EXECUTIVE SUMMARY

# Missing Pathways to 1.5°C

## The role of the land sector in ambitious climate action

Climate ambition that safeguards land rights, biodiversity and food sovereignty

**CLARA**
**Climate Land Ambition and Rights Alliance**
OCTOBER 2018

Presentation by Karin Ulmer
The role of land and transformative agriculture in EU policies
Brussels 6/11/2018

actalliance eu
Formerly APRODEV

….is a network of 14 faith-based development agencies from across Europe focusing on climate justice, food security and development policies, pursuing a rights-based and livelihoods approach in EU policies. It is part of a global network of 140 relief and development agencies committed to justice, peace and dignity for all.

Members of CLARA include climate justice advocates, faith-based groups, conservation groups, land rights campaigners, development organizations, agroecologists, and representatives of people's movements.

# Key Findings

## The missing pathways to 1.5°C: The role of the land sector in ambitious climate action

CLARA

**CLARA's analytic approach:**

- intersected crises : climate change, biodiversity loss, violations of land rights
- Inseparable solutions: food security, human rights, restore natural ecosystems
- Equity as basis – solutions for all
- Problem is over consumption of the world's resources by those able to do so

**Greater ambitions:**

- Secure land rights, restore forest ecosystems, more sustainable food systems
- Increase area of land under secure community-based tenure systems to ensure long-term protection
- Focus solutions on holistic approaches that tackle all crises at once.
- Rights and biodiversity are essential building blocks for effective climate action, health and livelihoods.
- A plan for low-risk, long-lived, and low-cost climate action in land and forests.

**Challenges:**

- Meeting growing food demands while minimizing ecological losses
- Many agricultural and natural ecosystems are to collapse due to over exploitation, fragmentation and pollution.
- Feedback loops: the more ecosystems are degraded the more carbon is released, the harder to mitigate climate change

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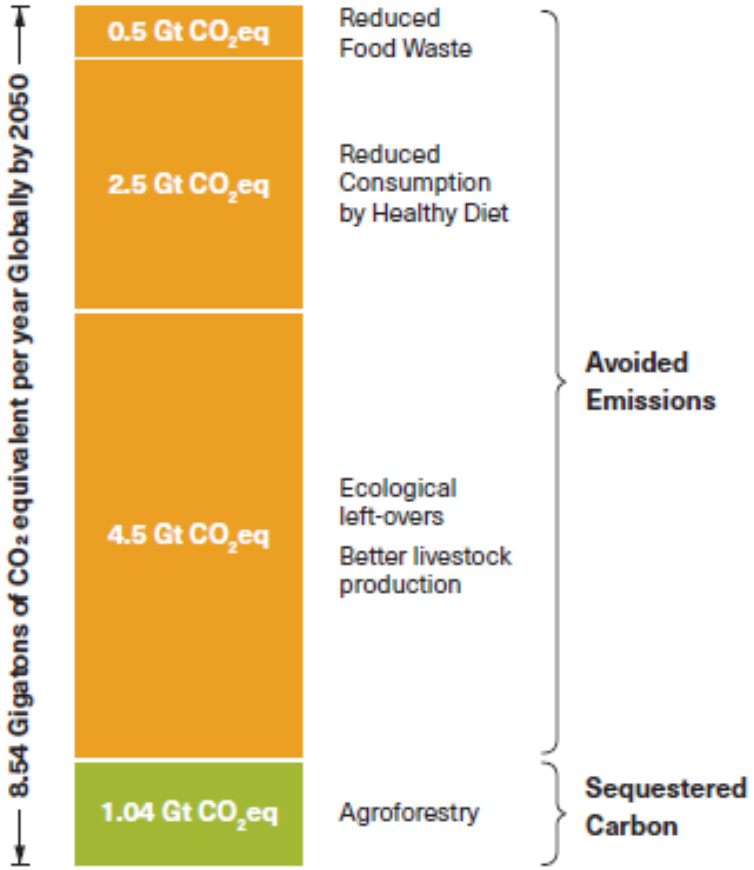
FIGURE 3

## Mitigation Potential Across All Agricultural Pathways

The potential for avoided emissions by better production, less consumption and reduced waste of food and agricultural products is significant. At the same time, agroecological practices such as agroforestry can increase carbon stocks.




