Repurposing Agricultural Policies and Support: Transform the Food System for Healthier People, Economies and the Planet



Mansur Ahmed

Senior Economist

Public Policies and Expenditure Agriculture and Food Global Practice

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The Challenge: Transforming the Food System

Core Issue:

Building a better food system requires a systemic shift

Core Questions:

Do current policies and support create the <u>incentives</u> to drive this systemic shift?

Can they be repurposed to better address the goals of prosperity, food security, climate change, and environmental sustainability?

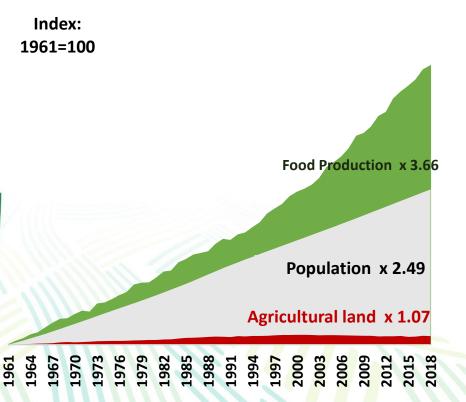


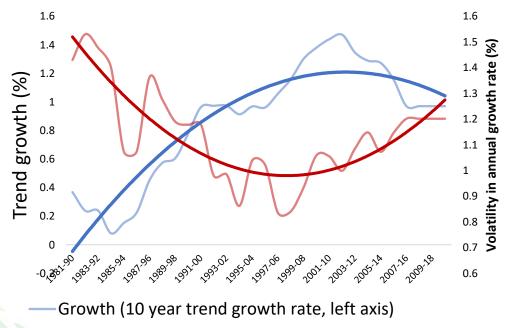




Remarkable progress in food production over past 60 years but strong headwinds emerging – hunger and malnutrition on the rise

- Past growth driven by productivity, but with large hidden costs
- Production growth is slowing and becoming more volatile



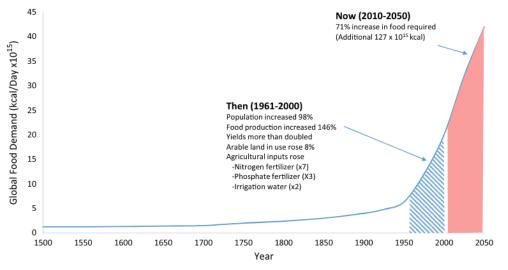


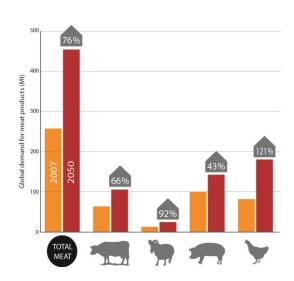
Volatility (10 year Std. Dev. of annual growth, right axis)



Growing demand for food alongside continued population growth

Food demand continues to grow along with growing population: *especially demand for resource- and emission-intensive livestock products!*





Source: Cole, M., M. Austin, M. Robertson, and J. Manners (2018): 'The Science of food security' Science of Food (https://www.nature.com/articles/s41538-018-0021-9) and the World Atlas of Decertification.

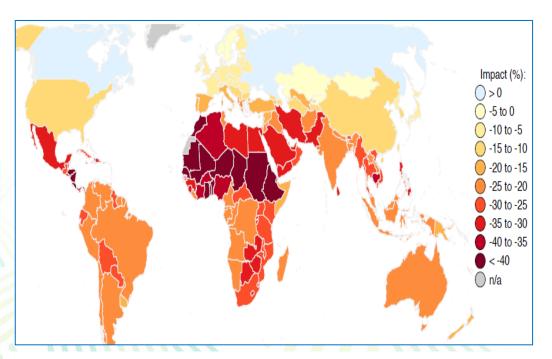




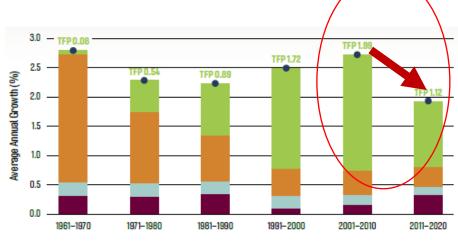
Climate change no longer a distant threat:

Agriculture one of most vulnerable sectors to Climate change Impacts on agricultural productivity growth already being felt – and accelerating!

Climate change slows down the rate of agricultural growth: 21% globally between 1960 and 2020



Contributing to the decline in global Agricultural Productivity (TFP)



- TFP Gross amount of crop, livestock, and aquaculture products produced per inputs of labor, materials, and capital.
- Input Intensification Gross amount of labor, materials, and capital used per hectare of land.
- Irrigation Extension Extension of irrigation to agricultural land.
- Land Expansion Extending agriculture to previously forested areas or grasslands.
- Output Growth The change in the gross amount of crops, livestock and aquaculture products produced.

