

In Brief

Providing healthy and nutritious food for a growing global population while protecting the natural systems that sustain life is one of the critical challenges of this decade.

The global food and agriculture sector receives more than US\$700 billion in public support each year, but much of this is not currently geared toward addressing this challenge.

Repurposing public support to food and agriculture represents an enormous opportunity for countries to incentivise food systems transformation to support positive outcomes for people, nature and climate - and some countries have already begun this work.

Global convenings such as the UN Food Systems Summit, the UN Convention on Biological Diversity, the UN Convention to Combat Desertification, and the UN Climate Change Conference (COP26) provide an opportunity to build momentum for repurposing public support.

This policy brief explains how countries support their food and agriculture sectors, why much of this financial assistance is in need of repurposing, and what this process looks like in practice.

In the 20th century, both OECD and non-OECD countries have supported and taxed their food and agriculture sectors to achieve a variety of important objectives: to overcome food insecurity, stabilise farmer incomes, reduce consumer prices, promote economic growth, and alleviate urban and rural poverty. Investing in food and agriculture is vital to economic growth. Research demonstrates that economic growth in the sector is two to four times more effective at reducing poverty than growth originating in other sectors.1 And, what is more, agricultural growth can support a country's structural transformation, which has often enabled countries to move to middle-income status.²

In the 21st century, however, it has become increasingly clear the subsidies and policies that shape what and how food is produced are not addressing mounting challenges

linked to climate change and environmental degradation (e.g., water availability, soil quality, biodiversity). In some cases, public agricultural support is exacerbating these challenges, which may intensify food insecurity, malnutrition, and/or obesity.

To address these interlinked risks, we must ensure that public support for agriculture is fit for purpose.

The aim of repurposing agricultural support is to ensure public support continues – and even expands – in a way that creates incentives that are aligned with scaling sustainable agriculture for a just rural transition. This recognises the important role of food producers in supporting food and nutrition security, and environmental stewardship.

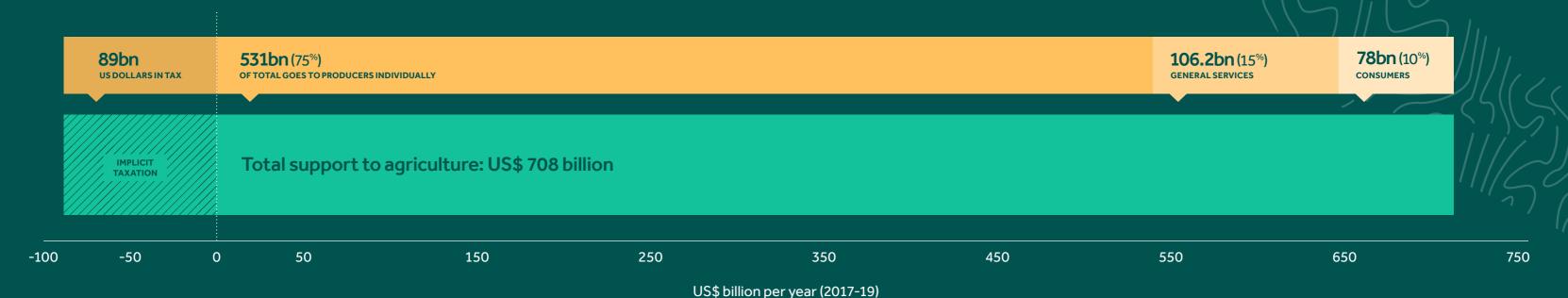


How do countries support their food and agricultural sectors?

