Measuring Carbon Footprints of Agri-Food Products

Eight Building Blocks

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Preface

In pursuit of their net zero objectives, countries are using, or plan to use, a widely varied set of approaches. This richness of policy experiences provides valuable insights on the effects of different tools, which can be adapted to unique national circumstances, but international cooperation will be needed to ensure these tools are as effective as they can be.

Towards this, the Inclusive Forum on Carbon Mitigation Approaches (IFCMA) is the OECD's flagship initiative, designed to help optimise the global impact of emissions-reduction efforts around the world through better data and information sharing, evidence-based mutual learning and better mutual understanding, and inclusive multilateral dialogue. The IFCMA is taking stock of different approaches, mapping policies to the emissions they cover, and modelling their impacts.

Recent analytical work by the IFCMA highlights the need for sector- and product-level carbon intensity metrics to support the design and evaluation of mitigation policies and enable the development of markets for low-carbon goods. More accurate, timely, and granular product-level carbon intensity metrics could form a foundation on which a wide range of public and private mitigation efforts could be built.

The report Measuring Carbon Footprints of Agri-Food Products is part of our effort to further support this objective by exploring essential building blocks to develop a reliable system to measure carbon footprints in agri-food supply chains. The agri-food sector accounts for one-third of human-made emissions, making it a key focus for reducing global emissions. At the same time, it supports millions of livelihoods, including small-scale farmers and communities in low- and middle-income countries, highlighting the importance of minimising compliance costs for farmers and businesses, and avoiding the unintended creation of trade barriers.

Looking ahead, governments can further enhance transparency in deploying farm-level calculation tools by using the latest scientific evidence, as well as enhancing communication of carbon footprints data along the supply chain. Further support is also needed for farmers, small and medium-sized enterprises, and producers in developing countries to overcome practical barriers in calculating carbon footprints.

The OECD will continue to support globally better coordinated and more effective carbon mitigation approaches, including identifying strategies for governments to enhance the quality and availability of sector- and product-level carbon intensity metrics.

Mathias Cormann
Secretary-General

Foreword

Food systems account for an estimated one-third of global greenhouse gas (GHG) emissions. The 2022 OECD Meeting of Agriculture Ministers therefore committed to increase climate change mitigation efforts by reducing emissions from agriculture and food systems and by increasing carbon sequestration. In 2023, 160 Heads of State and Government similarly affirmed in the COP28 UAE Declaration on Sustainable Agriculture, Resilient Food Systems, and Climate Action, that any path to achieving the goals of the Paris Agreement must include agriculture and food systems.

OECD analysis has long supported governments' efforts to improve the environmental sustainability of the agricultural sector, including GHG emissions. In recent years, OECD analysis has also taken a broader "food systems" lens, looking at the role of food loss and waste, consumer behaviour, and environmental impacts along food supply chains, among other topics.

Reliable data is essential to support efforts to improve environmental sustainability, whether by governments, farmers, businesses, or households. Yet at the moment, it is often difficult to find reliable data on environmental impacts of food products, such as their carbon footprint.

This report asks what it would take to achieve reliable and widespread measurement of carbon footprints of agri-food products, taking into account the specific characteristics of the sector. It identifies eight building blocks and shows that many of the necessary elements are emerging, although more work is needed to further develop and align these. It calls on researchers, farmers, other supply chain actors, governments, and civil society, both at the domestic and international levels, to work together to avoid fragmentation.

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