# Global scope for repurposing

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# Plan of the talk

1) Why repurposing?

2) The numbers

3) The indicators

# Why repurposing?

- **The global food-system is in disarray (environment):**
  - **Its responsible for 1/3 of all anthropogenic greenhouse gas emissions** (Crippa et al. 2021)
  - **Major driver for land use change and biodiversity losses** (Ramankutty et al, 2008; Houghton et al,2012);
  - **Main source of fresh water depletion** (70% of global fresh water use; WWAP, 2012);
  - **Major polluter of terrestrial and aquatic systems through fertilizer runoff** (-> dead zones in coastal oceans, Diaz and Rosenberg, 2008)

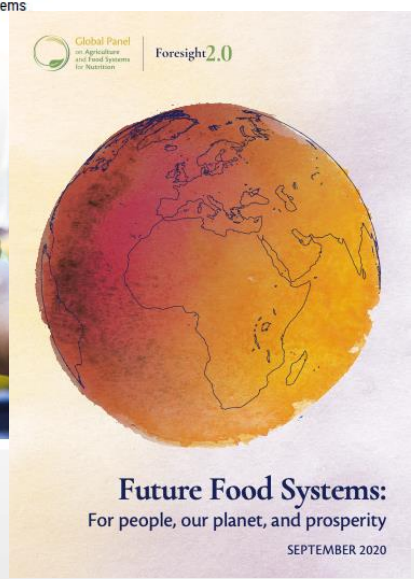
# Why repurposing?

- **The global food-system is in disarray (health):**
  - **Diets too low in fruits, vegetables, nuts, and legumes and too high in red meat consumption are responsible for 20% of all premature deaths** (GBD 2017)
  - **Overweight and obesity have increased by 1/3 over the past 30 years** (NCD 2016)
- **Agricultural subsidies that are wrongly targeted or not targeted enough are part of the problem!**

# The literature (which uses simulations)

A MULTI-BILLION-DOLLAR OPPORTUNITY

Repurposing agricultural support to transform food systems




nature COMMUNICATIONS

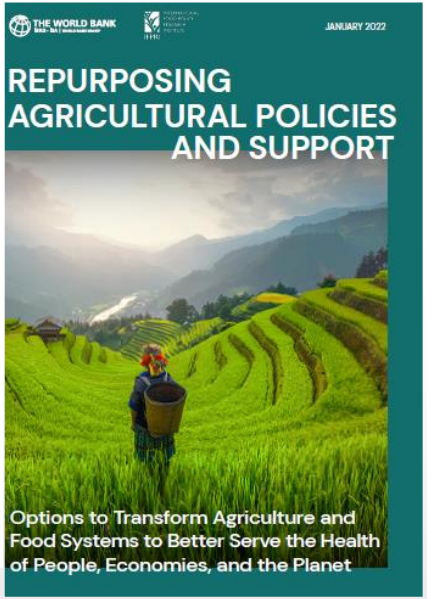
ARTICLE

OPEN

Options for reforming agricultural subsidies from health, climate, and economic perspectives

M. Springmann & F. Freund

Agricultural subsidies are an important factor for influencing food production and therefore part of a food system that is seen as neither healthy nor sustainable. Here we analyse options for reforming agricultural subsidies in line with health and climate-change objectives on one side, and economic objectives on the other. Using an integrated modelling framework including economic, environmental, and health assessments, we find that on a global scale several reform options could lead to reductions in greenhouse gas emissions and improvements in population health without reductions in economic welfare. Those include a repurposing of up to half of agricultural subsidies to support the production of foods with beneficial health and environmental characteristics, including fruits, vegetables, and other horticultural products, and combining such repurposing with a more equal distribution of subsidy payments globally. The findings suggest that reforming agricultural subsidy schemes based on health and climate-change objectives can be economically feasible and contribute to transitions towards healthy and sustainable food systems.

