NAMAs and Agriculture

Heather Jacobs
Francesco Tubiello
Rocío Cóndor

FAO -- Climate, Energy and Tenure Division

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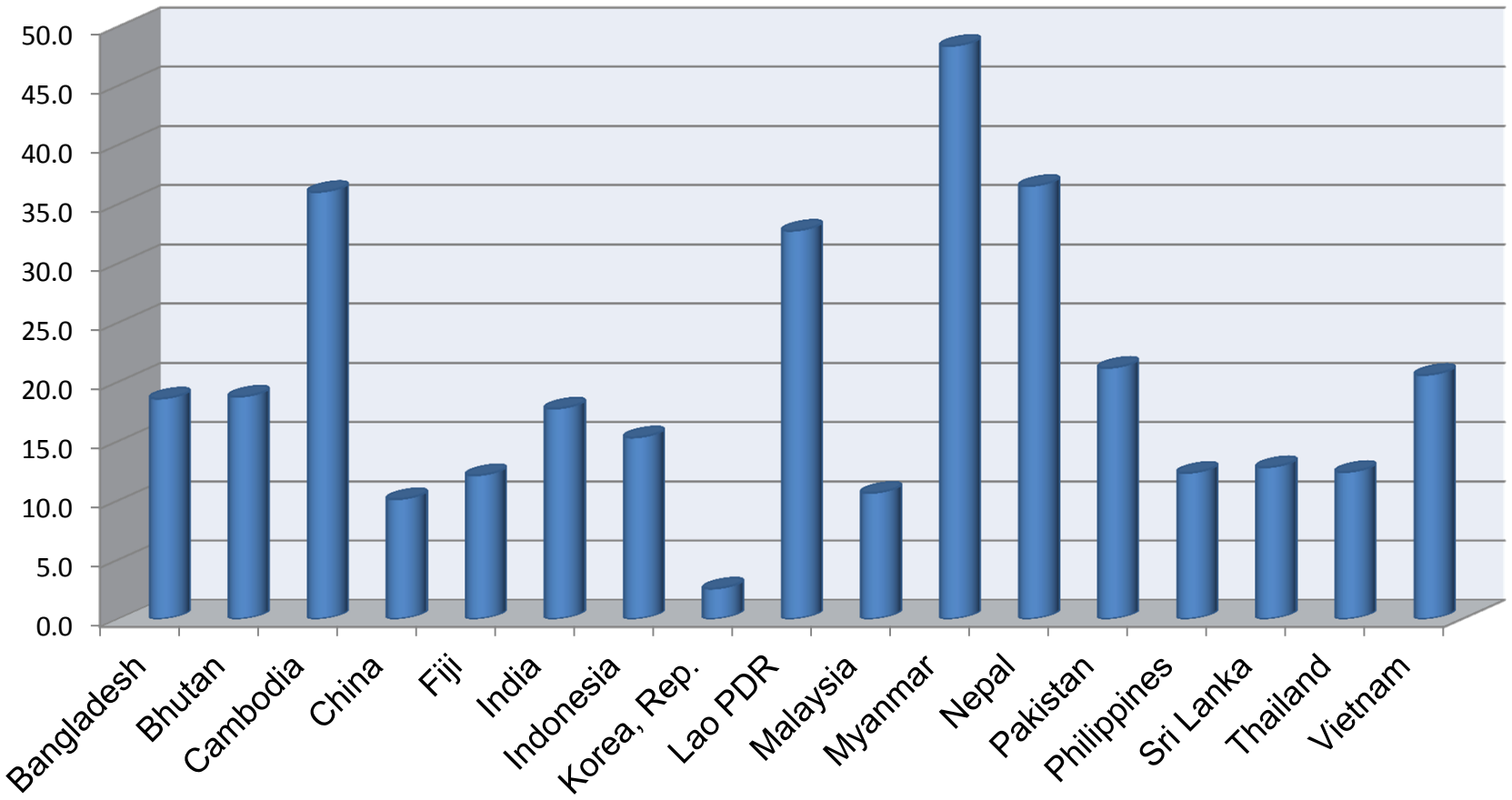
1. Agriculture is an important socio-economic sector

