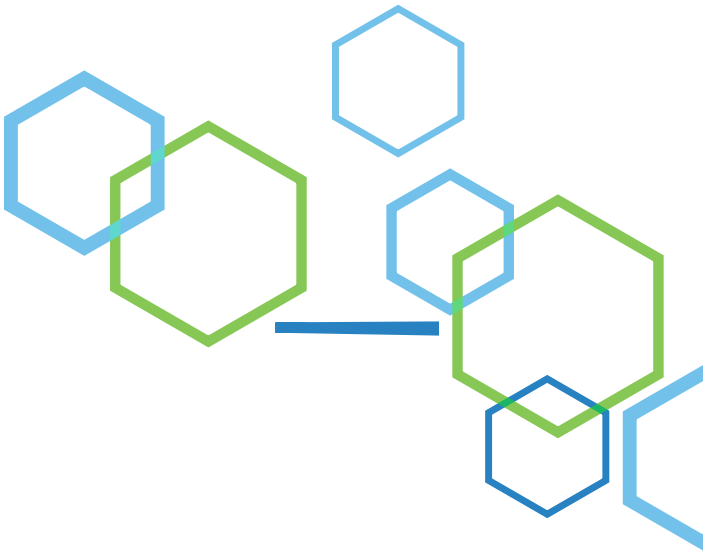
THE TRADE AND CLIMATE CHANGE NEXUS



Foreword

All human and economic activities have an impact on the environment. Trade is no different.

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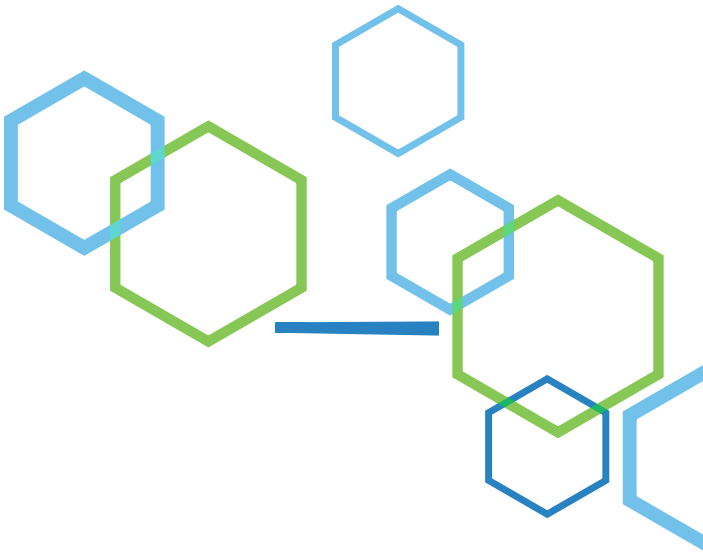
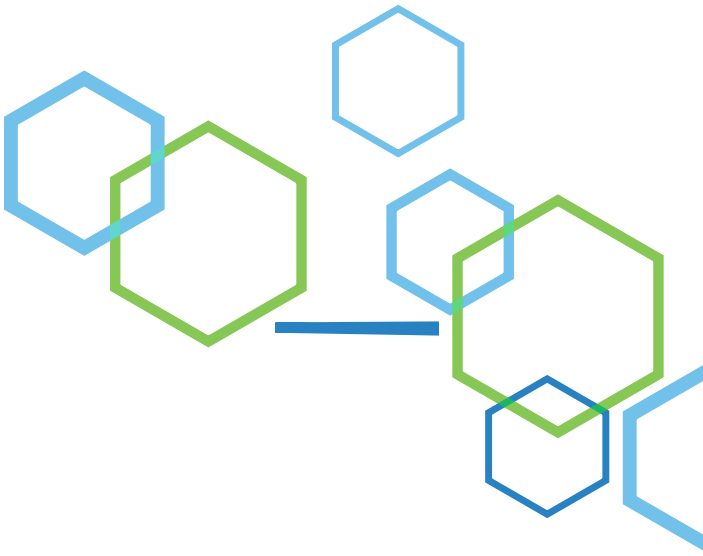


