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Climate Action for Agriculture in Asia

Strengthening the role of scientific foresight and CSA in addressing NDC priorities

Overview of agriculture in the NDCs and the role of CSA

SESSION 2: ROLE OF CSA IN ACHIEVING THE NDCS

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Why to change?
What has changed?

The Climate !

"Climate has changed. Food and Agriculture must too" (FAO SOFA 2016)

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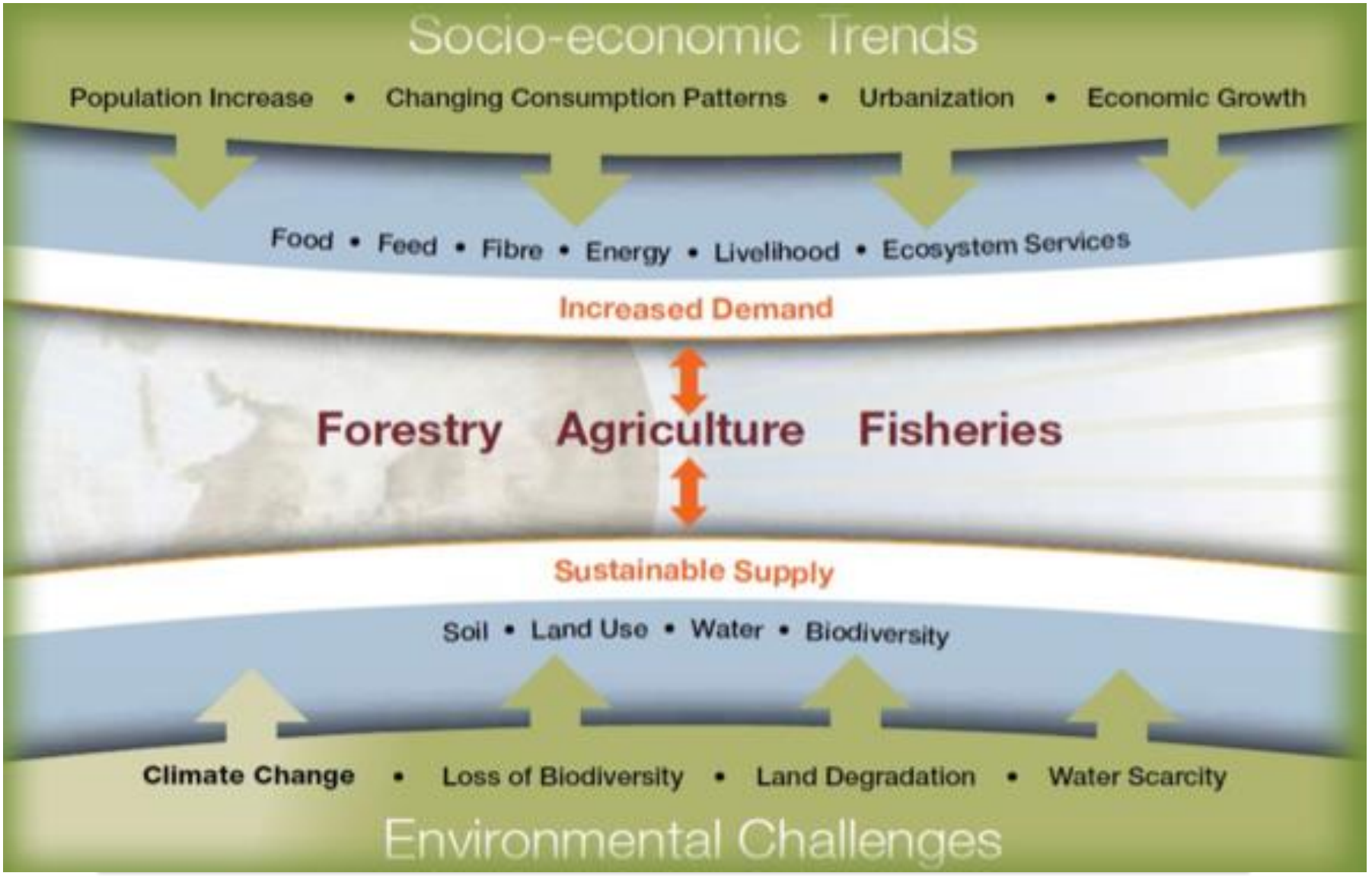

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From where?
Genesis of the CSA concept

From adaptation and mitigation (UNFCCC)
to the concept of CSA

"The healing power of agriculture"
(COP22 Agriculture Action Day)