The agricultural sectors of the 54 top-producing countries receive more than US\$700 billion in support per annum

This includes direct subsidies to individual producers as well as the effects of market price support (e.g. price guarantees) and investments that benefit the entire sector (e.g. R&D, infrastructure). However, 75% of this support goes towards supporting the incomes of individual producers, rather than supporting sustainability objectives. ³

SUPPORT TO AGRICULTURE ACROSS 54 COUNTRIES



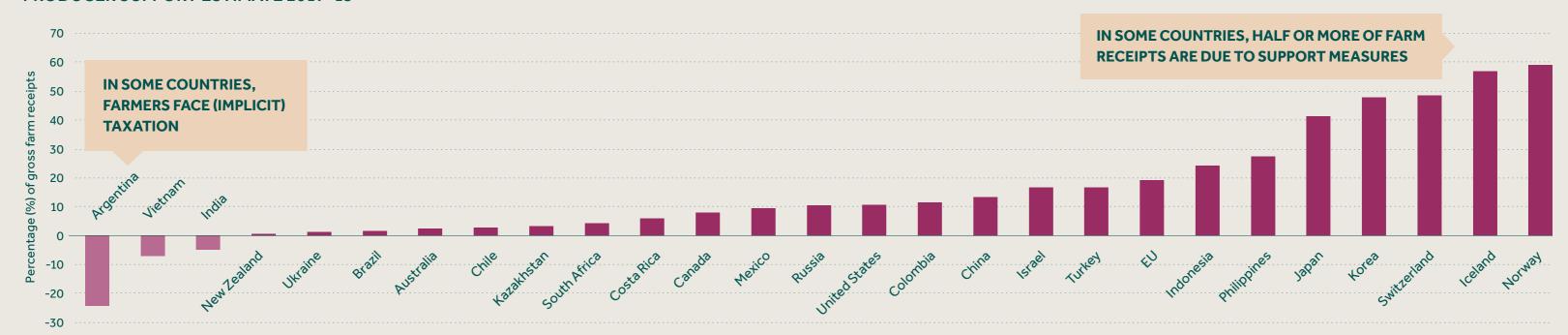
Source: OECD (2020), Agricultural Policy Monitoring and Evaluation 2020, OECD Publishing, Paris, https://doi.org/10.1787/928181a8-en

There are wide differences in how countries support (or tax) their producers

In general, wealthier countries provide more support to their farm sectors than do poorer countries (relative to the size of the sector). The five countries with the highest levels of relative support are OECD members: Norway, Iceland, Switzerland, Korea, and Japan. Agriculture sectors in some countries are, on net, taxed (e.g., Argentina, Viet Nam, India). On the other side, many countries in

Africa have not yet reached the Comprehensive African Agriculture Development Plan (CAADP) target of investing 10% of their GDP in food and agriculture. On average, the total dollar amount of agricultural support in a country's economy is rising in emerging countries, while remaining relatively flat in OECD countries. Notably, support is growing rapidly in China, Indonesia, and India.³

PRODUCER SUPPORT ESTIMATE 2017-19



Source: OECD (2020), Agricultural Policy Monitoring and Evaluation 2020, OECD Publishing, Paris, https://doi.org/10.1787/928181a8-en

Agricultural policies mostly affect farmers and consumers by changing market prices (rather than by providing subsidies)

Market price support accounts for most of the total support provided to producers. Consumers bear the cost of market price support mostly in the form of higher food prices. Higher food prices particularly hurt poor consumers since food accounts for a higher share of their budgets.³

Seeds, fertilizers, and other farm inputs are subsidized in a range of countries, especially in Asia and sub-Saharan Africa

Although appropriately utilised inputs such as fertilizer are critical for agricultural production, research demonstrates that subsidising them often incentivises overapplication, leading to negative environmental outcomes (e.g. dead zones, groundwater pollution, unhealthy soils).⁴



What are the benefits for governments in repurposing food and agricultural policies?

