

What does it take to develop an agricultural NAMA?

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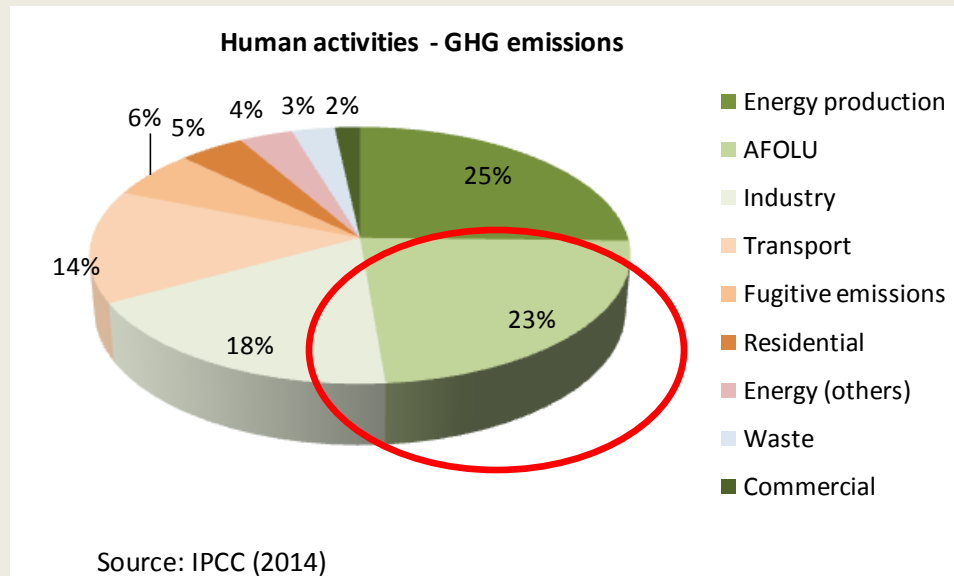
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1. Introduction to mitigation actions in agriculture

Agriculture is...

- ... a key economic sector specially in developing countries
- ... a key food and materials provider at the global level
- ... a source of employment, income and driver of economic growth
- ... key for low-income rural population's livelihoods
- ... highly vulnerable to climate impacts
- ... an important emission source: AFOLU explains 23% of global emissions (IPCC, 2014)



Climate change will...

- ...have further adverse effects on agricultural production and income levels
- ... aggravate food insecurity and malnutrition



Mitigation in Agriculture

2 main mechanisms within a large set of options:

- **Remove emissions from the atmosphere to soils and plants:**

- Nutrient/waste management
- Pasture management
- Crop rotation



- **CH₄ N₂O and CO₂ emissions reduction**

- More efficient use of nitrogen fertilizers
- Improved livestock management
- Avoided emissions through avoided deforestation and forest degradation caused by agriculture



Measures:

- At the field level
- Institutional, Research and Development, education, legislation



2. NAMAs in Agriculture

NAMAs

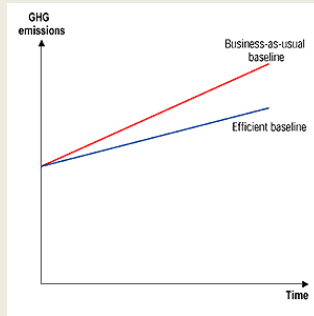
- A tool developed within the United Nations Framework Convention on Climate Change (UNFCCC) international climate negotiations
- The concept was first introduced in the Bali Action Plan agreed in COP 13 (2007)

NAMAs (an evolving concept)

- **Voluntary actions** undertaken by developing countries to achieve GHG emission reductions
- To be undertaken in the context **of sustainable development** and in a measurable, reportable and verifiable (**MRV**) manner (NAMAs conceived with mitigation as a development issue)
- May be **supported and enabled** by financing, technology, and capacity building from developed countries

NAMAs can include...

