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Day 1: Integrating trade into NDCs to advance climate and sustainable development goals

Training Materials

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Topic:

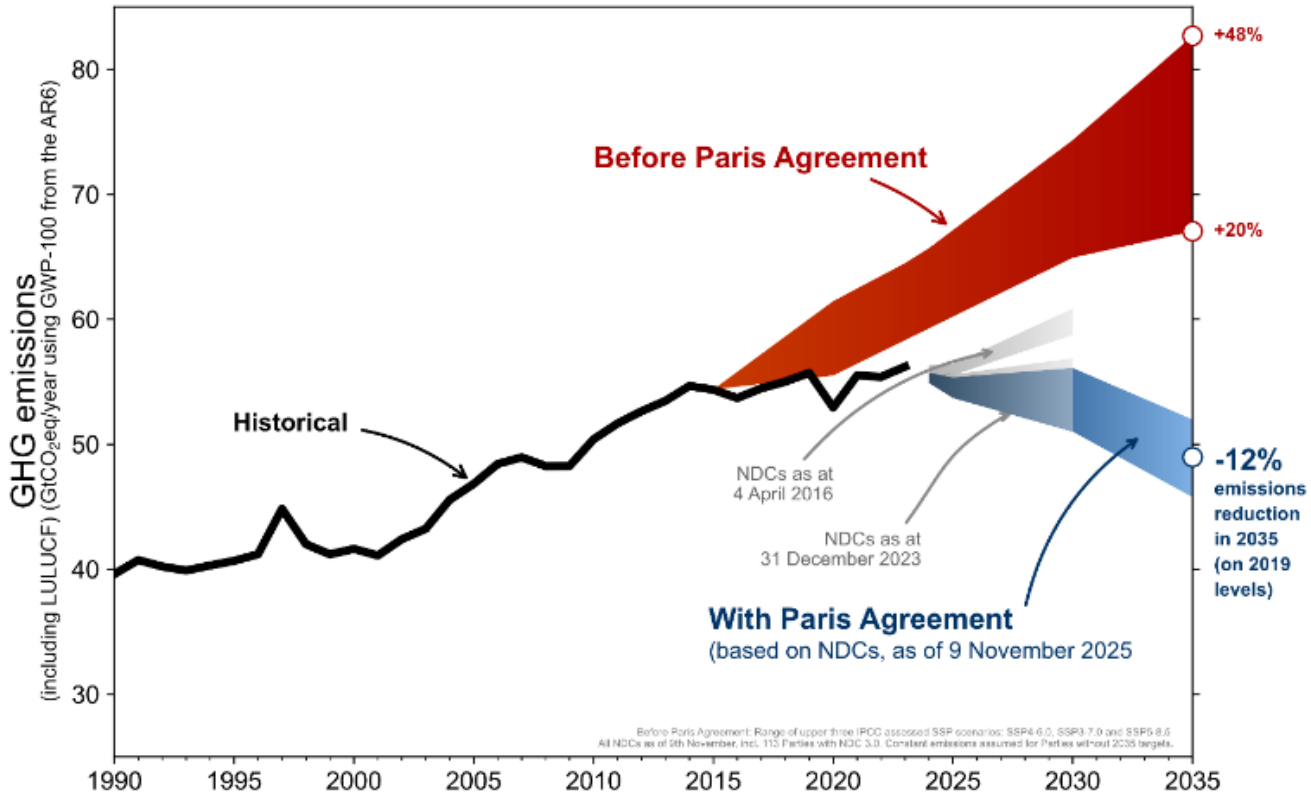
Updates from UN Climate Conference (COP 30)

UNCTAD
Division on International Trade and Commodities

NDCs 3.0- Revised Synthesis Report

88 new NDCs submitted by 113 Parties as of 9 Nov 2025:

- 69 per cent of total global GHG emissions in 2019
- Global GHG emissions in 2035 are projected to be around 12% below 2019 levels (before PA projected emissions between+20% and 48% in 2035)
- Economy-wide targets, informed by GST
- Not only mitigation but also adaptation, finance, technology transfer, capacity-building and addressing loss and damage
- International cooperation, and new and innovative approaches for finance needed for implementation



COP30 Outcome: Belem Political Package

- 18 decisions including the Mutirão (collective effort) decision

Strong political message

- Commitment to multilateralism and Paris Agreement (PA)
- Commitment to accelerated action. PA is working. Implementation needs to increase and accelerate faster to keep to 1.5C within reach
- Global shift toward low-emissions and climate-resilient development is ***irreversible and the trend of the future***
- COP of truth (best available science and fight against disinformation)
- Transition from negotiation to implementation. Commitment to accelerate national climate plans
- International cooperation- Mutirão must continue

Key aspects

- **Adaptation.** Countries agreed on indicators for the Global Goal on Adaptation (Belem Adaptation Indicators).
- **Just Transition.** Agreement to develop a just transition mechanism, enhancing cooperation, technical support and capacity-building.
- Calls for scaling **climate finance** for developing countries to **at least USD 1.3 trillion per year by 2035**. Reaffirms doubling—and aiming to **triple**—adaptation finance.
- No commitment to **phase out fossil fuels**. But Brazil to create roadmap to transition away from fossil fuels in a just, orderly and equitable manner.
- Trade elevated within the **Action Agenda**. Objective on Climate and Trade. Plans to Accelerate Solutions:
  - Integrated Forum on Climate Change and Trade (IFCCT)
  - Harnessing Trade Policy for NDCs, Low-Carbon Economic Diversification and Climate Resilience (UNCTAD-led)

Trade-related issues (response measures) in UNFCCC processes

UNFCCC (1992)

- Articles 4.8 and 4.10 ➔ recognized the potential adverse impacts of response measures on developing countries' exports

Paris Agreement (2015)

- Article 4.15 ➔ When implementing the Agreement, Parties should consider the concerns of economies most affected by response-measure impacts, especially developing countries

Response Measures:

- Actions/policies/programmes taken by UNFCCC Parties to address climate change

- Examples: Emissions trading schemes, carbon taxes/levies, subsidies, carbon border adjustment measures, etc

Forum on Impact of the Implementation of Response Measures and its Katowice Committee of Experts (KCI)

Mutirão Political Decision

Trade-related issues:

- *Reaffirms* that the Parties should cooperate to promote **a supportive and open international economic system**
- *Reaffirms* that measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on **international trade**
- *Requests* UNFCCC Subsidiary Bodies to hold **three dialogues** (2026-2028) on enhancing international cooperation related on trade and a high event in 2028

What's next? Unctad support to UNFCCC

• UNCTAD trade and climate mandates

- Support developing countries in using trade and investment policies to support SDGs.
- Assist developing countries in NDCs trade-related policies design and implementation
- Analyze the impact of trade related environmental measures on the economies of developing countries

Contribution implementing COP30 and Action Agenda

- Cooperate with partners (ITC and WTO) to further support the Subsidiary Bodies Dialogues ➔ Deliver evidence-based analysis and data
- Contribute to IFCCT
- Support NDCs design and implementation and low-carbon competitiveness in developing countries and LDCs.
- Support Action Agenda on climate and trade (PAS)

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Topic:

The Potential for Decarbonising the Textile Industry Through Circularity: The Case of Bangladesh

Atiq Zaman,
Curtin University &
Global South Nexus

Decarbonising the Textile Industry through Circularity: The Case of Bangladesh

Dr Atiq Zaman

Associate Professor, Curtin University, Australia

Founding Co-Director of the Global South Nexus (GSN)

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9 December 2025

E-training course: Emerging issues at the interplay between trade and sustainable development, UNCTAD

SMEP PILOT PROJECT:

Project Partners:

Factory Location:	**Bangladesh**
Factory Name:	Fakir Knitwear
Leading Retail Brands:	Primark, H&M
Treatment Technology:	Ultrafiltration and reverse osmosis (RO)
Technology Provider:	Grundfos, Panta Rei in collaboration with WaterAid
Annual Water Use	432,000 cubic meters (m^3)

Decarbonising the Textile Industry in Bangladesh

Contribution to Economy

- 84% of national exports
- 12–13% of GDP
- Employs 4.2 million workers, majority women
- Over 4,500 textile & garment factories

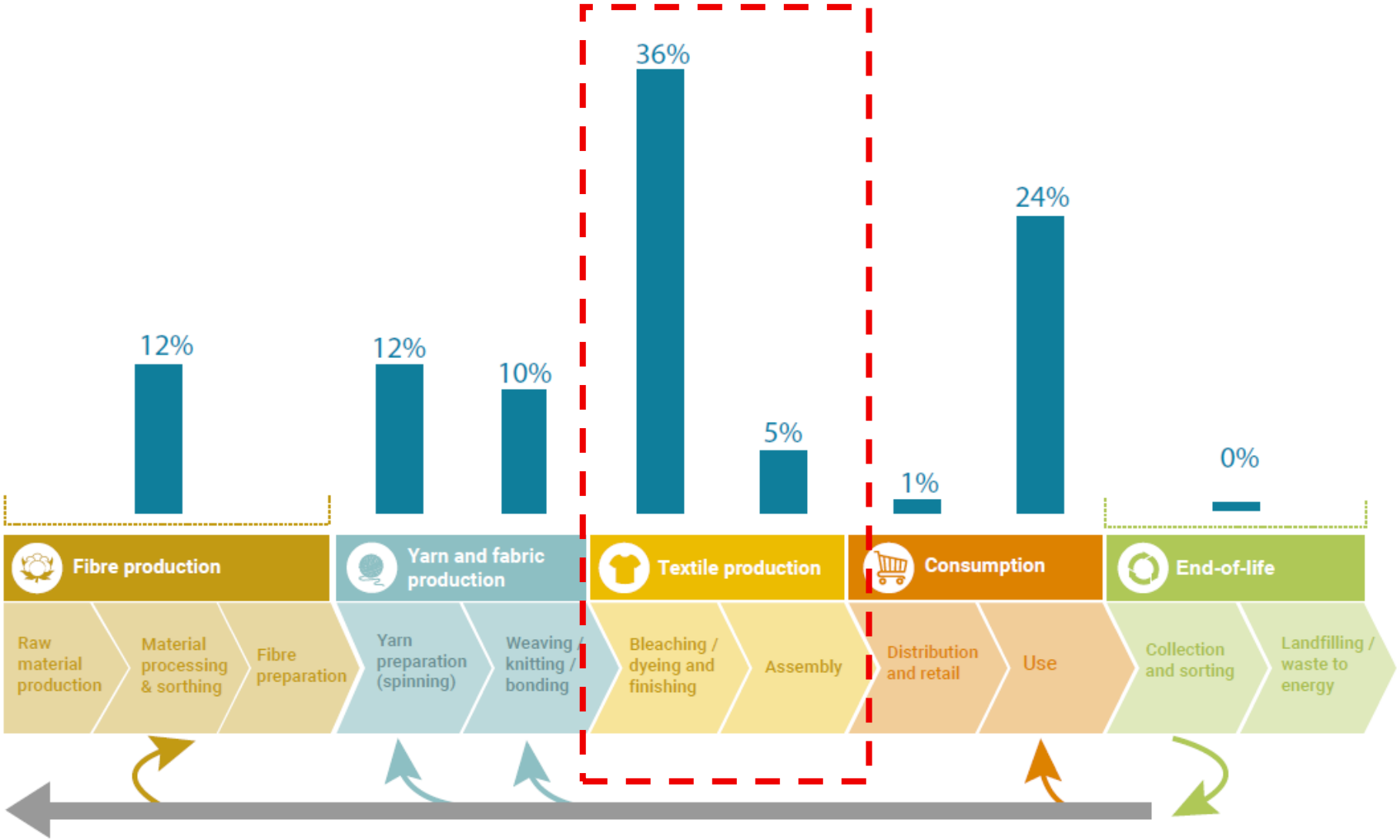
Environmental Footprint

- Responsible for 12–15% of Bangladesh's total GHG emissions
- Consumes 1,500–2,000 billion litres of groundwater annually
- Generates large chemical and wastewater loads from dyeing and finishing
- Accounts for 8.2% of national electricity use

2nd-largest apparel exporter in the world after China

Major buyers include **H&M, Primark, Zara, Uniqlo**

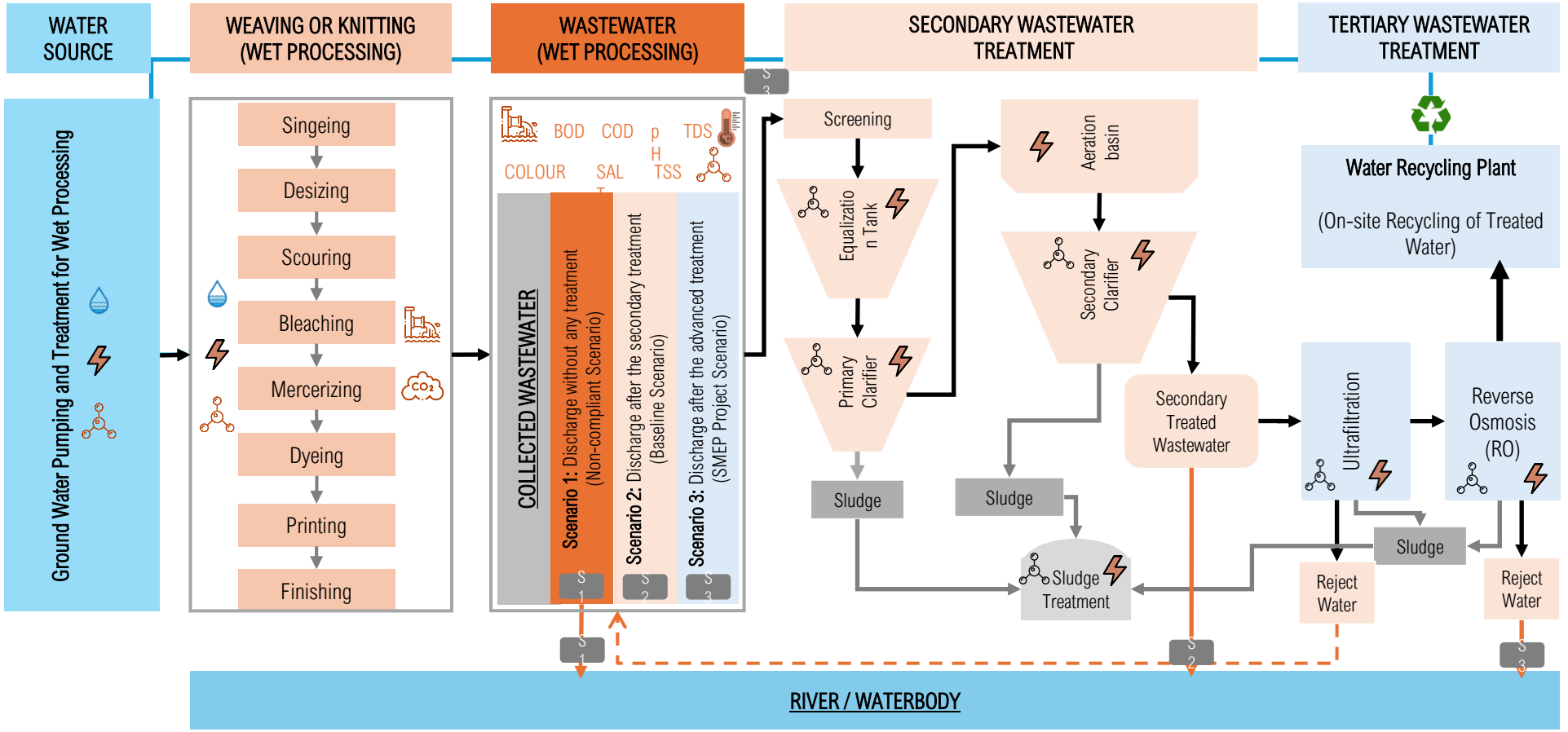
Decarbonising the Textile Industry in Bangladesh



GHG emissions across the supply chain of textile production

Sources: Circle Economy, 2024; European Parliament, 2020)

Decarbonising the Textile Industry in Bangladesh



Potential Opportunities for the Reduction of Resource Use and GHG Emissions:

	Reduction of water demand by recycling of treated wastewater for on-side application and improving water efficiency in the wet processing		Reduction of chemical demands by optimising chemical uses and recovery of chemicals through advanced chemical recovery options
	Reduction of energy demand by improving energy efficiency and sourcing of on-site renewable energy (e.g. solar PVs, bioenergy from sludge)		Recovery of heat from the weaving and knitting process and from the wastewater through heat exchangers (e.g. Shell-and Tube or Plate)

Decarbonising the Textile Industry in Bangladesh

Pilot Project to Sectoral and National Opportunities

Key Opportunities:

- 1.3 million m^3 of wastewater would be reused.
- No need for softening agents in groundwater treatment, saving energy, resulting in a total GHG reduction of 46,202 tCO_2e (baseline S2) and 78,521 tCO_2e (non-compliant S1).
- This accounts for a GHG reduction opportunity of around **18kg CO_2e/m^3 (baseline scenario) to 30kg CO_2e/m^3 (non-compliant scenario).**

The Sectoral to the National Implications of the GHG Reductions:

If **the 25% of the wastewater treats**, similar to the SMEP Project, that would **avoid GHG emissions (CO_2e)** of around **1.5 million tonnes (S2) to 2.6 million tonnes (S1) each year** (**representing 4% to7% of NDC's emissions reduction targets by 2030**) and **save around 43 million m^3 precious groundwater in Bangladesh**, which is very important for water insecure countries like Bangladesh (UNCTAD, 2025).