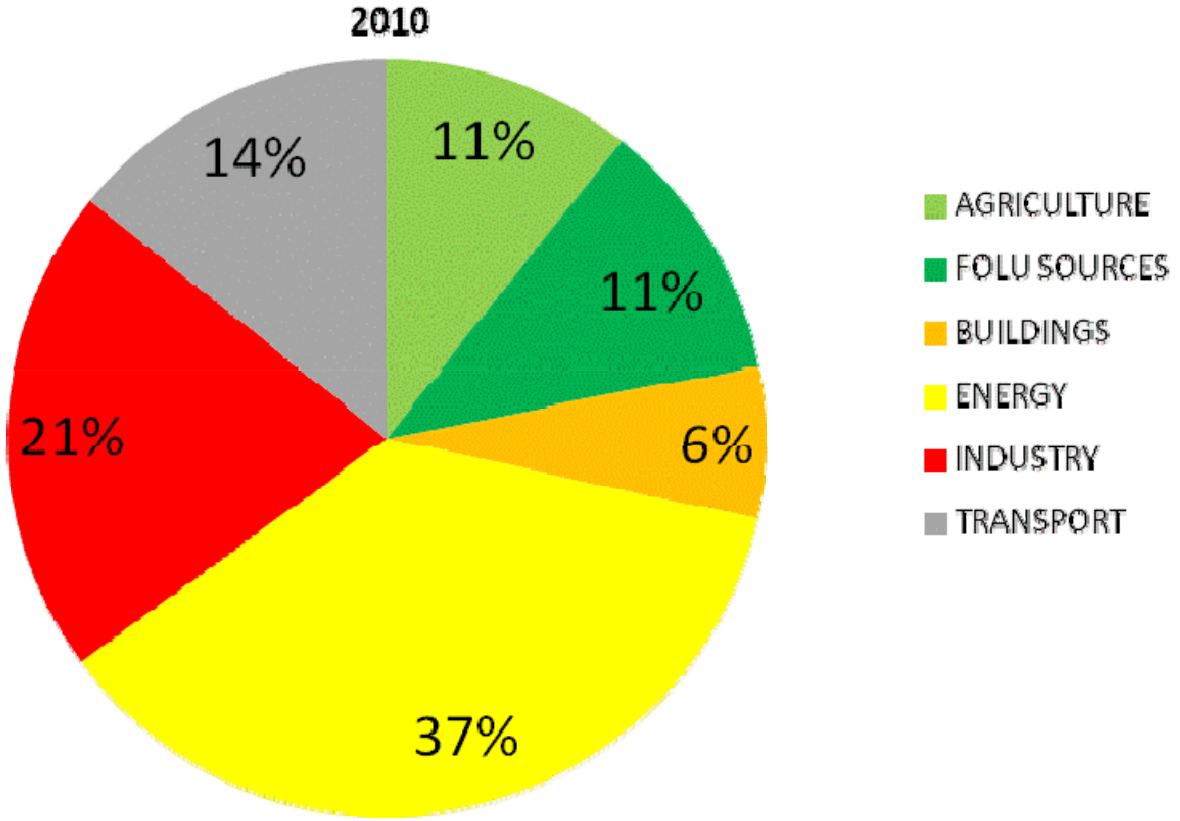
- **GDP**: The agricultural sector constitutes a substantial portion of GDP in many developing countries, contributing significantly to export earnings and employment
- Average percent share of agriculture in GDP (World Bank, 2013):
  - Africa **23%**
  - Asia **22%**
  - Latin America **10%**
  - High-income developed countries **3-4%**
- Agriculture provides jobs for about two-thirds of these populations -- economic health is linked to the prosperity of farming communities
- NAMAs can assist countries in maintaining and enhancing agricultural productivity.