There is a huge opportunity to invest more in public goods and services

Despite the US\$700 billion governments provide to their agriculture sectors every year, only 12% in OECD countries and 16% in non-OECD countries is invested into public goods such as rural infrastructure, agricultural research and innovation, climate mitigation and adaptation, conservation, and biodiversity.⁴

Public support can incentivise agricultural production to deliver positive rather than negative environmental outcomes

Government support for agriculture, such as price supports and subsidies, were designed to raise farmer incomes, increase yields, and provide economic protection against foreign competition. One benefit of such support measures has been a reduction in the amount of land that otherwise might have been needed for food production. However, over time, unintended environmental consequences have also emerged:

- The overapplication of subsidised nitrogen fertiliser has been linked to increased greenhouse gas emissions, extensive contamination of drinking water, acidified soils, toxic algal blooms in coastal waters, and increased air pollution.⁵ Similarly, poorly designed irrigation subsidies can accelerate the depletion of groundwater supplies.^{6,7}
- Subsidies or insurance programs tied to the production of specific crops and animals can encourage large-scale monocropping (which erodes biodiversity and degrades soil health) or plowing up already-degraded land to expand production.^{3,8,9,10}



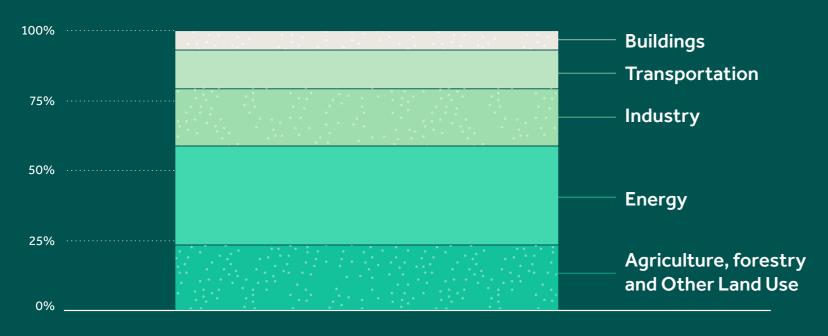
Public support can ensure the agricultural sector contributes to climate mitigation and adaptation

Globally, agricultural production and associated land use changes currently account for at least one-quarter of all greenhouse gas emissions.

Approximately 80% of these emissions result from the production of livestock and rice – products whose demand is expected to grow substantially in coming decades due to a growing middle class. Although agricultural support mechanisms do not appear to be biased towards

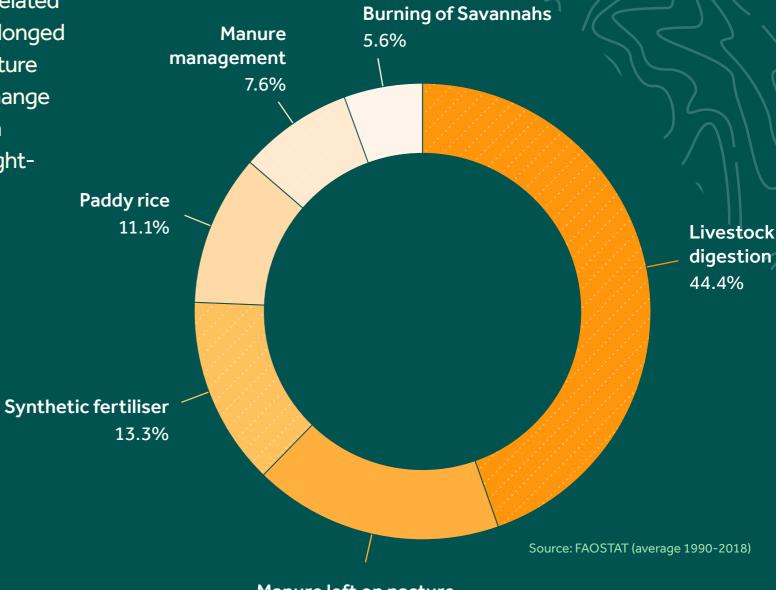
emission-intensive products overall, neither do they incentivise less GHG-intensive products or farming systems.⁴ Amid rising climate-related risks to agricultural production (e.g. prolonged droughts), public support to the agriculture sector can also help facilitate climate change adaptation – for example by investing in research into the development of drought-tolerant seed varieties.

