Setting the stage: Stream 4: International Food Trade

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Objectives

Stream 4: International Food Trade

- To identify major challenges for food trade in Asia and Europe in the context of climate change and for contributing to circular economy goals.
- To discuss different approaches to trade risk assessment and international cooperation.
- To discuss short-term and long-term solutions for international food trade, considering the role of MNCs.
- To gather policy recommendations from multi-stakeholders to address challenges identified above.
.....a challenging task
International food trade in a circular economy

• International Food Trade
  ▪ Globalized
  ▪ Affluence driven
  ▪ Large-scale and long-distance
  ▪ “Controlled” by a few MNCs

• Circular Economy
  ▪ Rethink, reuse, recover, repurpose, redistribute (water, soil, resources)
  ▪ Reduce food waste
  ▪ Reduce environmental impact
  ▪ Reduce imports
  ▪ Localized production and consumption
International food trade and climate change

- Increasingly uncertain future
- Changes in food and energy prices
- Changes in crop yields
- Changes in needs
Change in potential average yields for corn,
potatoes, rice, and wheat in 2050

- Gain greater than 5%
- 0-5% gain or loss
- Loss greater than 5%

Area that produced 75% of corn, potato, rice, and wheat yields in 2015

Source: International Food Policy Research Institute (IFPRI)

GHG emissions from the productions of food


GHG emissions due to import and export of food

NA North America
SA South America
EU European Union
MENA Middle East and North Africa
SSA sub-Saharan Africa
CIS, Commonwealth of Independent States
CM China and Mongolia
SSEA South and Southeast Asia
OC Oceania and other East Asia
Food system emissions generated in pre- and post-production processes outside agriculture

<table>
<thead>
<tr>
<th></th>
<th>1990</th>
<th>2018</th>
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<tbody>
<tr>
<td>Food transport</td>
<td>500</td>
<td>700</td>
</tr>
<tr>
<td>Waste disposal</td>
<td>1000</td>
<td>1200</td>
</tr>
<tr>
<td>Supply chains</td>
<td>3000</td>
<td>4000</td>
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<tr>
<td>Total</td>
<td>5000</td>
<td>7000</td>
</tr>
</tbody>
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Tubiello et al 2021 Environ. Res. Lett. 16 065007
Large-scale land acquisitions (LSLA)
land and water grabbing

Rulli et al. PNAS (2013)
Large-scale land acquisitions (LSLA)

land and water grabbing

Biocapacity transferred through international acquisitions of land

Multinational Corporations and Food Trade

- 70% of the world market of agricultural commodities is shared by 4 corporations
- Oxfam Deutschland calculated that these 4 corporations account for 85% of food retail sales in Germany
- These corporations provide infrastructures to many individual farmers and operators
- Their activities impact production methods and traditional food chains
- Trade agreements increasingly include rules and regulations on intellectual property, health and safety rules, labour standards, investment measures and others
- The roles and goals of MNCs should be readdressed in line with circular economy principles and in the context of climate change