- Agricultural pathway practices include agroecology, agroforestry, reduction in synthetic nitrogen fertilizer, less and better livestock production, healthy diets, transformed food systems (fossil-fueled heating of greenhouses, food miles, frozen chain, food loss and waste, etc)

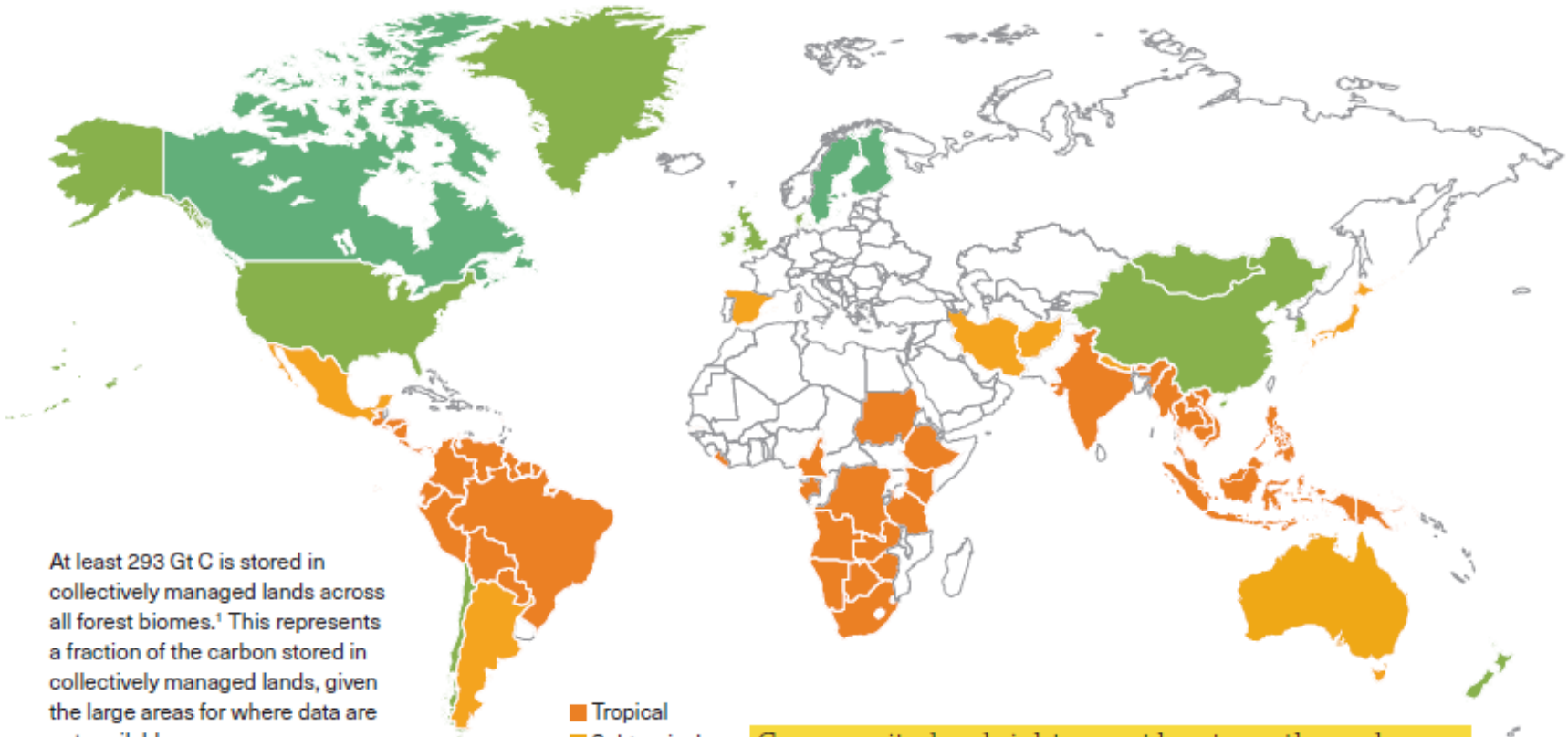
- The CLARA report shows how ecosystem-based approaches in the land sector, and agroecological system changes in food production and consumption both could deliver:

  11 Gt $CO_2$eq /year in avoided emissions,
  almost 10 Gt $CO_2$ /year in carbon sequestered by 2050,
  resulting in 448 Gt $CO_2$ in cumulative removals to 2100.