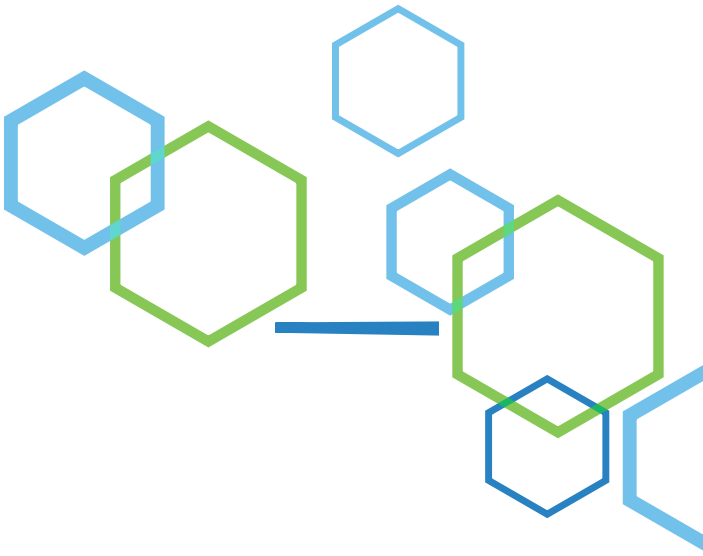


About the Authors

stunting of children, which affects their learning and productivity in later life. During

Abbreviations

ACCTS	Agreement on Climate Change, Trade, and Sustainability
AfCFTA	African Continental Free Trade Area
AGOA	African Growth and Opportunity Act
AMIS	Agricultural Market Information System
APEC	



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Introduction

be vulnerable to food insecurity by the end of the century (Stevens and Madani 2016).

institutional and technical capacity to address climate change. But policy makers also need to be aware of how climate change will affect other countries in terms of competitiveness and comparative advantage.

Good governance and appropriately designed policies

transition. Indeed, there are good reasons to believe that greening trade will contribute more to better growth, poverty reduction, and human development outcomes than current development trajectories.

The report is organized as follows. Chapter 2 explains the rationale for paying attention to the important role of low- and middle-income countries in mitigating and adapting to climate change. It presents new analyses pointing to the increasing annual growth ratnew ari3issiasons io thpo(mor)9st 1(c)4(ountrie1(anp(gr)9(o)1vidriesolutiasone thactt)4(ep

Although the growth of trade and integration into global value chains has slowed since the financial crisis of 2008, countries that are deeply plugged into global value chains experience greater economic benefits; global shocks threaten

GDP growth rates of the entire world (average), China, India, and the United States were 3.14 percent, 7.5 percent, 6.7 percent, and 2.3 percent, respectively.

Emerging emitters have significantly lower levels of GDP per capita than the world average as well as higher levels of poverty. While they comprise countries in development categories ranging from the lowest-income countries to economies in

FIGURE 2.2 CO_2 Emissions and GDP Growth of 59 Emerging Emitters, China, India, and tho5nited( )]TJETEMC E

tripled (growing a factor of 2.75). Additional analysis by the International Food Policy Research Institute, using Food and Agriculture Organization data, shows that produc-

inclusive growth globally, and meeting climate goals will require cooperative solutions that consider both the development needs and the emissions realities of low- and middle-income countries.

Trade policy has the tools needed to shift an economy toward green growth. Trade agreements have traditionally focused on environmental regulations and rarely

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temperature affect the agricultural exports of both high-income and low- and middle-

TABLE 3.4 Average Most-Favored-Nation Unweighted Tariffs on Agricultural Products in Selected Countries and Regions, 2019

Country or region

EVOL

Sources: World Bank data; Hu et al. 2021.
Note:

Conclusions

Climate change is having profound impacts on production and trade, especially in agriculture, and these impacts will get even worse in the coming decades. Given the importance of agriculture and the continuing challenge of food security, the impacts will be felt most strongly in low- and middle-income countries, particularly poor ones. For some low-income countries, the impacts could be catastrophic—that is, they could

(d) international organizations would support the improvement of national or regional monitoring systems in vulnerable low- and middle-income countries and regions. See AMIS Secretariat (2011).