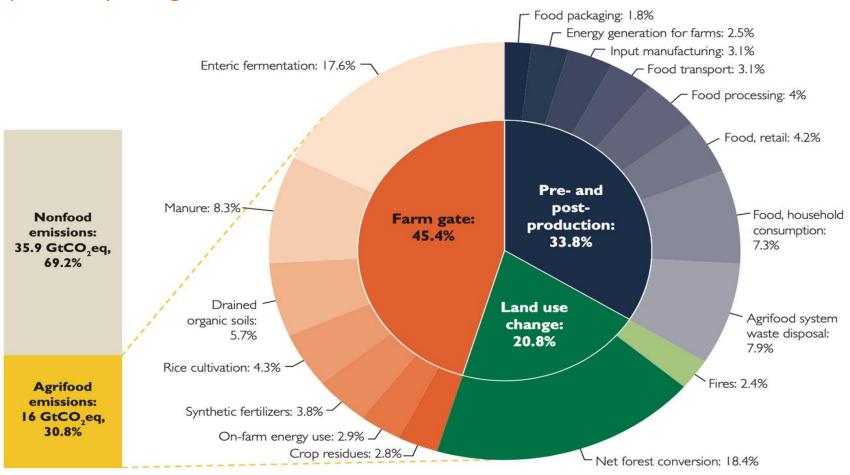
Source: Ortiz-Bobea, A., Ault, T.R., Carrillo, C.M., Chambers, R.G. and Lobell, D.B. (2021), 'Anthropogenic climate change has slowed global agricultural productivity growth' *Nature Climate Change*, 11: 306–312. http://www.nature.com/natureclimatechange

Source: USDA.



The agrifood system is caught in a vicious climate circle – and adaptation alone is not sufficient to feed the world

Greenhouse gas emissions from the agrifood system are significantly higher than previously thought

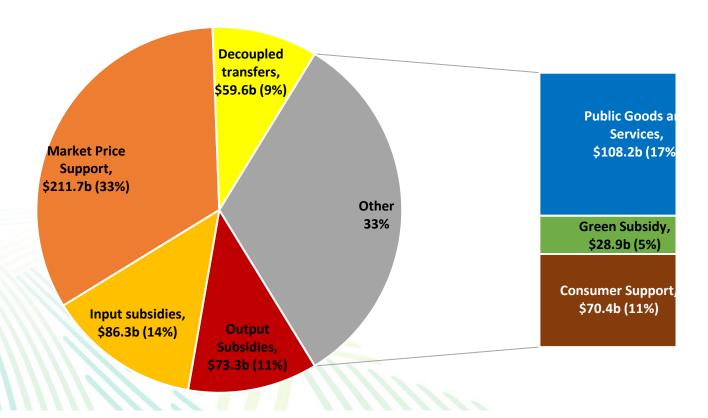


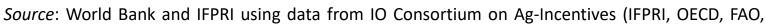


Current agricultural policies and support do not create incentives to accelerate agrifood system transformation Core Question: Do current agricultural policies & support create the incentives to make agriculture more productive, sustainable and nutrition sensitive?

For every subsidized dollar spent by governments in the agriculture sector, farmers receive only 35 cents.

Total support to agriculture by 79 Countries: \$638 billion (Annual average 2016-2018, billions of current US\$)









Global Policy Question-

- How can agricultural measures be repurposed to provide incentives for sustainable food system transformation?
 - That is, to meet food and nutrition security, while contributing to poverty reduction, nutrition, climate and other environmental







Agricultural Repurposing Options and Expected Outcomes

Use of IFPRI's global dynamic general equilibrium model (MIRAGRODEP) to simulate outcomes to 2040

Options for repurposing considered-

What are the effects of current support?

Remove all domestic (budget) support

Can we improve by reallocating support by...

- Making subsidies uniform?
- Shifting support away from emission-intensive commodities?

Can we change production technology to reduce emissions?