Potential National and International Financial and Governance Mechanisms

Type of initiatives	Mechanisms/Funds	Scope/Applicability
International Climate and Development Financing Mechanisms	**Green Climate Fund (GCF)**	GCF is highly relevant to the textile sector and has already funded textile and RMG energy-efficiency projects in Bangladesh. It could support wastewater treatment, the circular economy, and emissions reductions.
	Global Environment Facility (GEF)	Potential for wastewater quality improvement, sludge management, and clean production.
	Nationally Appropriate Mitigation Actions	Suitable for replicating **ETP and RO-based interventions** at industrial clusters.
	Climate Investment Funds (CIF)	Supports scaled-up financing for low-carbon and climate-resilient development. Could support **wastewater reuse and renewable-powered ETPs**.
	UNDP/UNIDO Programmes	Technical support and funding for the green industry and clean technology.
National Financial Mechanisms	**Bangladesh Bank Green Transformation Fund (GTF)**	Offers low-cost finance for green infrastructure, including water treatment and energy efficiency in export-oriented industries.
	Infrastructure Development Company Limited (IDCOL)	Public-private financing agency supporting renewable energy and green infrastructure projects (co-finance mechanism).
	Export Promotion Bureau (EPB) Green Incentives	Potential incentives for exporters with green credentials (e.g., LEED-certified, water-efficient).
Governance & Institutional Mechanisms	**Public-Private Partnerships (PPPs)**	Reduces capital burden on individual SMEs; useful in industrial clusters.
	Green Industrial Zones / Eco-Industrial Parks	Promotes circular infrastructure and cost-sharing models.
	Environmental Compliance Bonds / Performance-based Incentives	Can link to ICF/SMEP Programme metrics, e.g., GHG reductions per m3 treated water.
Voluntary and Private-Sector Mechanisms	Sustainability-Linked Loans (SLLs)	International brands may support suppliers in upgrading ETPs through SLLs.
	Green Bonds or Blue Bonds	It could be issued by local banks, with the textile sector as a focus.
	Brand-Supplier Sustainability Programs	A powerful mechanism for scaling green practices via supply chain mandates.
Technical and Capacity Building Mechanisms	**Climate Technology Centre and Network (CTCN)**	Support technology roadmaps for textile wastewater reuse.
	International Climate Finance KPI Frameworks (e.g., ICF KPI 6)	Ensures future project proposals are results-based and aligned with donor expectations.

Decarbonising the Textile Industry in Bangladesh

Why Trade Matters and How Trade Plays Critical Roles?

01

Technology transfer:
Many advanced wastewater treatment, chemical recovery, and renewable energy systems must be imported.

Trade facilitation (tariffs, non-tariff measures, customs procedures) directly affects the speed of technology transfer and decarbonisation, especially for Ultrafiltration, Reverse Osmosis (RO), Efficient pumps, Chemical recovery technologies, etc.

02

Market demand from global buyers:
Retail brands (H&M, Primark) mandate sustainability performance in supply chains.

Trade-Based Market Incentives from Global Buyers, such as H&M, Primark, Zara, and PVH, require compliance with wastewater quality standards, carbon reporting, and energy efficiency, creating powerful trade-driven incentives for decarbonization.

03

Competitive advantage:
Green textiles increasingly determine export competitiveness.

Export competitiveness mechanisms supported by the EU Corporate Sustainability Due Diligence Directive (CSDDD), Carbon Border Adjustment Mechanism (CBAM), global brands' zero discharge of hazardous chemicals (ZDHC) or green supply-chain procurement in EU/US markets

Thank you for listening!

Happy to address any Questions

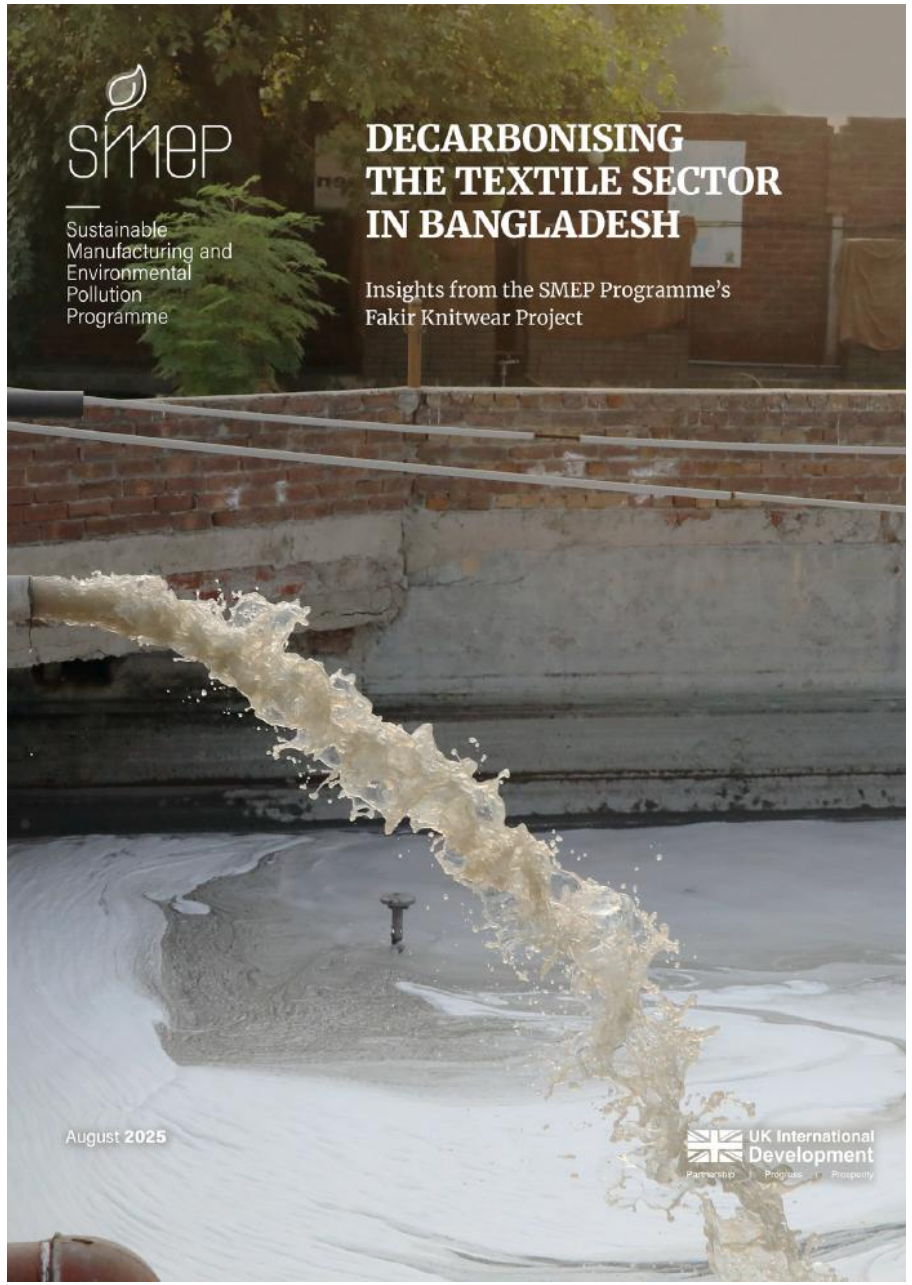
LinkedIn

GSN

Report

Curtin University

Global South Nexus



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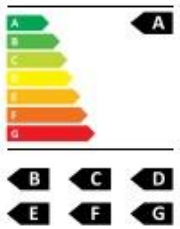
Topic:

Non-Tariff Measures and Climate Change

UNCTAD
Division on International Trade and Commodities

Trade regulations for climate action?

New insights from the global non-tariff measures database



e-Learning Course: Harnessing Trade to Advance National Climate and Development Goals

Module 3: NTMs and climate change

9 DECEMBER 2025

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UN trade & development
UNCTAD

What are non-tariff measures (in the context of climate change)?

What are non-tariff measures (in the context of climate change)?

Examples:

Technical barriers to trade (TBT):

- Emission performance requirements
- Emission labelling
- Production process requirement (CO2 footprint)
- Associated conformity assessment

Quantitative restrictions:

- Licensing/prohibitions under Montreal Protocol

Price control / taxes:

- Additional taxes on “brown products”

Export related measures:

- mostly export-related TBT

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What are non-tariff measures (in the context of climate change)?

Examples:

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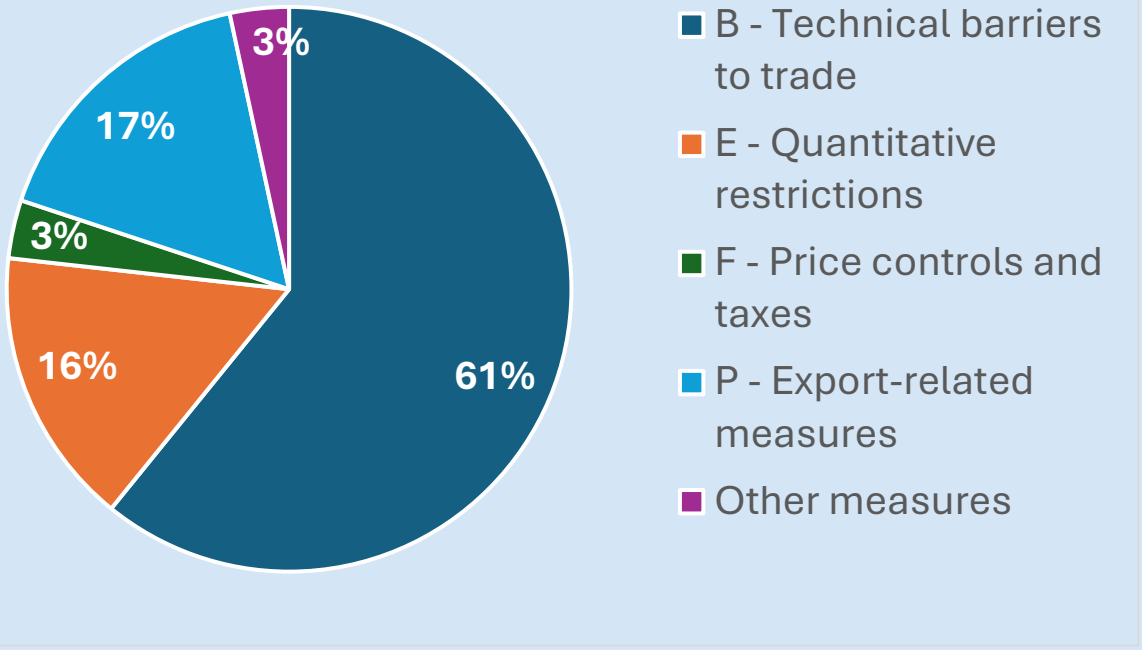
Number of climate change related non-tariff measures, by measure type



Source: authors’ calculations based on the TRAINS database.

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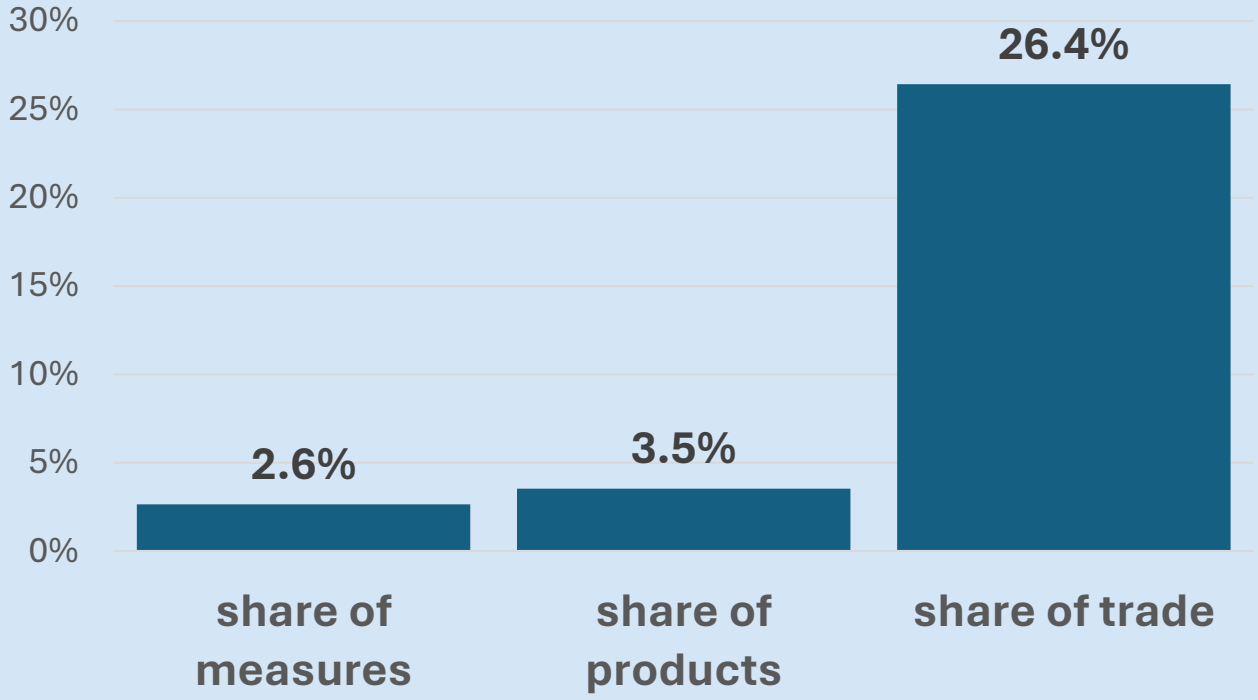
How common are climate-change related NTMs?

UNCTAD's Trade Analysis Information System (TRAINS) NTMs database covers over 150 countries, over 95 per cent of world trade, over 20'000 different regulations and close to 100'000 distinct measures

UNCTAD and UN ESCAP developed a methodology to link NTMs to climate change mitigation. An algorithm combines the mapping of potentially relevant NTMs and product code combinations with a keyword search in the measure descriptions of the NTMs database.

Global share of climate change related NTMs



Source: authors' calculations based on the TRAINS database.