7. For details, see the "Declaration on Trade in Essential Goods for Combating the Covid-19 Pandemic," April 15, 2020, https://www.beehive.govt.nz/sites/default/files/2020-04/FINAL%20TEXT%20Declaration%20on%20Trade%20in%20Essential%20Goods.pdf.

8. These members were the European Union; the United States; Australia; Brazil; Canada; Chile; Colombia; Costa Rica;

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Adaptation to Climate Change: Trade in Green Goods and Services and Access to Low-Carbon Technologies

The implications for trade of adapting to a changing climate

Adaptation to climate change is already happening and can take place through the use of current technologies. For example, as temperatures rise, farmers can offset increasing nutrient constraints by applying additional fertilizer, combat the prevalence of weeds by using more machinery and labor, or offset lower yields by using irrigation. These adaptation techniques are especially challenging for low-income countries, which are the most vulnerable to climate change. Trade will play a key role in this adaptation process. For instance, crop selection and trade adjustments can help to mitigate the impacts of climate change. One study finds that changes in crops and trade

generate substantially lower prices. The lack of an effective system of standards is a major barrier to cross-border trade and regional fertilizer markets. Two key issues need to be addressed: (a) establishing a consistent and stable policy environment for

The EGA has been suggested as an appropriate forum for discussing and developing a plurilateral mutual recognition agreement for environmental goods (Sugathan 2018). Governments could come together at the WTO under the EGA and, starting

geothermal sectors, stressing that "a broad group of services are indispensable to the development and functioning of renewable energy projects" (Sauvage and Timiliotis 2017). If environmental goods are the hardware for addressing climate change, environmental services are the software that ensures they work as intended (Steenblik and Droege 2019).

As is the case with many capital goods, the installation and operation of machines and pieces of equipment to prevent or abate pollution can be complex, requiring

services, particularly in the case of North-South regional trade agreements. This finding partly reflects the larger number of commitments that high-income countries have made in GATS, which has left little "binding overhang" or "GATS water" to be addressed through regional trade agreements between high-income countries (OECD 2017, 14).

Conclusions

Access to environmental goods and services will play a critical role in mitigating emissions and achieving the Paris Agreement commitments, as well as in adapting to a changing environment. The following are among the key issues:

- *Reviewing tariffs on environmental goods*, especially in low- and middle-income countries, to ensure that they are consistent with environmental objectives
- *Identifying and quantifying the main nontariff barrie10 0 3DCjETBT1p0denting emis*

3. A *plurilateral* agreement implies that WTO member

References

Sauvage, Jehan, and Christina Timiliotis. 2017. "Joint Working Party on Trade and Environment: Trade in Services Related to the Environment." COM/TAD/ENV/JWPTE (2015) 61 /FINAL. Organisation for Economic Co-operation and Development, Paris.

Steenblik, Ronald P. 2020. "Code Shift: The Environmental Significance of the 2022

machinery using purchased electricity.

emissions data to levy carbon taxes corresponding to industry averages in either the importing country or the country of origin. But a border adjustment program that offers overseas producers the option to prove the actual carbon footprint of their prod-

regulatory systems could be demanding, and it remains unclear how the grounds for exemptions could be evaluated.

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- Serious implementation problems are likely to arise because of limited data availability, especially in low- and middle-income countries.

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significant declines. However, the reallocation of exports to other destinations and to the domestic market means that the fall in total exports (by product and region) will be much smaller than the reduction in exports to the EU and the impact on

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To appreciate the challenges facing large firms sourcing from global value chains, it is useful to understand the basics of carbon reporting. As discussed earlier, emissions are categorized in three groups: scope 1, scope 2, and scope 3. Scope 1 and scope 2 emissions are relatively easy for a firm to report (and easier to affect because they are under the firm's direct control). Scope 3 emissions are more challenging, both for reporting and achieving emissions reductions. The longer and more complex the value chain, the more difficult it is to identify and calculate scope 3 emissions.[15] The

Hence, the challenge is how to ensure that poor countries' interests are reflected in the development of carbon-accounting standards and methodologies and that the realities of their conditions are reflected in the databases used in emissions reduction initiatives.

