMS



POLITICAL
BUY-IN



IMPROVED ACCESS
TO SUPPORT



CAPACITY
BUILDING

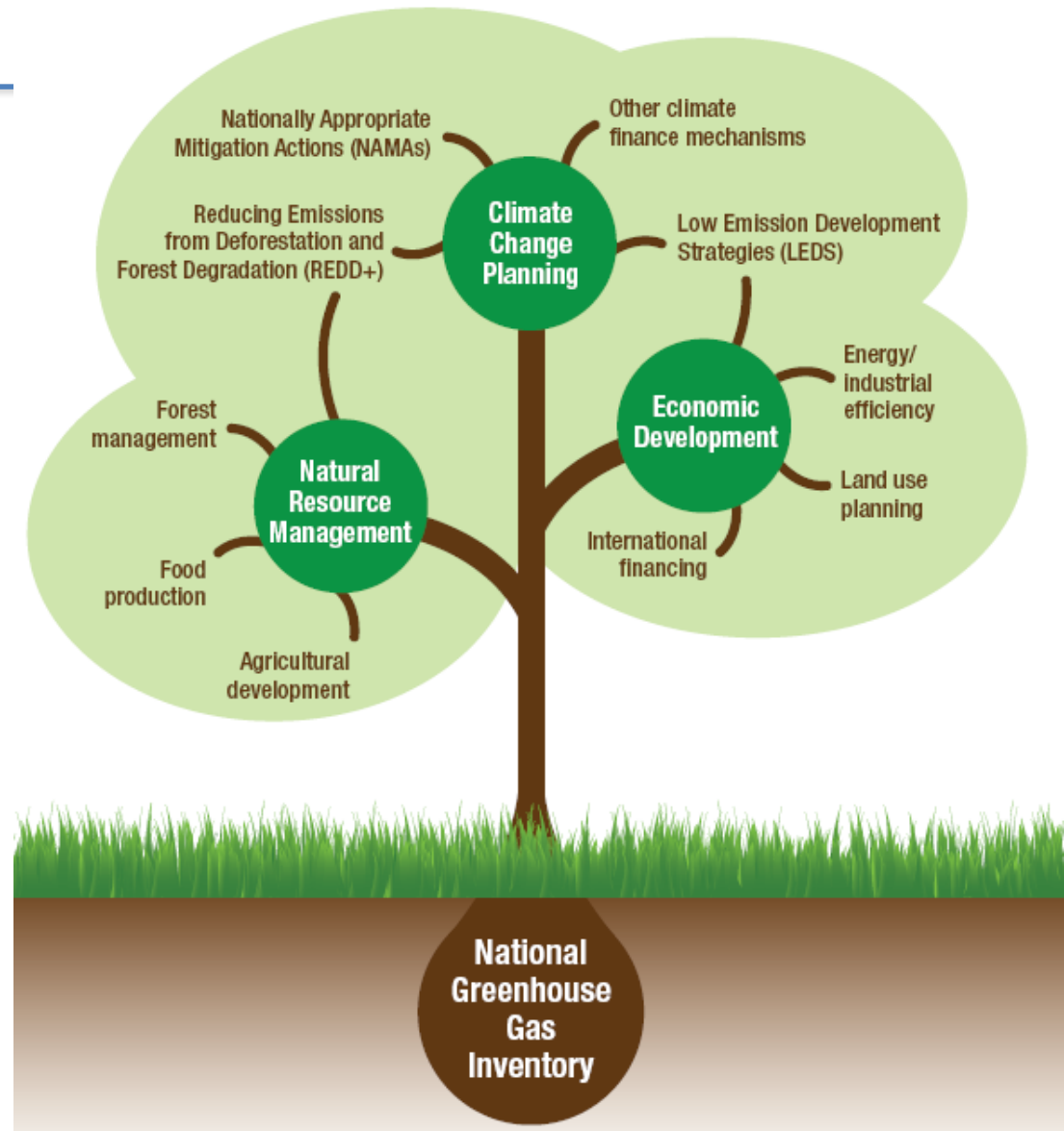


INCREASED
AWARENESS



NGHGI value

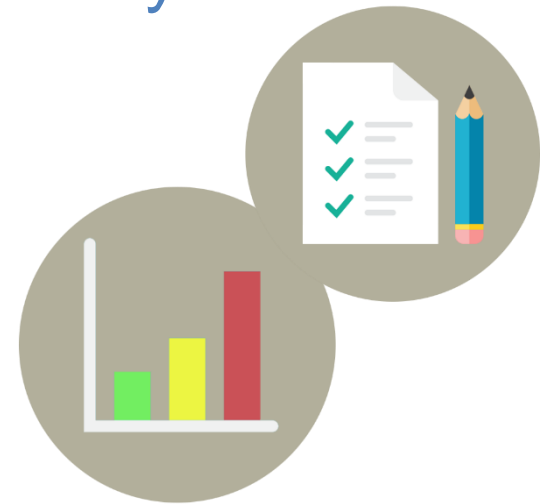
National GHG inventories provide a **foundation** for sustainable development **decisions** and **growth**.



Source: EPA

Challenges of AFOLU MRV

- Lack of activity data
- Estimation methodology uncertainty
- Lack of technical capacity
- Setting baseline
- Monitor progress





Country needs

- Enhance capacity to prepare the **National GHG Inventory** and respond to their obligations under the UNFCCC addressing the **ETF requirements**
 - Receive guidance on how to set up a **sustainable MRV system**
 - Expand ability to **implement NDC** and formulate Nationally Appropriate Mitigation Action
 - Learn how to increase their **ambition** in the next round of NDC submission
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FAO Areas of Work

- Facilitate mechanisms for building **sustainable institutional arrangements**.
 - Provide technical trainings and tools to enhance country's capacity in **assessing GHG emissions from AFOLU** using 2006 IPCC Guidelines.
 - Support the improvement of the quality of reporting through **QA/QC and verification process**.
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FAO Areas of Work

- Help to design a sustainable **M&E system** for tracking progress of adaptation actions
 - Analyze NDC and identify gaps and opportunities to **enhance NDC ambitions**
 - Run the **Thematic Working** Group on Agriculture, Food Security and Land Use
 - Lead **in-country facilitation** for the NDC - Partnership Implementation Plan
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FAO support on MRV

Assessing GHG emissions from AFOLU – Technical