Agriculture GDP share, Asia-Pacific



Source: World Bank, 2010

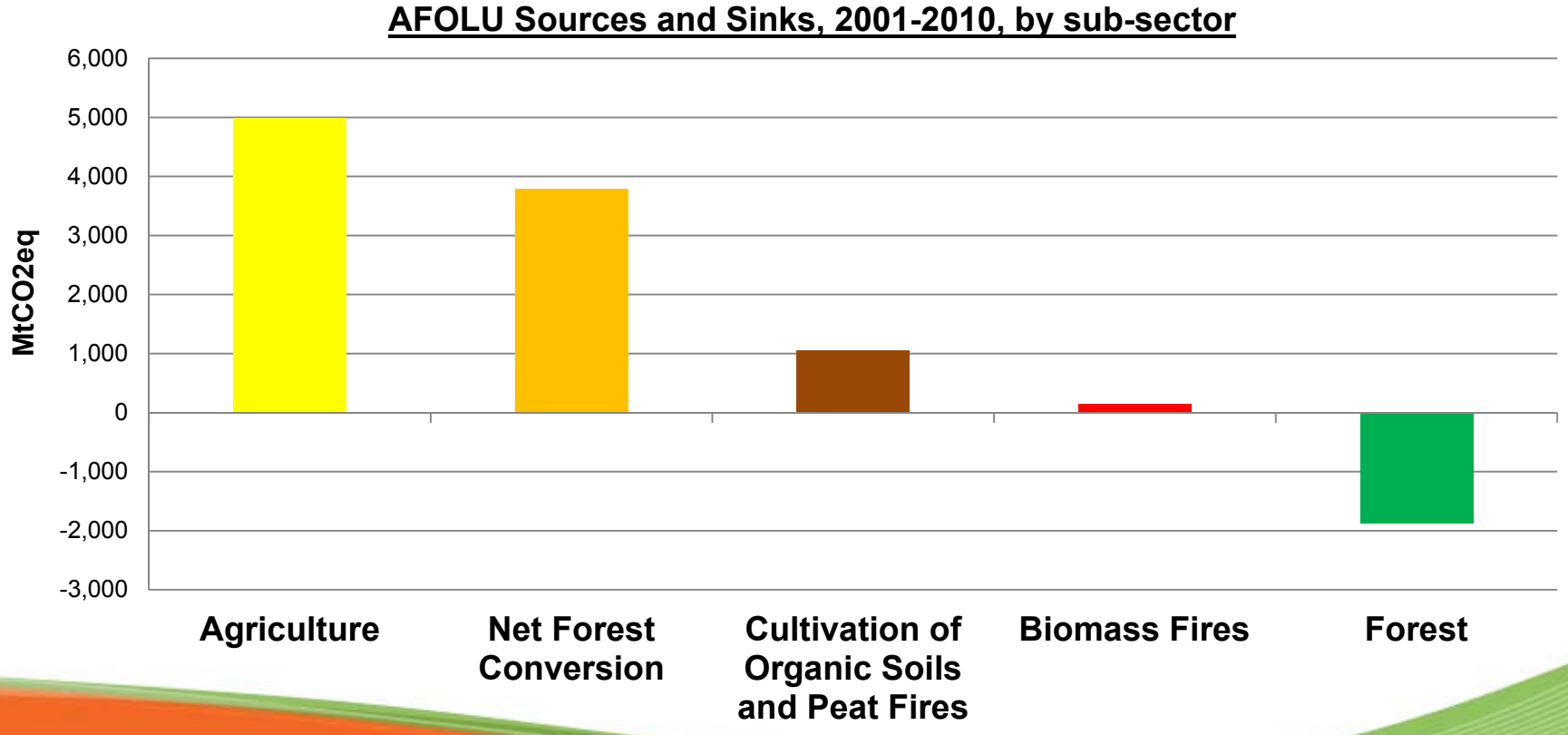
2. Agriculture is an important GHG emitter



Agriculture, Forestry and Other Land Use Emissions by Sources and Removals by Sinks, 1990 – 2011 Analysis, FAO
http://www.fao.org/docrep/019/i3671e/i3671e.pdf

Why is AFOLU important for NAMAs?