Indigenous people and local communities would retain and expand areas under their management; doing so protects the equivalent of over 1000 Gt $CO_2$ as carbon stocks - essential for avoided emissions.

FIGURE 1

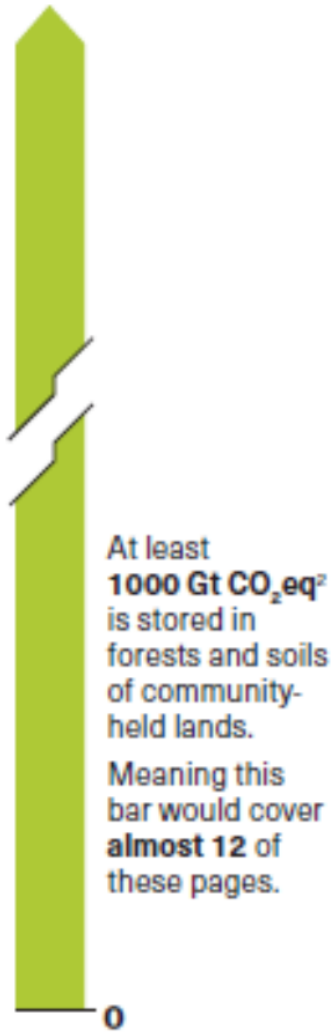
**Indigenous and community lands across 64 countries store >293 gigatonnes of carbon.**




At least 293 Gt C is stored in collectively managed lands across all forest biomes.[1] This represents a fraction of the carbon stored in collectively managed lands, given the large areas for where data are not available.

[1] Forest biomes are based on FAO 2015 classifications
Source: (Rights and Resources Initiative, 2018).

Community land rights must be strengthened—over 1/3 of the carbon identified in community lands across the tropics lies in areas without secure tenure rights



At least **1000 Gt $CO_2eq$**[2] is stored in forests and soils of community-held lands.

Meaning this bar would cover **almost 12** of these pages.

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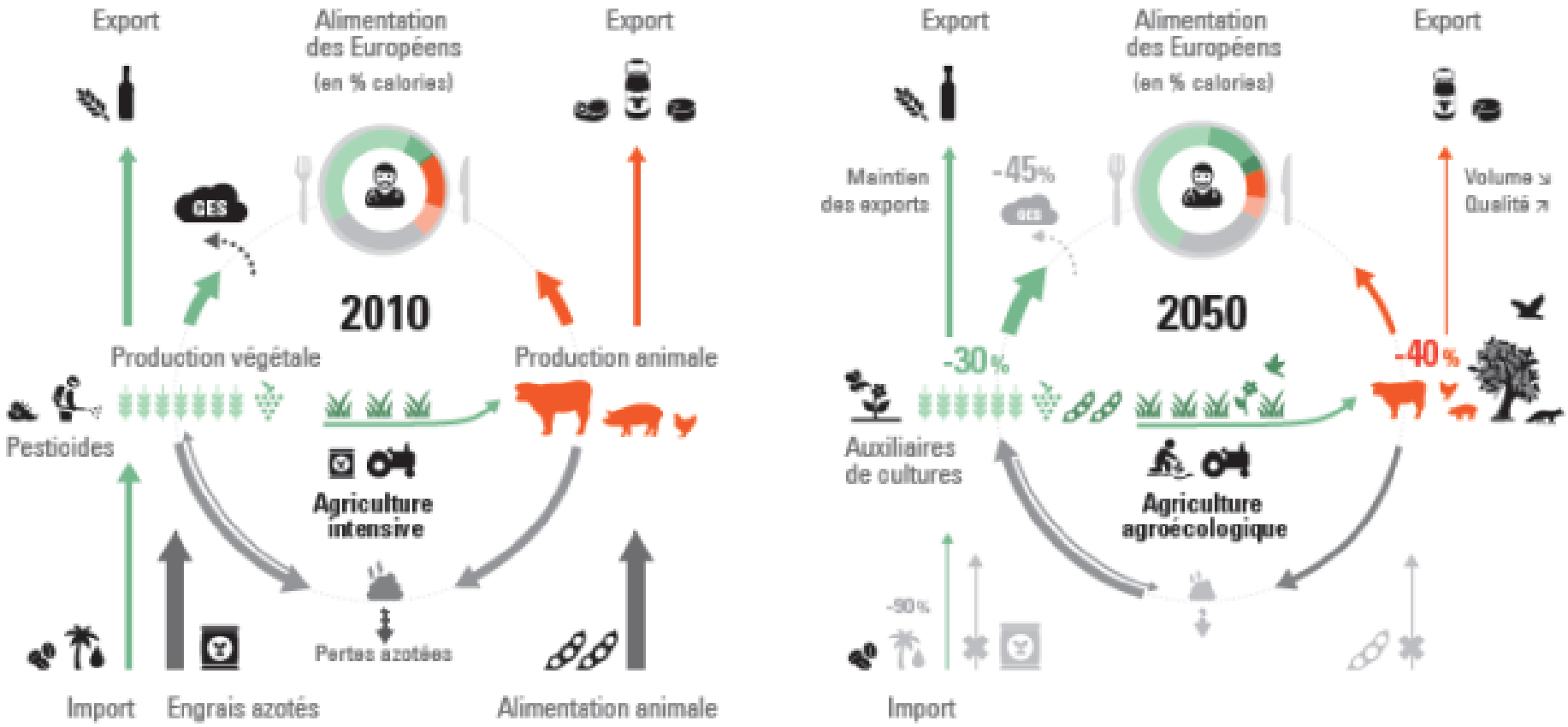
# TYFA : UN SCÉNARIO POUR UNE EUROPE AGROÉCOLOGIQUE EN 2050




