

Session 2: Agricultural trade and key sustainability challenges: Food security and livelihoods

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TESS. Roundtable on “Sustainable Agriculture and Trade.”

Geneva, 14 – 15 December 2022

Trade and food security

Heated debate about trade (or liberalization, or globalization) and food security.

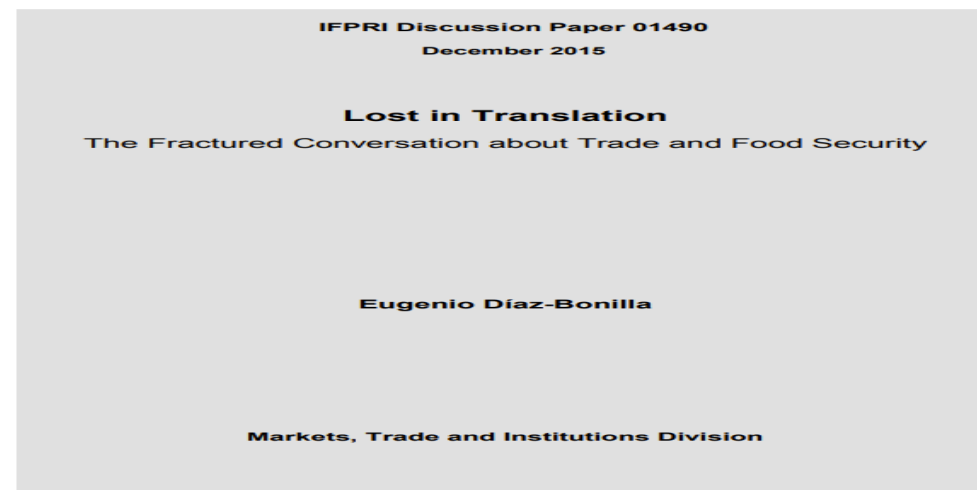
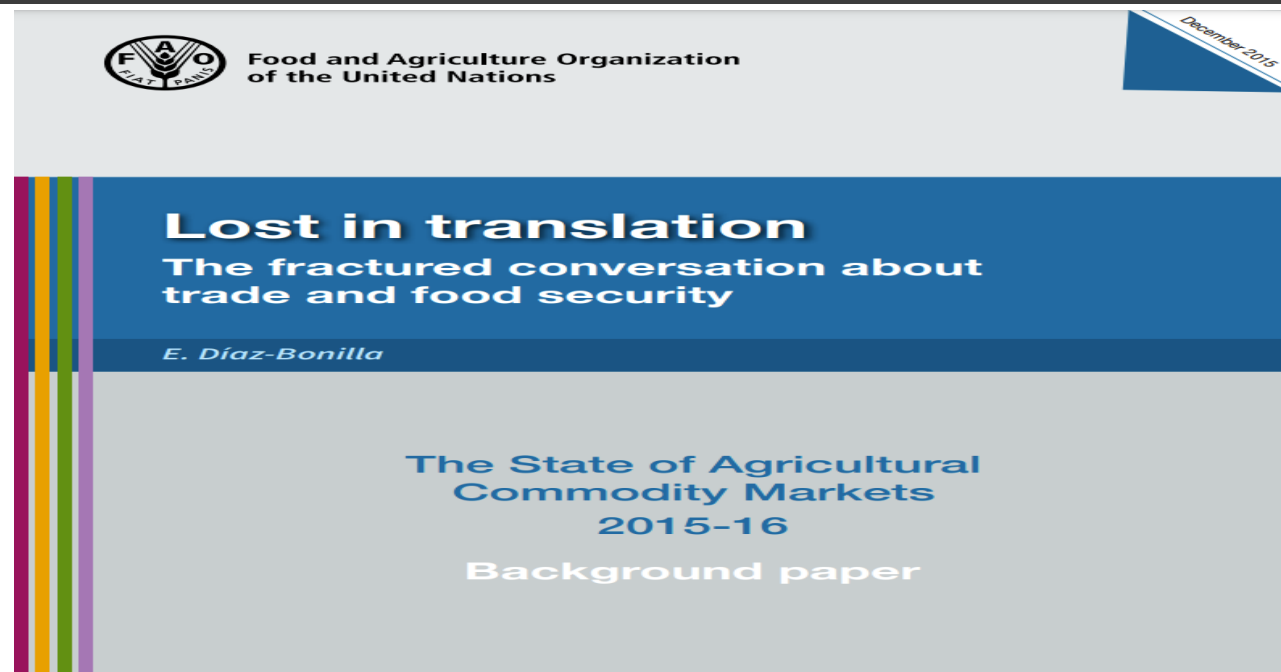
Empirical analyses need to clarify terms at least at 3 levels:

*Trade?