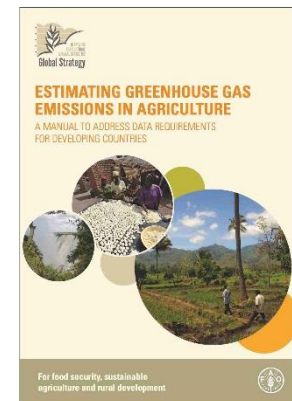
- E-learning “Building a National Greenhouse Gas Inventory for Agriculture, Forestry and Other Land Use”
- Interactive tool to guide users to estimate AFOLU emissions following 2006 IPCC Guidelines at Tier 1
- Practical exercises to apply the acquired knowledge
- Transition from 1996 IPCC to 2006 IPCC



FAO support on MRV

Assessing GHG emissions from AFOLU – Data

- [FAOSTAT Emissions database](#): country-level activity data and Tier 1 GHG estimates for the agriculture and land use sectors.
- [Manual to Address Data Requirements for Developing Countries](#), based on lesson learned in the development of the FAOSTAT Emissions database.



FAO support on MRV

Assessing GHG emissions from AFOLU – Data

- [World Programme for the Census of Agriculture 2020](#) includes theme 15 on "Environment/Greenhouse gas (GHG) emissions" with a list of data essential for GHG estimates and suitable for inclusion in the census.
- [Global Strategy to improve agricultural and rural statistics](#) addresses developing countries' lack of capacity to provide reliable statistical data on food and agriculture (**AGRIS**).

1 Produce a minimum set of core data;

2 Better integrate agriculture into the National Statistical Systems;

3 Improve governance and statistical capacity building;



FAO support on MRV

Assessing GHG emissions from AFOLU – Data

- [Voluntary guidelines on national forest monitoring](#) present a general framework and a set of decision-support tools for planning and implementing a multi-purpose national forest monitoring system
- [Collect Earth](#) enables users to analyze high and very high resolution satellite imagery for a wide variety of purposes, including climate change reporting.