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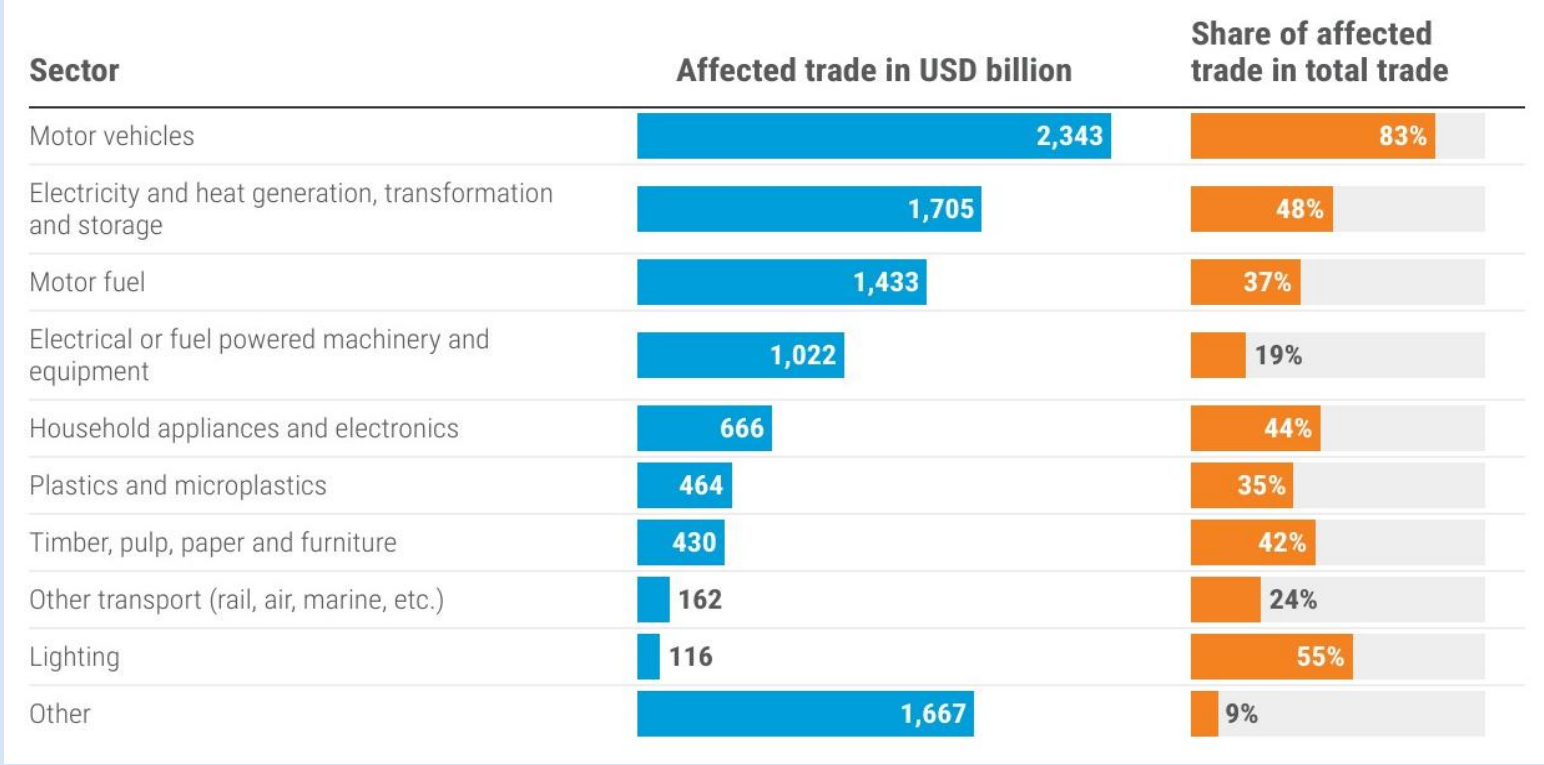
Climate change-related measures target the world's largest traded and most CO2 intensive sectors. For example, 83 per cent of global trade in motor vehicles, which equates to trade worth 2.3 USD trillion, is regulated with objectives related to climate change.

Trade affected by climate change related non-tariff measures, by sector



Note: Trade in the graphs is the sum of imports and exports and the average between 2017 and 2021.
Source: authors' calculations based on the TRAINS database.

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Conclusions

- "Trade people" live in a lingo-bubble… and so do the "climate people"
  - Mapping trade-related measures in Nationally Determined Contributions | UNCTAD finds that "***trade policy is not explicitly referenced in NDCs***"
  - **But our data analysis shows that trade policy is an extremely prevalent** means to mitigating climate change
  - More coordination and ***interpretation*** is needed
- While we like to see *these* NTMs, there are also (avoidable) costs…
  - We also observe **significant divergence in the measures**. While broader measures types are similar across countries, measures diverge substantially in the details.
  - To reduce costs: more **regulatory transparency** and **coordination/convergence**
  - The national focus of NDCs may entail an inward-looking approach. Regulatory heterogeneity of measures increases trade costs. Developing and least developed countries, MSMEs and women traders are usually most affected.

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Topic:

Trade in Services and Climate Action

UNCTAD
Division on International Trade and Commodities

Trade in services for renewable energy and climate action

1. **Services for renewable energy**
2. **Trade in services for renewable energy**
3. **Trade in services policy areas**
4. **Data for trade in services policymaking**

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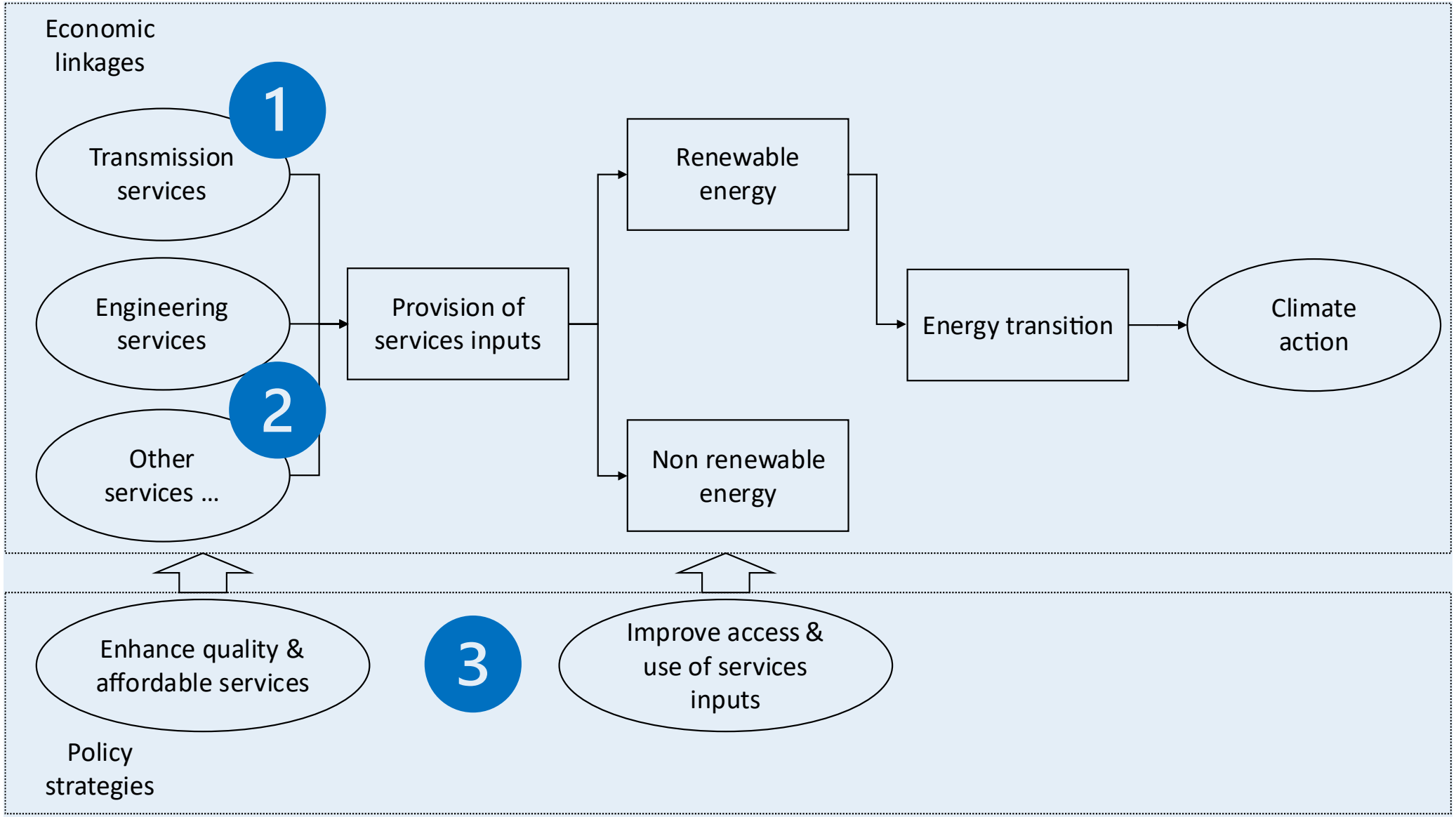
Services for renewable energy (1/3)



Services for renewable energy (2/3)

Type of service	Examples
Construction and installation services	• Project management, engineering, site preparation, procurement, construction, electrical and plumbing services, and waste management services. • Installation services for solar panels, wind turbines and other components. • Testing services to ensure and demonstrate regulatory compliance.
Engineering services	• Environmental engineering services to mitigate environmental impacts. • Electrical engineering services for energy storage and distribution. • Mechanical engineering for, among other areas, turbines for wind energy, panels for solar energy and generators.
Environmental services	• Environmental impact assessment services.
Information and communications technology services	• Data management and analytics services to collect, process and analyse data to optimize performance and improve decision-making. • Automated components of predictive maintenance, monitoring and control systems for optimal performance and early problem detection. • Smart grid systems to control energy flows, balance supply and demand, integrate and control multiple renewable energy sources and manage distribution to consumers efficiently and reliably.

Source: UNCTAD, 2023. The role of trade and services for enhancing science, technology and innovation to promote a fair transition to sustainable energy. Note to the 10th session of UNCTAD Multi-year Expert Meeting (MYEM) on Trade, Services and Development.

Services for renewable energy (3/3)

Type of service	Examples
Financial services	• Debt and equity financing services. • Financial advisory, project financing and risk management services to support investments in renewable energy projects.
Legal and regulatory services	• Environmental and land use law services to help secure necessary permits. • Energy law and contract law advisory services, dispute resolution and litigation services on legal and regulatory issues. • Intellectual property law services to promote innovation in renewable energy.
Operational and maintenance services	• Monitoring services of the performance of renewable energy systems in real-time. • Maintenance and repair services for safe and efficient operation.
Research and development services	• Research and development services to develop and improve renewable energy technologies, such as solar, wind, hydro and geothermal energy. • Research and development services for new materials enhancing the performance and efficiency of renewable energy systems.

Source: UNCTAD, 2023. The role of trade and services for enhancing science, technology and innovation to promote a fair transition to sustainable energy. Note to the 10th session of UNCTAD Multi-year Expert Meeting (MYEM) on Trade, Services and Development.

Trade in services for renewable energy and climate action

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Trade in transmission services (1/2)

1

- **The case of SIEPAC, the system of electrical interconnection of Central American countries:**
- 1,830 km transmission line with fibre optic cable & 16 substations (figure).
- Integrates high-voltage transmission services of Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama.
- International trade of transmission services forms regional electricity market to promote least cost power generation in the region.

Source figure: Kathuria et al., 2015. How Has Regional Integration Taken Place in Other Regions? *SARConnect*, Issue 2, April.

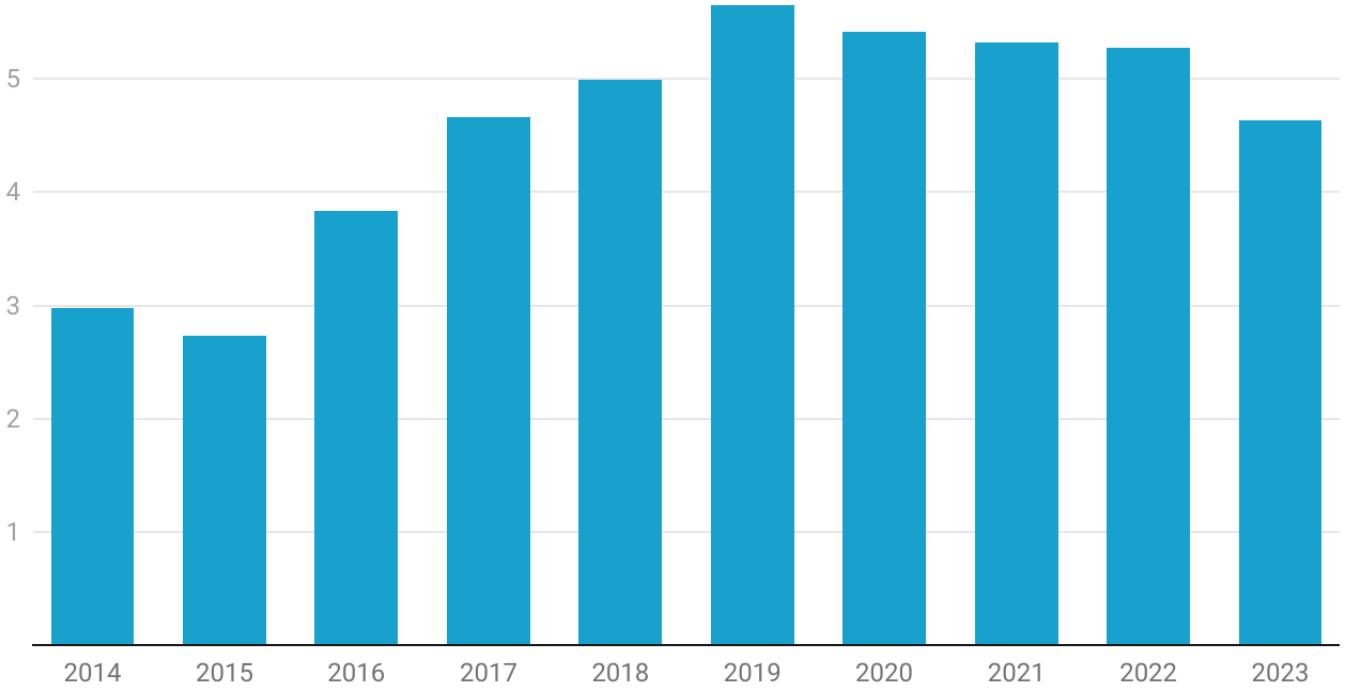
Trade in transmission services (2/2)

1

- **The case of SIEPAC, the system of electrical interconnection of Central American countries:**
- International trade in energy transmission services improves regional energy access (figure).
- Trading energy surplus helps overcome potential electricity shortages, increasing stability.
- Growing incorporation of renewables (more than 50% of energy generation). Trading energy surplus supports intermittent or variable renewable energies (e.g., solar, wind).

Imports of electrical energy in SIEPAC, 2014-2023

As share of consumption of electrical energy (Percentage)



SIEPAC is the system of electrical interconnection of Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama. Data for 2023 is preliminary and does not include data from Belize and Nicaragua.