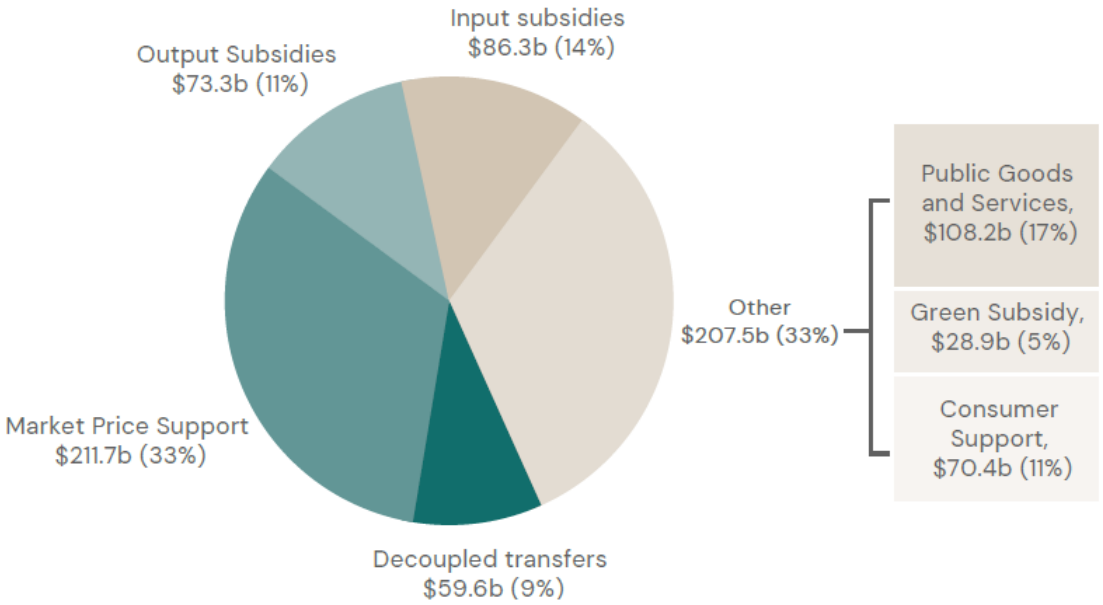


# The numbers

- **FAO: 540 bn USD (2013-2018) -> Projected to 1,750 bn USD in 2030**
- **World Bank: 456 bn USD (2016-2018)**
- **GLOPAN; Springmann & Freund: 230 bn USD (2017)** excluding tariffs

# The numbers

FIGURE 3.1: Total Annual Support to Agriculture Provided by 79 Countries, 2016–18 (in billions of current dollars and percentage share)

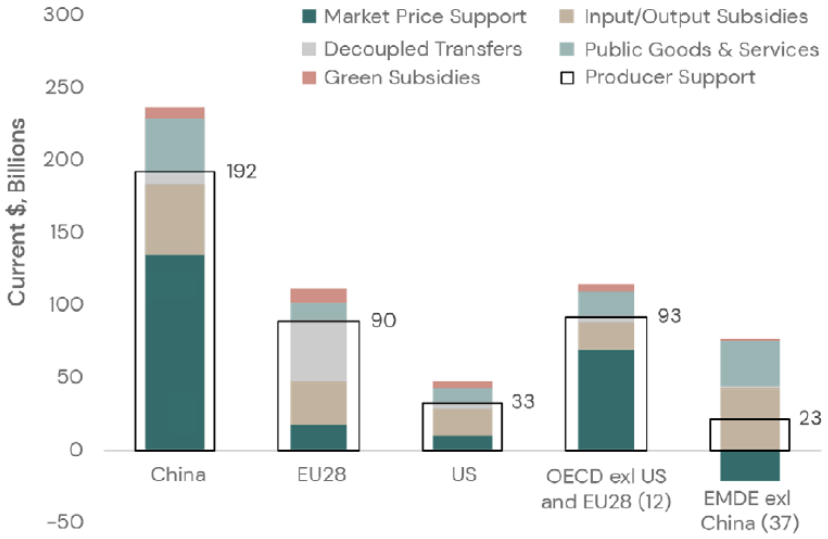



**Source**: Authors, using data from AgIncentives International Organizations Consortium. b=billion

Source: WB (2022)

# The numbers

FIGURE 3.2: Agricultural Support Across Main Countries and Country Groupings, 2016–18




**Source:** Authors, using data from AgIncentives IO Consortium (IFPRI, OECD, FAO, IDB, and the World Bank).
**Note:** EMDE = emerging market and developing economies.

