

## Policy Brief

# Fiscal policies to support sustainable agriculture

## Agriculture and the SDGs

The agriculture and food production sector is central to the 2030 Agenda for Sustainable Development. As the world's largest employer, the sector can play an important role in efforts to reduce poverty, promote social equity and improve people's livelihoods. However, unsustainable agricultural practices and associated land-use change have contributed to biodiversity loss, water insecurity, climate change, soil and water pollution, threatening delivery of several Sustainable Development Goals (SDGs). For example, studies have found that agriculture related land-use change is causing over 70 per cent of tropical deforestation<sup>1</sup> and accounts for around one quarter of all greenhouse gas emissions. Agriculture and food production can also have significant impacts on human health and well-being. For example, pesticides are among the leading causes of death by self-poisoning, particularly in low- and middle-income countries<sup>2</sup>, with related economic implications on health care costs and reduced productivity among others. These impacts are often not visible as they are not traded in the market and do not have a market price<sup>3</sup>, leading to price distortions which influence the decisions of individual farmers, businesses, and consumers.

In some cases, prices are further distorted by deliberate policy interventions such as subsidies. According to the OECD, between 2016 and 2018, governments in 53 countries spent USD 705 billion a year subsidizing agricultural producers with over 70 per cent of this support found to strongly distort farm business decisions<sup>4</sup>. A large share of this support is in the form of energy subsidies for irrigation which reduce incentives to conserve water, influence cropping patterns and indirectly contribute to pricing distortions in the agriculture sector. For example, in India and Mexico subsidized electricity for farmers to pump groundwater has led to serious groundwater depletion<sup>5</sup>. Such fiscal instruments favour unsustainable production and can promote deforestation, overfishing, urban sprawl, and wasteful water use among others<sup>6</sup>. They also have fiscal implications, accounting for a large share of public resources and reducing funds for other development priorities. For example, in India, fertilizer subsidies accounted for the second-largest government transfer at over INR 700 billion (USD10 billion) in 2018/19<sup>7</sup>.

While typically motivated by a desire to enhance food security and boost agricultural productivity, such subsidies can create perverse incentives, encouraging activities with serious environmental and health consequences and undermining commitments in other areas. For example, agriculture subsidies in Brazil (for soy and beef) and in Indonesia (for palm oil and timber) are over 120 times higher than international funding for forest conservation through REDD+<sup>8</sup>, and undermine efforts to protect forests by supporting an expansion of agriculture production. Such subsidies can also distort global commodity markets, driving down global crop prices, undermining small farmers' competitiveness in the global market and poverty reduction efforts in many developing countries. The impact of such subsidies on food prices is complex and depends on numerous factors including the national context. For example, a 2017 study found that US farm subsidies have a very small net impact on retail food prices and do not affect food prices in a way that protects the poor, despite the claims of proponents<sup>9</sup>. As such assessments

highlight, agriculture subsidies often tend to disproportionately benefit large farmers/corporations and there are more effective ways of providing support to people at risk of poverty and hunger.

Addressing these pricing distortions and perverse incentives in the agricultural sector will be critical for delivering several SDGs including SDG2 (Zero Hunger), SDG12 (Responsible Production and Consumption), SDG13 (Climate Action), SDG15 (Life on Land which includes targets on forestry and biodiversity). The SDG targets recognize the importance of correct food pricing to prevent trade restrictions and distortions in world agricultural markets, including the elimination of all forms of agricultural export subsidies (T2.b).

## Role of fiscal policy reforms for sustainable agriculture

Through pricing measures, fiscal policies can **create incentives** for sustainable, productive and climate resilient agriculture. For instance, tax exemptions can encourage the development of organic farm products as in **Argentina** which in 2016 removed export taxes on organic products of plant origin to promote organic exports<sup>10</sup>.

Fiscal instruments, such as targeted direct payments, can facilitate ecosystem restoration and biodiversity conservation as in **Switzerland** where savings from agricultural subsidy reforms are used to support a direct payment system that promotes ecosystem services and sustainable agriculture (see Box 1).

Fiscal reforms **generate substantial public revenues** which can be used for different purposes, such as supporting more sustainable practices in the sector (e.g. use of organic fertilizers, application of agroecological farming techniques) and supporting delivery of the SDGs as with the case of reforming pesticide subsidies in **Indonesia** (see Box 1). Fiscal policies can **mobilize other sources of financing** for sustainable agriculture. For example, **Costa Rica** uses revenues from fuel taxes to support forest conservation (see Box 1), while **Mexico's** hydrological environmental services (PSAH) programme is financed by an earmarked share of water-use fees charged by municipalities.

