



Food and Agriculture  
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2018

# THE STATE OF AGRICULTURAL COMMODITY MARKETS



## Agricultural trade, climate change and food security

The 2018 edition of *The State of Agricultural Commodity Markets* aims to deepen the discussion on the broad spectrum of policy instruments available to policy-makers implementing the Paris Agreement. It examines how various forms of domestic support and trade measures relate to climate change adaptation and mitigation; how they might be used in the future; and, how multilateral agricultural trade rules shape policy choices.

The report explores policy options that lie at the juncture of: the Paris Agreement, a framework that allows flexibility in setting targets and choosing interventions; and the World Trade Organization (WTO) agreements, which are based on specific rules and commitments aimed at minimizing production and trade distortions. As such, it discusses how best to strengthen the mutually supportive role of these multilateral accords.

### CLIMATE CHANGE WILL AFFECT AGRICULTURE AND FOOD SECURITY IN MANY COUNTRIES

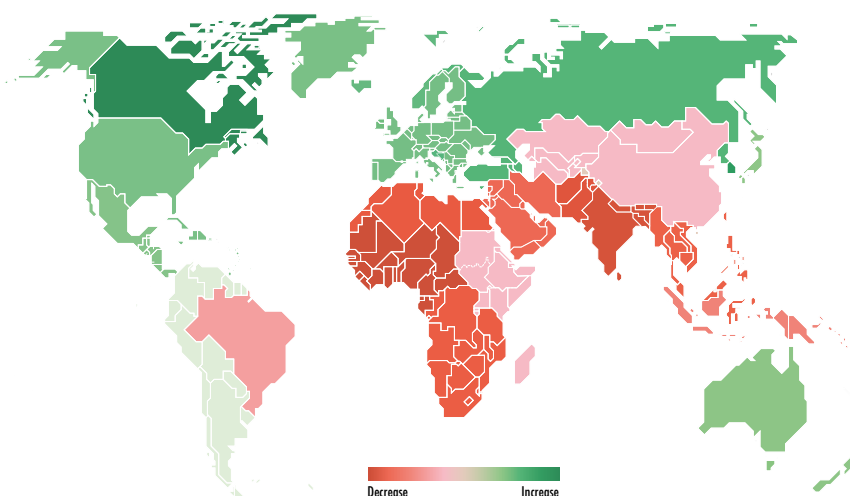
Climate change will have significant implications for agriculture and food security. By the middle of this century, higher average temperatures, changes in

precipitation, rising sea levels, an increase in the frequency and intensity of extreme weather events, as well as the possibility of an increase in damage from pests and disease, are expected to affect crop and livestock production, as well as fisheries and aquaculture.

This impact will be uneven across regions and countries. In

low-latitude regions, where most developing and least developed countries are located, agriculture is already being adversely affected by climate change, specifically, by a higher frequency of droughts and floods. For some developing countries, climate change will exacerbate the food security challenges they already experience.

CHANGES IN AGRICULTURAL PRODUCTION IN 2050: CLIMATE CHANGE RELATIVE TO THE BASELINE



SOURCE: Based on data provided by Wageningen Economic Research. 2018. *Climate Change and Global Market Integration: Implications for global economic activities, agricultural commodities and food security*. SOCO 2018 Background Paper, Rome, FAO.

## AGRICULTURAL TRADE CAN CONTRIBUTE TO CLIMATE CHANGE ADAPTATION AND MITIGATION EFFORTS

Since the beginning of the twenty-first century, agricultural trade patterns have evolved in line with economic growth in emerging economies. In the coming years, agricultural trade is expected to undergo further changes, reflecting the uneven and disproportionate impact of climate change on agricultural sectors across the globe. As climate change alters the comparative advantage and competitiveness of agriculture across regions and countries, some nations will lose while others will gain.

International trade could play a particularly important role in adaptation efforts, contributing towards food security in many countries. In the short term, by moving food from surplus to deficit areas, trade could provide an important mechanism for addressing production shortfalls due to extreme weather events. In the long term, international trade could contribute towards adjusting agricultural production in an efficient manner across countries. Trade could also support mitigation efforts and contribute to reducing global agricultural GHG emissions. This is challenging, and discussions on trade policies that can be supportive of mitigation measures will be essential.

## MULTILATERAL AGREEMENTS: THE MUTUALLY SUPPORTIVE ROLE OF THE PARIS AGREEMENT AND THE WTO COMMITMENTS FOR AGRICULTURE

In 2015, the Paris Agreement on Climate Change set the long-term goal of keeping the rise in global average temperature to well below 2 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change. The Agreement also enables each country to determine its own targets and what it considers to be its fair contribution towards limiting the global average temperature increase.

# KEY MESSAGES

- The role of emerging economies in global agricultural markets has increased since 2000. Growing income per capita and reduced poverty boosted food consumption and imports, while increases in agricultural productivity led to growing exports.
- Developing countries are increasingly participating in international markets. South–South agricultural trade has also expanded significantly. For Least Developed Countries, agricultural imports have grown faster than exports.
- Climate change will affect world regions unevenly. It is already affecting vulnerable countries and will pose a major threat to their food security.
- Agricultural trade can help in adapting to climate change and in ensuring food security. It can support adaptation efforts by stabilizing markets and reallocating food from surplus to deficit regions.
- In principle, there is no fundamental conflict between climate change policies and multilateral trade rules. Various provisions of the WTO can accommodate the implementation of climate-related policies of the Paris Agreement.
- Trade can contribute towards improving food security. In the short term, trade can provide a mechanism for addressing production shortfalls due to extreme weather events. In the long term, it can contribute towards adjusting agricultural production in an efficient manner across countries.

Targets, and the general approach to meeting them, are reflected in the ‘Nationally Determined Contributions’ (NDCs), a central component of the Agreement.

Trade will be important in contributing to food security, as the effects of climate change on agricultural production will be uneven across countries. Trade policies are subject to World Trade Organization (WTO) agreements that create a transparent and predictable system of international trade rules and ensure fair and equitable treatment of all participants by minimizing trade distortions.

## POLICIES TO COMBAT CLIMATE CHANGE AND PROMOTE AGRICULTURAL DEVELOPMENT AND TRADE SHOULD BE INTEGRATED

In principle, there is no fundamental conflict between policies under international climate change frameworks and trade rules. Measures to promote adaptation and mitigation in agriculture will be part of broader

agricultural and food security policies, and thus will be subject to rules and disciplines of the WTO Agreement on Agriculture. Significant progress in adaptation and mitigation can be achieved through measures that do not distort trade, such as spending more on innovative technologies and investing in their adoption; and extending climate-smart agricultural practices that promote productivity, adapt to climate change and increase carbon sequestration. Trade policies can contribute towards well-functioning international markets to which countries that experience production shortfalls due to weather shocks can resort in order to ensure food security. Trade could also be important in climate change mitigation efforts.

Discussing and implementing policies for climate change adaptation and mitigation today will bring the transformative change that is necessary to make agriculture meet the challenges of our time. ■



*The State of Agricultural Commodity Markets*, published biennially, presents commodity market issues in an objective and accessible way to policy-makers, commodity market observers and stakeholders interested in agricultural commodity market developments and their impacts on countries at different levels of economic development.

*Subject categories:*  
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