From adaptation & mitigation concepts (UNFCCC)…

- 1992, Rio Earth Summit: global governance on climate → UNFCCC → Commitments from countries to reduce GHG emissions
- 1997, COP3: Kyoto Protocol → market-based mechanism (quotas) for industries from some countries
- REDD+ mechanism: market-based approach to reduce emissions from deforestation and forest degradation
- Until late 2000s: Mitigation dominant approach (mainly quantitative approach), but with limited results

From adaptation & mitigation concepts (UNFCCC)…

- … while increasing concerns on adapting from developing countries
- Emerging concepts: adaptation / vulnerability / DRR / resilience. Dedicated work streams under SBSTA
- 2006 at COP12 in Nairobi: SBSTA mandated to undertake a programme to address impacts, vulnerability and adaptation: the Nairobi Work Programme (NWP)
- Over the year, the UNFCCC negotiation process has led to a major distinction between mitigation and adaptation: *two work streams with specific concepts, approaches and methodologies*

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… to the concept of CSA

- Important efforts from the scientific community to highlight **synergies between mitigation and adaptation** ("triple win"), and conciliate work streams and scales:
  - Solutions be found at the local level have to increase adaptive capacities while contributing to the global response to climate change mitigation, and reciprocally

- Specificity of the agricultural sectors:
  - *Key interactions, synergies and co-benefits between mitigation, adaptation and food security* (UNFCCC work streams and mechanisms have not always enabled such considerations)
  - *"Healing power" of the agriculture sectors*: capacity to stock carbon (soil carbon storage = soil fertility)

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…to the concept of CSA

- 2009: FAO about "Capturing synergies"
  - Food Security and Agricultural Mitigation in Developing Countries: Options for Capturing Synergies (FAO 2009)
- 2010: FAO develops the concept of CSA based on its 3 pillars (productivity / adaptation / mitigation) at the Hague Conference
  - "Climate-smart" Agriculture: Policies, Practices and Financing for Food Security, Adaptation and Mitigation (FAO 2010)
- 2013: FAO launches the "Climate-smart Agriculture Sourcebook"
  - 2014: FAO Success Stories on Climate-smart Agriculture
  - 2015: Gender in CSA
- 2017: FAO will launch the "updated CSA Sourcebook"

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…to the concept of CSA

- "Science Process": The Global Science Conference on CSA, every 2 years
  - 2011: Wageningen, the Netherlands
  - 2013: Davis, California, USA
  - 2015: Montpellier, France
  - 2017: Johannesburg, South Africa (28-30 November)

- "Policy Process": The Global Alliance for CSA
  - Established in November 2015, during the UN Climate Week
  - Inclusive, voluntary and action-oriented multi-stakeholder platform on CSA
  - Open to membership from all continents, all sectors, all type of stakeholders
  - Next Annual Forum: 12-14 December 2017

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Why CSA is relevant vis-à-vis INDCs?

INDCs calling for a more comprehensive approach to Climate Change Adaptation and Mitigation (CCAM)

CSA as a comprehensive approach

The Paris Agreement: A major shift

- 2015 at COP21 in Paris: Paris Agreement, including 3 major evolutions:
  - Recognizing the "fundamental priority of safeguarding food security" (preamble)
  - Adaptation & finance become fully-fledged objectives, jointly with mitigation (3 inter-linked objectives)
  - From *allocations* to *contributions*: INDCs based voluntary contributions + increasing ambitions (instead of an allocation-based approach tentatively binding for countries