There is a general lack of knowledge of how low-income-country value chains perform in terms of carbon emissions and how poor countries will fit into future value

allocation of many permits and the generally low price of the permits that are sold. Transport & Environment, an environmental nongovernmental organization, has calculated that the extra costs of an economy ticket on an Oslo-Rome flight would be less than €4 (US$4.50) per return ticket. When the EU first discussed including aviation in its ETS, the EC expected only modest increases for tickets to a typical tourist destination. Good (2010) estimates that the program, as initially proposed, would have increased the cost of a return ticket to the Caribbean by €16 to €20. The impact on tourism, including in low-income countries, is particularly difficult to assess because it

2. The mechanism of carbon leakage sketched here

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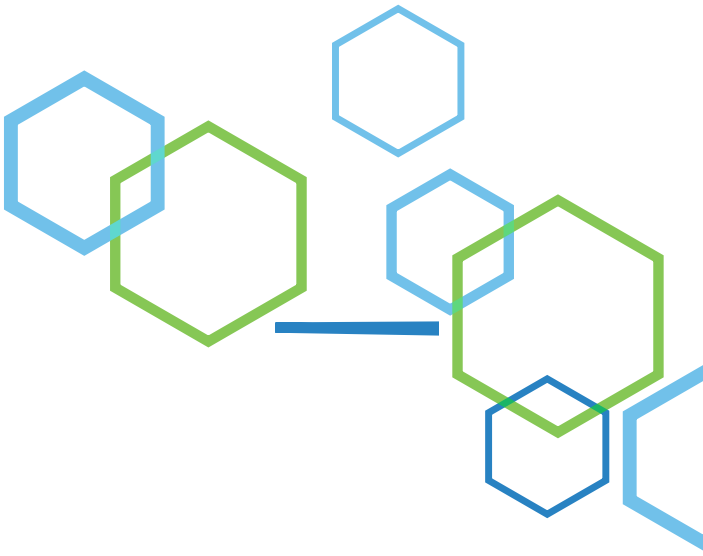
standards. The Greenhouse Gas Protocol has also produced a standard for scope 3 emissions accounting (Greenhouse Gas Protocol 2011) and a free, web-based tool—Scope 3 Evaluator—that allows users to make an initial, rough approximation of their full scope 3 footprint, regardless of the size or type of organization (https://ghgprotocol.org/scope-3-evaluator).

20. Danone provides a case study of the application of the Value Change approach. Danone's shdudchai ans /sc eudedi(r)9ctduda fr r



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Key environmental and climate change issues especially relevant to the rural areas of Ethiopia include (a) climate variability and change, (b) land degradation and desertification, and (c) water scarcity and stress. The impacts of climate variability and climate change on rural populations and livelihoods, particularly in semiarid highlands

the wider economy. In national economies with strong downstream linkages (like Ethiopia's), reductions in primary agricultural production can trickle down and affect productivity in downstream sectors, such as food processing and leather manufacturing, by reducing the availability and increasing the prices of primary inputs (UNCTAD 2021, 12).

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property, and intellectual property is critical for transitioning to a green economy. The WTO (through its dispute settlement mechanism) offers a legal avenue for enforcing and fulfilling international environmental-climate treaties. WTO legal jurisprudence is

2.

Reference

Cui, Can, Dabo Guan, Daoping Wang, Vicky Chemutai, and Paul Brenton. 2020. "Emerging Emitters and Global Carbon Mitigation Efforts." Working Paper, World Bank, Washington, DC. https://openknowledge.worldbank.org/handle/10986/35845.

Appendix B

FIGURE B.1 Average Most-Favored-Nation Tariffs on Environmental Goods (APEC List), by Economy, 2018

Source: Data from World Integrated World Integrated Trade Solution (WITS).
Note: APEC = Asia-Pacific Economic Cooperation; CEMAC = Central African Economic and Monetary Community; EAC = East African Community; GGC = Gulf Cooperation Council; SACU = Southern African Customs Union; WAEMU = West African Economic and Monetary Union.

Appendix C

- What are the characteristics of the main transport routes for imports and exports?
- What are the main locations within the country where exports are produced

2. *What are the main policy and infrastructure barriers that limit the role of trade*