Policy Brief

G20 FRAMEWORK FOR REPURPOSING AGRICULTURAL POLICY SUPPORT TO MEET GLOBAL CLIMATE AND FOOD SECURITY GOALS

Task Force 4
Food Security and Sustainable Agriculture
Will Martin, (International Food Policy Research Institute (IFPRI))

Rob Vos, (International Food Policy Research Institute (IFPRI))

Joseph Glauber, (International Food Policy Research Institute (IFPRI))

David Laborde, (International Food Policy Research Institute (IFPRI))

Valeria Piñeiro, (International Food Policy Research Institute (IFPRI))

Madhur Gautam, (The World Bank)

Danielle Resnick, (Brookings Institution)

Marco V. Sanchez, (Food and Agriculture Organization of the United Nations (FAO))

Helen Ding, (World Resources Institute (WRI) & Food and Land Use Coalition (FOLU))

Sitta Rosdaniah, (Ministry of State-Owned Enterprises, Rep. of Indonesia)

Aditya Alta, (Center for Indonesian Policy Studies (CIPS))

Azizah Fauzi, (Center for Indonesian Policy Studies (CIPS))

Indra Setiawan, (Center for Indonesian Policy Studies (CIPS))

Martin Piñeiro, Cari, Argentina

Pablo Elverdi, (Group of Producing Countries of the Southern Cone (GPS))

Nelson Illescas, (Instituto para las Negociaciones Agrícolas Internacionales (INAI), Argentina)

Augustin Tejeda Rodriguez, (Bolsa de Cereales, Buenos Aires)

Caterina Ruggeri, (SYSTEMIQ)
Abstract

Recent studies provide unequivocal evidence that current agricultural support policies are ineffective to achieve the multiple goals of food security, affordable healthy diets, remunerative livelihoods for farmers, and environmental protection. Repurposing of agricultural support for investing in innovations in productivity-enhancing and sustainable emission-reducing production practices and for creating the incentives for their adoption can bring significant win-win-win gains for people, planet, and prosperity. However, achieving such gains will require an even-handed and internationally concerted approach to policy reform behind common objectives. The G20 is well positioned to coordinate such an approach. The brief recommends that the G20 develops a common framework for repurposing of agricultural support providing guidelines and options for a concerted approach for (i) phasing out harmful policies and investing in measures to incentivize adoption of sustainable agricultural practices and diversification of production towards more nutritious foods to ensure affordability of healthy diets and (ii) establishing a common framework and implementation mechanism for international cooperation to ensure repurposing can take place even-handedly and optimizing gains for global sustainable development. The brief further proposes that the G20 promotes the establishment of a platform to monitor and assess the impacts of repurposed agricultural support measures, identify trade-offs, and report on the progress made towards the common global objectives agreed under the G20 common framework for repurposing of agricultural support.
Agricultural support policies provide vast transfers of resources to farmers — about US$620 billion per year worldwide in 2018–2020 (Gautam et al. 2022) — and enjoy strong political support in both developed and developing countries. Some agricultural support policies, such as input subsidies, have boosted global food production, particularly of staple crops, thereby reducing hunger and poverty. Yet, there are serious concerns about their impacts on achieving sustainable, healthy, and efficient agrifood systems. As pointed out by several recent studies, redirecting or “repurposing” agricultural support toward investments and incentives that encourage increased productivity, sustainable production practices and healthy dietary choices— including through allocating more public expenditures for agricultural research and development (R&D) and rural infrastructure, ecoservice payments to farmers, or appropriately targeted subsidies and/or border measures— has the potential for win-win-win gains for people, planet, and prosperity (Ding 2021; FAO-UNDP-UNEP 2021; Gautam et al. 2022).

Current agricultural support goes largely to agricultural producers, primarily in forms that affect market prices and distort incentives for producers and consumers (OECD 2021). Fiscal support coupled to output levels or input use can help boost agricultural productivity, but also tends to lead to higher greenhouse gas (GHG) emissions and land conversion for agriculture. Support provided through trade barriers, however, may reduce global emissions by reducing demand for output (Laborde et al. 2021). The strong focus of many agricultural support policies on promoting staple crops has improved access to basic calories but has done much less to improve dietary diversity. Moreover, impacts of the support are often regressive — benefiting wealthier commercial farmers, while denying poorer farmers access to markets (Ding, et al. 2021; Vos, Martin & Resnick 2022). When provided through trade protection, farm incomes may improve but at the expense of raising the cost of food and harming poor consumers.

