



Environmental effects of agricultural subsidies

TRADE AND ENVIRONMENTAL SUSTAINABILITY STRUCTURED DISCUSSIONS

TESSD INFORMAL WORKING GROUP MEETINGS

THURSDAY MARCH 16TH

Setting the stage



An issue of semantics... and metrics

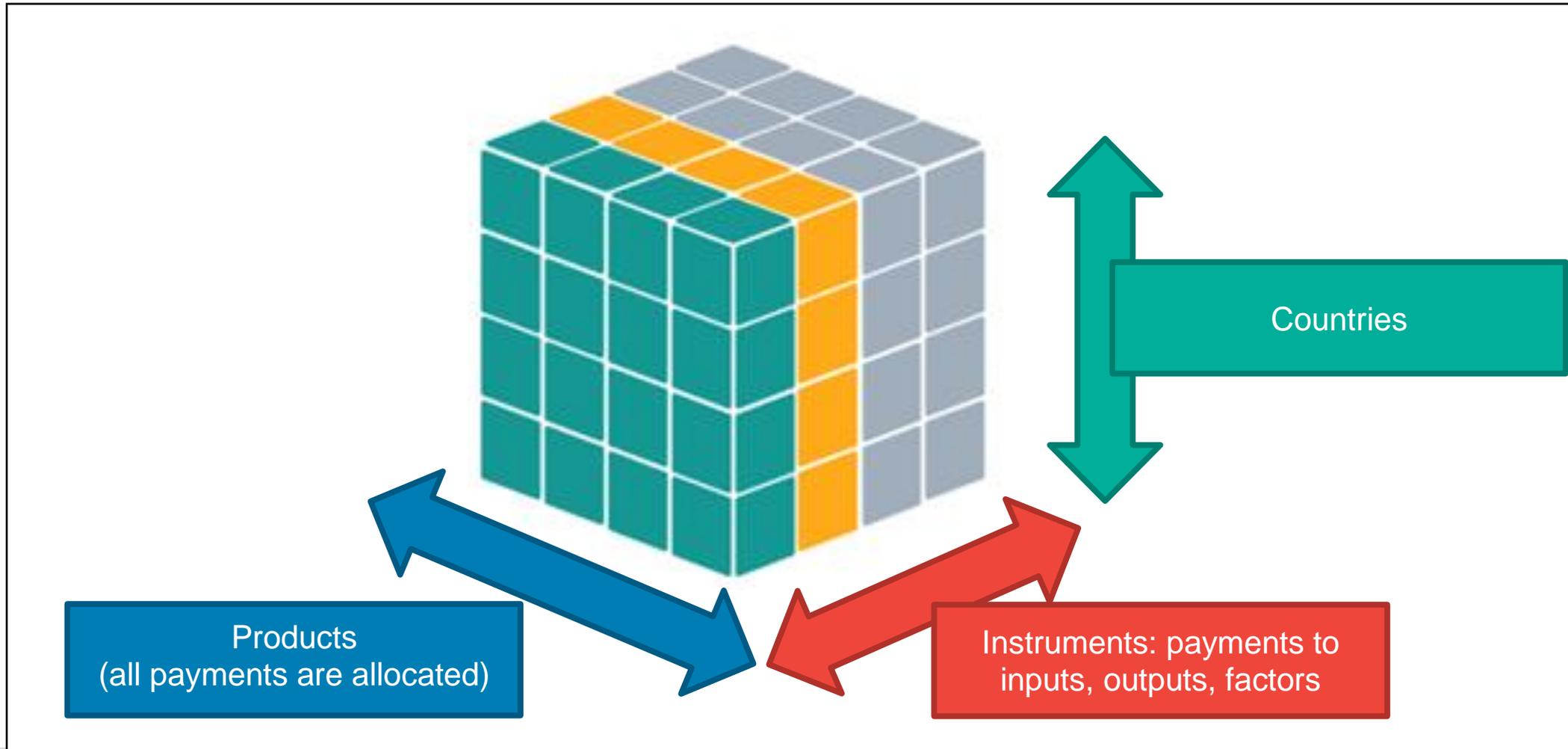
- Repurposing?
 - Need to define old and new purposes



- Reforming?
- Reallocating resources?
- Support vs subsidies? All type of support are not subsidies, and all subsidies are not recorded in our metrics of support.
- Harmful subsidies?