- Agriculture sectors in the INDCs: focus on adaptation and mitigation

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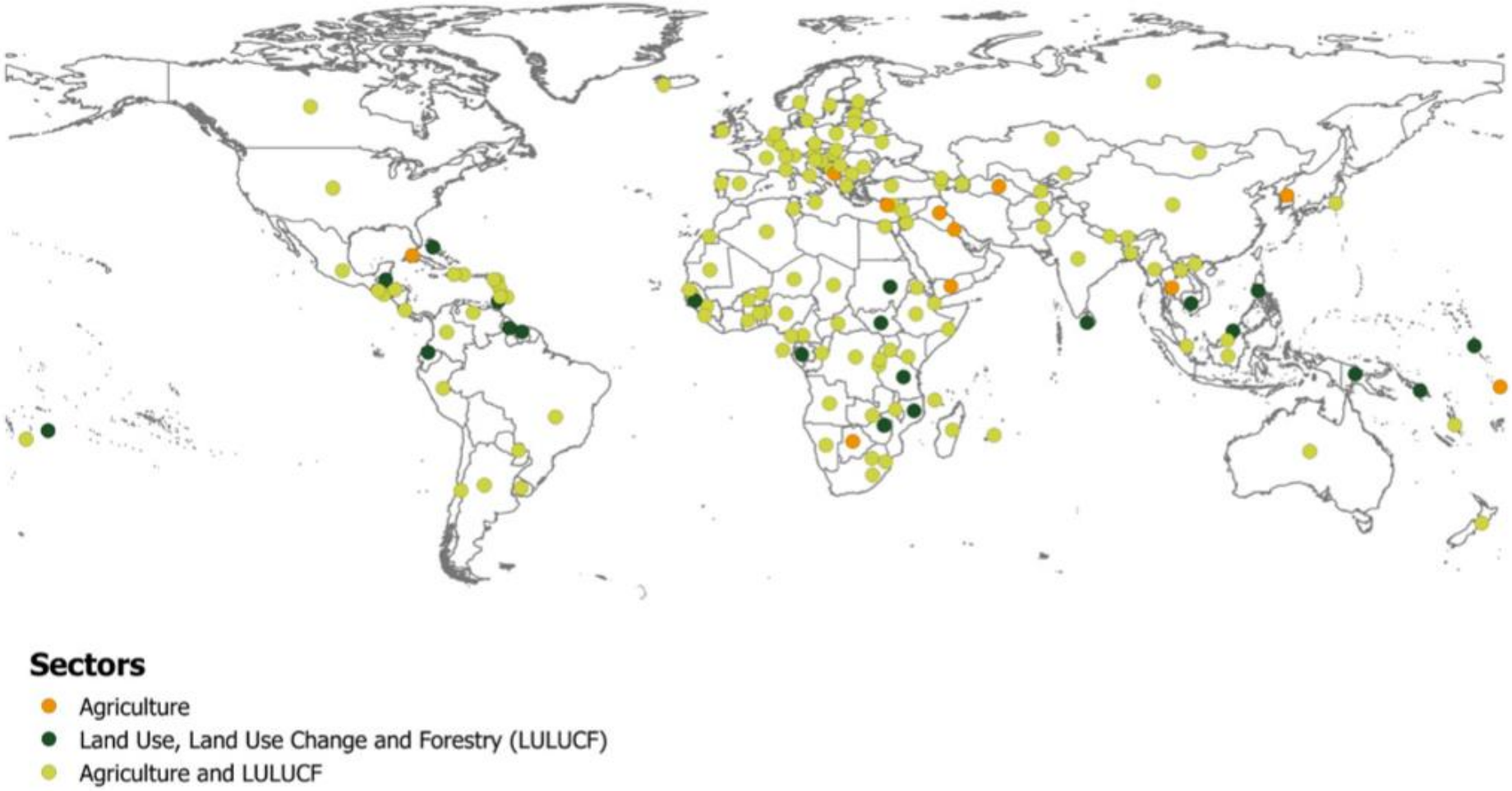
Mitigation in the INDCs

Figure 1 - Mitigation in Agriculture and LULUCF in the INDCs (FAO 2016)



Source: FAO (2016), The Agriculture Sectors in the Intended Nationally Determined Contributions: Summary. Food and Agriculture Organization of the United Nations, Rome, Italy.