Productions

- Céréales et féculents
- Fruits et légumes
- Protéagineux (pois, lentilles…)
- Viandes, œufs et poissons
- Produits laitiers
- Autres

Prairies

# In conclusions



- Systems approach to intersected crisis of climate, land rights, and food; no trade offs. [no magic bullets]
- Focus on biodiversity and rights delivers greater mitigation ambition than focusing on carbon only.
- Land rights are key to ecosystem protection.
- Adaptation in agriculture delivers substantial mitigation benefits [‘mitigaption’]
- Transformation: Food production systems can be restructured towards agroecological approaches.
- Equity and SDGs: Equitably reducing consumption, particularly of animal products, represent the single most effective climate intervention in the land sector.
- Sharing and reconciliation: Climate-compatible food systems increase resilience while reducing hunger and rich-country diseases indicative of poor diets. [climate justice; conflict prevention; disaster risk reduction]


27/10/2018, Berlin, “Dampf machen – wir haben es satt” - tax-financed loss of biodiversity

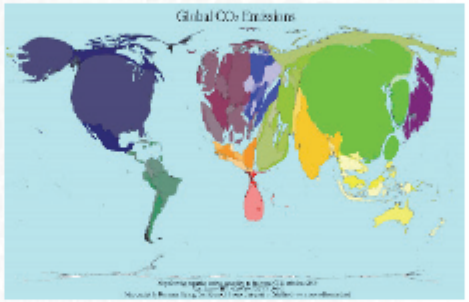
# Rethinking scaling innovations

E-Book available at: http://www.digitaalproefschrift.nl/ebooks/seerp_wigboldus
PDF available at: https://bit.ly/2Pw8aII

