



International Partnership  
on Mitigation and MRV



United Nations  
Framework Convention on  
Climate Change

Anglophone African Regional Workshop  
Converting INDCs into action: the role of NAMAs in INDC implementation  
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# AFOLU

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[www.fao.org/climatechange/micca](http://www.fao.org/climatechange/micca)

# Climate change affects the four dimensions of food security

- food availability,
- food accessibility,
- the stability of food supply, and
- the ability of consumers to adequately utilize food including food safety and nutrition.



**795 million people are chronically undernourished – about one in nine of the world's population (FAO *et al.*, 2015).**

Smallholder farmers, forest dwellers, herders and fishers will be the most affected by climate change because of their limited capacity to adapt to its impacts.



Identification and assessment of agricultural practices and technologies to **enhance productivity in a sustainable manner, food security and resilience**, considering the differences in agroecological zones and farming systems, such as different grassland and cropland practices and systems

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FAO's  
**Submission D**  
to SBSTA 44  
(May 2016)

**The challenge is enhancement of productivity, cobenefits and trade-offs**

**Maximizing synergies and minimizing trade-offs**

**a holistic approach** for all agricultural sectors, and their correlation with food security and other human needs, would improve the effectiveness of actions undertaken to manage climate change by **addressing intrinsically linked challenges as one**



# Agriculture, forestry and other land use (AFOLU) is the largest emitting sector after the energy sector



Agriculture alone contributes **10–12 percent** of global GHG emissions.

**2.7** billion tonnes  
CO<sub>2</sub> eq

1961

**5.4**  
billion tonnes  
CO<sub>2</sub> eq

2012

Source: FAOSTAT, 2014.



## Emissions from agriculture by continent are:



Figures are averages for the period 2001-2010

Regional emissions from agriculture (crops & livestock) increased by 243% in the last 50 year