Chart: UNCTAD • Source: ECLAC, 2025. Estadísticas del subsector eléctrico de los países del Sistema de la Integración Centroamericana (SICA), 2023 • Created with Datawrapper

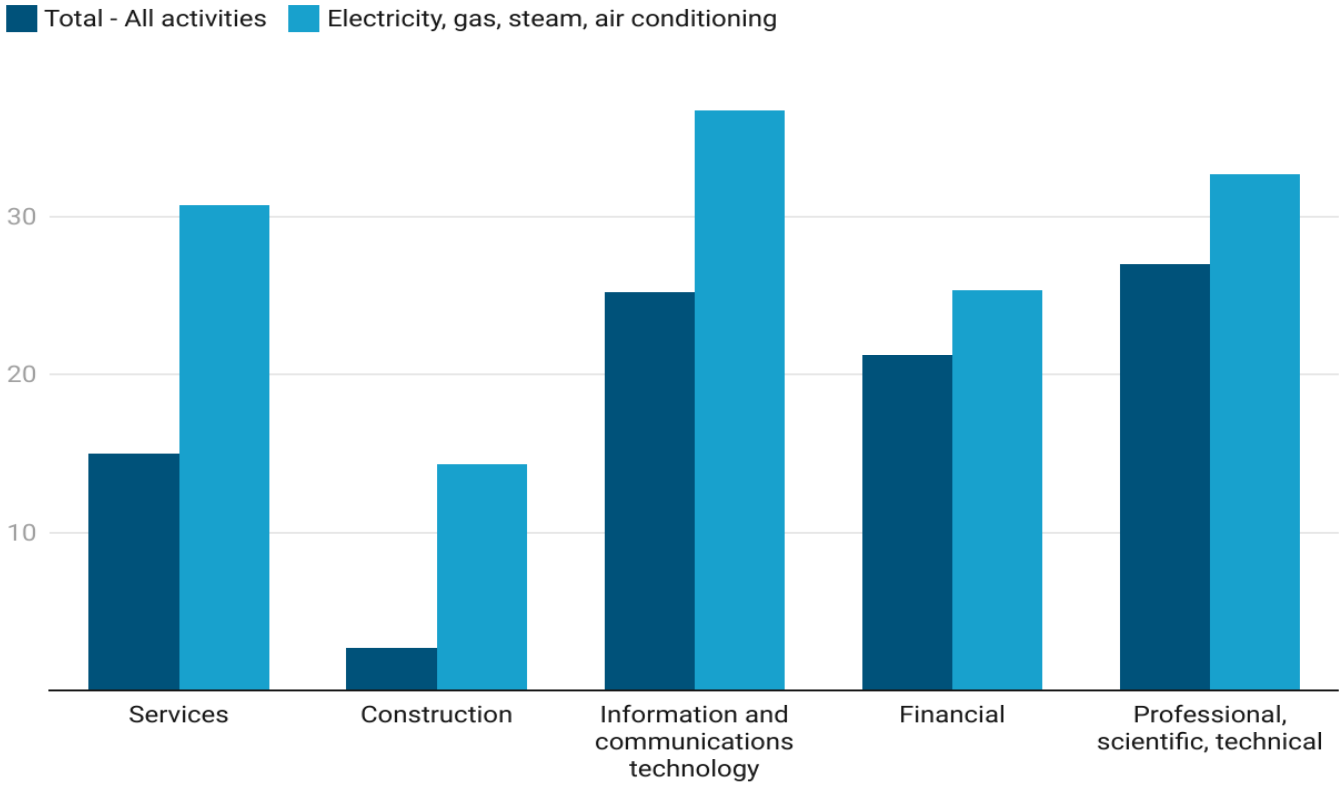
Sources: ECLAC, 2025. *Estadísticas del subsector eléctrico de los países del Sistema de la Integración Centroamericana (SICA), 2023* and UNCTAD, 2023. *Report of the MYEM on Trade, Services and Development on its tenth session*.

Trade in intermediate services (1/2)

- **Services inputs to energy sector**:
- Services inputs are relevant, 26%of all inputs to the energy sector in 2022.
- Services trade plays a key role in ensuring access to these inputs to the energy sector, 31% in 2022 (figure).
- Trade is key to ensure access to inputs of several services categories: 14% construction, 37% ICT, 25% financial, 33% professional (figure).
- **Relevance to renewable energy?**
- Need to analyze case studies.
- Need to use more and better services trade data.

Foreign services intermediate inputs, 2022

As a share of domestic and foreign services intermediate inputs (Percentage)



For each services category, the share represents the part of foreign inputs in the sum of foreign and domestic inputs from that services category. Database accessed December 2025.

Chart: UNCTAD • Source: OECD Trade in Value Added database • Created with Datawrapper

Organisation for Economic Co-operation and Development (OECD) Trade in Value Added (TiVA) database. Accessed December 2025.

Trade in intermediate services (2/2)

Addressing trade barriers can promote energy transition

- OECD Services Trade Restrictiveness Index (STRI) shows associations between:
- 1) Barriers to construction services trade & higher GHG from the energy sector;
- 2) Barriers to engineering services trade & lower energy productivity.

Trade helps using wind turbines in Latin America

- Producing & trading wind turbines required consulting, assessment, project manag., training services.
- Regional cooperation & trade in Latin America facilitated accessing those services & strengthening national capacity in renewable energy.

Trade helps renewable energy production in Djibouti

- A renewable energy 59 MW installation could almost double generation capacity.
- A foreign firm provides construction services to install wind turbines, engineering & other services to ensure electricity interconnection & maintenance services.

Sources: UNCTAD, 2023. The role of trade and services for enhancing science, technology and innovation to promote a fair transition to sustainable energy; UNCTAD, 2023. *Report of the MYEM on Trade, Services and Development on its tenth session*.

Trade in services for renewable energy and climate action

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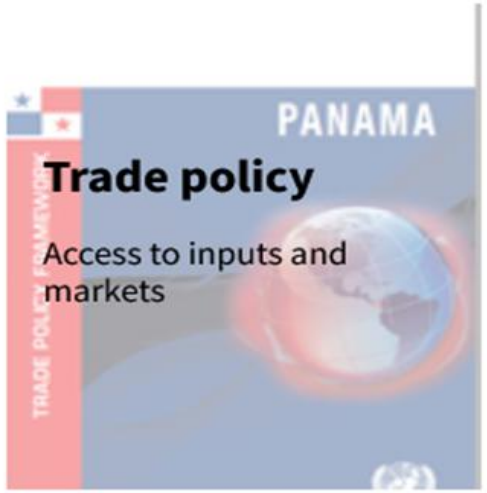
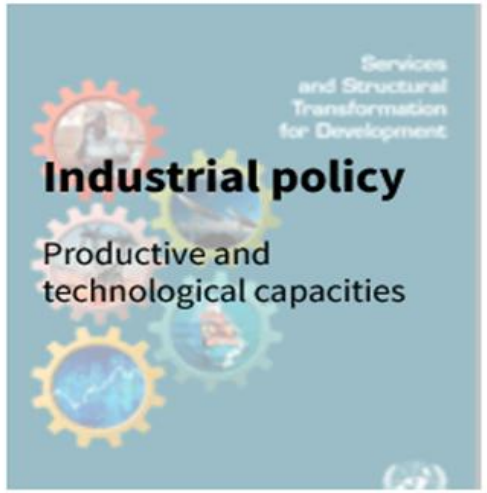
Trade in services policy areas





Services trade policy & energy transition 3

Southern African Development Community (SADC)

- SADC prioritized energy related services in the first round of negotiations.
- Covered business services related to energy distribution, technical testing and site remediation, consultancy, construction of power plants, engineering, and environmental services.

European Union and Japan

- Strategic Partnership Agreement between the European Union and Japan facilitated energy transition.
- Covered digitalization – required for smart grids – and energy.
- Emphasized collaboration with developing countries for green development.

European Union (EU)

- Energy equipment is somewhat standardized and increasingly traded. Services for the energy sector face different regulatory/institut. contexts and are less traded.
- Convergence of energy governance rules facilitates trade in services.

Source: UNCTAD, 2023. *Report of the MYEM on Trade, Services and Development on its tenth session*.

Trade in services for renewable energy and climate action

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Data for trade in services policymaking

3

Services trade data gaps persist

- Developing economies face particular infrastructure, skills and institutional challenges
- Not more than 15 developing economies regularly report trade in services by bilateral trade partner.

Report working group on data for services trade policies

- **Complement surveys/ITRS with admin data** (e.g. VAT) to improve coverage/frequency
- **Big data digitally generated may complement surveys** to improve timeliness and granularity of data, when applied with appropriate legal and statistical frameworks

Primer on data for services trade & development policies

- **Help countries navigate concepts/sources** of services trade data, shed light on gaps, point ways to use data
- **Use trade data collection systems** to improve accuracy /coverage of services trade data (e.g. UN Trade and Development TiSSTAT).

Sources: UNCTAD, 2025. Report of the informal working group on data for services, trade and development policies; UNCTAD, 2025. Primer on data for trade in services and development policies.

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Topic:

Green Industrial Policy and Low Carbon Economic Diversification

Olayinka L. Bandele,
ECA Subregional Office for Southern Africa

United Nations
Economic Commission for Africa

Green Industrial Policy and Low Carbon Economic Diversification

Ms. Olayinka Bandele,
Chief, Inclusive Industrialization Section

09 December 2025

ideas for a prosperous Africa
Ideas to Action

Contents

THE IMPERATIVE OF GREEN INDUSTRIAL POLICY & LOW CARBON ECONOMIC DIVERSIFICATION

The Imperative

Africa faces severe climate impacts, affecting key sectors such as **agriculture, tourism, construction,** and **infrastructure.** ECA projects focus on **promoting green, inclusive industrial policy and low carbon economic diversification.**

These initiatives include the development of green economy policies, supporting MSMEs to **upgrade technologies and scale up, and integrate energy transition plans with industrial policies.**

Critical issues at the intersection of climate, trade, industry, and gender

The disproportionate vulnerability of women to climate impacts, existing gender inequalities in the workforce, and the risk of **widening disparities during the transition to a green economy** if deliberate gender-responsive policies are not in place.

Critical issues at the intersection include:

1. **Disproportionate climate vulnerability (resources access; livelihoods; health and safety**
2. **Gendered impacts of industrial and trade shifts (job segregation; trade barriers; unpaid work burden)**
3. **Underrepresentation in Decision-making**

Addressing these issues requires a holistic approach that uses **gender-disaggregated data** to inform policy, promotes women's equal access to resources and skills development, and ensures their meaningful participation in decision-making processes across all relevant sectors.

UNECA's Commitment to Green & Inclusive Industrial Policy

- Support green and inclusive industrialization (SDGs 9, 12, 8, 7, 6)
- Climate Action (SDG13)
- Promote gender equality (SDG 5)
- Create sustainable jobs, improve livelihoods, and reduce poverty (SDGs 1, 2, 10, 11, 14, 15)

How ECA supports member states to Pursue Low Carbon Economic Diversification

Formulating Green Economy policies and strategies

Supporting mineral beneficiation – supporting member states to exploit mineral wealth, particularly Critical Energy Transition Minerals (CETM). E.g., Solar batteries, vehicles.

Focusing on policies, conducive regulatory frameworks, skills training & capacity building

Indicative interventions include:

- The 'IKI' Project (2026 – 2030)
- SADC Renewable Energy Policy Framework

ECA APPROACHES TO SUPPORTING GREEN INDUSTRIAL POLICY

ECA approaches to supporting Green Industrial policy

1 Supporting member states to develop green industrial policy frameworks in alignment with regional frameworks

2 De-risking value chains

3 Test bed for high value impactful green industrial projects

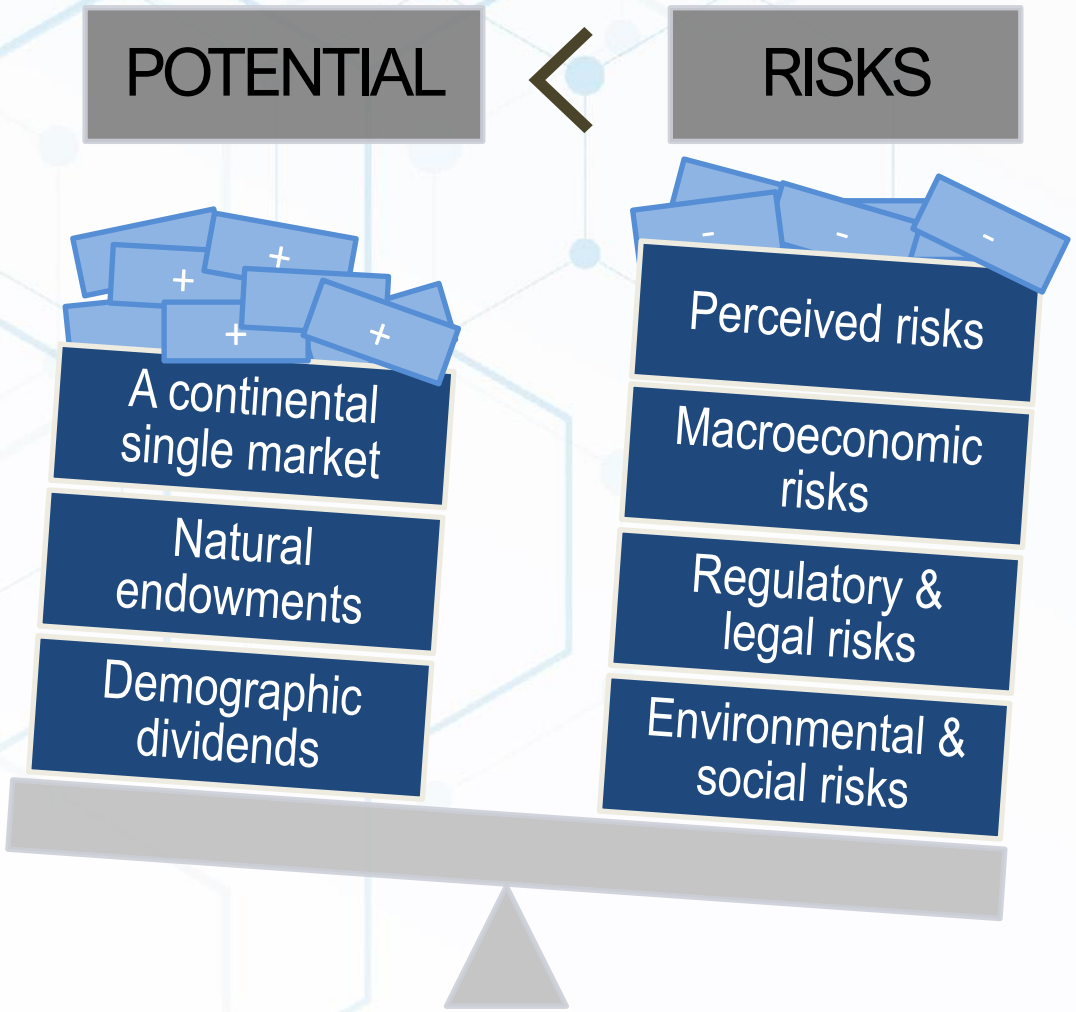
4 Leveraging financial resources from partner institutions to develop green value chains

5 Testing scalable innovative projects for MSMEs and sector approaches

Supporting member states to develop Green Industrial Policy & Strategies

1. Policy and Strategy Development
2. Research and Analysis
3. Capacity Building and Training
4. Identification of Green Value Chains
5. Mobilizing Financial Resources
6. Fostering Regional Integration
7. Stakeholder Collaboration

Investment Must Be De-risked by Identifying, Assessing, and Mitigating Risk Factors & Uncertainties



De-risking Regional Value Chains

5 Regional **Value Chains** identified for targeted support**:**

- **Agriculture & Livestock**
- **Minerals (incl. CETM), Electric Vehicles, E-Mobility**
- **Pharmaceutical**
- **Textiles**
- **Services and Enablers**

ECA's Strategy and Approach

	Conducive environment	*Country and market profiles*		*Pipeline impactful projects*	*Financing Deals*
Benefit	**Enabling conditions and environment**	**Market Readiness**	**Strengthening impact**	**Development of bankable projects**	**Facilitating investment and deal making**
	Shift in policy and regulatory frameworks	**Data-and analysis-driven Investment Map**	**Conceptualization, Sourcing & Selecting Priority investment**	**Market-ready project pipelines**	**Matchmaking Deal-making**
ECA Role & Support	• Policy analysis and recommendation • Strengthening regulatory frameworks, including harmonization and in line with AfCFTA • Supporting market reforms • Promoting policy & institutional reforms • Capacity development	• Analytical tools and specific/deeper analysis • Pathway analysis • Product space analysis • Skills gaps assessment • Trade Decision Support Model • GIS enabled hotspot analysis • Transformational maps	• Generating evidence, analysis, and mapping • Development of RVC roadmaps • Convening for ownership/uptake for regional projects • Economic corridors • Capacity development	• Data and analysis • Pre-feasibility study • Technical advisory support in design • Strategic partnerships with MDBs, DFIs, Climate Funds (e.g. TA and project preparation facilities) • Stakeholder engagement • Capacity development • Knowledge sharing	• Technical advisory support to project owners • High-level advocacy • Advisory support for bond structuring & issuing • Strategic partnerships with networks of capital market actors and venture capital
Examples	• *Regulatory Review of Electricity Markets* • *Trade Intelligence and Negotiations Analysis (https://tina.trade/)*	• *Africa Resource Trend Analysis* • *Electronic Investment Guides (https://theiguides.org/)*	*BVET RVC in DRC and Zambia*	*Eritrea hydrogen energy support*	*PIMCO & DBSA Deal*

KEY SECTOR INITIATIVES AND PROJECTS

INNOVATIVE CLIMATE ACTION PROJECT

Innovative Climate Action to Accelerate Green Industrialization

The project focuses on policy development, emphasizing **renewable energy**, **circular economy**, and **technology,** as well as inclusive growth. Activities include research and studies, capacity building, and identifying innovative financing mechanisms. This initiative aligns with the **Africa Green Industrialisation Initiative** (AGII) and continental climate change strategies

Selection of Target Countries

The project targets six Southern African countries:
Malawi, Mozambique, Zambia, Zimbabwe, Namibia, and South Africa.