The need for reforms is now well recognized (see e.g., OECD 2021), and the urgency of reducing GHG emissions and adapting to climate change has added impetus to the calls for reform. In fact, existing food and agricultural policy support is poorly designed and ineffective to serve the multiple objectives of poverty reduction, food security, affordable access to healthy diets, and environmental sustainability (see e.g., FAO, IFAD, UNICEF, WFP & WHO 2022). At the same time, however, recent studies have shown that simply eliminating all existing support would not greatly reduce GHG emissions, but would depress farm incomes, increase poverty, and increase the cost of healthy diets (Searchinger et al. 2020; Laborde et al. 2021; FAO-UNDP-UNEP, 2021; Gautam et al. 2022; FAO, IFAD, UNICEF, WFP & WHO, 2022). Public discourse thus has shifted to how existing support could be repurposed to create better incentives for producers and consumers (Ding et al. 2021; Koplow & Steenblik, 2022). The 2021 United Nations Food Systems
Summit (UNFSS) called for such repurposing as part of a just transition towards sustainable agrifood systems; as a result, the Coalition to Repurpose Public Support to Food and Agriculture is being established with the participation of international organizations, governments, farmer organizations, and others. The “repurposing agenda” has also been put on the agenda of the G7, as reflected among others in the G7 Development Ministers’ Meeting Communiqué of May 19, 2022 (G7 Germany 2022a) and that of the G7 Agricultural Ministers’ Meeting of May 14, 2022 (G7 Germany 2022b).

Agricultural policy reform must be carefully thought through in order to ensure agrifood systems produce enough nutritious food to feed a growing world population, while drastically reducing GHG emissions to avert severe climate change impacts. In addition, the agri-food sector is the only economic sector with serious potential to become a net emissions sink — pulling more GHGs out of the atmosphere than it emits — through creation and protection of carbon sinks such as forests and soils (Ding et al. 2021). Restoration of those carbon sinks hence will be as important. Given the multiple goals that agrifood systems are now called upon to address, how can the substantial resources that support agriculture be repurposed in ways that simultaneously provide strong incentives to reduce GHG emissions, improve food system efficiency and farm productivity, and help combat poverty, hunger, and malnutrition?

Recent studies have pointed out that existing subsidies can be repurposed in ways that would make significant progress toward achieving both global climate and food security goals. Model-based analyses conducted by the International Food Policy Research Institute (IFPRI) and the World Bank (Gautam et al. 2022) indicate that investing an additional 1 percent of agricultural output value in R&D for technologies and practices that both increase the efficiency of production and reduce emission intensities—such as modified diets for ruminants and alternate wetting and drying for rice—complemented by incentives to farmers for the adoption of those technologies could achieve greater gains with fewer trade-offs than simply eliminating subsidies.

This scenario assumes an internationally concerted strategy in which all countries shift resources from current market-distorting subsidies toward more spending on R&D that reduces emissions and, by raising productivity, creates incentives for farmers to adopt the improved technologies. The scenario results are promising, as global welfare and food output increase; food prices fall, food and healthy diets become more affordable for many people; and poverty rates fall worldwide (Figure 1). Global GHG emissions from agriculture and land use change would drop by about 40 percent, both because of the direct reduction in emissions from crop production and because higher productivity reduces the need for agricultural land. Farm incomes would fall with the removal of subsidies, although returns to farm labour would rise if policy reform were combined with rural development policies to facilitate a benign movement of labour out of agriculture.
The reduction in GHG emissions could be increased further through complementary policies not considered in this scenario analysis. These could include measures—such as nutritional education, food standards, and taxation—that influence food demand and dietary choices to reduce excess consumption of unhealthy or emission-intensive food products (Swinnen, Arndt & Vos 2022).

FAO, IFAD, UNICEF, WFP and WHO (2022, forthcoming) in collaboration with IFPRI present further scenario analysis showing that reorienting existing support to encourage production and consumption of nutritious foods through subsidies and border measures has great potential for both making healthy diets affordable for all and make significant progress towards environmental goals. Such reoriented domestic price support and border measures would need proper alignment with WTO rules and vice versa.

Reallocation of agricultural support to R&D focused on productivity-enhancing, soil health-improving and emissions-reducing technologies thus would produce better outcomes for food security and nutrition and for the natural environment, especially if carried out in an internationally coordinated manner. However, even the best reform agenda will inevitably face considerable political hurdles. This brief highlights just two of these but central to reaching a common and internationally concerted repurposing agenda.
Figure 1: Global implications of repurposing domestic support (% change relative to baseline projections for 2040)

**ECONOMIC** (Real National Income, % change 2040)
- Removal of all support
- Target CO2 efficient crops
- Repurposing for productivity, emission reduction & rural livelihoods

**FARM SECTOR** (Farm Production, % change 2040)
- Crops
- Livestock

**SOCIAL** (Poverty at $1.90, % change 2040)
- Removal of all support
- Target CO2 efficient crops
- Repurposing for productivity, emission reduction & rural livelihoods

**DIETS** (Cost healthy diet, % ch. 2040)

**CLIMATE** (Reduction in emissions from agriculture and land use change, % change 2040)
- Removal of all support
- Target CO2 efficient crops
- Repurposing for productivity, emission reduction & rural livelihoods