“Reallocation” in a policy and budget space





“Reallocation” in a policy and budget space



- Two main type of policies

Subsidies aka domestic support

Trade policies aka import and export taxes/subsidies

- 4 types of effects

“Scale effect”

How much to produce (volume)

“Technical effect”

How to produce (practices)

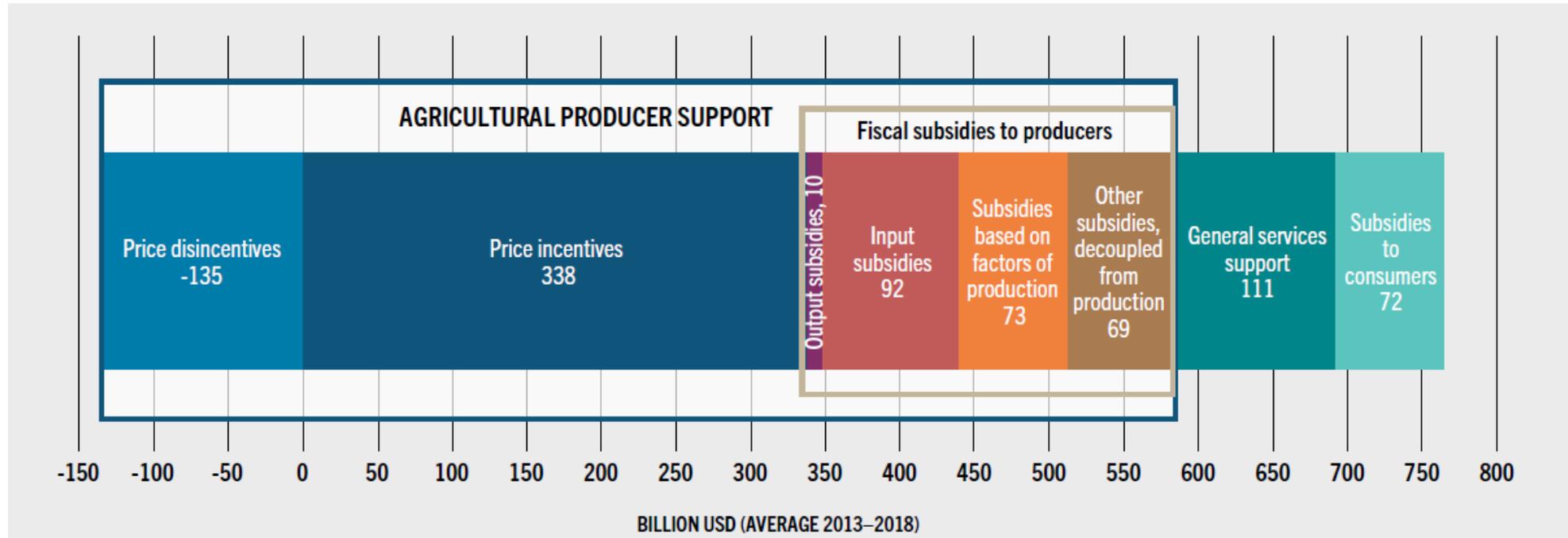
“Composition effect”

What to produce (products)

Where to produce (location)



Level and composition of global support for Food and Agriculture



SOURCE: Ag-Incentives. (forthcoming). *Ag-Incentives*. Washington, DC. Cited 4 May 2022. <http://ag-incentives.org> with data from OECD, FAO, IDB and World Bank compiled by the International Food Policy Research Institute (IFPRI).