Selection criteria include:

- Growth potential and government commitment to climate action
- Existing industrial frameworks for green transition
- Climate vulnerabilities impacting economic stability
- Requests for technical support from ECA

Climate Challenges in Target Countries

1 **Mozambique:**
Cyclones and flooding impacting food security

2 **Malawi:**
Droughts and flooding

3 **Zambia:**
Erratic rainfall affecting agriculture and energy

4 **Zimbabwe:**
Droughts impacting food and water security

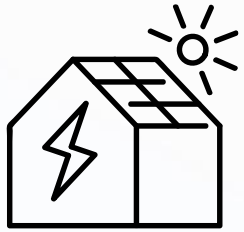
5 **Namibia:**
Desertification and prolonged dry periods

6 **South Africa:**
Water scarcity and extreme weather

Key Growth Sectors for Green Industrialization

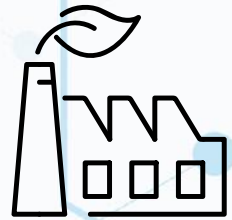
1 Green minerals and energy extractives (copper, lithium, cobalt)

2 Renewable energy and carbon credit markets



3 Circular economy and sustainable manufacturing

4 Agricultural value chains and climate-resilient farming



5 Just energy transition for industrialization and job creation

Key Issues countries face

01

MSMEs struggle with supply chain disruptions and climate risks

02

Women and youth face economic setbacks due to climate-induced crises

03

Persons with disabilities experience barriers to climate adaptation

04

Inclusive policies and support mechanisms needed for resilience

Project Interventions

- Developing policies and frameworks for green industrialization
- High-level policy dialogues on green growth
- Research and capacity building for MSMEs
- Promoting green value chains and sustainable production
- Strengthening climate resilience in key industrial sectors

Possible impacts of project delivery

Green and inclusive industrialization is key to climate resilience and economic growth.

Targeted interventions in renewable energy, green minerals, and circular economy can drive sustainable industrialization and improve livelihoods in Southern Africa.

Climate Change & Industrial Competitiveness

1

Countries face pressure to meet global & regional climate commitments (NDCs, -1.5°C target)

2

Need for industries to transition using fewer resources (particularly water & energy)

3

Balancing environmental sustainability, protecting bio-diversity with economic development

UNECA SRO-SA's Role

01

Accelerate inclusive industrialization in Southern Africa

02

Leverage trade as an anchor to reduce poverty & inequality

03

Support member states in greening industrial policies & strategies

04

Deploy effective frameworks for sustainable industrialization

Results Framework - Key Outcomes & Impact

Accelerating green economic transformation

Mitigating climate change impacts on key sectors

Enhancing competitiveness of industries

Supporting sustainable job creation

Key outputs under the Innovative Climate Action Project

1	Targeted green industrial studies to inform policy and programme design – 4 studies
2	Knowledge Management - Policy briefs for dissemination and outreach
3	Advisory services for member state agencies
4	Testing climate action, digital innovative hub environment for MSMEs

Key outputs under the Innovative Climate Action Project Cont.

5	A regional policy dialogue on harmonization of domestic policies & regulations on incentivizing production of green, sustainable products
6	National capacity building workshops on the design of national green economy policies
7	A Public-private sector and civil society stakeholders Dialogue providing sensitization on the green economy & green growth

Concluding Reflections

1. **Africa's agency is paramount:** The region must define its own green growth trajectory, moving beyond reliance on external aid. Domestic resource mobilization and foreign investment will be key.
2. **Seizing the resource advantage:** Africa holds significant CETM for the global energy transition (e.g., cobalt, lithium, copper, nickel) and vast renewable energy potential. A GIP must ensure these assets drive local development and diversification.
3. **Resilience and Competitiveness is crucial:** green diversification is the key to building economies less vulnerable to climate change impacts and volatile fossil fuel markets.
4. **The urgency of implementation:** Policies must move from planning to execution to capture first-mover advantages in emerging green markets.

UN trade & development

UNCTAD

Topic:

Investment in Renewable Energy and Sustainable Infrastructure: The Role of Partnerships

UNCTAD
Division on Investment and Enterprise

Table of contents

Investment in Sustainable Development Goals is in crisis

Global
FDI flows
-11%

Annual SDG
Investment gap
$4.3 trillion

10 countries, 75% of developing-country FDI

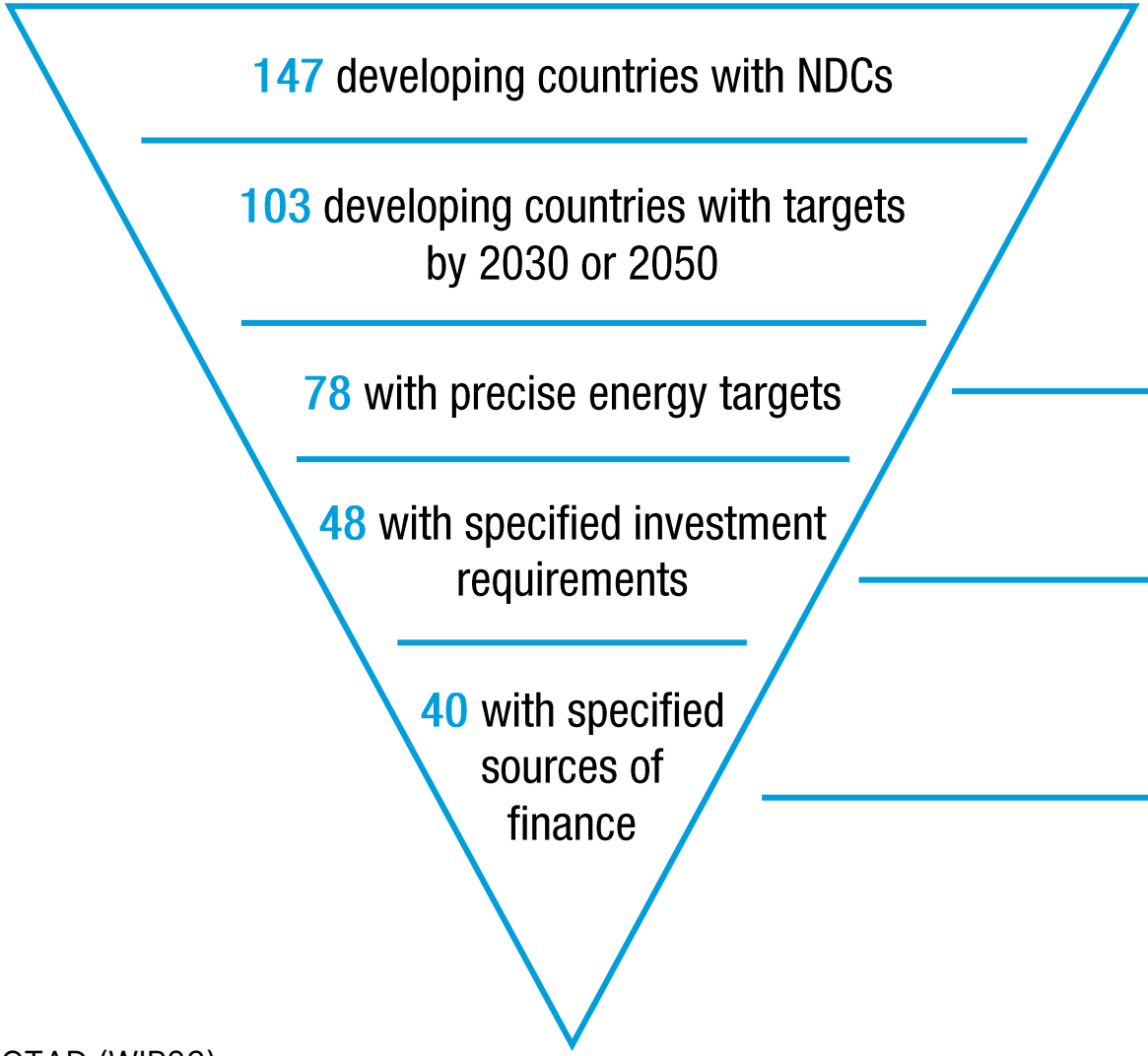
SDG sectors
(Developing economies, project values)

Infrastructure	-35%
Renewable energy	-31%
Water, sanitation and hygiene	-30%
Agrifood systems	-19%
Health and education	+25%

Industries
(Project values)

Infrastructure	-14%
GVC-intensive industries	+1%
Semiconductors	+140%
Digital economy	+107%
Extractives	-51%

Investment focus on NDC and energy transition strategies in developing countries



Average energy target

- Energy intensity reduction: 24%
- Emissions reduction: 42%
- Renewables in the energy mix: 55%

- Median investment need: **$6.3 billion**

Top 3 sources of finance

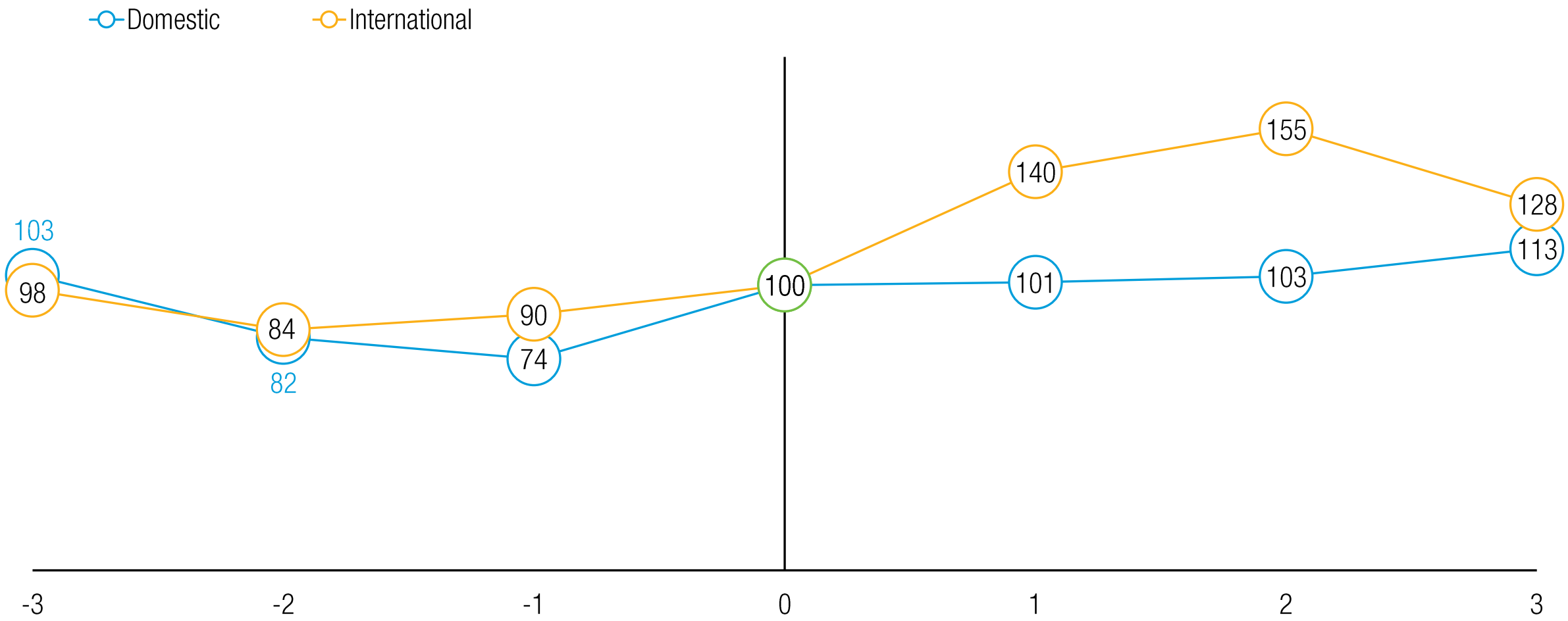
- MDBs and IFIs (27)
- Government and domestic public incentives (22)
- Private investors (17)

Source: UNCTAD (WIR23)

Table of contents

Public-private partnership legal frameworks boost project activity, particularly for international investors

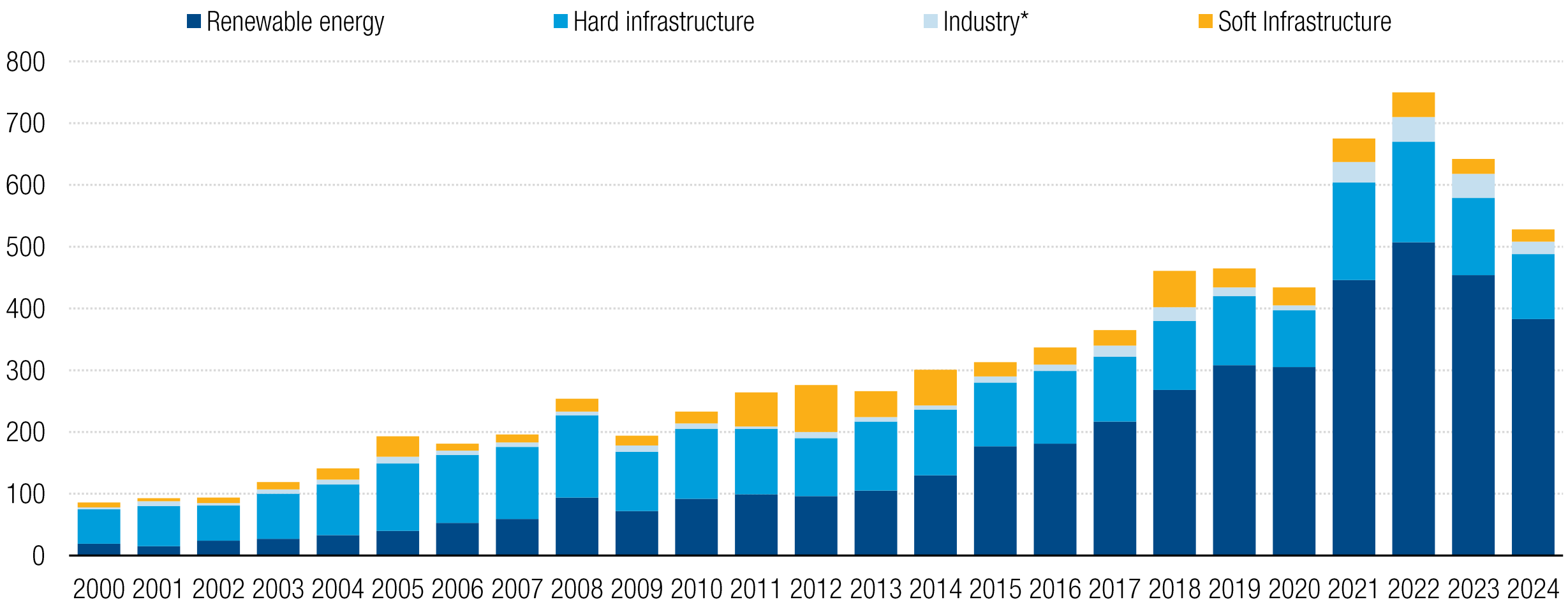
Normalized number of PPP projects in developing economies: three years before and after adoption of PPP law (Index: year 0 = 100)



Source: UNCTAD, based on information from LSEG Data & Analytics and World Bank PPP legal framework dataset.