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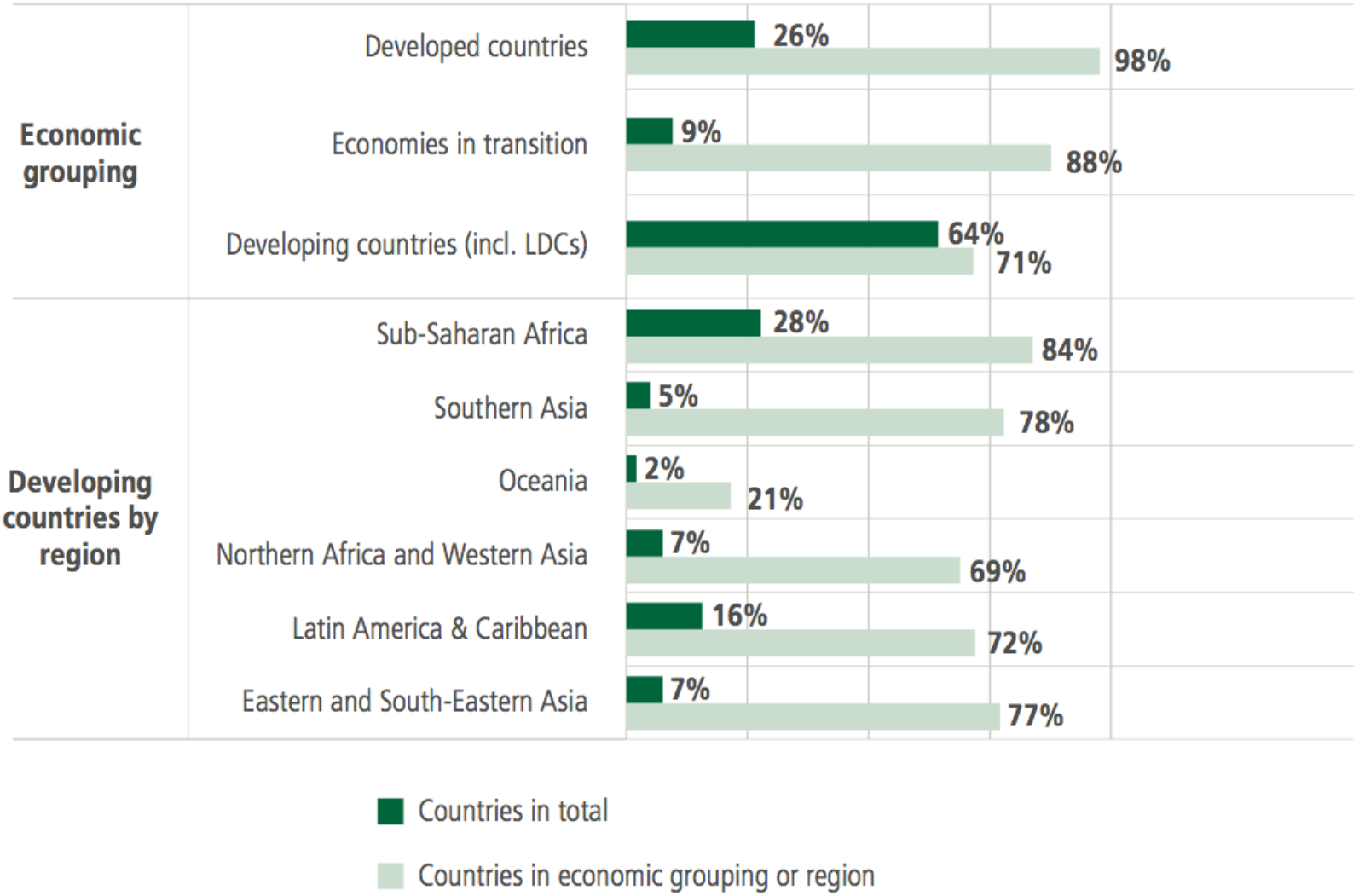
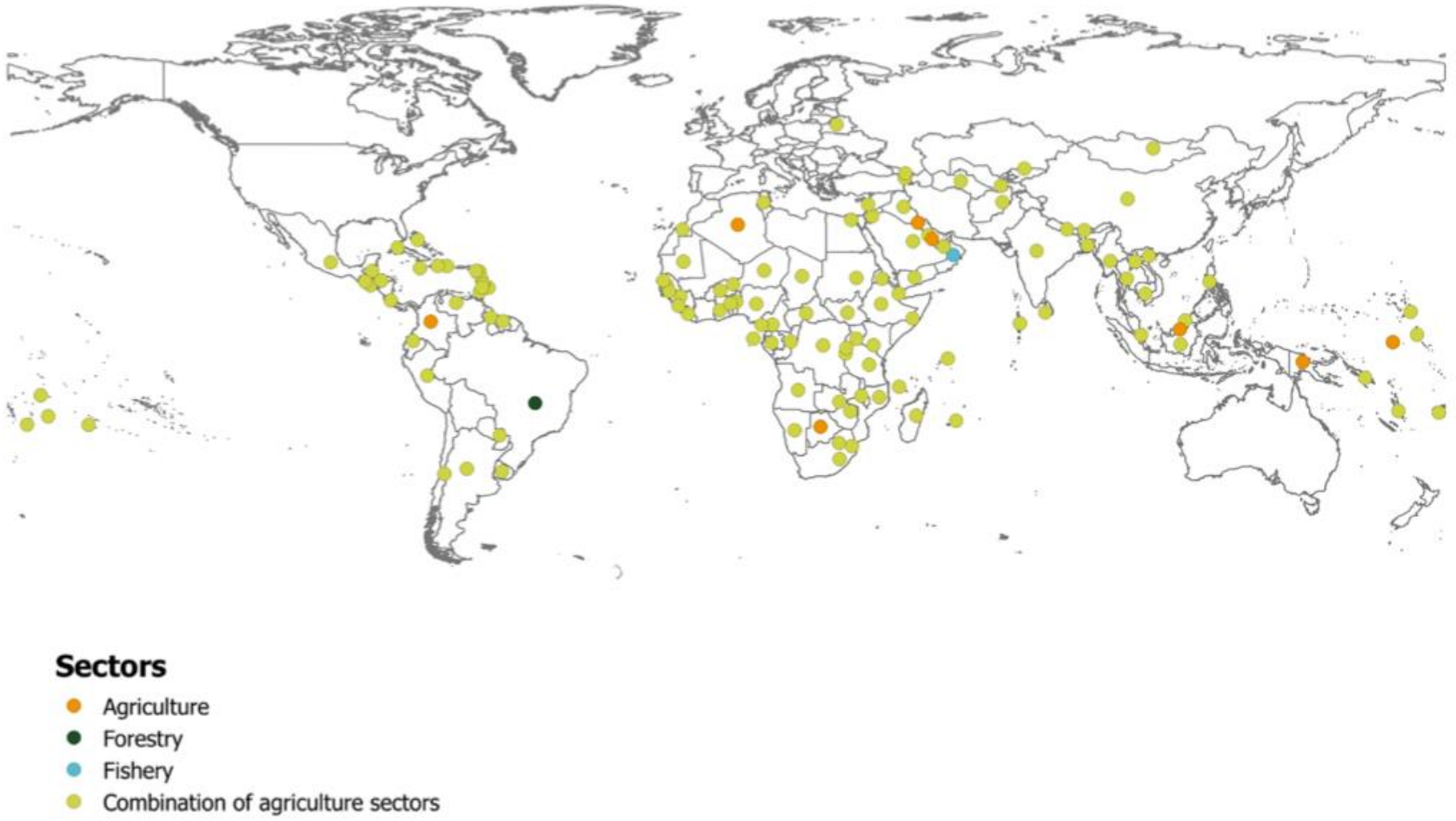
Mitigation in the INDCs