Fig 18 in SOFI 2022

Various works and reports

MODELING THE IMPACTS OF
AGRICULTURAL SUPPORT POLICIES ON
EMISSIONS FROM AGRICULTURE



Development and Agriculture
Modernization of the
United Nations

THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP



1.5-TRILLION-DOLLAR OPPORTUNITY

Investing in agricultural support to transform food systems



SCIENCE AND INNOVATIONS

for Food Systems Transformation
and Summit Actions

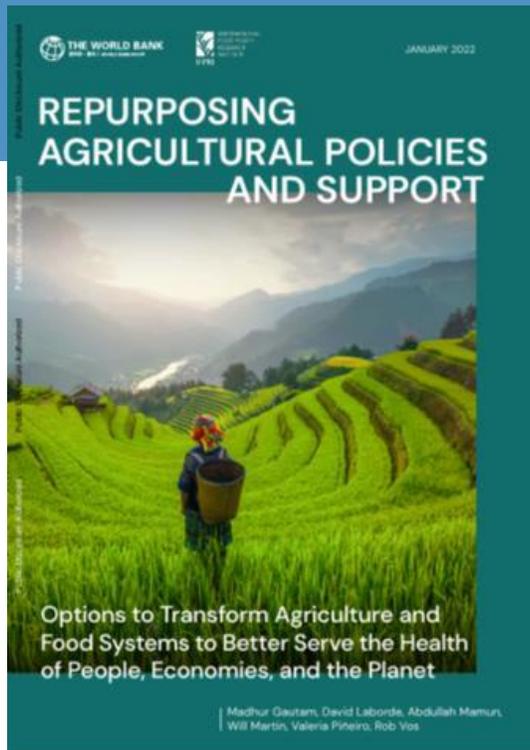
Joachim von Braun, Kaosar Afsana,
Louise O. Fresco, Mohamed Hassan (editors)

Papers by the Scientific Group and its part
support of the UN Food Systems Summit.

David Laborde
Abdullah Mamun
Will Martin
Valeria Piñeiro
Rob Vos



INTERNATIONAL
FOOD RESEARCH
INSTITUTE
IFPRI



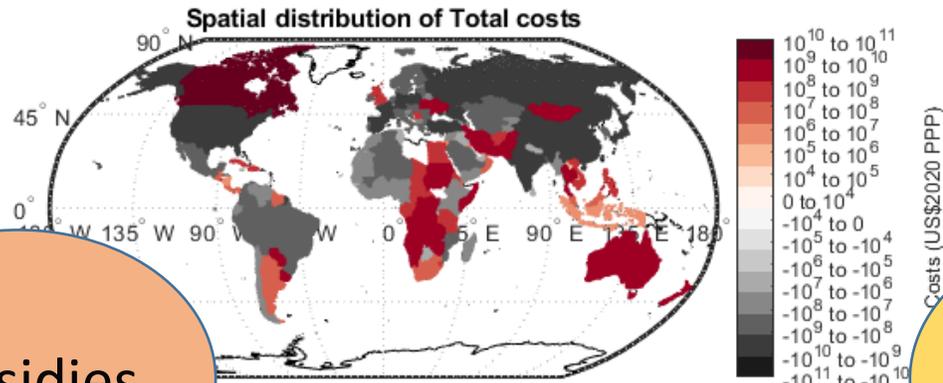
Hidden costs
Cross border
redistribution