GHG EMISSIONS BY SECTOR



Source: IPCC, 2014

SHARE OF GHG EMISSIONS FROM AGRICULTURE



Manure left on pasture 17.6%

Public support can encourage more diversity in agricultural production – helping citizens eat sustainable, nutrient-rich and affordable diets

Income growth, urbanisation, and a burgeoning middle class are increasing demand for fruits, vegetables, and other nutrient-dense foods. Yet agricultural policy is not helping suppliers effectively respond to this so-called 'dietary transition.' In both OECD and non-OECD countries, the

majority of support goes to cereal grains, livestock, oilseeds, sugar, and other commodities. ¹² A crop-neutral agricultural policy could help create a level playing field in which farmers could respond to market signals rather than to a policy that is biased towards a narrow set of crops. ¹¹

Public support can ensure the most vulnerable are helped, to create a fairer, more equitable society

Because it is frequently tied to production and land use, farm policies often privilege larger and generally wealthier farmers. For example, a recent World Bank report points out that in the United States the largest 10% of all farmers received 77% of all agricultural subsidies between

1995 and 2016. In Europe, 80% of direct payments go to just 20% of farmers.⁵ In most countries, there are strong indications that political considerations, rather than farmers' or consumers' needs, shape agricultural policy and who benefits from it.^{5,10,14,15,16,17}



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What are countries doing to repurpose public support?

Countries are beginning to repurpose the support they provide to their food and agriculture sectors to better align with the Sustainable Development Goals, the Paris Agreement, and other global accords. Here are four promising initiatives that illustrate a range of approaches being taken.

Linking farm credit to reducing deforestation- and climate-related goals in Brazil

Introduced in 2010, the country's Low-Carbon Agriculture (ABC) Plan includes a US\$1.6 billion fund that provides low-interest loans for farmers who implement sustainable agricultural practices such as no-till farming; restoration of degraded pastures; integration of crops, livestock, and forests; planting of commercial forest; biological nitrogen fixation; and treatment of animal wastes. 18 Despite implementation challenges with the ABC Plan, the country has - amid a few other important initiatives, including the Action Plan for the Prevention and Control of Deforestation in the Legal Amazon – reduced deforestation by an estimated 44% over a 15-year period (2005-2020). 19, 20 Deforestation rates have started climbing again in recent years, however, highlighting the important impact policy environments can have, and underscoring the need for sustained political commitments by country leadership.

Enhancing fertilizer efficiency for GHG mitigation and water quality in India

Approximately one-third of Indian agriculture's value added comes from government support. A significant share of this support is devoted to fertiliser subsidies, which have reached as much as US\$15 billion per year. Fertiliser subsidies have led to the overapplication of fertilisers; fertilisers account for 20% of agricultural emissions, second only to ruminant animals.^{5,21} In 2015, to mitigate these emissions and realize fiscal savings, the Indian government began requiring 75% of urea – a nitrogen fertiliser - to be sold with a coating of neem oil, which has the potential to improve nitrogenuse efficiency and potentially boost crop yields. Although evaluation of the effect of this policy on GHG emissions and water quality is ongoing, it is a promising initiative, given its cost-effectiveness and its support by Prime Minister Narendra Modi. 22, 23



Incentivising biodiversity in Switzerland

Land use changes related to farming are a principal driver of biodiversity loss in Switzerland. 60% of the country's habitats are considered to have 'threatened' or 'near threatened' status, and 36% of its wild species are endangered. The country's 2014-2017 Agricultural Policy sought to address this by phasing out peranimal-head payments and reallocating per-hectare payments to better support biodiversity targets using direct payments. Supported by ex-ante impact

assessments indicating the policy could both modestly raise farmer incomes and dramatically expand biodiversity surface areas, the initiative provided transitional support to farmers to offset expected near-term income losses from previous forms of direct payments.²⁴ Research indicates the policy successfully expanded biodiversity - as measured by acreage - while having limited success at increasing its quality through high-potential biodiversity landscapes.²⁵

Co-investing in landscape stewardship in Costa Rica

Since the 1990s, Costa Rica has been a leader in Payments for Ecosystems
Services (PES), an incentive-based conservation approach which transfers money to farmers conditioned on improvements in ecosystem services (such as clean water, healthy soils, or

increased biodiversity). Costa Rica's PES scheme has been "credited with reducing the rate of deforestation... from one of the world's highest to net negative deforestation by the start of the 2000s". 26,27



How can governments begin to repurpose agricultural policies?