*Food security?

*Channels linking both?

Then countries can develop adequate policies



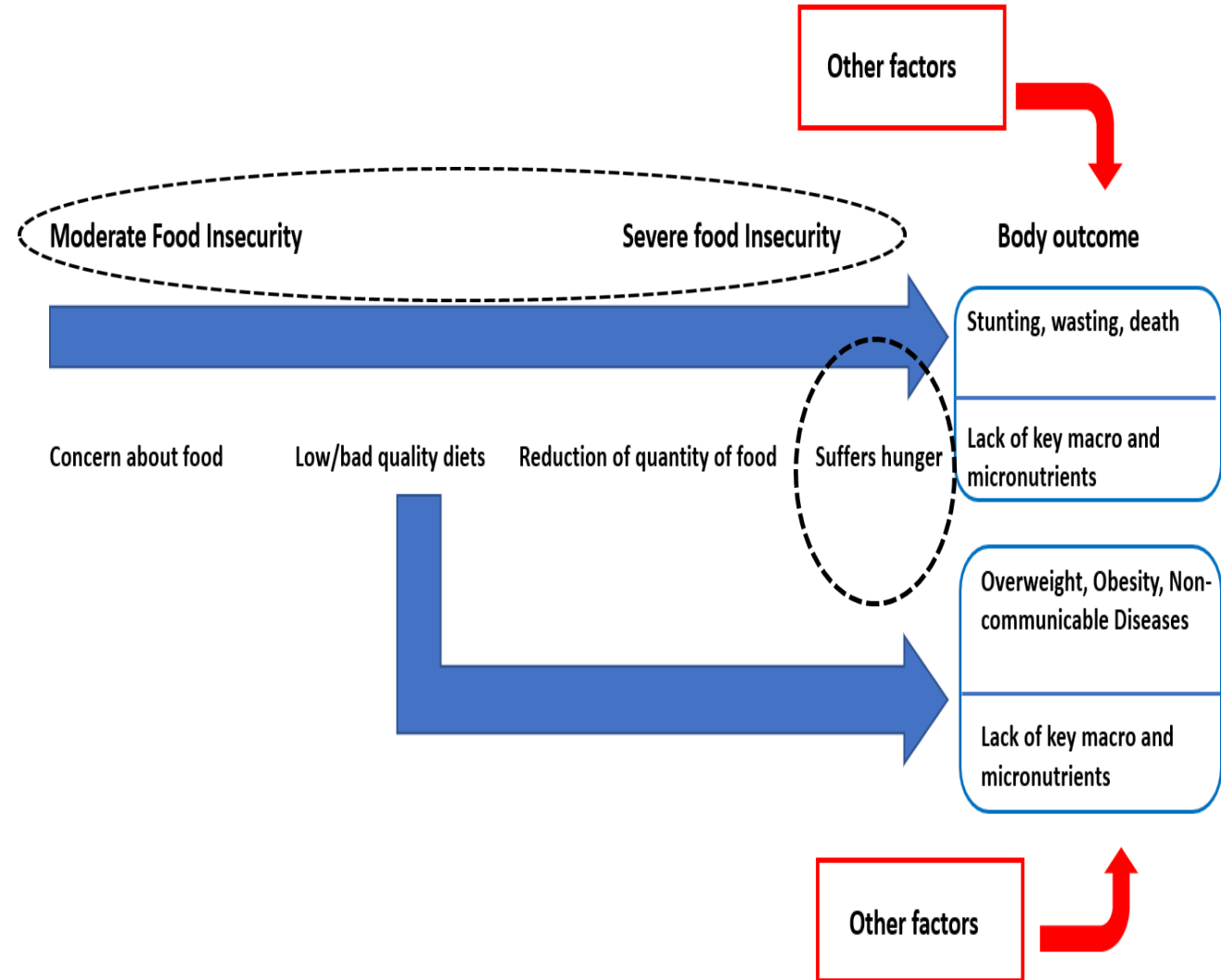
Defining terms

Trade?