Renewable energy has led international public-private partnerships in developing economies

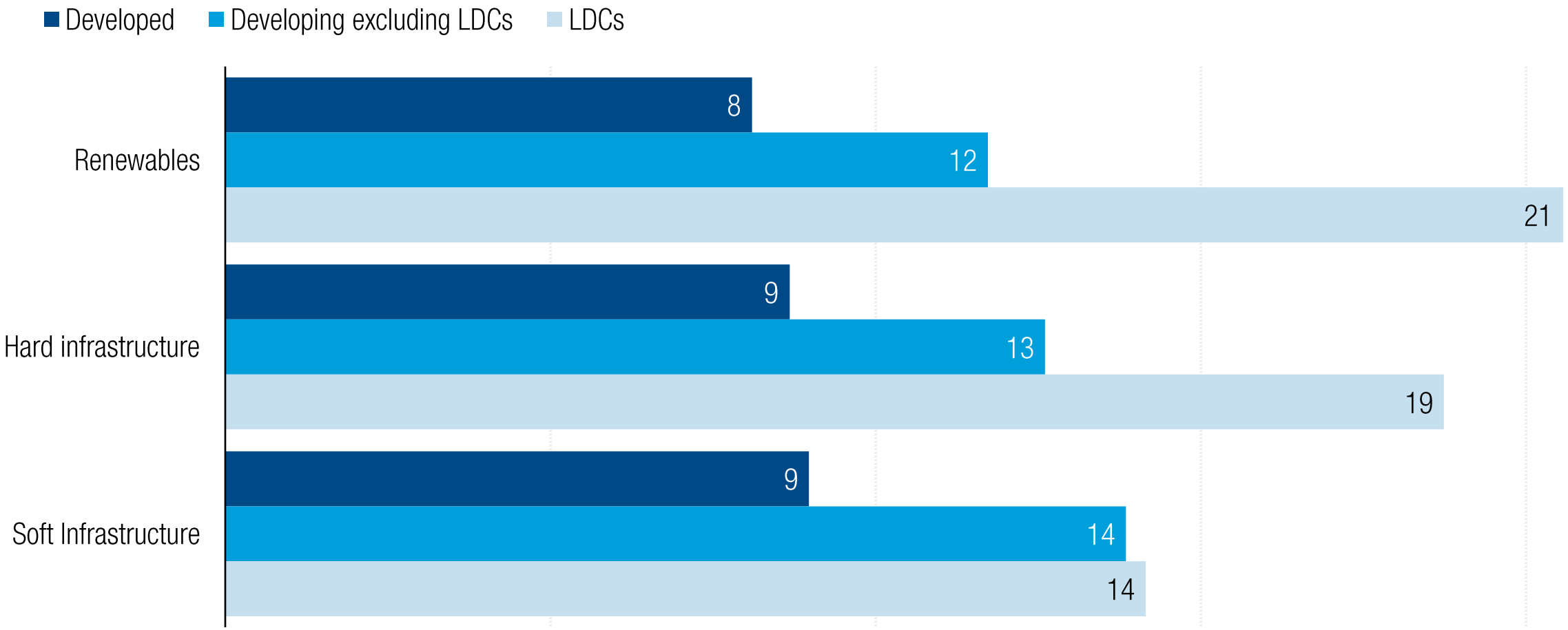
International PPP deals in developing economies by sector (Number)



Source: UNCTAD, based on information from LSEG Data & Analytics.
*Industry: includes deals involving SEZs, and selected industries such as petrochemicals, oil and gas, leisure and property, agriculture and forestry, mining and manufacturing.

The share of equity financing is higher in renewable energy projects and in LDCs

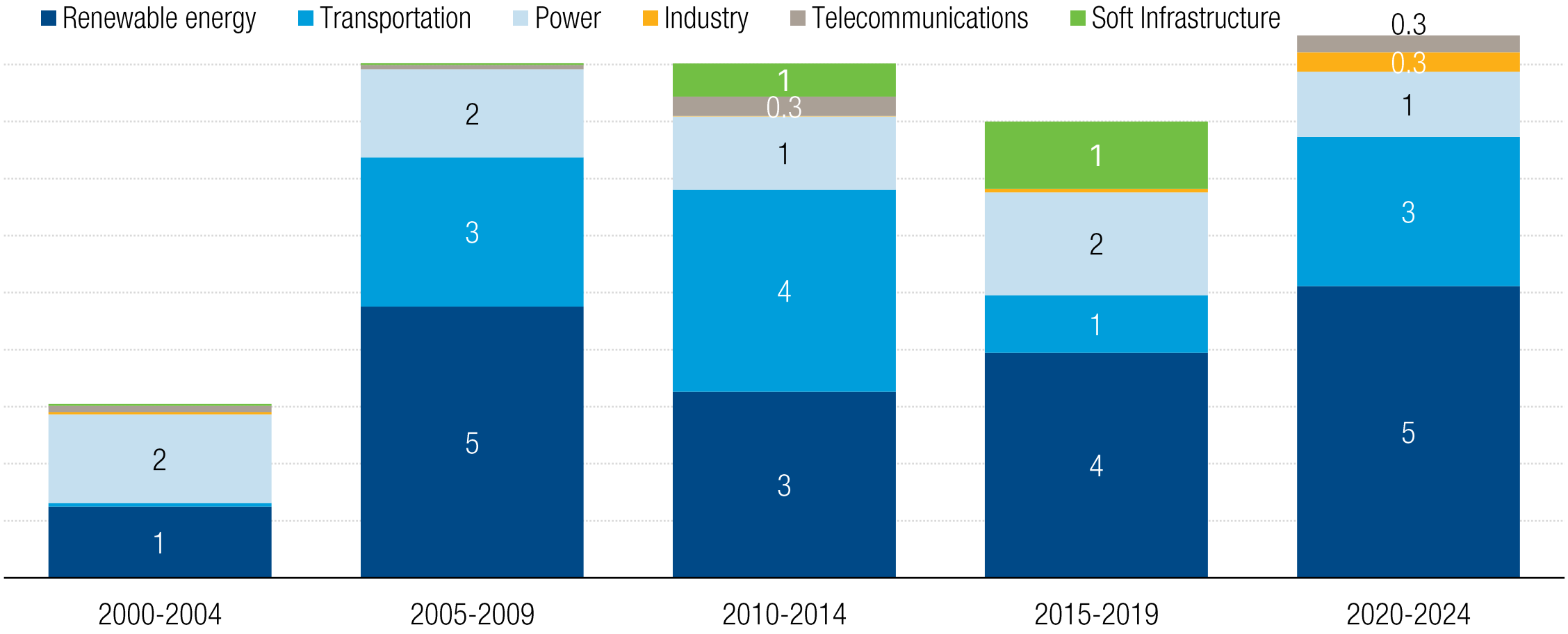
Share of foreign equity, by selected sectors (Percentage)



Source: UNCTAD, based on information from LSEG Data & Analytics.
Note: Calculated only on PPP projects with relevant data.

Renewable energy accounts for the largest share of development finance institutions loans in developing economies

Total loans (direct and covered) from multilateral agencies for international PPPs in developing economies, by sector, average
(Billions of dollars)

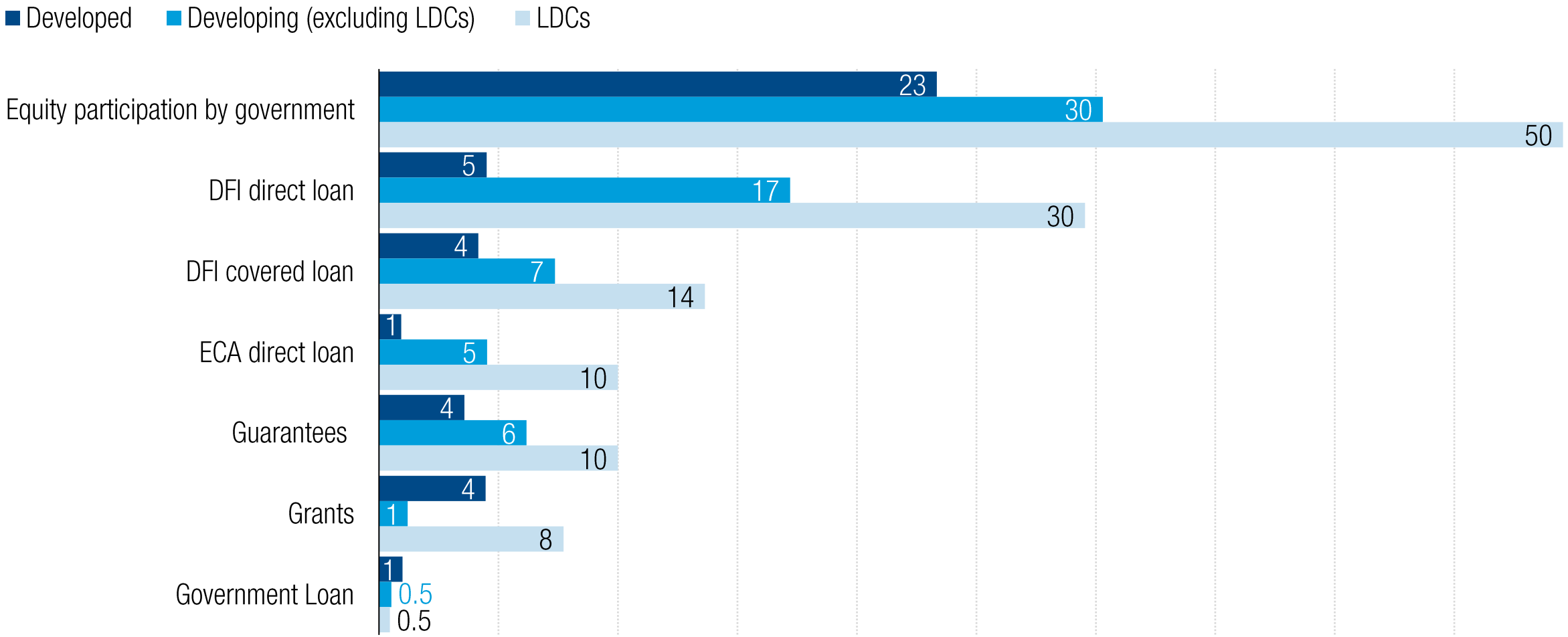


Source: UNCTAD, based on information from LSEG Data & Analytics.
Note: The figures are calculated exclusively on financially closed international PPP projects. DFI development financial institutions. The sector "Power" also contains "Oil and Gas pipelines".

Table of contents

Blended finance instruments are crucial for financing public-private partnerships in developing countries

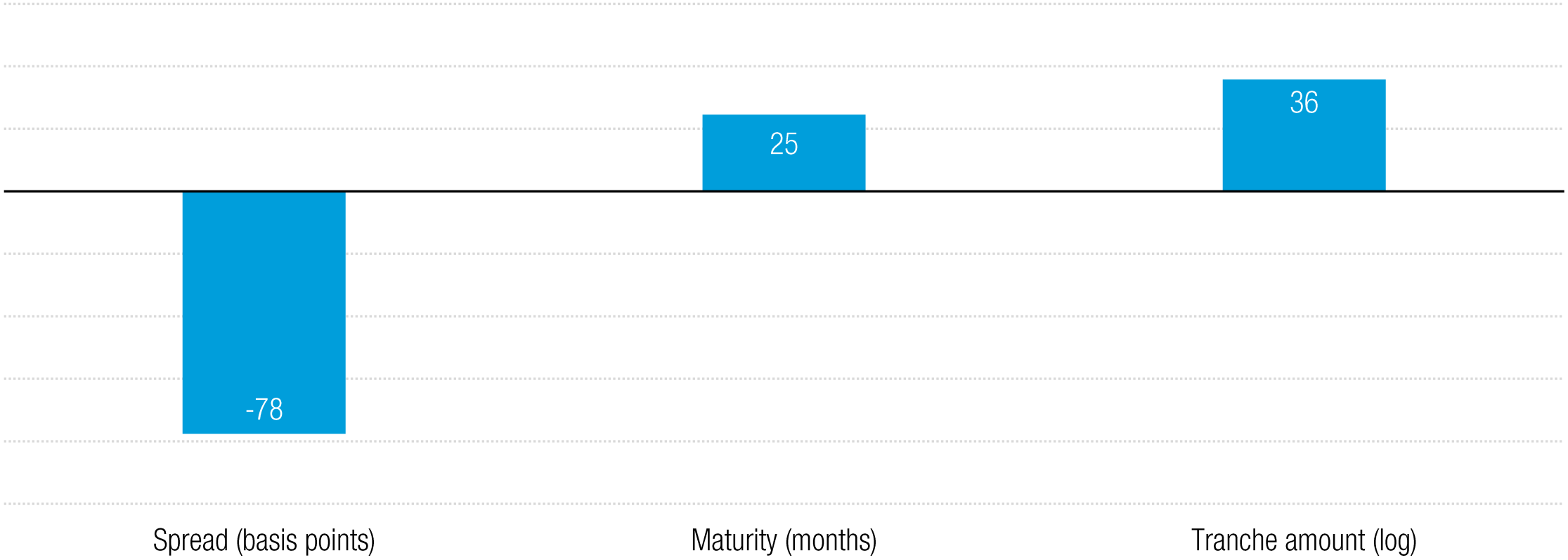
Share of projects financed by selected institution types (Percentage)



Source: UNCTAD, based on information from LSEG Data.
Note: Calculated on PPP projects with relevant data.