Land use +
Alternative
“Green”
scenarios

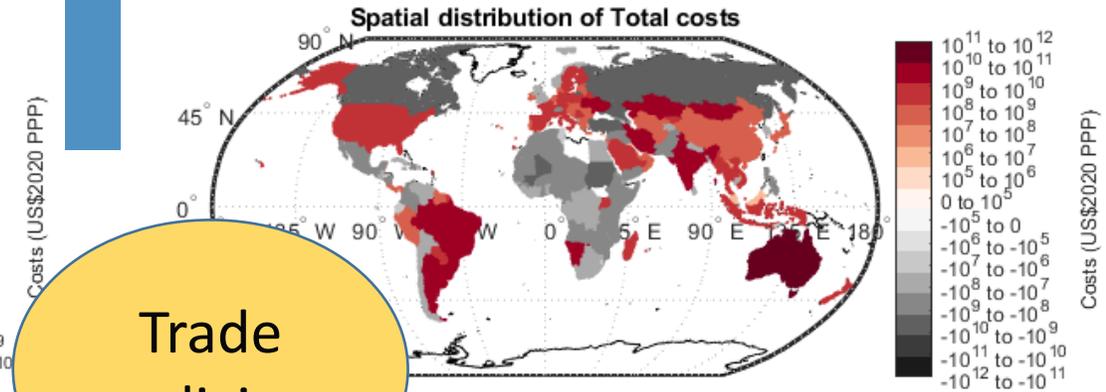
Healthy diets
focus: from
producers to
consumers
and product
biases

Removing subsidies or reforming
them?

Spatial distribution of damages in Scenario S0x



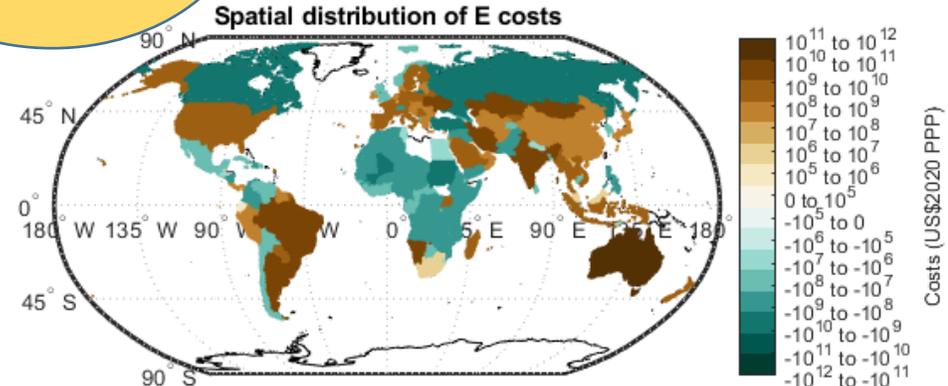
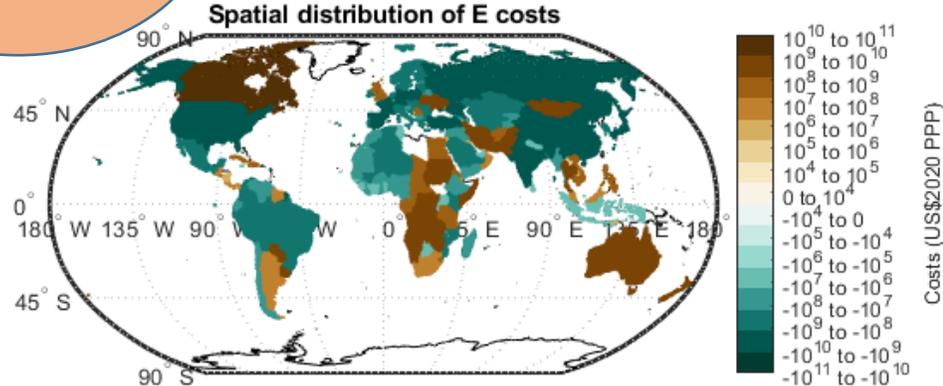
Spatial distribution of damages in Scenario S0y