Fiscal policy reforms in the agriculture sector can **support climate change commitments** and have been included in some countries' nationally determined contributions (NDCs) to the Paris Agreement. For example, **Uruguay's** NDC includes tax incentives to registered areas with native forests and for investments in low-carbon production capacities to promote afforestation, **Mongolia's** NDC includes a tax system for pasture use and **India's** NDC includes federal fiscal transfers to states based on forest cover.

Fiscal policies can help to **create an enabling framework** for a more sustainable agriculture and food production system, complementing other approaches including regulatory instruments, market-based mechanisms, information tools and voluntary measures. However, subsidy reform in the agriculture sector is a sensitive topic, raising concerns about production costs, impacts on competitiveness, food security, small-holder farmers and poor

## Box 1 Insights from country experiences with fiscal policy reforms for sustainable agriculture

### Phasing out pesticide subsidies in Indonesia<sup>11</sup>

In the 1980s, Indonesia reduced support to the agriculture sector, which included the removal of pesticide subsidies. The reform was accompanied by a well-funded and widely disseminated national programme of Integrated Pest Management (IPM) to maintain rice production and farm incomes. Following the reform, pesticide applications halved in the country, reducing toxin releases in the environment and negative impacts on biodiversity and human health. At the same time, rice production grew by three million tons over four years. The reform also led to USD 100 million in fiscal savings.

### Switzerland's new direct payment system for agriculture<sup>12</sup>

Over the past two decades Switzerland has undertaken a series of reforms to agricultural subsidies and introduced direct payments for public and ecological services. Direct payments in a new Agricultural Policy (AP 2014-17) promote ecosystem services and sustainable agriculture in several ways:

- Direct payments for the **maintenance of cultural landscapes** provide an incentive to prevent the overgrowing or forestation of areas with high biodiversity quality and preserve their use for livestock.
- Part of the direct payments for **sustaining food supply** include an additional contribution for open agricultural cropland and permanent crops.
- Contributions for maintaining and promoting **species and habitat diversity** include payments for ecological compensation, biological quality and habitat linking.
- Environmental and animal friendly **production systems** (incl. organic farming, extensive crop production, animal-friendly housing, meat/milk production on grassland) are promoted within the production systems contribution.

### Fiscal revenues support environmental services in Costa Rica<sup>13</sup>

The payment for environmental services (PES) programme in Costa Rica supports carbon storage, hydrological services, and the protection of biodiversity and landscapes. The scheme is predominantly financed by a share of revenues from a sales tax on fossil fuels, although its objective is that all beneficiaries of environmental services eventually pay for the services they receive. The 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. Between 1997 and 2004, approx. USD 200 million was invested in PES to protect over 460,000 hectares of forests, establish forestry plantations and provide additional income to more than 8,000 forest owners.

households, and requires **careful design to ensure a just transition**.

For instance, **Denmark** reformed its pesticide tax system in 2013 to better reflect human health risks and environmental impacts, while reimbursing revenues from the tax to the agricultural sector, through reduced land value taxes. This reimbursement mechanism helped reduce resistance among farmers to the tax.

## UNEP's work on fiscal policies for sustainable agriculture

The United Nations Environment Programme (UNEP) undertakes global research on the impacts of agriculture-related subsidies and provides advice to countries on how reforming fiscal policies can create an enabling environment to mobilise finance towards sustainable agriculture, encourage more sustainable practices in the sector and support delivery of the SDGs and NDCs. Depending on country-specific training and capacity development needs, UNEP also provides tailored training and capacity development workshops, organizes webinars and sets up platforms and networks to bring together governmental and non-governmental stakeholders to support green fiscal reforms in the agriculture sector.

UNEP delivers this work in collaboration with partners through existing networks and partnerships such as the Green Fiscal Policy Network, Partnership for Action on Green Economy (PAGE), Good Growth

Partnership, One Planet Network, and others. The formulation of policy advice is developed in close consultation with national stakeholders. The Green Fiscal Policy Network is a web-based platform which aims to disseminate knowledge and share country experiences on green fiscal policy reforms to deliver the SDGs. It also promotes policy dialogue on green fiscal policy to shape the global agenda in this area.

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