Figure 2 - Percentage of developing countries indicating mitigation in agriculture (crops, livestock) and LULUCF by region (FAO 2016)



Adaptation in the INDCs

Figure 3 - Reference to the agriculture sectors in adaptation sections (FAO 2016)



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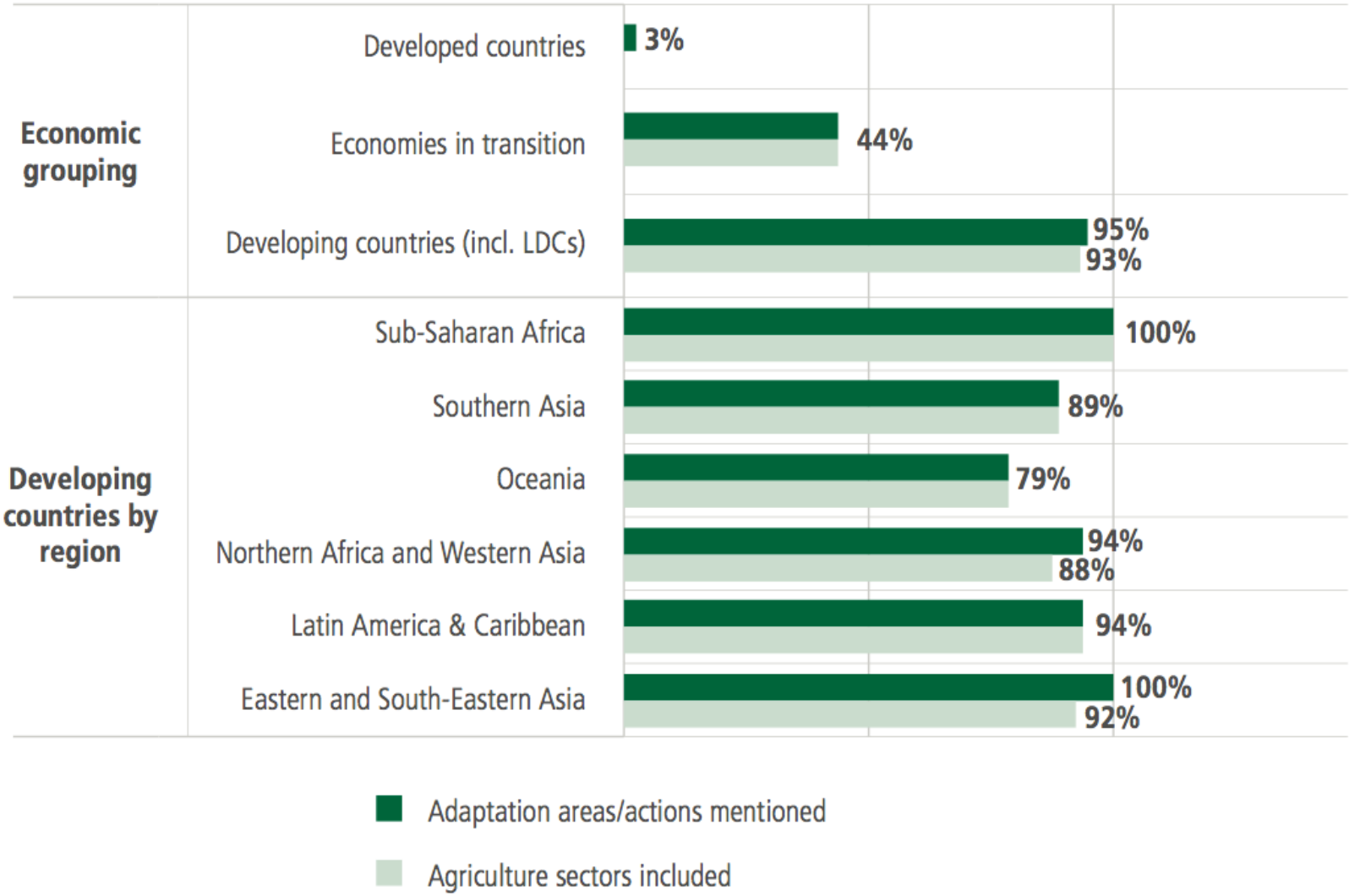
Adaptation in the INDCs