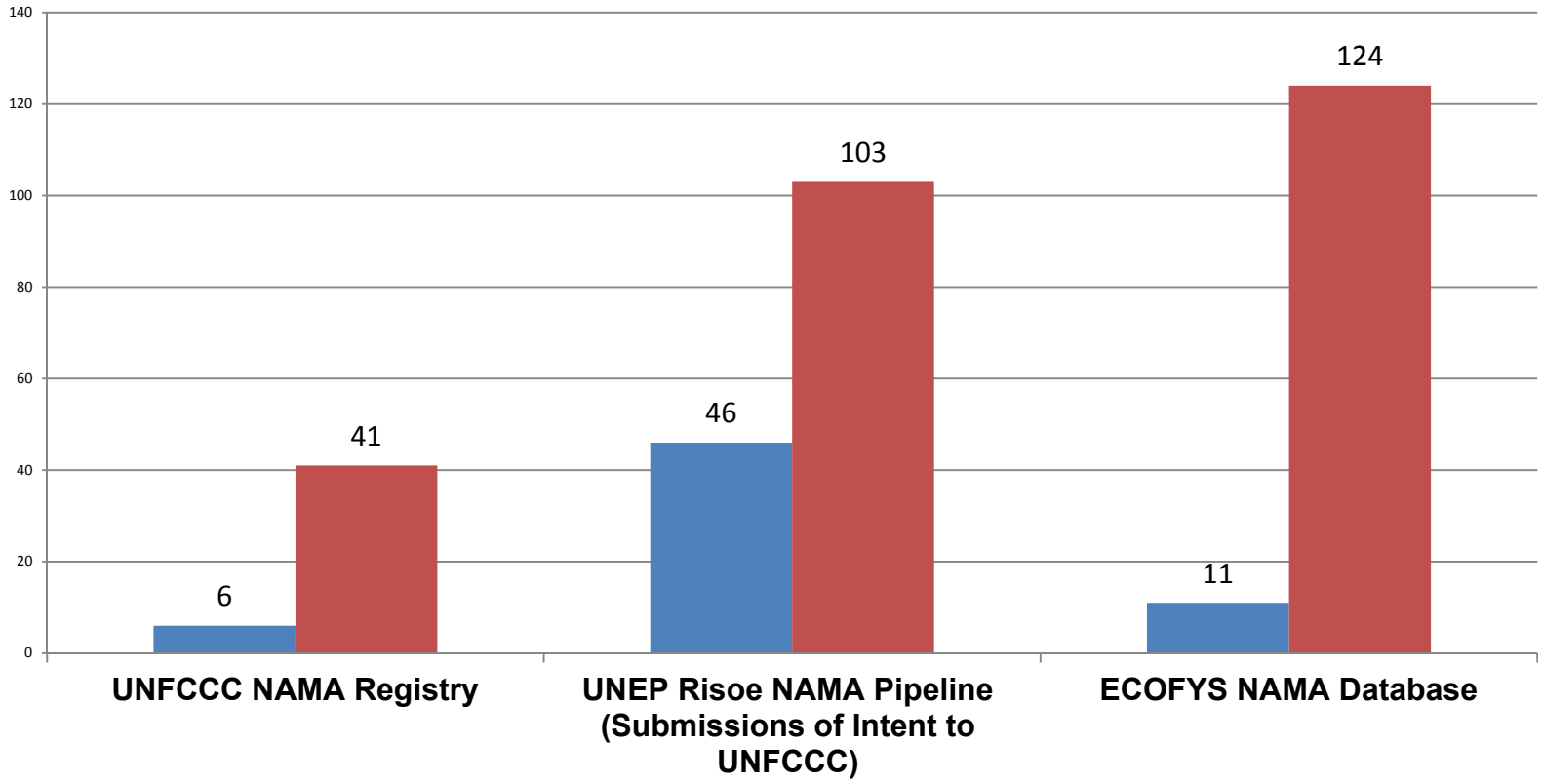
- The share of agriculture emissions to total AFOLU net emissions remained constant over 1990-2010 -- **62%**
- By contrast, the share of agriculture to AFOLU emissions by sources (excluding FOLU sinks) increased, from **44%** in the 1990s to **50%** in the 2000s



3. Synergies between Mitigation, Adaptation and Food Security: An opportunity for agriculture NAMAs

- Integration of mitigation, adaptation and resilience, including food security goals, could help further leverage funding, as the agriculture sector presents a potential opportunity to integrate NAMAs/NAPs
  - Joint adaptation and mitigation options include:
    - » Measures that reduce soil degradation
    - » Measures that reduce leaching of N and phosphorus
    - » Increased diversity of crop rotations
    - » Agroforestry practice
- Agriculture offers significant opportunity to link adaptation, resilience, mitigation and food security goals into one coherent package