- Make support conditional on using reducing emission-intensive inputs with <u>current technology</u>
- Repurpose for Green Innovation invest in R&D and incentives for adoption of practices that <u>both raise productivity & reduce emission-intensity</u>



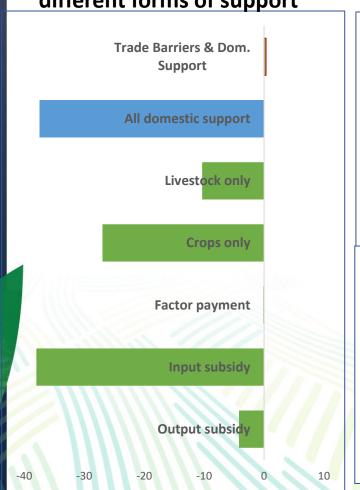


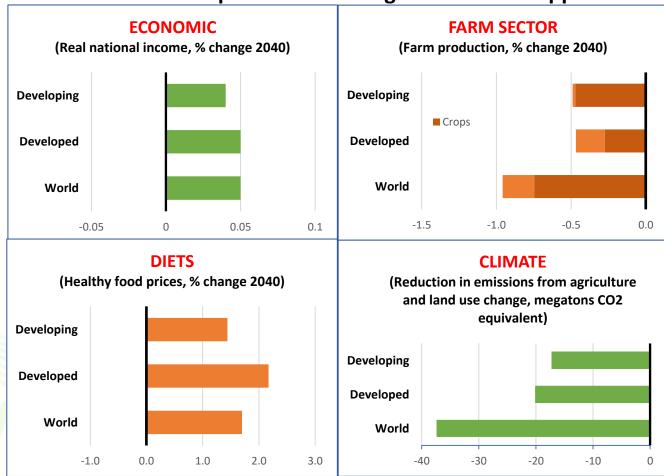
Agricultural Repurposing Options and Expected Outcomes

Removal of domestic support: Some desired outcomes but also important tradeoffs

Impact on emissions: different forms of support

Broader impacts of removing all domestic support

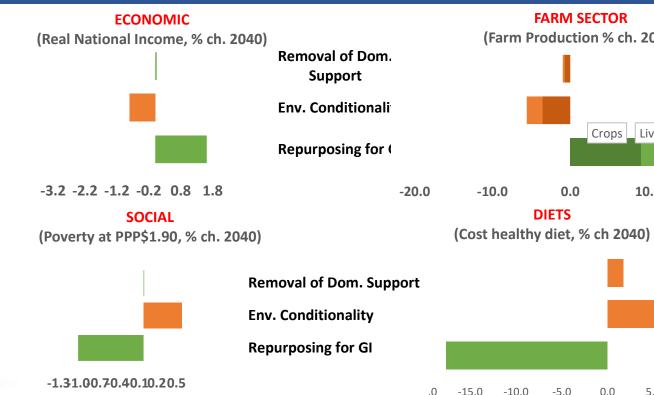


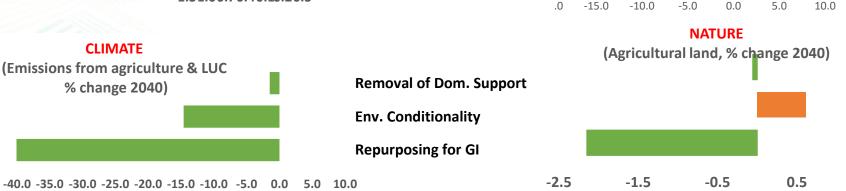




Agricultural Repurposing Options and Expected Outcomes

- **Removal or rearrangement:** do not produce gamechanging reductions in emissions
- **Environmental** conditionality: beneficial for climate (emissions) but not for nature
- Repurposing for green innovation: substantial reduction emissions (40%) and land use







1.5

FARM SECTOR

(Farm Production % ch. 2040)

DIETS

Crops Livestock

10.0

An Overview of World Bank Repurposing Initiatives

• Main Work Streams

	Main activities	Deliverables	Partners
	(i) Global advocacy for repurposing of agricultural support	 Dissemination of the global report on Repurposing of Agricultural Support at various global events Global Agricultural Policy Dialogues Agricultural Incentives Consortium 	UK FCDO, BMZ, IFPRI, OECD, IDB, FAO
	(ii) Upstream country diagnostics	 Agricultural Policy and Public Expenditure Reviews (13 completed, 22 ongoing) Trainings (Repurposing Toolkit, Repurposing Academy, etc.) 	FAO/MAFAP FAO Inv. Center ADB
	(iii) Support to the Repurposing Projects	Bangladesh, Malawi, Mozambique, Ghana, Tanzania, Indonesia, and Columbia.	
	(iv) Global analytical work on topics related to repurposing	 Trade for Food Security in the Era of Geopolitical Risks and Climate Change (completion in June 2024) Use of Strategic Grain Reserves for Food Security (completion in June 2025) Increasing the Impact of Fertilizer Support Programs in Africa (completion in June 2026) 	WFP, AMIS, IFPRI
	(v) Contributions to other Global Practices	Detox Development Report (completed)Poverty and Agriculture (ongoing)Changing the Wealth of Nations (ongoing)	Sustainable Development and Poverty









Thank you!