Figure 4 - Percentage of countries that include adaptation sections and that refer to agriculture sectors in adaptation (FAO 2016)



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Synergies and co-benefits

The agriculture sectors are most often referred to in the INDCs as providing **adaptation-mitigation synergies**, as well as socio-economic and environmental co-benefits.

Many countries refer to the agriculture sectors both with regard to mitigation and adaptation.

Opportunities for realizing these synergies are explicitly acknowledged by some countries:

- ✓ **57 countries** endorse or even prioritize **actions based on the potential synergies** between mitigation and adaptation.

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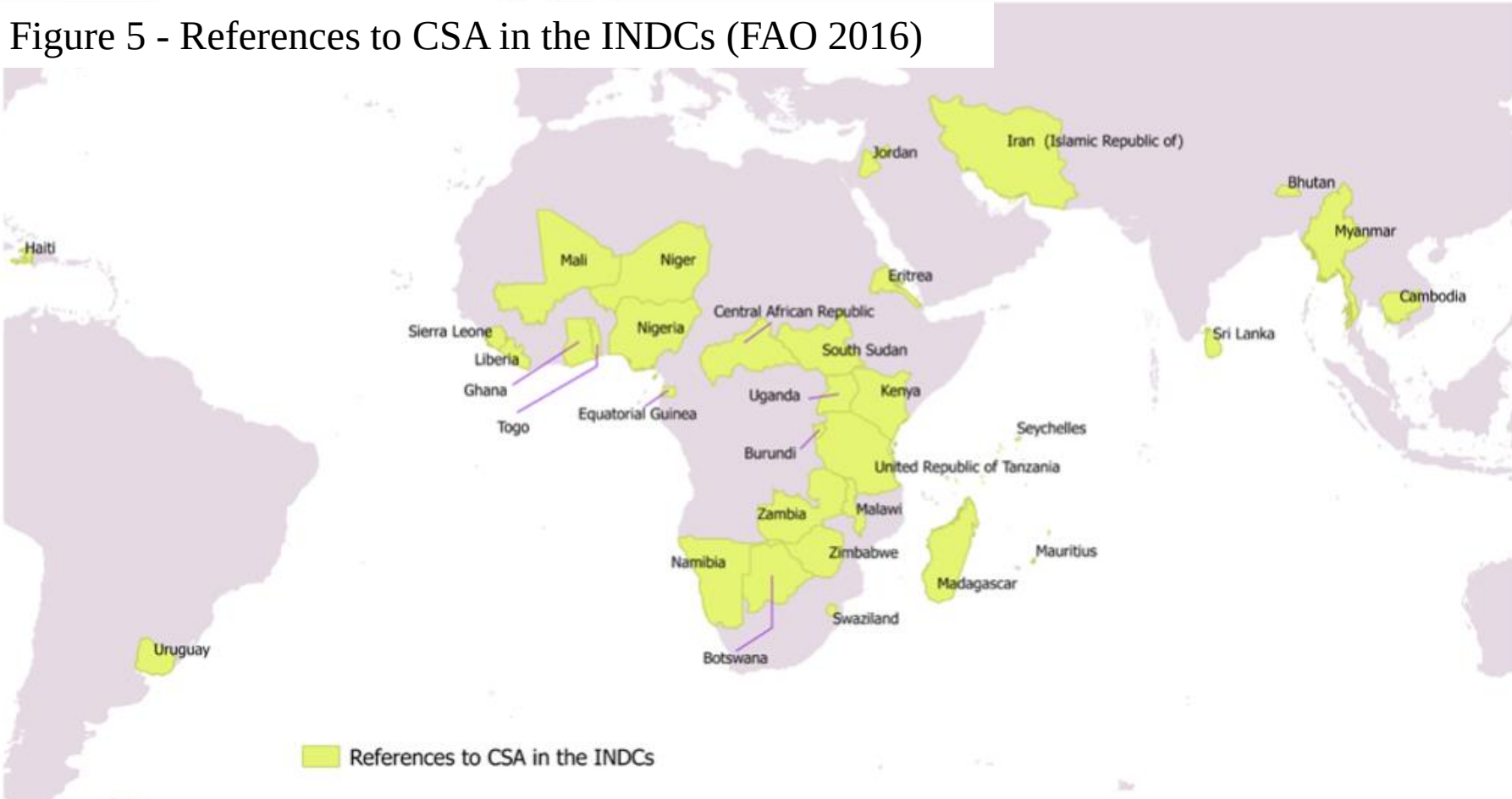
Reference to CSA in the INDCs