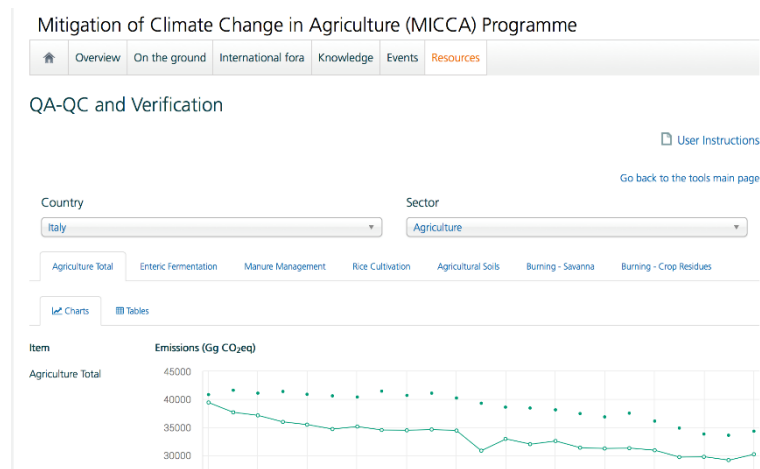


FAO support on MRV

QA/QC and Verification process

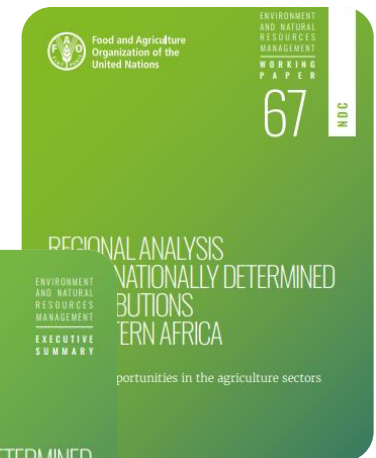
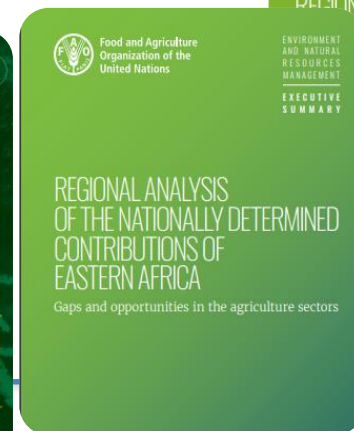
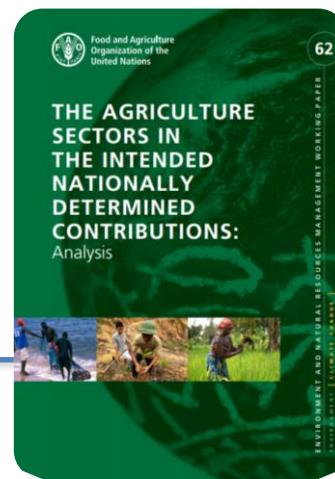
[AFOLU Emissions Analysis Tools](#) support UNFCCC reporting requirements.

- [QA/QC and Verification tool](#), allows users to compare national GHG inventory data for the AFOLU sector reported to the UNFCCC with data from the FAOSTAT Emissions
- *Ad-hoc* country QA and verification process for designing improvement plan for subsequent submissions



FAO support on NDC

- Global and Regional NDC agriculture sectors analysis
- NDC-Ag Navigator tool (quanti-qualitative database and country profiles)
- Gap and Opportunity analysis to identify policy options
- Provide guidance to enhance NDC ambitions
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FAO contribution to international activities



Partnership on Transparency
in the Paris Agreement



United Nations Framework
Convention on Climate Change



- Technical support to the Anglophone and Francophone clusters in the AFOLU sector
- Lead the Thematic Working Group on Agriculture, Food Security and Land Use
- Memorandum of Understanding with UNFCCC (technical support, data exchange)
- Promote Country Network and South-South Cooperation on MRV (UNDP/UNFCC/FAO)



Thank you

Contact

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<http://www.fao.org/in-action/micca/en/>