Source: WB (2022)

# The numbers

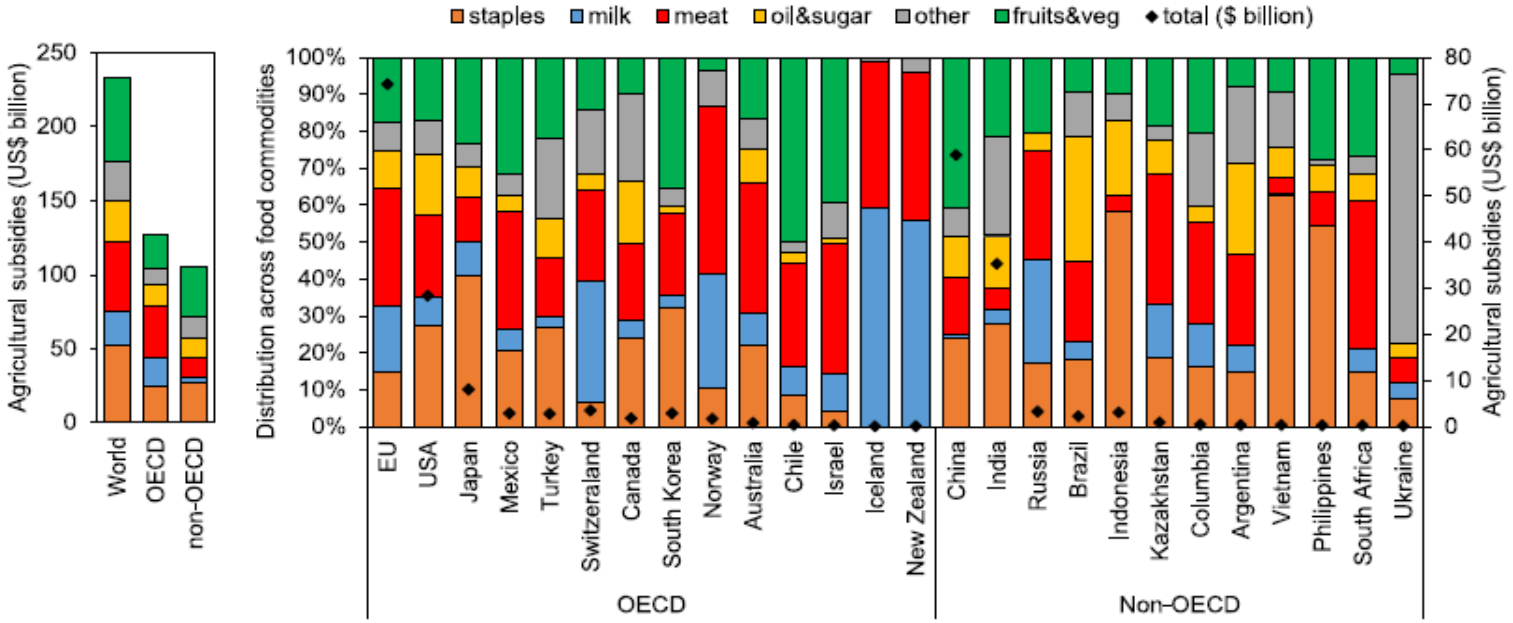



**Fig. 1 Overview of agricultural support measures in 2017, including major spenders and the distribution by final use per commodity.** Total subsidy payments for major spenders, grouped by OECD and non-OECD countries, are shown on the right axis and percentage distribution on the left axis.

Springmann & Freund (2022), *Nature Communications & GLOPAN (2020): Foresight Report 2.0*

# The indicators

- **Social**
  - Equity
  - Farm employment (WB)
  - Poverty rate (WB)
- **GHG** (FAO, WB, GLOPAN)
- **Environment**
  - Land use change (FAO,WB, GLOPAN)
  - Water use (GLOPAN)
  - Biodiversity (FAO)

# The indicators

- **Economics**
  - Equivalent variations (GLOPAN)
  - Real gdp; income farm sector (WB)
  - Farm employment & poverty (FAO)
- **Nutrition**
  - Food prices (WB)
  - Nutritional accounting
- **Health**
  - Diet related mortality risks (GLOPAN)
  - Production health risks
  - Environmental health risks

# Conclusion

- **Lots of scope for repurposing**
  - Often subsidies do not provide public goods
  - Uneven distribution of subsidies across countries/regions

- **Simulation studies can support policymakers in identifying trade-offs and designing better policies**

# References


- FAO, UNDP and UNEP. 2021. A multi-billion-dollar opportunity – Repurposing agricultural support to transform food systems. Rome, FAO.
- Gautam, M., Laborde, D., Mamun, A., Martin, W., Piñeiro, V. and Vos, R. 2022. Repurposing Agricultural Policies and Support: Options to Transform Agriculture and Food Systems to Better Serve the Health of People, Economies, and the Planet © The World Bank and IFPRI.
- GLOPAN. 2020. Foresight 2.0: Future Food Systems: For people, our planet, and prosperity.

# Thank you!

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