Current Status of agriculture NAMAs: Still some way to go



FAO Findings:
Barriers to Agriculture NAMAs

- Most barriers are not specific to GHG mitigation -- they also hinder other agricultural development objectives
- Agriculture has received a small proportion of climate financing
- Data:
  - Availability is lacking
  - Uncertainty is high
  - Public official data not sufficient
  - Data discrepancies between agencies/ministries and reports
  - Gaps in disaggregated data
- Obstacles in domestic policies
- Inter-institutional coordination is weak
- Lack of readiness in agricultural sector – and the need to address farmers' concerns and equity considerations

National GHG Inventories, Baselines, and MRV

- Improved data collection and sound GHG emission inventories within robust National data systems enable development of baselines and MRV of NAMAs

- To identify emissions hotspots and develop GHG baselines, adequate data are necessary; Non-Annex 1 countries may have large gaps

Some FAO contributions

- Preliminary NAMA Analysis
- NAMA Guidelines for Agriculture
  - *National integrated mitigation planning in agriculture: A review paper*
    http://www.fao.org/docrep/017/i3237e/i3237e.pdf
  - *National planning for GHG mitigation in agriculture: A guidance document*
    http://www.fao.org/docrep/018/i3324e/i3324e.pdf
- GHG Data and analysis tools linked to National GHG Inventory Processes, including BURs and baseline projections

Addressing Data and Institutional Gaps

FAOSTAT Emissions database for AFOLU

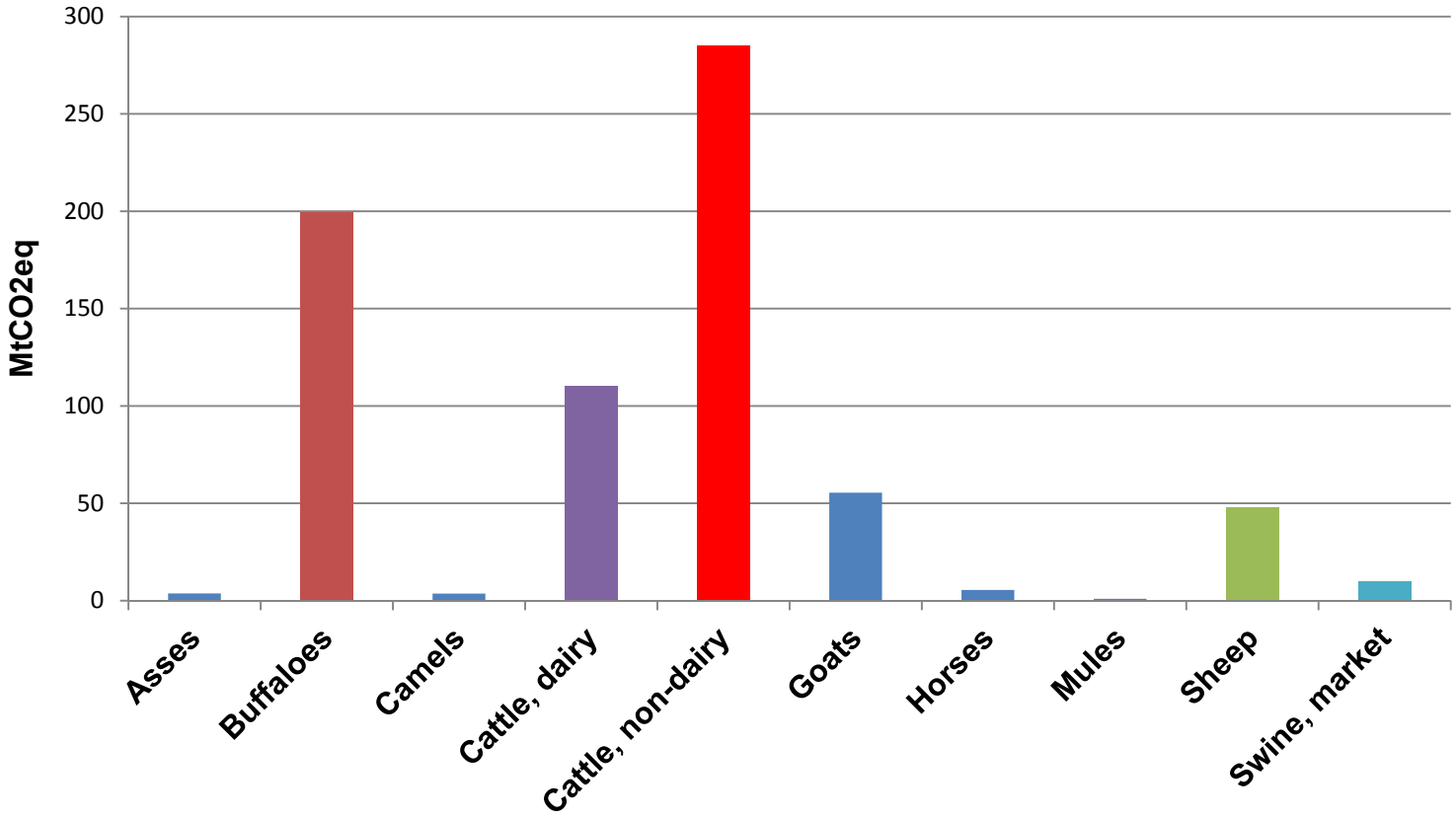
Released on Apr 14th 2014, contributes to IPCC AR5 WGIII