**NATURE** (Agricultural Land, % change 2040)

Source: Gautam et al. (2022).
Note: Green bars indicate movement toward societal goals; orange/red bars indicate movement away from societal goals.
First, collective action problems contribute to underinvestment in agricultural R&D globally. Low- and middle-income countries often underinvest in R&D because constituents cannot see tangible benefits from these investments in the short term (Mogues 2015). Governments and private agents in smaller economies have less incentive to invest in R&D because they receive only a small share of the benefits from research findings of broad applicability and hope to benefit from spillovers from other countries’ investments and innovations (Swinnen 2018). Currently, only an eighth of total government support to agriculture is invested in R&D, inspection and control systems, and rural infrastructure—all of which promote beneficial innovation—while three-quarters is allocated to transfers to individual producers, many of which are commercial and large-scale operations, thus reinforcing inequality (OECD, 2021; Vos, Martin & Resnick 2022).

Second, the magnitude and nature of government support to agricultural sectors and food system transformation differs widely across countries, including across G20 member countries. In absolute terms most support is provided by China, the European Union, and the United States (Figure 2). Importantly, market price support (through trade measures) remains the dominant form of distortionary support for most countries (Figure 2). Some emerging and developing countries keep domestic prices for key commodities below the world market prices, implying an implicit tax on producers of those commodities in those countries in order to protect poor consumers. In most high income countries, positive market price support through trade measures remains the most popular form of support that governments provide to producers. This type of support has an implicit cost but cannot be directly repurposed by shifting fiscal resources to other budget items. As a group, the emerging and developing countries provide the largest share of their direct public support for agricultural public goods and services. Subsidies for green innovations and incentives for sustainable practices are emerging, but still only a very small share of total support, and moreover, except in China, these are presently mainly provided in the developed countries (Gautam et al. 2022). These differences in support pose the following challenges to be addressed in a common framework for repurposing of agricultural support: (i) for an even-handed, internationally concerted approach, transfer of resources towards countries with weak fiscal capacity should be considered; (ii) repurposing is not only about shifting existing fiscal resources for agricultural support, but also making sure that market support through border measures are realigned to create incentives for sustainable food system transformation; and (iii) despite the previous two challenges, substantial fiscal resources are being deployed to support farmers and agricultural sectors which can be repurposed, but requiring much national consensus building to overcome likely initial resistance to changes in existing support.
Figure 2 Differences in agricultural support between countries and country groupings, 2016–18

Source: Gautam et al. (2022), based on data from AgIncentives IO Consortium (IFPRI, OECD, FAO, IDB, and the World Bank).

Note: EMDE = emerging market and other developing economies.
Proposals for G20

The case for such an agenda is easily made: climate change is an existential threat to agrifood systems and the repurposing scenarios discussed in this brief clearly point out that international cooperation for repurposing will achieve superior outcomes on all environmental, economic, and social dimensions for all countries compared with current non-cooperative agricultural support policies. While agriculture and food policies are the responsibility of national governments, the implications of these policies have strong international spill-over effects, including through their impact on competitiveness in international markets, on global food security, and on the environment.

The scenario analyses suggest there is great potential of achieving significant win-win-win gains for people, planet, and prosperity by reallocating resources for productivity-enhancing and emission-reducing innovations and creating incentives to producers to adopt these practices for the production of more diverse and nutritious food and to consumers to make healthier dietary choices. Existing government agricultural budgets offer a major potential source of public finance for investing in such innovations and providing the necessary incentives to producers and consumers, particularly in countries with constrained fiscal stances. At the same time, this will also be a strategy to de-risk private investment in sustainable agriculture food supply chains, which in turn would help unlock private financing (FAO, IFAD, UNICEF, WFP and WHO, 2022, forthcoming). Hence, any strategy to mobilize both public and private finance for agrifood systems transformation should include repurposing of the agricultural support that contributes to solving serious environmental, food security, and equity problems.

The gains are expected to be much greater (and, possibly, achievable only) through an internationally concerted approach. Nonetheless, despite such prospect, getting to a common approach will not be easy.

Current beneficiaries will undoubtedly resist policy reforms, while those who might gain from reforms are likely to be uncertain about the benefits or insufficiently organized to mobilize for change. Consequently, most policy reforms emerge from development of policy instruments that improve the balance between gains and losses – such as the EU’s provision of financial support to farmers that engage in forest conservation and organic practices—or identifying windows of opportunity for change (Resnick et al. 2018; EC 2020a-b). Windows of opportunity for national reforms may come from international agreements, including the WTO or Paris Climate Accord. Such agreements have already become motivations for agricultural policy reform in the European Union and China, for instance, and, hence, may provide a basis for garnering support for and agreement on an internationally concerted repurposing agenda (Vos, Martin & Resnick 2022). A commitment by G20 leaders to scale up and accelerate their efforts to repurpose their agricultural support would facilitate attempts to make their own agrifood systems more sustainable and potentially yield spillover benefits beyond their borders. It would also give them the credibility to use multilateral fora such as the Committee on World Food Security, the WTO, the World Bank, IMF, and regional multilateral banks to encourage others to...
adopt repurposing strategies and promote sustainable agriculture and agrifood systems that can deliver affordable healthy diets for all.