- **32 countries specifically refer to CSA** (almost half are LDCs)
- 75 % in Sub-Saharan Africa
- 25% in Asia (6 countries) and LAC (2)

Figure 5 - References to CSA in the INDCs (FAO 2016)



- INDCs calling for a more comprehensive approach to CCAM in the agriculture sectors:
  - *building on synergies and co-benefits* between food production, adaptation and mitigation
  - needed to be able *to address simultaneously the challenges pertaining to food security and climate change*

- Increasing scientific evidence of the potential advantages of adopting CSA as a comprehensive approach to simultaneously address objectives pertaining to food production, adaptation and mitigation, while maximizing synergies and minimizing trade-offs

What is CSA?

CSA is an approach to climate action for agriculture

CSA is not a set of practices that can be universally applied

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CSA is an approach to develop the technical, policy and investment conditions to achieve sustainable agricultural development for food security under climate change.

CSA is not a set of practices that can be universally applied, but rather an approach that involves different elements embedded on-farm and beyond the farm and incorporates technologies, policies, institutions and investment

CSA follows 3 inter-twined objectives (cf. the 3 pillars of CSA):

1. Sustainably increasing agricultural productivity and incomes
2. Adapting and building resilience to climate change
3. Reduce and/or remove GHG emissions, where possible

There is no blueprint for CSA: **the specific contexts of countries and communities will shape how it is ultimately implemented**.

CSA seeks to enhance the capacity of the agricultural sector to sustainably support food security, **incorporating the need for adaptation and the potential for mitigation into development strategies**.

- When considering agricultural solutions with CSA potential, you should try to identify ways to produce more food products, increase the resilience of the production systems and reduce GHG emissions, all at the same time.

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The CSA approach:
How is CSA implemented?