Emission reductions
(compared to baseline)



Improvements
in **natural sinks**



Technology development
and diffusion



Development of **policies, regulations or institutional frameworks** aimed at fostering mitigation and creating an enabling environment for those actions

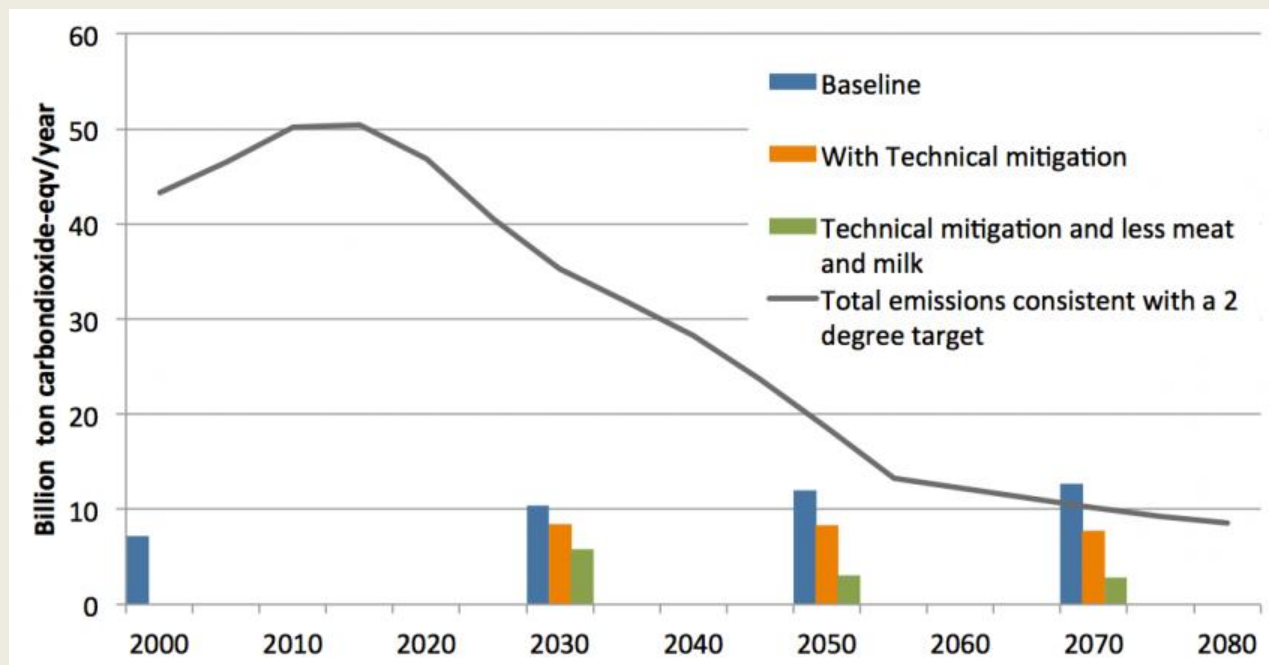


Creation of **methodologies** for information gathering in MRV systems



However...

NAMAs being elaborated and submitted seem to favour the achievement of **direct emission reductions**



Types of registered NAMAs

- **NAMAs seeking support** (actions that require support - technology transfer, capacity building and/or financing) :
 - For preparation
 - For implementation
- **NAMAs for recognition** (actions that developing countries usually undertake without the support of developed countries but are communicated in order to show a commitment with cooperative action at the global scale)

Registered agricultural NAMAs

- 54 registered NAMAs in UNFCCC NAMA Registry
- 2 agricultural NAMAs
- Uruguay: “Sustainable production with low-emission technologies in agriculture and agroindustry production chains” (aims at reducing emissions from waste from the agricultural sector and agroindustries and replace conventional fuels with bioenergy; develop of a programme to promote alternative use of waste, specifically for energy production)
- Chile: “National Program for Catalyzing Industrial and Commercial Organic Waste Management in Chile” (the objective is to foster the instalation of the first facilities for industrial and commercial organic waste management)

3. NAMA development process: steps and information requirements

Steps for developing an agricultural NAMA

1. NAMA description
2. Context and sector description
3. Mitigation potential
4. Costs
5. Development co-benefits
6. Barrier analysis
7. MRV