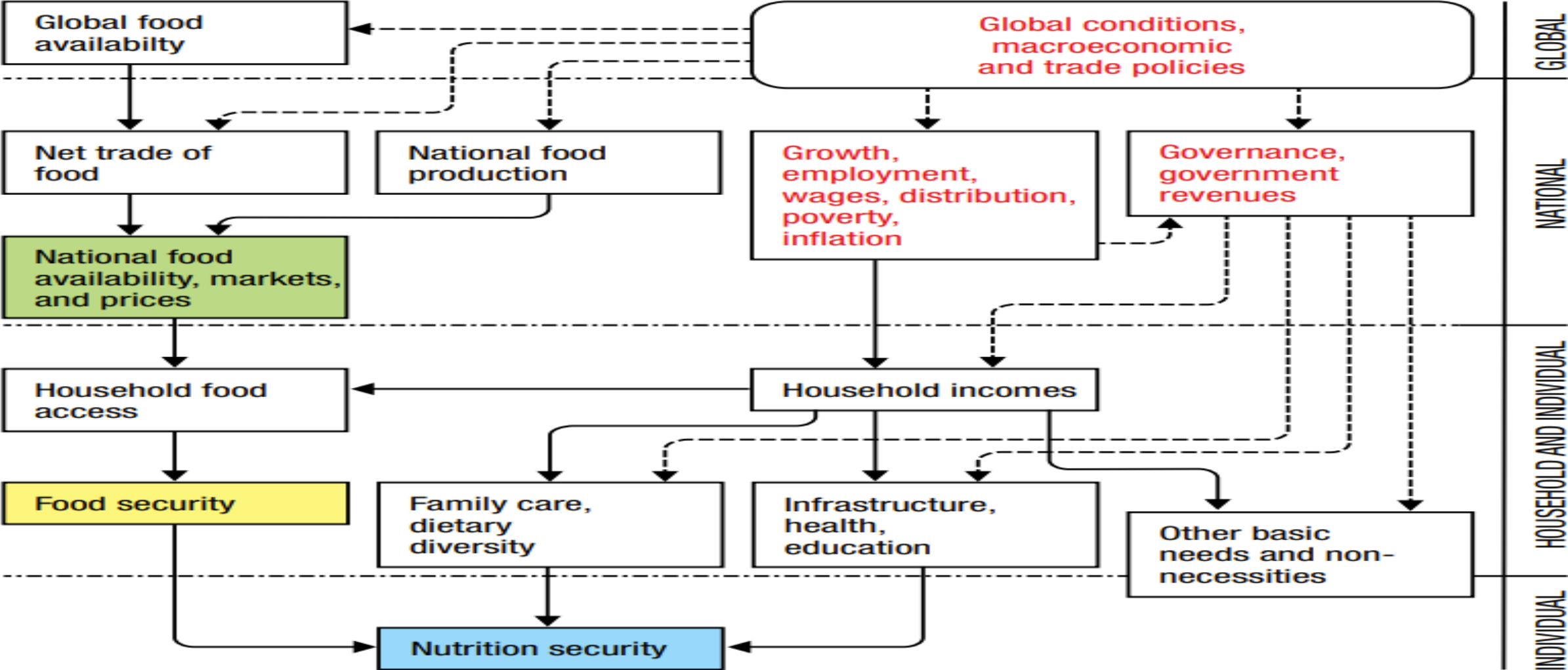
Sectors	Trade	Trade policies	WTO trade policies	Other (nontrade) policies
Agriculture and food	Expansion or decline: national, regional, global	1. National level: free trade, intermediate, or protectionism 2. Regional or global levels: free trade, intermediate, or protectionism	1. Agreement on Agriculture 2. Agricultural aspects of SPS, TBT, TRIPS, others	Macroeconomic policies, privatization, liberalization of domestic market, and others, as they directly affect agricultural and food issues

- Different levels of trade and trade policies
- Different indicators of food and nutrition security
 - Individual level (calories, income/costs, diet diversity, perception, anthropometrics...)
 - Country level (food imports over total exports plus international income)

Food security? And Nutrition?