Effectively redirecting public support to agriculture clearly depends upon a range of factors. These include the shifting, interlinked environmental, social and economic challenges facing a country; the forms and degrees of agricultural support, both past and present; the political economic context; and the specific priorities of policymakers. Nonetheless, a range of policy instruments are available to redirect public support.²⁸

Assess the current impact of agricultural support

Because existing laws, policies, and regulations are the focus of repurposing, their environmental and social impacts need to be well-understood before a repurposing agenda can be established. As the OECD has indicated, a robust evidence base can be a valuable tool for governments seeking to redirect policy, helping to "clearly identify the benefits and beneficiaries of reform, make the case for change, and provide the means to resist pressure from vested interests."24 Impact assessments can also help illuminate the specific conditions, mechanisms, and trade-offs associated with using public support to produce better environmental, social, and economic outcomes in the agrifood sector, relative to a business-as-usual scenario.

Establish inclusive consultation processes

Policymakers can build support for a repurposing agenda by consulting directly with food producers and the organisations that represent them (e.g. cooperatives, associations, etc.) This may entail establishing a proof of concept for a new initiative (e.g. cover cropping, notill agriculture, agroforestry) through pilot projects, on-farm demonstrations, and focus groups. Consultation processes that are not rigorously and inclusively designed could be dismissed as tokenising or politically motivated, increasing opposition to a policy change. Digital communications platforms can expand and enrich consultations with food producers in this context.²⁹



Pay farmers for landscape stewardship

Globally, there are over 550 active Payments for Ecosystems Services (PES) programs with an estimated US\$36 - \$42 billion in annual transactions.30 PES programs can integrate both environmental and social priorities, for example by i) incentivising production of a diversified range of drought-tolerant, nutrientdense crops at the farm scale or ii) linking or 'coupling' payment to practices like cover cropping in order to build soil health for stronger crop yields, reduced erosion, and improved water quality. Digitising payments to farmers - as has been done in Nigeria, Estonia, and Colombia - can reduce transaction costs and fraudulence, improving the value and effectiveness of such programs.^{29,31}

Align public procurement criteria with environmental and nutritional priorities

Worldwide, public food and agricultural procurement represents 13% to 20% of GDP.³² If countries' procurement expenses were aligned with food- and agriculture-based environmental priorities, substantial progress could be made toward them. For example, a 'Climate-Friendly Procurement Policy' could stipulate that a certain share of each municipal school district's food purchases must come from environmentally sustainable sources, with audited targets increasing steadily year-on-year. Such actions position governments to be meaningful demand-side levers of change.



Improve targeting of subsidies

In addition to investments aimed at managing fertiliser (especially nitrogen) use and increasing its efficiency, countries can improve their subsidy programs in a number of ways. One subset of improvements relates to better targeting of resource-poor households which are less likely to be able to afford to buy inputs themselves. Empirically, reaching this demographic has been elusive, owing to political and technical challenges. However, there is some evidence that Kenya's National Accelerated Agricultural Inputs Access Program has been effective in targeting poor households. 17,33



About Just Rural Transition

The Just Rural Transition puts people at the centre of global efforts to transform food and land use systems to meet climate, biodiversity, and sustainable development goals. We foster a community of purpose of public and private sector stakeholders designing, implementing, and scaling integrated and inclusive approaches that contribute to the objectives of the JRT Vision Statement–through their own commitments and by forging new partnerships. To get involved, visit us at justruraltransition.org.



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