**1961**  
**232** million tonnes  
CO<sub>2</sub> eq

AFRICA

**2012**

**798**  
million tonnes  
CO<sub>2</sub> eq

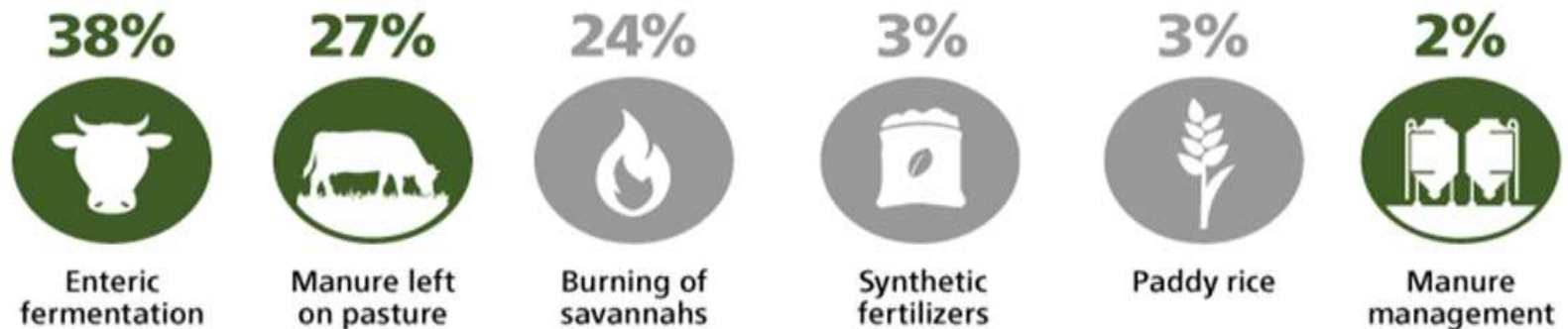
X 3.4



## The largest emitters in agriculture sector are



### The largest emitters in agriculture are:



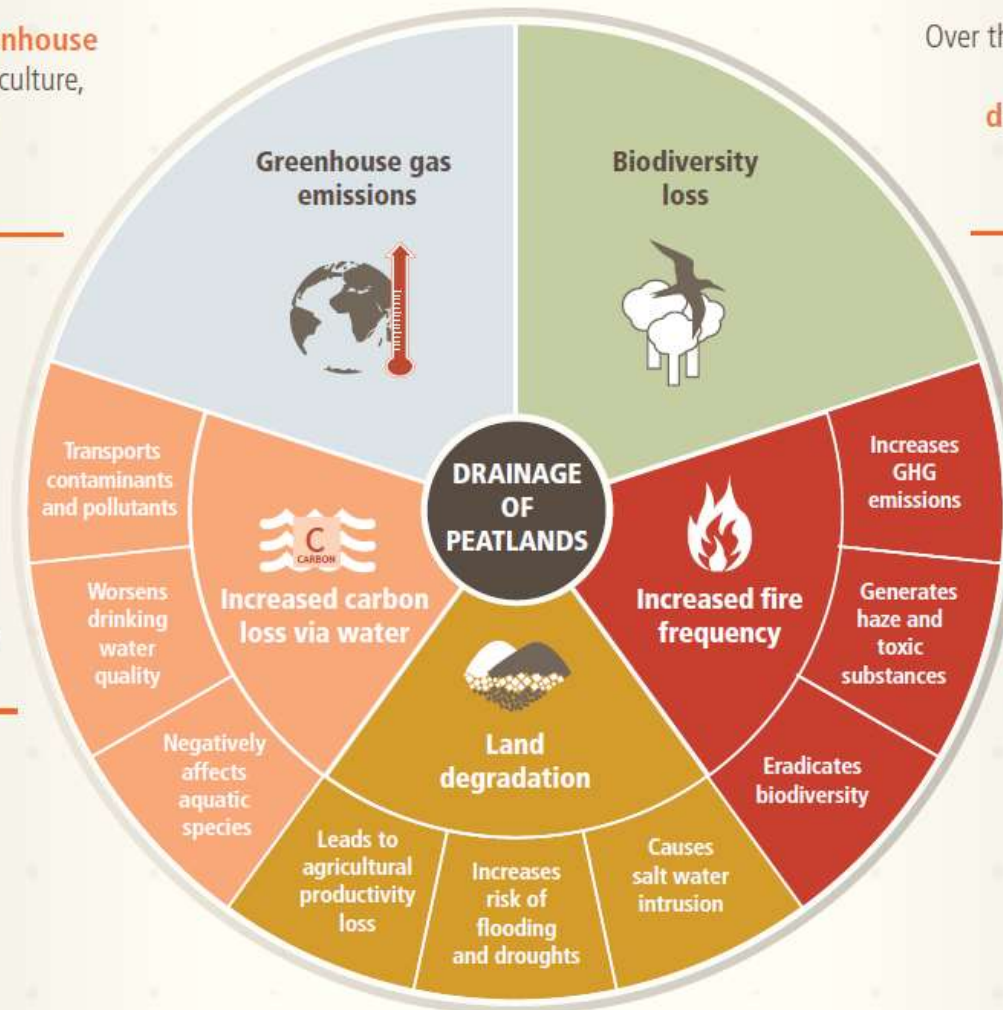
Figures are averages for the period 2001-2010

**Livestock-related emissions from enteric fermentation and manure contributed nearly two-thirds of the total.**

# Draining peatlands harms the environment

~10% of the global greenhouse gas emissions from the agriculture, forestry and land use sector are caused by the draining of peatlands.

Over the last 75 years, the number of **Sumatran Orangutans has declined by 80%**. Today there are only **400 Sumatran tigers** living in the wild.



When intact peatlands are drained **carbon losses via water increase by 50%**

The surface of the land can **decrease in height up to 2.5 metres** after 25 years of drainage.



# PEATLANDS AND CLIMATE CHANGE

## Peatlands provide vital ecosystem services

- Store carbon**  
Peatlands store about 10% of soil carbon.
- Regulate water flow**  
Peatlands reduce flooding, drought, and erosion.
- Enhance biodiversity**  
Peatlands are rich in species, plants, and birds and support endangered species.
- Supply forest products**  
Peatlands are a source of medicinal plants and ornamental species.
- Provide a space for culture**  
Peatlands offer a unique space for cultural activities, sports, recreation and education.

## Draining peatlands harms the environment



**Store carbon**  
Peatlands contain **about 1/3** of world's soil carbon.

# Climate change mitigation and adaptation strategies should include the rewetting of drained peatlands.



**1**  
Safeguard and preserve natural peatlands from degradation

**2**  
Rewet drained peatlands

**3**  
Manage peatlands in a climate-responsible way

**4**  
Follow adaptive management practices where rewetting is not possible

## Climate change mitigation and adaptation strategies should include the rewetting of drained peatlands.

- 1 Safeguard and preserve natural peatlands from degradation
- 2 Rewet drained peatlands
- 3 Manage peatlands in a climate-responsible way
- 4 Follow adaptive management practices where rewetting is not possible

Responsible management practices exist to both protect and restore peatlands. Rehabilitation, for the restoration of drained peatlands, is a viable option for the responsible management of peatlands.

## Actions for achieving large-scale peatland restoration

- Identify viable peatland restoration opportunities**
- Overcome technical challenges to rewetting**
- Develop peatland restoration plans**
- Engage peatland stakeholders**
- Address legal, policy and regulatory constraints**
- Monitor social conditions, and establish when rewetting can proceed for degraded peatlands**
- Develop business cases for peatland restoration**

Adaptive management enables the design, delivery and monitoring of peatland restoration. It involves a cycle of learning, evaluation and adjustment based on the results of monitoring and evaluation.

Visit <http://www.fao.org/peatlands> for more information.