MDB participation in public-private partnership loans in developing countries mobilizes private financing for future projects

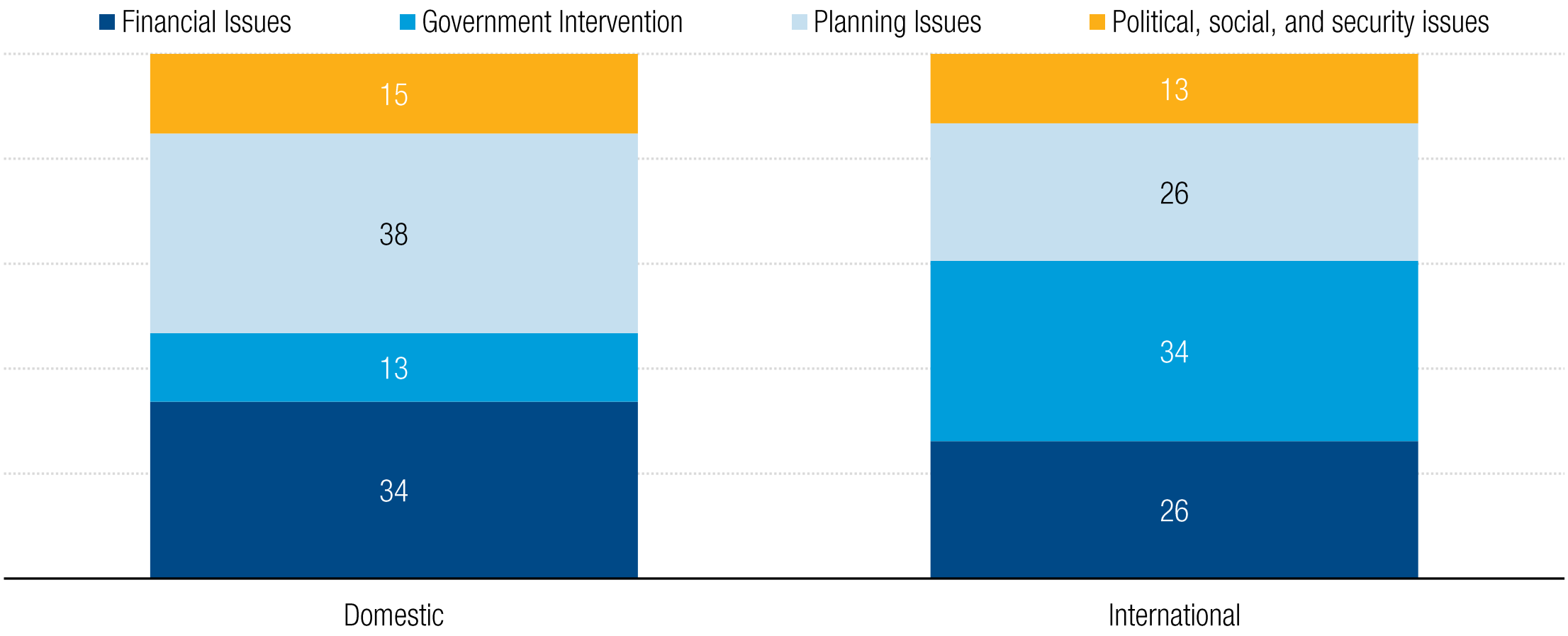
Estimated effect of MDB operations on the terms of private syndicated loans in developing countries, 2001-2024
(Basis points, months, percentage)



Source: UNCTAD, based on information from LSEG Data.
Note: This figure shows the combined (aggregate) effects of Multilateral Development Bank (MDB) participation on three key loan characteristics: spreads (in basis points), maturity (in months), and tranche amount (log scale). The coefficients represent the sum of the contemporaneous and two lagged MDB effects estimated using high-dimensional fixed effects (HDFE) regressions. Each regression controls for country–year and industry fixed effects.

Government intervention and legal issues are the most common factors behind setbacks in international PPPs project

Factors contributing to setbacks in public-private partnership projects, 2000-2023
(Percentage)



Source: UNCTAD, based on information from LSEG Data.

Table of contents

Way forward

Closing the gap between the potential and actual contribution of international PPPs to sustainable development requires a comprehensive policy response at both national and international levels.

1. It is crucial to broaden the sectoral and geographical scope of PPPs
2. Enhancing project bankability requires effective risk mitigation and innovative financing solutions
3. Improving domestic policy frameworks and institutional capacity
4. Policy frameworks should increasingly recognize the strategic role of small-scale PPPs
5. Fostering an enabling global environment that balances investor protection with the right to regulate sustainable development

UN trade & development

UNCTAD

Topic:

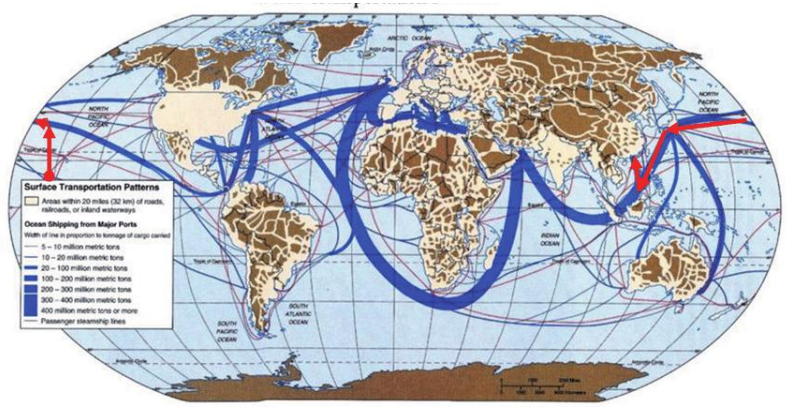
Climate-Resilient Transport Infrastructure for Sustainable Trade and Development

UNCTAD
Division on Technology and Logistics

Transport Infrastructure: critical for global trade and sustainable development but at growing risk of climate change

Critical transport infrastructure assets: key nodes in the network of closely interlinked global supply chains

Ports (80% of global trade in goods): **gateways to global markets** – including for LLDCs **- and the blue economy** – lifelines for SIDS



From UNECE, 2014

- Climate change hazards and weather extremes will
  - affect transport infrastructure and operations as well as the broader global supply-chain - significant potential for *damage, disruption and delay* – extensive economic/trade related losses
  - affect demand for transport (e.g. climate-driven changes to agriculture production); exacerbate transport-related challenges for vulnerable SIDS and LLDCs (17 of which are LDCs); increase energy needs/costs
  - pose a major threat to sustainable trade & development, particularly for the most vulnerable populations (see related UNCTAD work)

CC adaptation/resilience building and DRR for critical transport infrastructure is of strategic economic importance – especially in light of growing risks, cost of inaction and infrastructure lifespans

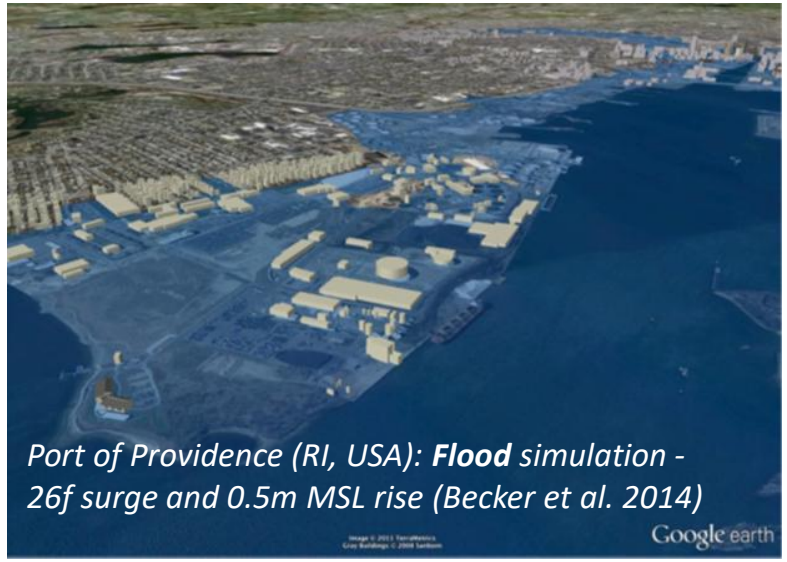
CV & C: huge potential for damage, disruption and delay – cost of inaction

Estimates vary

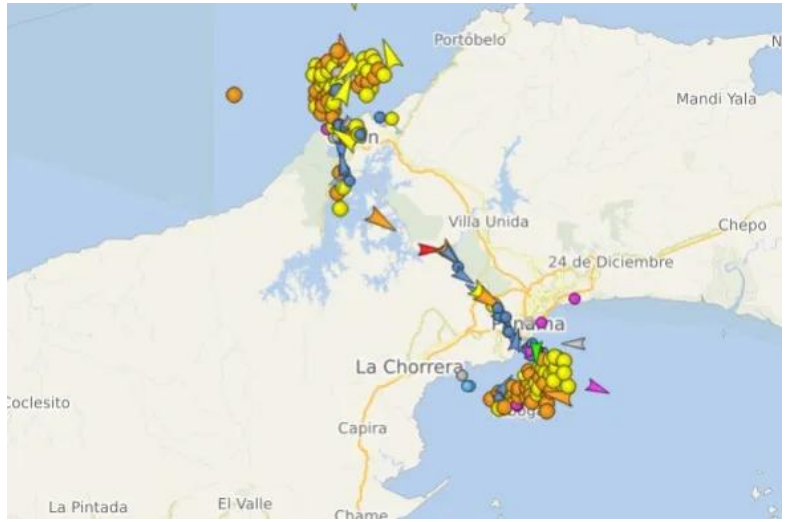
- Current annual port-specific risk (natural hazards): US$ 7.5 billion/year (*Verschuur, et al.*, 2023a);
- Current systemic risk to global maritime transport, trade and supply-chain networks: US$ 81 billion/year (global trade) / plus US$122 billion (economic activity) (*Verschuur, et al.*; 2023b)
- Global Expected Annual Damage (EAD) due to direct damage to road and railway assets estimated US$ 3.1 - US$ 22 billion; in some countries EAD reach 0.5 to 1% of GDP/year (equivalent to nat'l transport infrastructure budgets) (*Koks et al*, 2019)

BUT

- Hurricanes/Tropical Storms, e.g. Sandy (2012): over US$ 62 billion losses (including 1 week shut-down of NY/NJ container port)
- For SIDS, a single extreme event can cause L&D amounting to a significant share or multiple of GDP

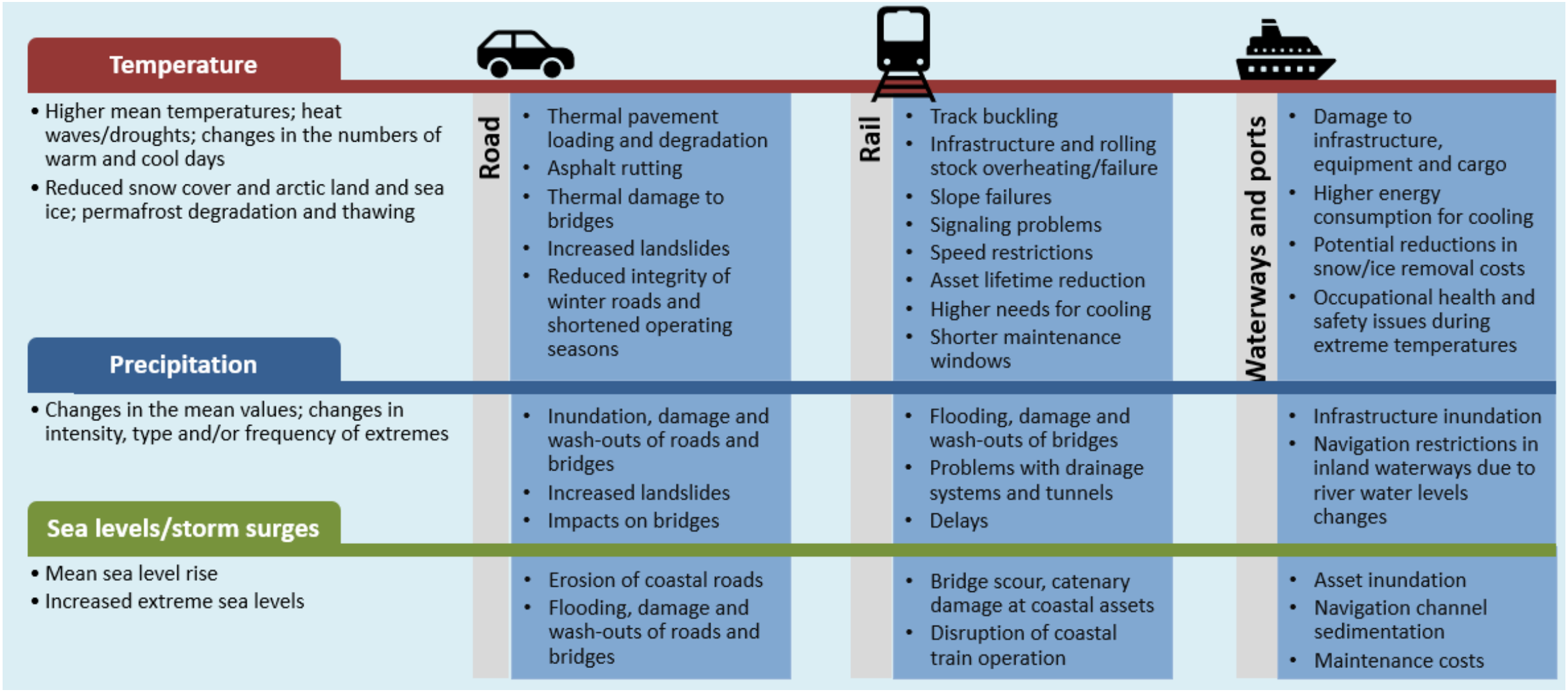


*Port of Providence (RI, USA): **Flood** simulation - 26f surge and 0.5m MSL rise (Becker et al. 2014)*



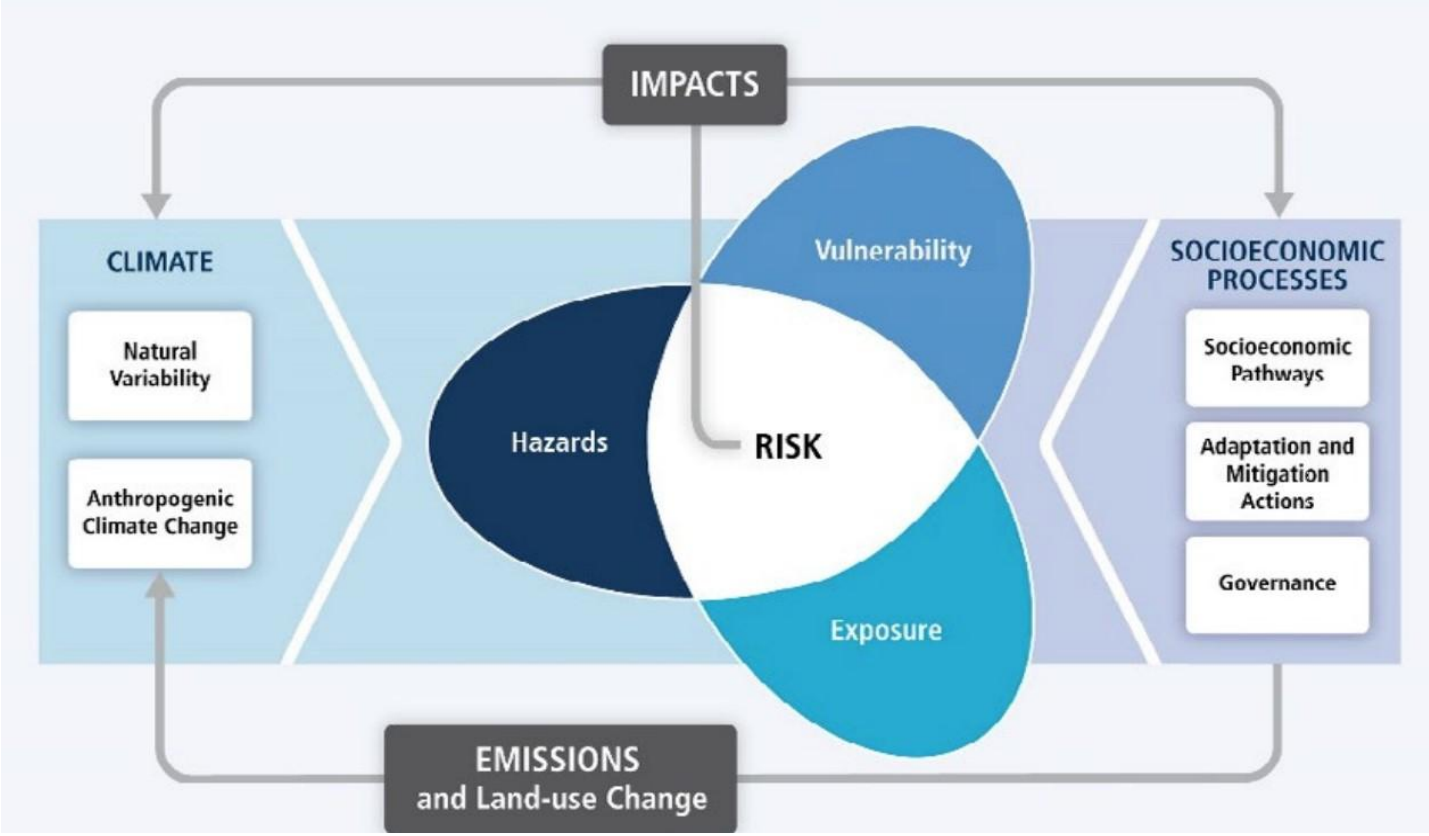
Panama Canal 2023: unprecedented **drought**: severe impacts on maritime transport/supply chains