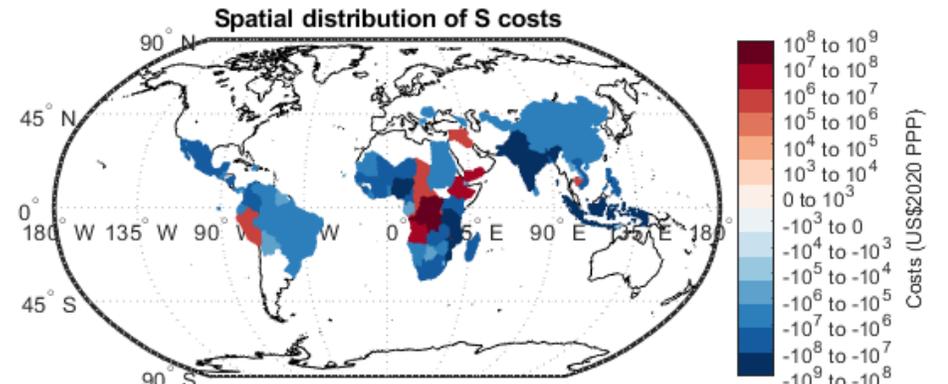
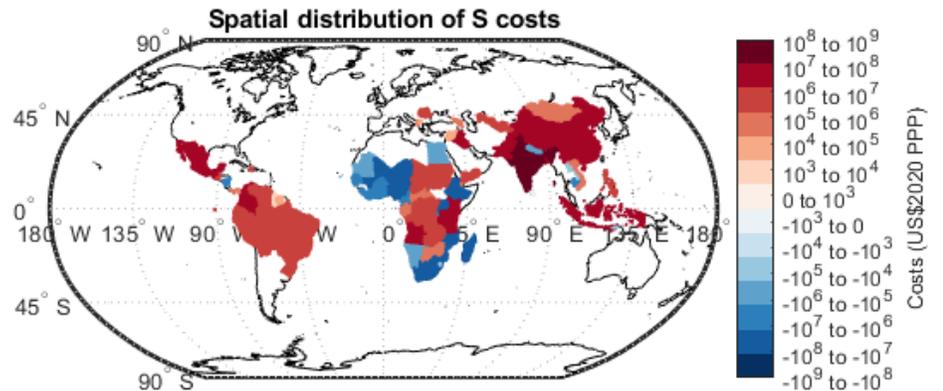
Subsidies

Trade policies

Removing policies will be costly



Steven Lord & David Laborde (2022)





Policy removal in SOFI 2022

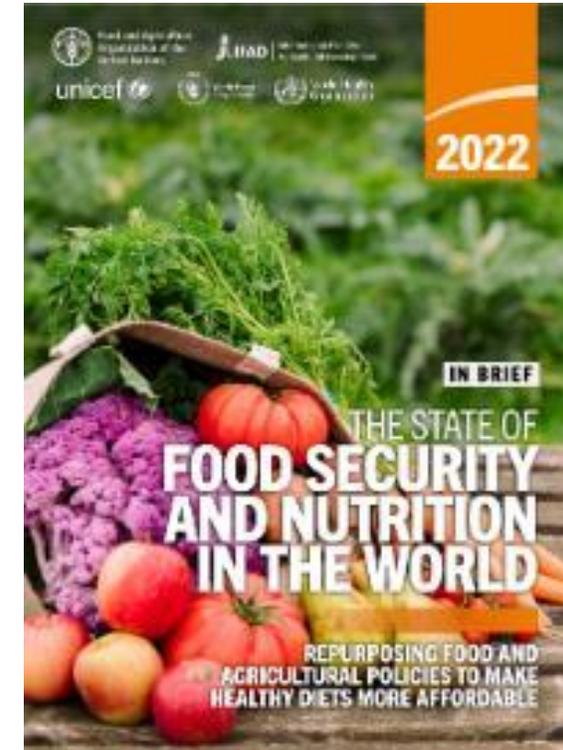
| | Food security and nutrition | | | Equity | | | Climate |
|-----------------------------------|--------------------------------|---------------------------------|---|--|--------------|----------------------------------|--------------------------------|
| | Prevalence of undernourishment | Affordability of a healthy diet | Income gap in the affordability of a healthy diet | Extreme poverty (less than USD 1.90 per day) | Farm income | Agricultural production (volume) | GHG emissions from agriculture |
| WORLD | 0.08 | -0.15 | 0.14 | 0.05 | -6.27 | -0.64 | -0.94 |
| COUNTRY INCOME GROUP | | | | | | | |
| High-income countries | 0.01 | -0.04 | 0.00 | 0.01 | -18.17 | -1.48 | -2.23 |
| Upper-middle-income countries | 0.06 | -0.08 | 0.05 | 0.01 | -5.07 | -0.46 | -1.00 |
| Lower-middle-income countries | 0.13 | -0.28 | 0.31 | 0.13 | -2.06 | -0.33 | -0.47 |
| Low-income countries | 0.06 | -0.08 | 0.06 | -0.02 | 0.49 | 0.12 | 1.72 |
| REGION | | | | | | | |
| Africa | 0.07 | -0.06 | 0.05 | -0.04 | 0.33 | 0.09 | 0.78 |
| Asia | 0.09 | -0.20 | 0.21 | 0.10 | -5.15 | -0.51 | -0.86 |
| Americas* | 0.07 | -0.16 | 0.06 | 0.01 | -6.79 | -0.75 | -0.76 |
| Latin America and the Caribbean** | 0.11 | -0.23 | 0.23 | 0.02 | -1.74 | -0.36 | -0.53 |
| Europe | 0.01 | -0.04 | 0.00 | 0.01 | -24.68 | -2.08 | -3.80 |