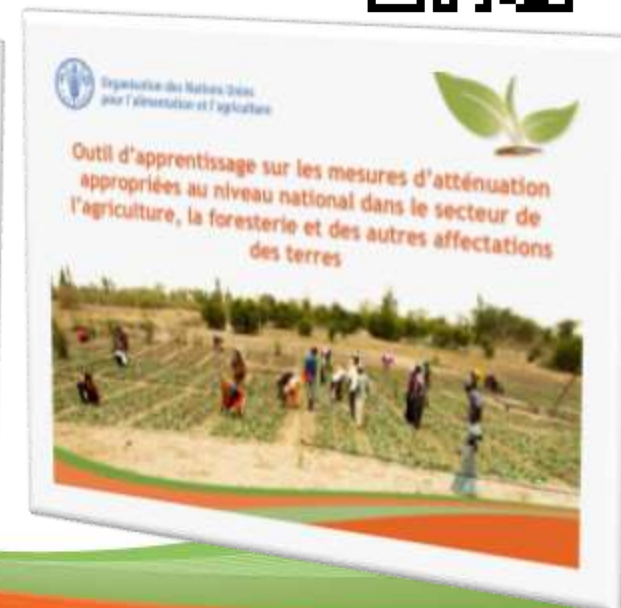
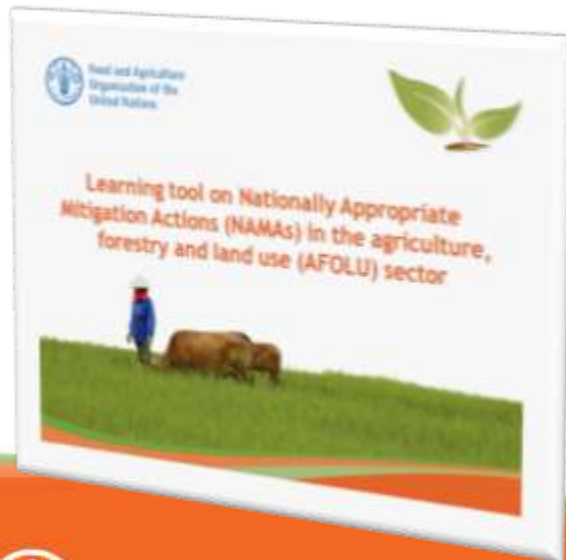
# FAO tool for NAMA development in agriculture, forestry and other land use sector

In AFOLU sector there is a notable lack of NAMAs that received financing.

FAO tool supports the efforts of developing countries in **the identification, development and implementation** of country specific mitigation actions in the context of national sustainable development.

**Format:** online detailed guidance

Available at: <http://bit.ly/fao-nama-tool> in English, Spanish and French





# Structure of the tool

The tool is composed of 5 modules:

1. Climate change and agriculture
2. Background on NAMAs
3. Step by Step NAMA Development
4. Monitoring, reporting and verification (MRV)
5. NAMA financing

## 2.14. Comparison of REDD+ and NAMAs

**REDD+ stands for** Reducing Emissions from Deforestation and Forest Degradation and includes the conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

Design Elements	NAMAs	REDD+
Scope	Any activity from any mitigation sector, including a project, programme or policy.	Only activities related to deforestation, forest degradation, forest conservation, sustainable forest management and enhancement of forest carbon stocks in developing countries are accepted. Activities may be implemented in the form of projects, programmes or policies.
Scale	Anything from project-level activity to a sectoral activity at the subnational to national level or a full country-wide initiative.	National-level reporting with subnational reporting allowed while countries scale up their reporting capacities.
MRV	Domestically supported NAMAs: domestic MRV Internationally supported NAMAs: domestic MRV with international verification.	Full national MRV including remote sensing and ground-based measurements is required in the third phase of REDD+. This allows countries to report emissions by sources and removals by sinks for REDD+ activities in a manner that is consistent with its national GHG inventory for the LULUCF/AFOLU sector.
Socio-economic	Information on social and environmental safeguards to be collected and reported. Existing donor safeguard policies can be applied for internationally financed NAMAs.	Information on social and environmental safeguards to be collected and reported.

# FAO's support for NAMA development

## FAO's technical support to countries

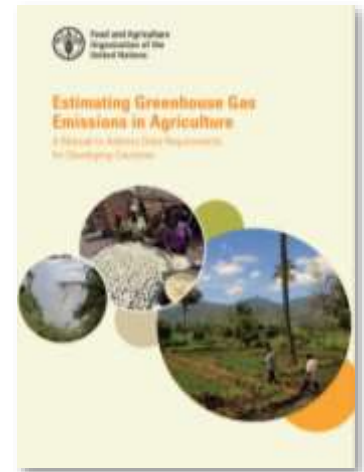
- define GHG baseline scenario and identify and set priorities
- measure impacts of mitigation actions
- quantify sustainable development benefits
- review and harmonization of policies/plans/programmes
- institutional mapping and inter-ministerial coordination.

## Tools

- Data: **FAOSTAT**, **GLEAM**
- GHG monitoring and scenarios comparison: **FAO EX-ACT tool**
- Land use change monitoring: **FAO Collect Earth**

## Knowledge sharing

- Publications, workshops, trainings, [webinars](#) and [“Online Communities of Practice on NAMAs in agriculture”](#).





Food and Agriculture  
Organization of the  
United Nations



Learning tool on Nationally Appropriate  
Mitigation Actions (NAMAs) in the agriculture,  
forestry and land use (AFOLU) sector



# Thank you for your attention

More information at:

[www.fao.org/climatechange/micca/nama-tool/](http://www.fao.org/climatechange/micca/nama-tool/)

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