

The role of trade in climate change adaptation

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Adaptation

World has already experienced 1.1 °C of warming since 1850-1900 – expected to reach 1.5 °C in next 20 years. 3.3-3.6B people live in highly vulnerable contexts. (IPCC AR6)

“The process of adjustment to actual or expected climate and its effects in order to moderate harm or exploit beneficial opportunities”

Intergovernmental Panel on Climate Change (IPCC) 2014

- Not a choice – locked into change
- Fundamentally intertwined with mitigation
- Co-benefits with mitigation



Adaptation

Structural and physical measures

- **Engineered / built environment:** Sea walls, cyclone shelters
- **Application of technologies:** New crop and animal varieties
- **Use of ecosystem services:** Wetland restoration, green roofs
- **Delivery of specific services:** Social safety nets, vaccination

Social measures

- **Educational:** Awareness raising
- **Informational:** Hazard mapping, early warning
- **Behavioural:** Migration, changing cropping practices

Institutional measures

- **Economic:** Taxes, subsidies, insurance
- **Laws and regulations:** Zoning, codes, property rights
- **Government policies and programs:** National plans

(IPCC AR5)



Barriers and needs

The growing adaptation gap

Not adapting fast enough

- Most current efforts are fragmented, small in scale, incremental, sector-specific, respond to near-term risks

Soft and hard limits to adaptation

- Hard – no additional adaptive actions possible,
- Soft – options not currently available but can become so in future
 - **Financial:** Lack of finance, access to credit
 - **Informational:** Monitoring slow-onset events
 - **Technological:** Outdated infrastructure
 - **Human capacity:** Skills to analyse climate information
 - **Governance:** Coordination between levels of government
 - **Institutional:** Land tenure
 - **Policy:** Lack of plan, conflicting strategies



Role of trade in supporting adaptation

Three general pathways

1. Domestic trade policy measures that enhance access to adaptation goods and services;
2. Access to trade-related financing mechanisms that support climate adaptation; and
3. International collaborative frameworks on trade in support of climate adaptation

Pathway 1

Domestic trade policy measures that enhance access to adaptation goods and services

- Trade policy measures can be designed to facilitate the availability and accessibility of particular goods and services required to adapt to climate change
- **Trade policy instruments:** Tariffs, subsidies, government procurement, intellectual property rights, private, voluntary sustainability standards, labels, and certification schemes, minimum requirements
- Adaptation – and therefore adaptation goods and services – is highly context[specific]; trying to develop comprehensive and static checklists won't work → maladaptation

Adaptation goods

Goods produced in a manner that explicitly manage climate risks (along whole VC)



Drought-tolerant maize from regions where traditional maize varieties are no longer suitable due to increasing temperatures



Clothing produced with special fibers that consume less water from a cotton-sourcing region experiencing drier conditions



Food / beverages processed using recycled water to minimize water consumption in a region affected by more droughts

Adaptation goods (2)

Goods used as inputs or consumed for adaptation end effects

Final goods



Climate-resilient seeds and **water efficient irrigation** technologies for use in drier conditions



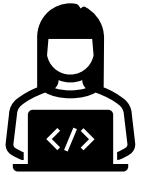
Desalination technologies to ensure freshwater supplies in the face of sea level rise



Early warning systems in context of more extreme events

Intermediate goods: Machinery, spare parts, technologies needed to produce abovementioned final goods

Adaptation services



- Qualified labour for collecting / analyzing climate data
- Engineering services to design and build climate-resilient infrastructure
- Climate impact modelling and sector-specific data analysis
- Climate change vulnerability and risk assessments
- Provision of climate adaptation decision-support tools (e.g., to mainstreaming)
- Agricultural extension services to farmers (including on climate-smart agriculture)
- Provision of weather index insurance



Pathway 2

Access to trade related financing mechanism that support climate adaptation

- **Global adaptation finance gap is large:** annual costs estimated to reach USD 300 and 500 billion in 2030 and 2050, respectively, about USD 30 billion went to adaptation in 2017-18
- **Aid for Trade**, two entry points:
 - **Leveraged** as co-financing to secure climate finance from Green Climate Fund or Adaptation Fund – especially in agriculture and infrastructure (Ghisu and Ancharaz, 2013)
 - **Integrate adaptation** into trade-related ODA to ensure trade supports adaptation
- **Enhanced Integrated Framework**
 - Integrate adaptation considerations into tools such as Diagnostic Trade Integration Studies, which are then translated into specific technical assistance and capacity building programs

Pathway 3

International collaborative frameworks on trade in support of climate adaptation

- Trade agreements as entry points to identify and advance mutual areas of interest through targeted cooperation
- **Possible avenues to integrate trade and adaptation provisions in trade agreements**
 - Broader policy cooperation on adaptation
 - Information sharing and dialogue
 - Cooperative capacity building
 - Liberalization of climate adaptation goods and services
 - Working towards harmonization or mutual recognition of environmental standards and regulations
 - Fostering climate-resilient foreign direct investment
 - Incentivizing adaptation through subsidies

Thank you

<https://www.iisd.org/system/files/2021-10/trade-support-climate-adaptation-developing-countries.pdf>