- Avoid simplifications
- Time horizon matters
- Trade distorting policies and environmental harmful policies are not synonymous
- Input subsidies hide a very complex set of policies
- The same policy could have different effects in various locations

Trade-offs

Scenario matrix for SOFI 2022

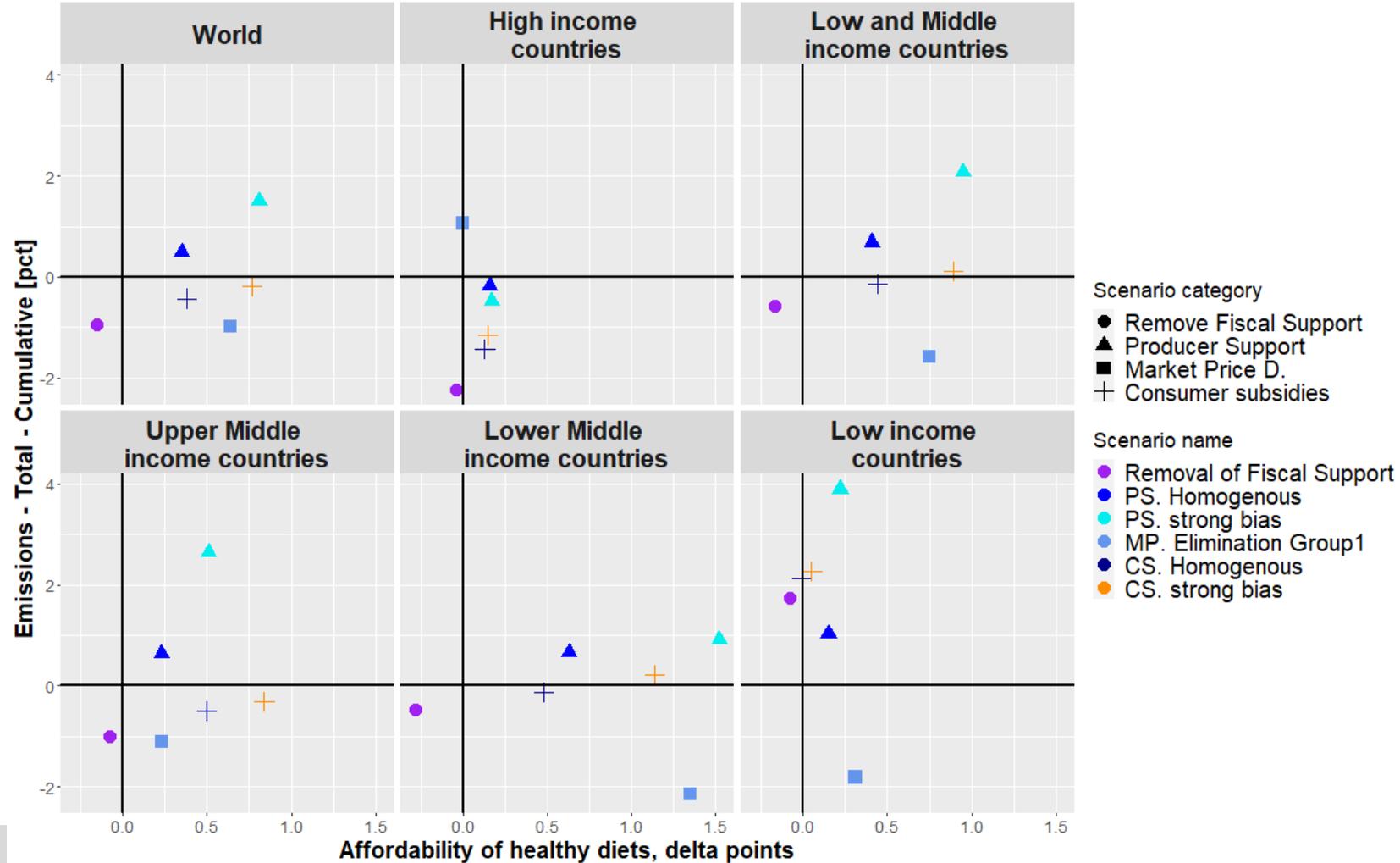
| | | Degree of Targeting toward Product | |
|--|---|---|--|
| | | Removing biased incentives | Supporting Nutritious Products |
| Targeting producers or consumers or both | Fiscal Subsidies to Producers | Homogenous subsidy on farm gross income (same rate of subsidy across all farm commodities) Scenario 1a | Nutritious products are subsidized at ten times the average rate, and products of high energy density and minimal nutritional value at half the average rate. Scenario 1b |
| | Mixed approach: the role of border support and market price controls | | Border support is removed on nutritious products and not changed for products of high energy density and minimal nutritional value. Scenario 1c |
| | Fiscal Subsidies to Consumers: | Consumer subsidies are provided at the same rate of subsidy across all food items Scenario 2a | Nutritious products are subsidized at ten times the average rate, and products of high energy density and minimal nutritional value at half the average rate. Scenario 2b |