Actions to Achieve CSA

FAO's methodology includes 5 action points

to implement a CSA approach at country level

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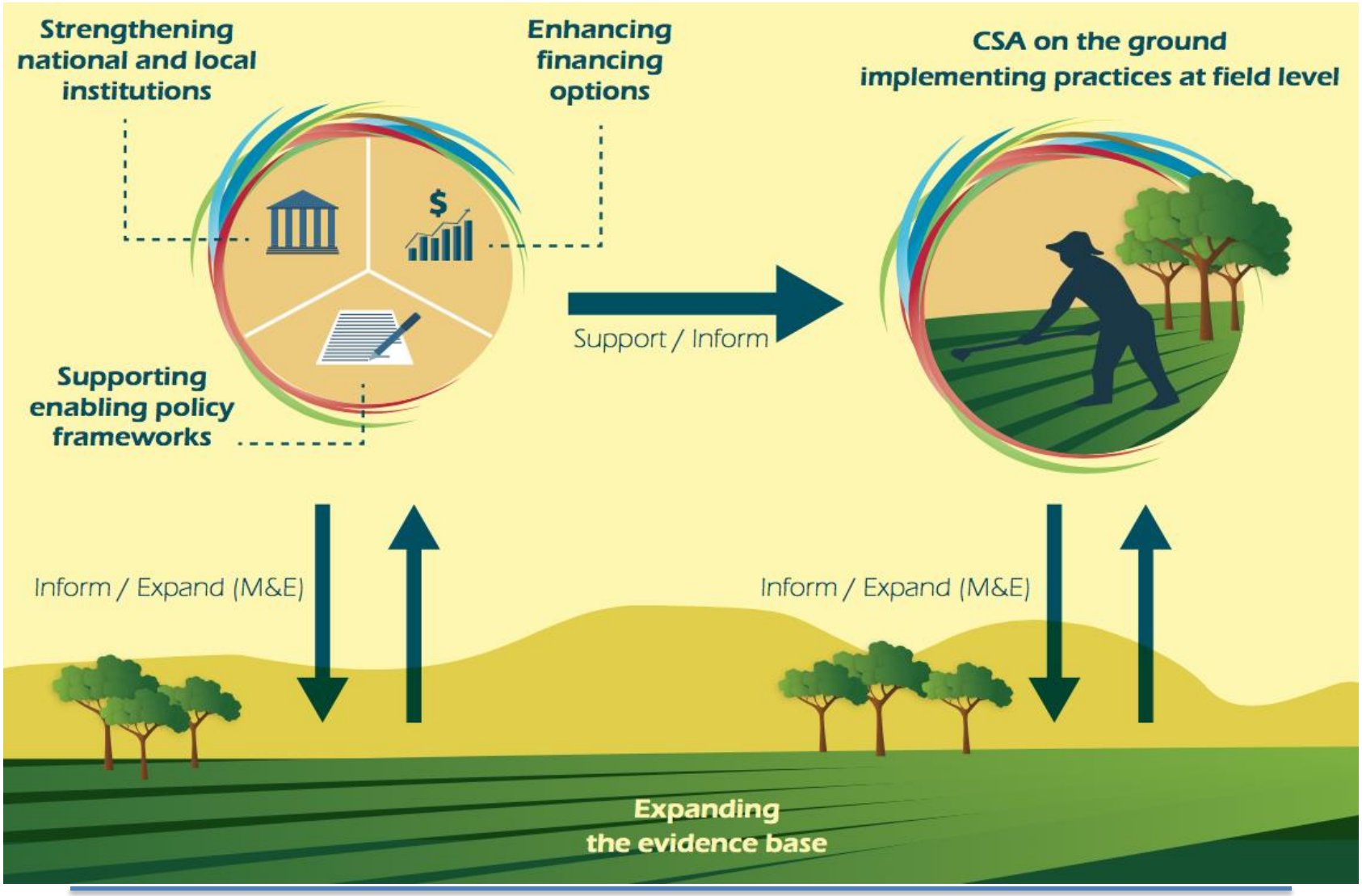
Actions to Achieve CSA:



Source: FAO (2017), Infographic on Climate-Smart Agriculture. Food and Agriculture Organization of the United Nations, Rome, Italy.

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Five principles for sustainable food and agriculture (FAO, 2014)

1. Improving efficiency in the use of resources
2. Direct action to conserve, protect and enhance natural resources
3. Protect rural livelihoods and improve equity and social well-being
4. Enhance the resilience of people, communities and ecosystems, especially to climate change and market volatility
5. Responsible and effective governance is essential for the sustainability of both the natural and human systems

Source: FAO (2014), Infographic on Climate-Smart Agriculture. Food and Agriculture Organization of the United Nations, Rome, Italy.

More on CSA?

FAO's flagship products on CSA

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CLIMATE-SMART AGRICULTURE
Sourcebook

Climate-Smart Agriculture Training Manual

A reference manual for agricultural extension agents

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
2017

Multilingual elearning courses offered free of charge as a global public good through the

FAO eLearning Center

www.fao.org/elearning

Existing courses in the Climate Change Category:

- The National Greenhouse Gas Inventory for Agriculture
- Incorporating Climate Change Considerations into Agricultural Investment Programmes
- Climate Change and Food Security

Elearning courses in development:

- The National Greenhouse Gas Inventory for Land Use
- Climate SMART Agriculture

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Strengthening the role of scientific foresight and CSA in addressing NDC priorities

Thank you