## Visualising potentially distortive effects of scaling innovations

Selective scaling: getting more of the same and losing diversity

Asymmetric scaling: pulling things out of proper proportions

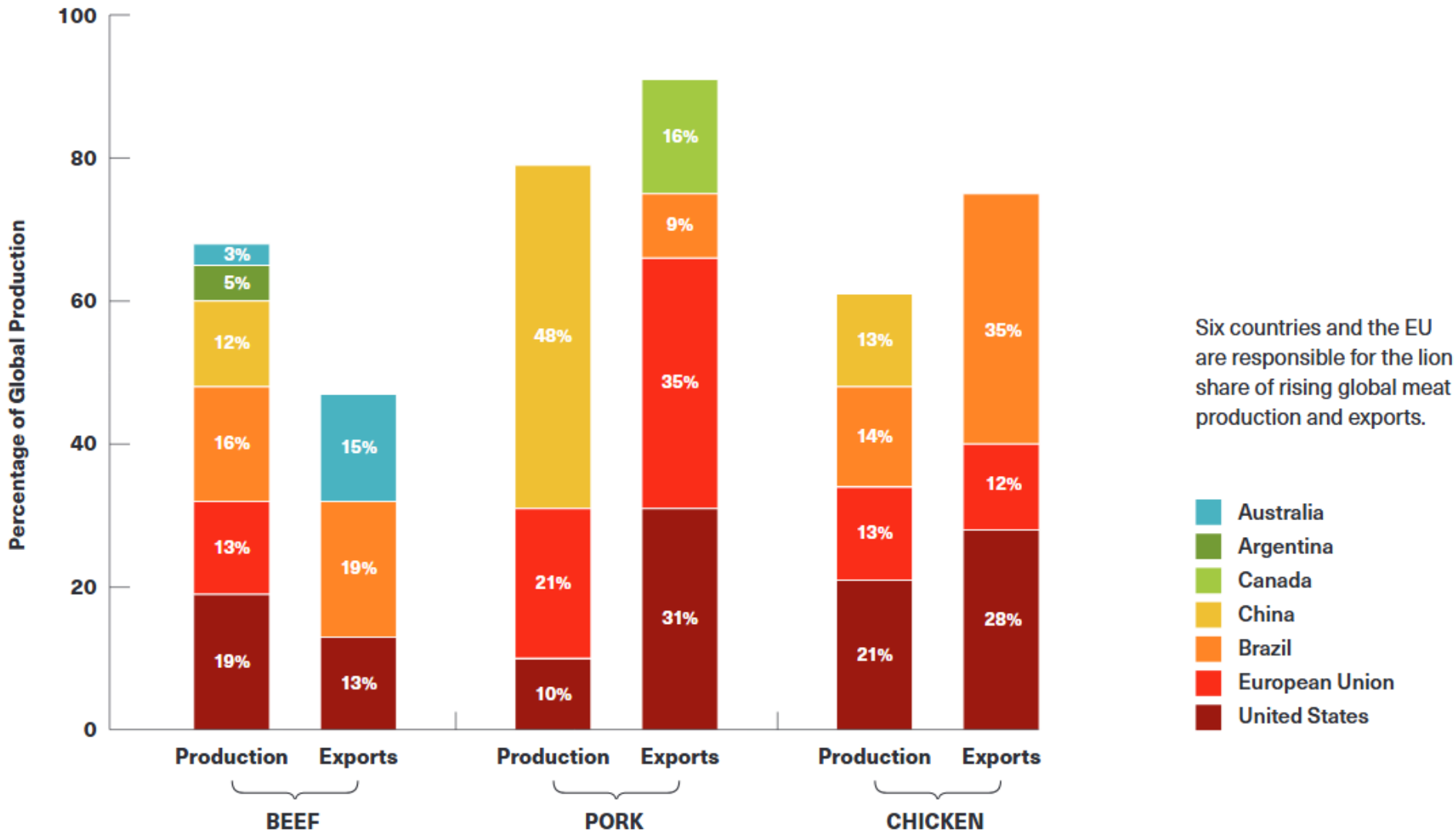


Excessive scaling: depleting resources

These are potential implications if the scaling of innovations is not guided by good governance, considering long-term effects and putting healthy limits on ambitions even if it means missing out on certain short-term benefits.

FIGURE 8:

## Concentration in global meat production and exports



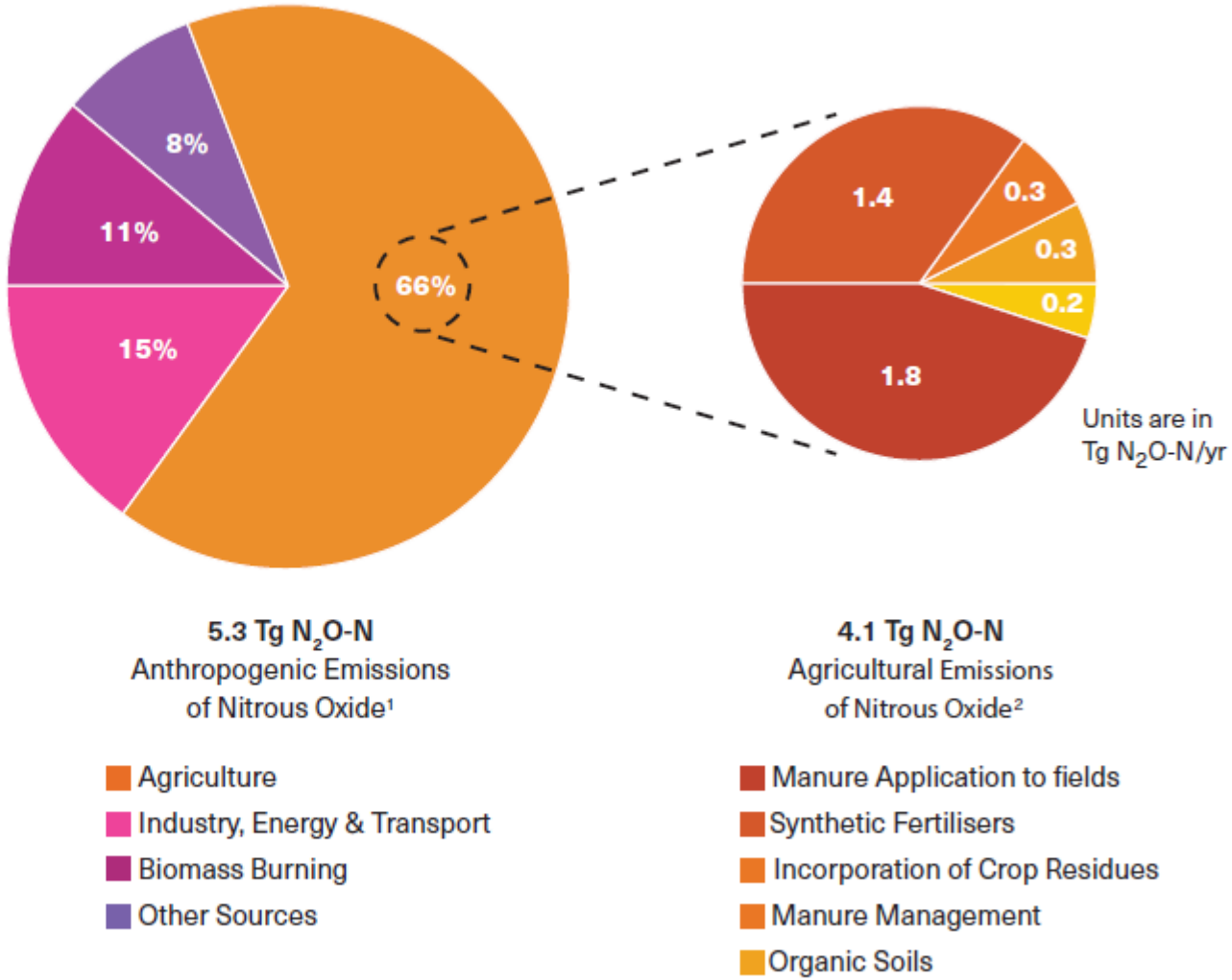

Source: Compiled by IATP from USDA's Production, Supply and Distribution Database (Top Countries by Commodity) for 2017, accessed at: https://apps.fas.usda.gov/psdonline/app/index.html#/app/topCountriesByCommodity; see also https://www.iatp.org/emissions-impossible, pg. 6-7.

FIGURE 6:

# Anthropogenic sources of nitrogen in the environment

Agriculture is the most important source sector of nitrous oxide emissions. The bulk of agricultural emissions come from application of manure or synthetic fertilisers to soils.

Emissions from the production of synthetic nitrogen fertilisers and emissions from human sewage and food waste are not included in agricultural emissions, but are accounted for in other sectors (industry and waste).




Sources: *(Davidson and Kanter, 2014) (Sutton and UNEP, 2013).**

* Note: These figures do not include emissions from the production of synthetic nitrogen fertilisers, nor emissions from human sewage and food waste, which are accounted for in other sectors (industry and waste) *(Oenema et al., 2014)*. To produce the 125 Tg of synthetic nitrogen used annually, the Haber-Bosch process consumes about 2% of global energy *(Mueller et al., 2014) (Lal, 2018)*. In the process, *(Snyder et al., 2009)* estimate that 4 kg of CO2 are generated for each kg of nitrogen fertiliser produced.