- Platform containing domains for AFOLU GHG emissions at global, regional, and national level (identification of hotspots, baselines, projections)
- Four dimensions of applicability:
    1) Global and regional assessments
    2) Filling data gaps and building capacity
    3) QA/QC of national data
    4) Development of indicators

Regional Workshops on Statistics for GHG emissions

- Assist Member countries with agricultural data collection in order to prepare BURs and NAMAs; provides exchange of experiences between countries

Asia: Enteric Fermentation by Animal Type Average 2000-2010



Source: FAOSTAT, 2013

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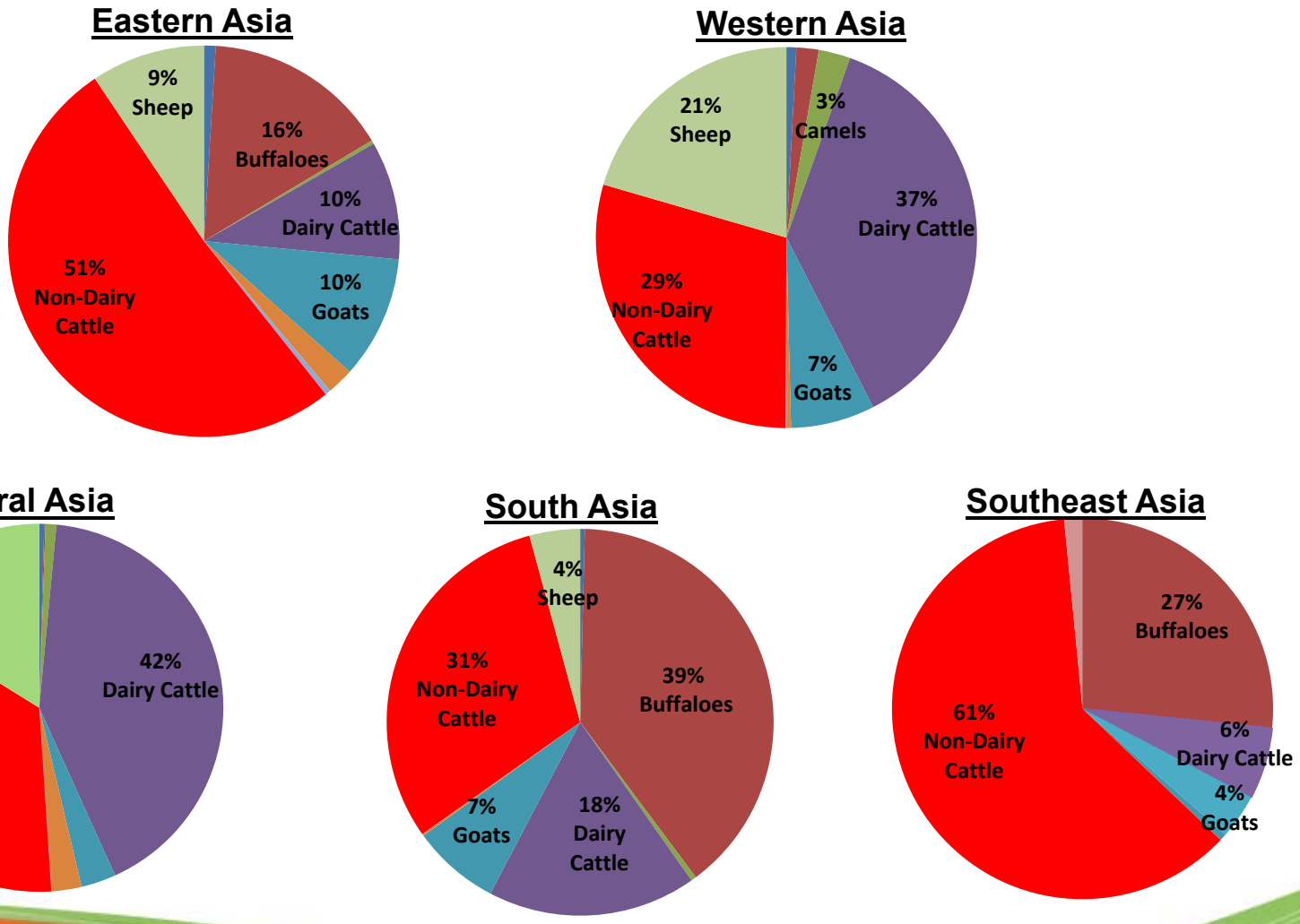
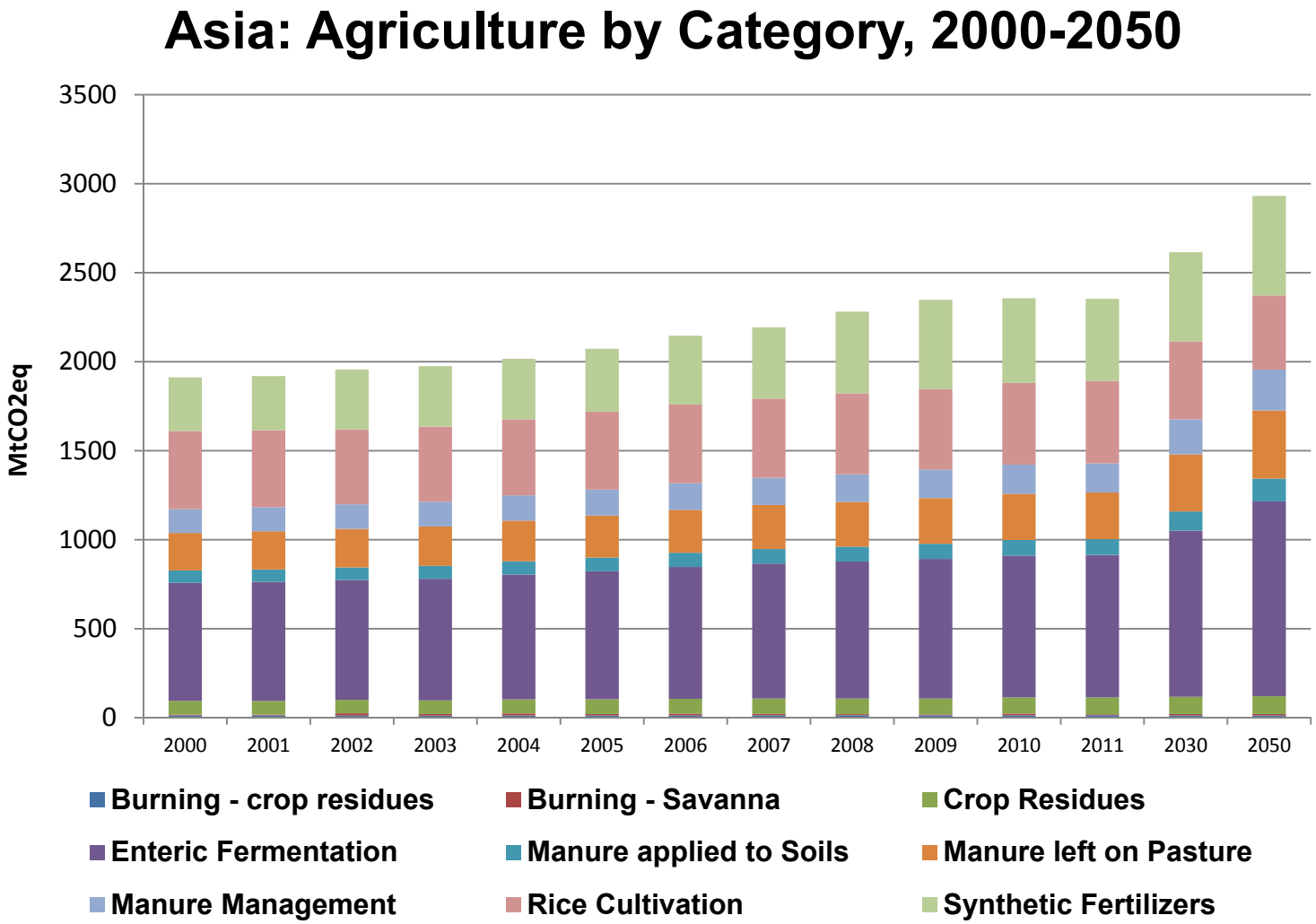