For G20 countries, repurposing their own agricultural support offers the possibility to better use limited fiscal resources to accelerate a green transition (involving climate change mitigation and adaptation) at home while securing the livelihoods of their producers and promoting better nutrition and health for their citizens. Such repurposing will generate positive benefits beyond national borders through reduced GHG emissions and by eliminating market distortions that presently harm producers in poorer countries.

A detailed analysis of societal gains in the short and long run and of likely winners and losers could help gain the necessary support for repurposing. Reallocation of resources to productivity-enhancing and emission-reducing R&D expenditures, incentives to producers for their adoption and investments in rural infrastructure should be expected to produce major societal gains, including benefits for those farmers who benefit from current support. However, the gains from innovation in sustainable production methods may be perceived as uncertain and adoption may come at a cost to producers in the short run. Compensatory payments to losers and to offset adoption costs for producers could help win political support. Importantly, appropriate regulations, such as mandates on the use of renewable energy or limits on the conversion of land for farming, may be essential to overcome the resistance of some agricultural producers to more environmentally sustainable reforms.

Lastly, there are interactive and mutually reinforcing dynamics between the domestic and global policy arenas. Creating constituencies for reform at the domestic level is essential to achieving global action. To spur domestic action and overcome resistance, an even-handed global diffusion of technologies and financial resources is needed to let all countries reap the benefits of agricultural policy reform. Given that climate change and environmental sustainability transcend borders and national policies have strong international spillover effects, international coordination is essential. However, reaching a common understanding of the benefits of acting together and the cost of not doing so will not be easy and will require intense dialogue informed by continuous and credible assessments of the gains to be obtained and trade-offs to be reckoned with the key options for smart repurposing of agricultural support.

Therefore, it is proposed that – with the technical support of international organizations – the G20:

1. Develops a common framework for repurposing of agricultural support that provides guidelines and options for a concerted approach for the phasing out of harmful policy support and repurposing of resources towards measures that incentivize sustainable agricultural practices and promote healthy diets, specifically through:

   o Investing in agricultural knowledge systems, R&D, innovation, rural infrastructure, and extension services to promote sustainable productivity growth, healthy diets,
reduced GHG emissions and improved on-farm adaptive capacity and address other environmental challenges including improving soil quality and redressing loss of biodiversity.

- Incentivizing and rewarding farmers and downstream agrifood businesses for adopting climate-smart productivity-enhancing innovations in the production of nutrition-dense foods as well as for adopting environmentally sustainable practices, promoting ecosystem services, and restoring degraded land and soils.

- Taking steps to address adverse consequences of repurposing, especially when done unevenly or during the phase-out of harmful support, on vulnerable stakeholders including farmers that due to resource constraints cannot easily shift their technology and/or change land use to take advantage of the new policy incentives. Encouraging stakeholder dialogues over the distributive impacts, implications for land use, etc., of the reallocated funds should be a critical ingredient in this process.

2. Establishes and/or strengthens mechanisms for international cooperation to ensure repurposing can take place even-handedly and optimizing gains for global sustainable development. This would include: (a) encouraging the reactivation of WTO agricultural trade negotiations aiming to better align multilateral trading rules and their limits to domestic support with environmental and food security objectives; (b) enhancing international financial support mechanisms allowing fiscally constrained low- and middle-income countries to act on the internationally concerted agenda and address potential trade-offs; and (c) facilitating transfer of and ease of access to (at low or no cost) the improved technologies, knowledge, and practices.

3. Supports a platform to monitor the impacts of repurposed agricultural support measures, identify trade-offs, and report on the progress made towards the common global objectives agreed under the G20 common framework for repurposing of agricultural support. The Ag-Incentives Consortium formed by FAO, IFPRI, the Inter-American Development Bank, OECD, and the World Bank, could be asked to establish and operationalize such a platform in collaboration with the WTO. The platform should also serve to strengthen capacities among national policy makers to monitor and evaluate the potential benefits and trade-offs of repurposing agricultural support.
References


G7 Germany. 2022b. Pathways towards sustainable food systems in times of crises. G7 Agriculture Ministers’ Meeting Communiqué, 14 May. https://www.g7germany.de/resource/blob/997532/2040144/8bd6097641a2c66114d95a2615c4d01d/2022-05-16-g7-agrarminister-eng-data.pdf?download=1