Multiple channels



Source: Author, adapted from Smith (1998).

Countries



Food and Agriculture Organization
of the United Nations

December 2015

Why some are more equal than others?

Country typologies of food security

E. Díaz-Bonilla and M. Thomas

The State of Agricultural
Commodity Markets

Table 7: Food insecure clusters

Variables	Food insecure clusters			
	1	2	3	4
Under-5 mortality	-1.45	-2.44	-0.5	-0.03
Food production (%)	-0.58	-0.62	-0.14	-0.35
Calories and proteins (%)	-0.78	-0.86	-0.16	-0.47
Total exports per food imports	-0.76	1.02	4.2	-0.49
Non-agricultural population	-1.03	-0.68	-0.78	-1.42
Average value of indicators	-0.92	-0.716	0.524	-0.552
Number of countries in cluster	32 ¹⁶	4 ¹⁷	2 ¹⁸	13 ¹⁹

Some final thoughts

- *The policy dilemma of food affordable for consumers and food profitable for producers makes border trade policy (“protectionism” or “liberalization”) a blunt instrument
- *Focusing on some limited number of “special products” goes against the need to diversify diets
- *For food security the focus should be on people not products
- *Important Green Box, TRIPS, SPS, TBT... to allow the use better technologies that co-deliver food security, climate change mitigation, adaptation, and resilience
- *Key issue: how trade policies can facilitate the technological development of agricultural production

Category	Practice	Mitigation	Adaptation	Land degradation and desertification	Food security
Agriculture	Increased food productivity	l	m	m	h
	Agroforestry	m	m	m	l
	Improved cropland management	m	l	l	l
	Improved livestock management	m	l	l	l
	Agricultural diversification	l	l	m	l
	Improved grazing land management	m	l	l	l
	Integrated water management	l	l	l	l
Forestry	Reduced grassland conversion to cropland	l	ND	l	l
	Forest management	m	l	l	l
	Reduced deforestation and degradation	h	l	l	l
	Reforestation and forest restoration	m	m	m	m
Soils	Afforestation	m	m	l	m
	Increased soil organic carbon content	H	l	m	l
	Reduced soil erosion	L	l	m	l
	Reduced soil salinization	ND	l	l	l
	Reduced soil compaction	ND	l	l	l
Other ecosystems	Biochar addition to soil	M	ND	l	l
	Fire management	M	m	m	l
	Reduced landslides and natural hazards	L	l	l	l
	Reduced pollution including acidification	M	m	l	l
	Restoration and reduced conversion of coastal wetlands	M	l	m	l
	Biodiversity conservation	L	l	ND	ND
	Restoration and reduced conversion of peatlands	M	ND	m	l
CDR	Management of invasive species/encroachment	ND	ND	ND	ND
	Enhanced weathering of minerals	M	ND	l	ND
Demand	Bioenergy and BECCS	H	l	l	l
	Reduced post-harvest losses	H	m	m	m
	Dietary change	H	ND	h	h
	Reduced food waste (consumer or retailer)	H	ND	m	m
Supply	Material substitution	M	ND	ND	ND
	Sustainable sourcing	ND	l	l	l
	Improved food processing and retailing	l	l	ND	l
	Improved energy use in food systems	l	l	ND	l
	Management of supply chains	ND	m	ND	l
Risk	Enhanced urban food systems	ND	ND	ND	l
	Livelihood diversification	ND	l	l	l
	Use of local seeds	ND	l	ND	l
	Disaster risk management	ND	h	ND	m
	Management of urban sprawl	ND	l	m	l
	Risk sharing instruments	l	l	l	l

Pete Smith et al, 2020 Which practices co-deliver food security, climate change mitigation and adaptation, and combat land degradation and desertification? Glob Change Biol. 2020;26:1532–1575.

Thanks

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