Source: FAOSTAT, 2013

Trends and BASELINE Projections



Capacity Development Activities

- **Technical Capacities**
  - Assess and report GHG emissions from AFOLU activities (Biennial Update Reports)
  - Identify mitigation options, including Nationally appropriate mitigation actions (NAMAs)
- **Functional Capacities**
  - Access, generate, manage and exchange information and knowledge towards robust GHG inventory, BURs, NAMA, and national data systems
  - Collaborate with relevant national and international agencies and institutions for efficient support to countries
- **Three levels:** **Regional** (workshops); **Sub-regional** (Mesoamerica) **National** (Ecuador, Colombia, Indonesia, and 27 countries using FAOSTAT)

Conclusions

- Agriculture is a key sector in developing countries: large share of agricultural GDP; large employer; engine of rural development
- Agriculture (and Forestry and other land uses) is a key emission sector globally and especially in developing countries
- NAMAs should capitalize on opportunities to achieve national mitigation planning alongside rural development and food security goals, exploring linked financial opportunities
- National GHG inventories based on robust data are necessary for the development of baselines and the identification of emissions hotspots and mitigation targets, hence for NAMA MRVs
- FAO supports member countries with a range of products, including guidelines and GHG data products such as the FAOSTAT Emissions database

For more information

FAO -Monitoring and Assessment of Greenhouse Gas Emissions and Mitigation Potential in Agriculture (MAGHG): maghg@fao.org

FAO/MAGHG web site:
http://www.fao.org/climatechange/micca/ghg/en/
http://www.fao.org/climatechange/micca/ghg/fr/
http://www.fao.org/climatechange/micca/ghg/es/

FAOSTAT web site: http://faostat.fao.org

FAOSTAT emission database (English, French and Spanish):
Emissions – Agriculture http://faostat3.fao.org/faostat-gateway/go/to/download/G1/*/E
Emissions – Land Use http://faostat3.fao.org/faostat-gateway/go/to/download/G2/*/E

Report of the Second FAO Workshop on Statistics for Greenhouse Gas Emissions
03 - 04 June 2013, Port of Spain, Trinidad and Tobago
http://www.fao.org/docrep/018/i3397e/i3397e.pdf

Report of the Third FAO Regional Workshop on Statistics for Greenhouse Gas Emissions
02 - 03 December 2013, Casablanca, Morocco
http://www.fao.org/docrep/019/i3624e/i3624e.pdf

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Thank you!

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FAOSTAT: http://faostat.fao.org

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