Healthy diets affordability and GHG

Trade-offs: Healthy Diets affordability & GHG emissions

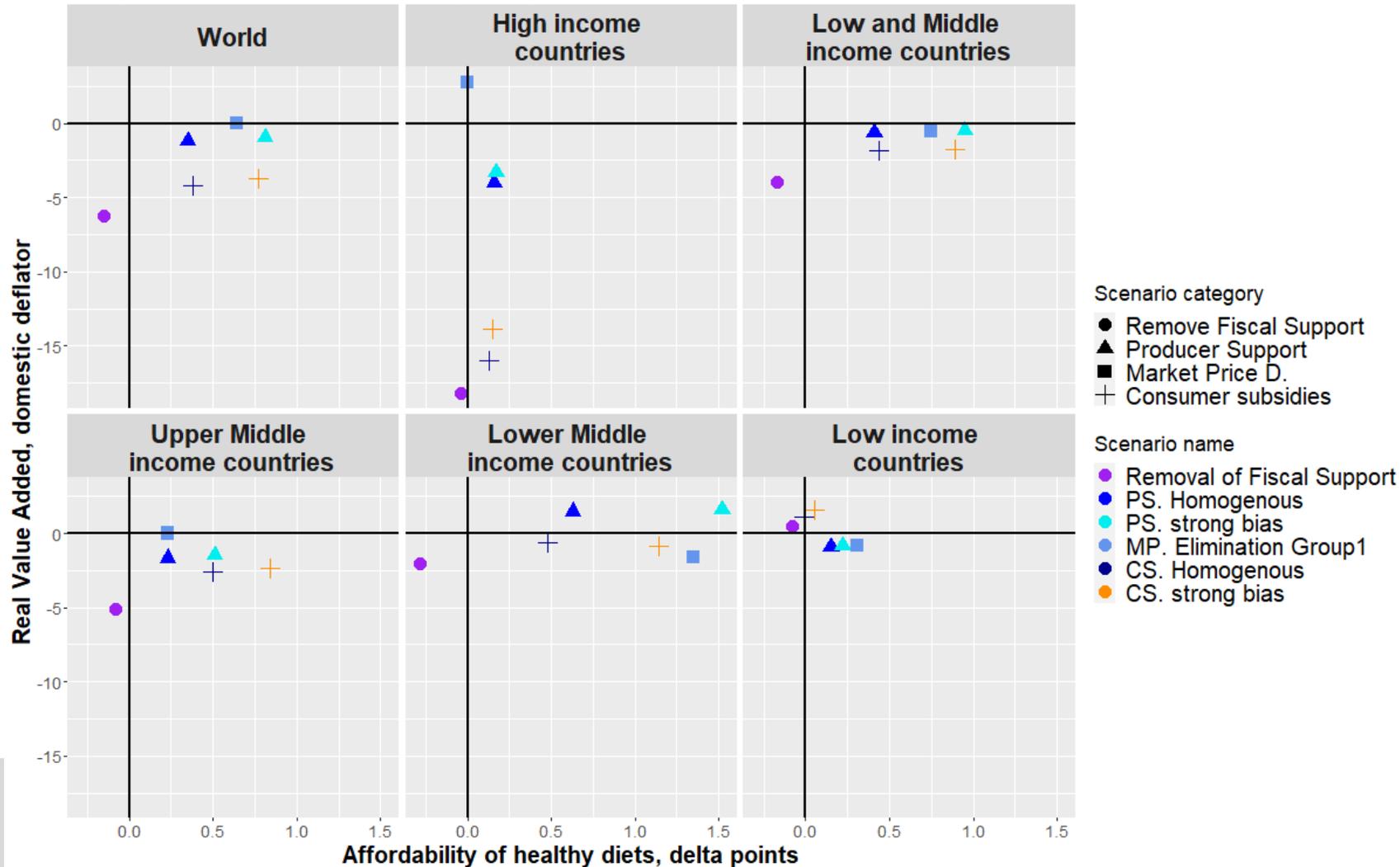
Changes compared to baseline: percentage changes by default, or changes in points if indicated in the variable description.



Farm income vs Healthy Diets affordability

Trade-offs: Healthy Diets affordability & Farm Income

Changes compared to baseline: percentage changes by default, or changes in points if indicated in the variable description.



Lessons Learned: Limited Opportunities and careful planning is needed



Removing existing policies will

Hurt farmers overall (with some benefits for some countries)

Will slightly help the poor and the hungry IF border protection is removed

Ambiguous effects on global emissions, mainly through a contraction of production and land abandonment

So, Repurposing is required

Investment in Sustainable Intensification is required. Investing in "traditional" productivity gains will not deliver

Border Policies and Domestic Support have, in most of the cases, opposite effects on diets

Input subsidies are a tricky issue

Focusing on healthy/environmental friendly products

Could contribute to reduce the cost of healthy diets but has limited impact when using producer subsidies

Risk for governments to pick the wrong "good" products

Phasing out resources from staples could have a small impact on undernourishment

Current WTO rules are not an obstacle for repurposing, but they provide weak incentives or guidelines.

Blue box policies, especially for livestock, are a significant potential to curb GHG emissions.

Repurposing could involve significant box shifting towards Green Box, and abuse of existing flexibilities

Assessing price support through historic reference price is not consistent with a transformation agenda

In the future, soul searching for the WTO members: should the rules focus on “do no harm” or “do good”

Disciplining Overall Trade Distorting Support is not synonymous to improve Social and Environmental impacts of farm policies

Increase Transparency and Monitoring (Notifications) will be essential to promote trust and coordination in the global repurposing process

Tariffs remain an awkward instrument to guide repurposing

Border Tax Adjustments are a second-best option

Discriminatory use will be a source of dispute and also inefficiencies