



TRADE AND ENVIRONMENT REVIEW 2021

**Trade-climate readiness
for developing countries**



UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

UNCTAD

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Note

Reference to dollar and \$ indicate United States of America dollars, unless otherwise stated. Use of an en dash (–) between dates representing years, e.g. 2015–2018, signifies the full period involved, including the initial and final years. Decimals and percentages in this document do not necessarily add to totals because of rounding.

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For further information on the activities of UNCTAD's trade and environment, please consult the following website: <https://unctad.org/topic/trade-and-environment>.

Acronyms and abbreviations

AR5	IPCC Fifth Assessment Report
CARICOM	Caribbean Community
CBI	Citizenship by Investment
CIMP5	IPCC Coupled Model Intercomparison Project Phase 5
CO ₂	carbon dioxide
COP	UNFCCC Conference of the Parties
EEZ	Exclusive Economic Zone
FAO	Food and Agriculture Organization
GCF	Green Climate Fund
GCM	Global Circulation Model
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	greenhouse gas
ICT	Information and Communication Technologies
IPCC	Intergovernmental Panel on Climate Change
LDC	Least Developed Country
LDCF	Least Developed Country Fund
MPA	marine protected area
NAP	National Adaptation Plan under the UNFCCC
NAPA	National Adaptation Plan of Action under the UNFCCC
NDC	Nationally Determined Contributions under the UNFCCC
OECD	Organization for Economic Co-operation and Development
PPP	Public Private Partnership
RCP	Relative Concentration Pathway
SIDS	Small Island Developing States
SITC	Standard International Trade Classification
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change

Executive summary

This edition of UNCTAD's Trade and Environment Review examines the physical impacts of climate change and their effects on developing country economies and trade; the vulnerabilities of developing countries to climate change; costs and finance for climate change adaptation; and finally, ways that developing countries can enhance their trade-climate readiness, i.e., enhance the resilience of their trade to climate change through adaptation actions and economic diversification. Special attention is given to examining the challenges faced by the poorest and most vulnerable developing countries, specifically the least developed countries (LDCs) and small island developing states (SIDS).

Accumulating anthropogenic emissions of greenhouse gases, leading to higher concentrations of these gases in the atmosphere, are causing the Earth's climate to change. Physical impacts resulting from climate change have already been observed in many countries, including warmer temperatures with longer and hotter warm spells, extended periods of drought, heavy rain and wind storms, stronger tropical storms and cyclones, desertification, sea level rise, beach erosion, saltwater infiltration of groundwater, algae bloom, and coral bleaching, among others.

In developing countries, many of these adverse impacts are already significant, introducing new development challenges. These challenges will grow and become more widespread in the coming years and decades as climate change progresses and the amplitude, frequency, and duration of its adverse impacts increase.

The severity and geographical distribution of the physical impacts of climate change in future decades will depend on past, present and future global greenhouse gas emissions. Future emissions will depend on the development paths countries pursue going forward. Mitigating climate change requires development paths wherein future greenhouse gas emissions are reduced substantially from current levels.

Even if all current country commitments to reduce greenhouse emissions under the aspirational UNFCCC Paris Agreement are achieved, warming of the atmosphere will continue for several decades and only cool gradually over the next few centuries. Ambitious mitigation actions cannot prevent climate change, but only limit the expected level of climate damages by 2100. Society is thus already committed to a certain level of warming and the numerous physical impacts that accompany it. As a result, adaptation is an imperative regardless of the level of progress achieved in mitigating global emissions.

Adverse changes in the climate will have economic, environmental, and social impacts. Anticipated impacts include land and ecosystem degradation; falling agricultural and fisheries productivity; damage to residential, commercial, and public infrastructure; declining tourism activity in adversely affected regions; reduced worker productivity due to higher temperatures and emerging health threats, and mass migration. And while these impacts progressively worsen as climate change intensifies over the long term, punctual impacts from stronger and more frequent tropical storms and cyclones can cause deeper economy-wide losses at any time.

The warming atmosphere and oceans are driving a poleward shift of climatic zones that will translate into a progressive redistribution of benefits and losses among human populations and ecosystems across regions

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