Step 1: NAMA description

1 General Data on the NAMA Support Project		
1.1 Project	Projekt number	To be determined by the Technical Support Unit of the NAMA Facility
	Project title	What is the title of the NAMA Support Project?
	Country(ies) of implementation	Please indicate the country(ies) where the NAMA Support Project will be implemented.
	Project start	[MM/YYYY]
	Project termination	[MM/YYYY]
	Project volume (EUR)	2013
	Please indicate the required contribution of funding from the NAMA Facility (indicative basis)	2014
		2015
		2016
		2017
		2018
		2019
		Subtotal
	Thematic focus	Agriculture
Project type	<p>Please select one of the following categories:</p> <ul style="list-style-type: none"> - Type A: Pure capital investment project - Type B: Capital investment project with technical assistance component during implementation - Type C: Capital investment project with technical assistance component before and during implementation - Type D: Pure technical assistance project <p>Where the detailed appraisal of a project may suggest an adjustment of the project type, this could be changed in the detailed NAMA Proposal at later stage.</p> <p>Type A</p>	
1.2 Submitter	Name of submitting entity	Please indicate the name of the submitting entity. In general, national governments or qualified delivery organisation may submit outlines for NAMA Support Projects.
	Type of institution	Other Intergovernmental Organisation
	Legal form ¹	
	Non-profit status ¹	Yes

- Title
- Objective
- Scope
- Thematic focus
- Activities
- Start/termination

Step 2: Context and Sector description

- **National framework** (national policies that have impact on the agriculture sector)
- **Sectorial framework** (sectorial policies, difficulties)



Step 3: Mitigation potential

- **Definition of baseline:** dynamic projection of *business-as-usual* activities, policies and technologies (usual practices)
- **Estimation of emissions associated to:**
 - Baseline (2006 IPCC Guidelines for National Greenhouse Gas Inventories)
 - Mitigation options considered in the NAMA
- There are **no standardized models** for developing baselines and estimating emissions associated to different agricultural practices (mitigation options in Agriculture tend to be site-specific)
- Some **tools** can be useful:
 - *EX-ACT tool* (FAO)
 - *MCA4Climate* (UNEP)
 - *Livestock Analysis Model - LAM* (EPA)
 - *GHG Protocol Agricultural Guidance* (WRI)

Step 4: Costs

- **Total cost (direct and indirect):** Cost of implementing options considered in NAMA (private sector) + administrative costs of NAMA + MRV costs
- **Incremental cost:** Total cost - Baseline cost (cost of continuing current practices)
- **Needed support:** Financial, technical and capacity building. Disbursement profile.
- **Financial sources:** domestic budgets, international donors

Step 5: Development co-benefits

- **Social co-benefits** (employment, rural income, capacity building)
- **Economic co-benefits** (higher productivity, productive risk diversification, balance of payments)
- **Environmental co-benefits** (soil conservation, water conservation and pollution reduction, higher efficiency in natural resources use, diminished requirements of land, biodiversity protection)

Step 6: Barrier analysis

Analysis of:

- Legal and institutional framework
- Actors involved
- Implementation arrangements

Identification of barriers

- Institutional
- Economic, financial and market
- Technical and knowledge
- Social, cultural and behavioural

Step 7: MRV

- **Parameters to be monitored**
- **Data gathering mechanisms (Who? How? When?)**
- **Verification system**

Conclusions

- NAMAs are voluntary actions undertaken by developing countries that consider mitigation as a development issue
- Agriculture NAMAs shall be considered as an opportunity to move to more productive and resilient systems with more efficient use of natural resources

Conclusions (II)

Why should developing countries undertake agricultural NAMAs?

- Mainly to **exploit synergies** between agricultural **mitigation** and **development** objectives (increased food security, enhanced adaptation, promotion of rural energy access, reduced water pollution, restoration of degraded lands, increasing efficiency in resource use)

Conclusions (III)

Why should developing countries undertake agricultural NAMAs? (cont.)

- To improve **efficiency** and **competitiveness** levels
- To **anticipate** potential **barriers** in international trade based on exports' carbon content
- To **decouple** emissions from GDP
- To address one of the main drivers of **deforestation** through increased productivity

Conclusiones

To achieve more resource-efficient and climate-resilient productive systems agricultural NAMAs shall consider...

- ... management changes in soils, water use, nutrients and seeds...
- ... but also changes in national and regional policies, governance systems and financial mechanisms.

Thank you

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