Examples of climate change hazards and impacts relevant to transportation infrastructure/operations



UNECE, 2020

Infrastructure risk of climate change impacts



IPCC, 2014

Risk of impacts is a function of:

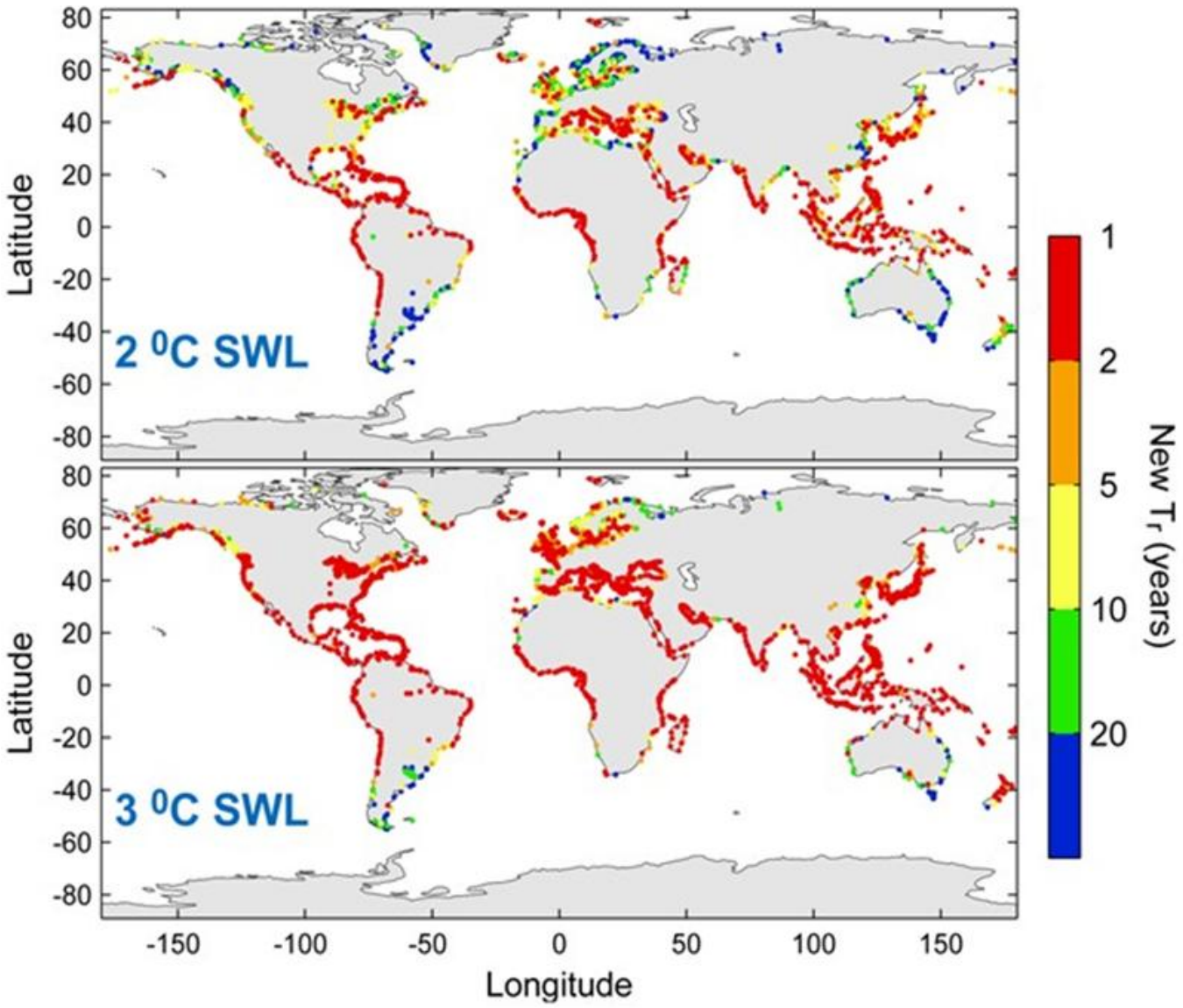
Hazard - changing climatic factors, dependent on climate scenario/ emissions

Exposure of infrastructure /operations to hazards

Vulnerability – depends on capacity to respond to factors that make infrastructure prone to damages/losses from hazards, e.g. availability of technologies and materials; human and financial resources; policy, legislation and management

Note: The IPCC risk definition differs from that of the Insurance Industry which defines risk as a function of the probability of the damaging event(s) and the magnitude of damages/losses: low probability events incurring large losses are high risks

Hazard projections for global ports under CV & C: Extreme Heat

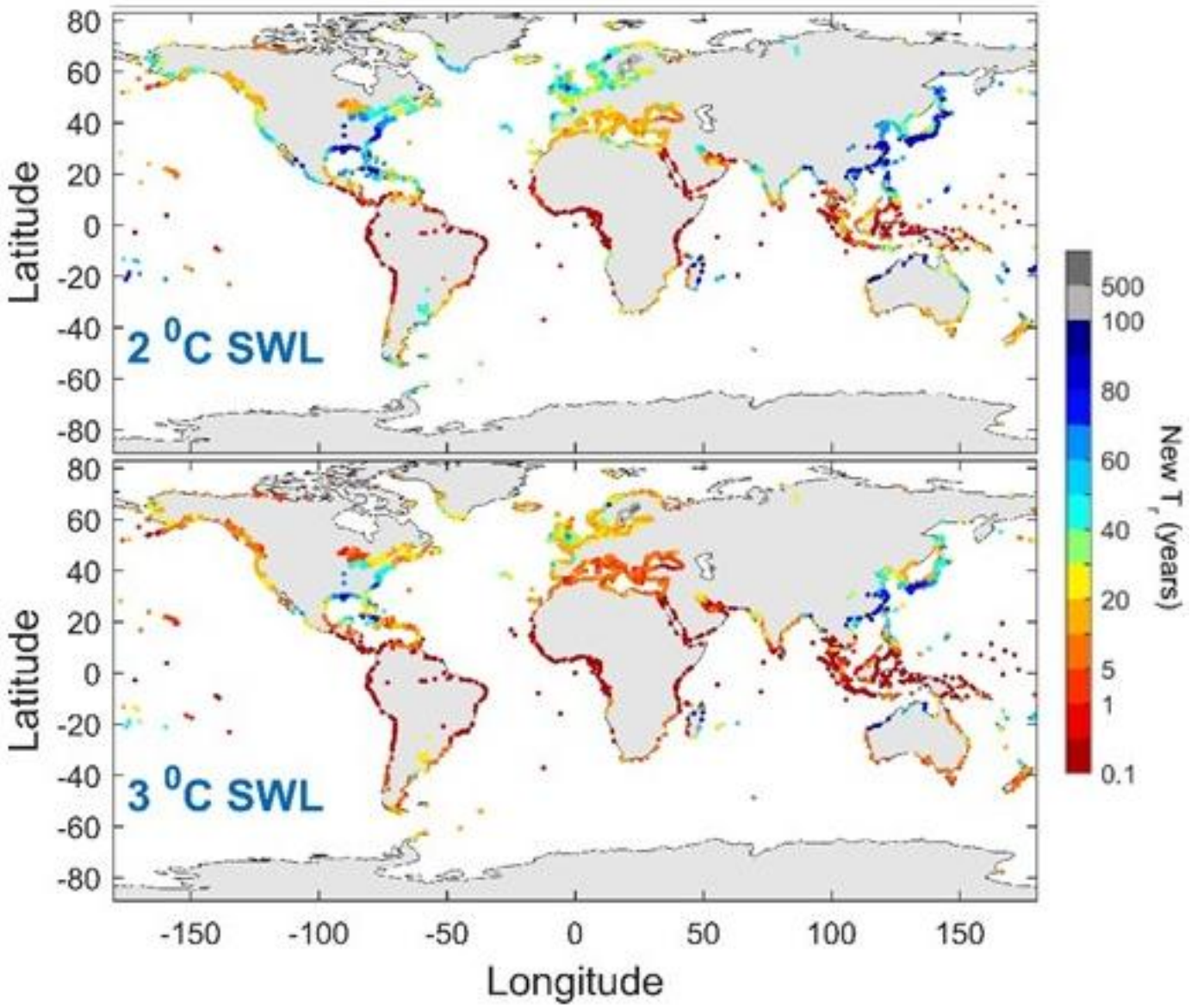


All global ports affected, with effects worsening with increasing SWL

- Under a **2 ⁰C SWL (2050s),** the **baseline 1-in-100 years extreme heat event** will occur every **1-5 years** in most tropical/sub-tropical settings
- Under a **3 ⁰C SWL (2100?)**, most global ports (except in higher latitudes) will experience the baseline 1-in-100 years event **every 1-2 years**
  - Important implications for **energy needs/costs**; (Monioudi et al, 2018)
  - Energy efficiency, renewables, decarbonization: **Important co-benefits**

Projected changes in the return period baseline (mean of 1976-2005) 1-in-100 years extreme heat event at about 3700 global ports. *Key: SWL (Specific Warming Level) in degrees (⁰C) above pre-industrial times. Tr (years) = return period. Seaports World Port Index 2019. $ESLs_{100}$ projections for the global coastline from EC-JRC data collection (see also Vousdoukas et al. (2018)*

Hazard projections for global ports under CV & C: Extreme sea level (ESL)



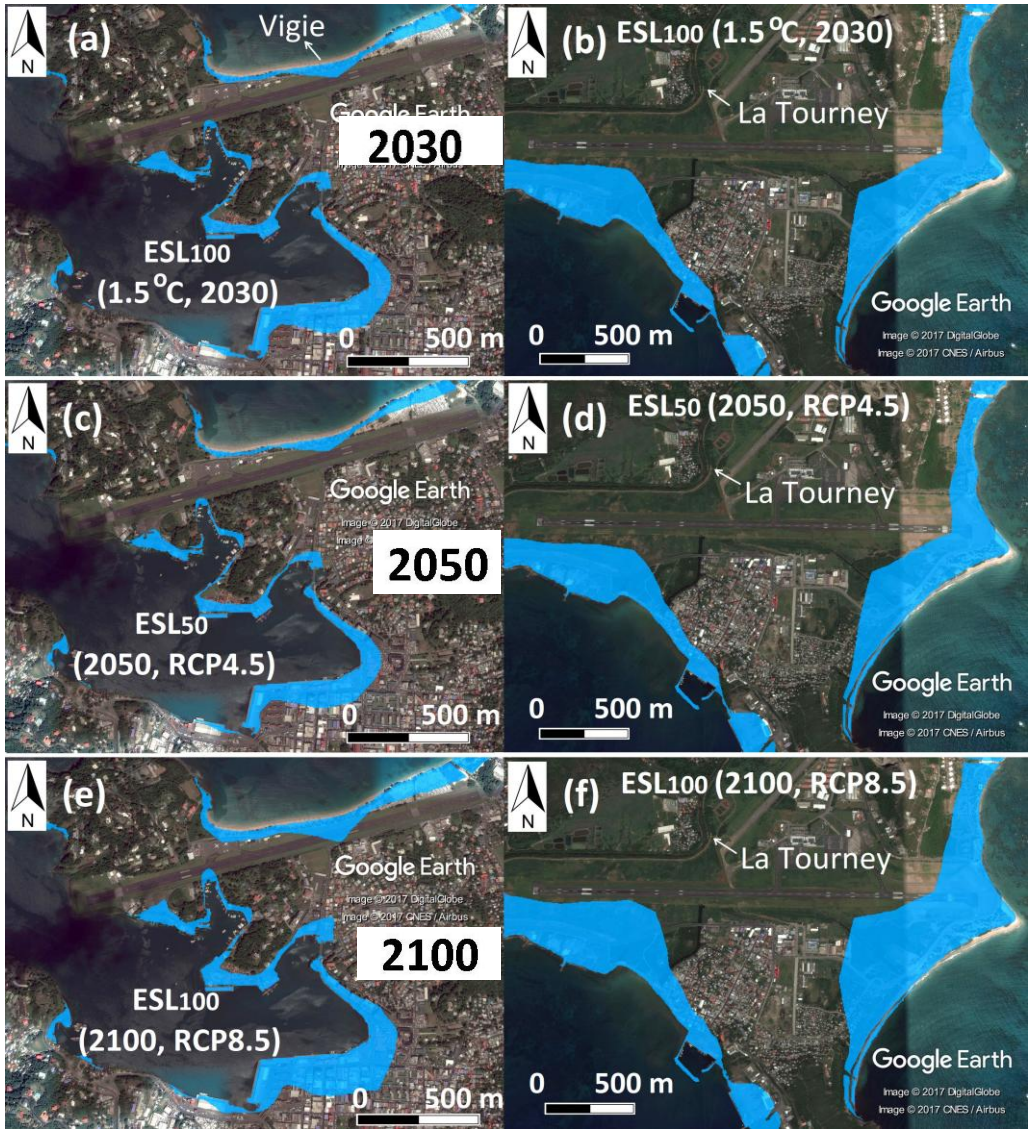
All global ports affected, with effects worsening with increasing SWL

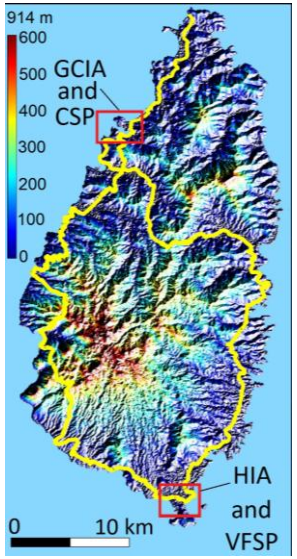
- Under a **2 °C SWL (2050s),** the **baseline 1-in-100 years ESL** will occur every **1-10 years** in many S. American, African, Gulf, SE Asian and Pacific ports
- Under a **3 °C SWL (2100?)**, many global ports will experience the **baseline 1-in-100 years ESL, several times per year**

Projected changes in the return period of the baseline (mean of 1986-2014)) 1-in-100 years ESL under CV &C for about 3700 global ports. *Key: SWL (Specific Warming Level) in °C above pre-industrial times. Tr (years) return period. Seaport location from World Port Index 2019. $ESLs_{100}$ projections for the global coastline from EC-JRC data collection (see also Vousdoukas et al. (2018). See UNCTAD (2021)*

Exposure - Coastal flooding projections under CV & C:

SIDSport-ClimateAdapt.unctad.org – 8 Ports and Airports in Jamaica and Saint Lucia





Exposure needs to be understood to adapt effectively

Requires risk assessment at local / facility level

All international transport assets (seaports/airports) of Saint Lucia are at high risk, under all scenarios, and from as early as 2030s

Marine flood maps: *(a, c, e) George Charles Int. Airport; Castries seaport; (b, d, f) Hewanorra Int. Airport; Vieux Fort seaport for the: 1-in-100 year extreme sea level event, ESL100 (1.5C SWL, 2030); 1-in-50 year extreme sea level event, ESL50 (2050, RCP4.5); ESL100 (2100, RCP8.5) (Monioudi et al, 2018, Reg Env Change; IPCC 2018; IPCC SROCC 2019)*

Climate resilience, adaptation, DRR for critical transport infrastructure

Key to achievement of policy commitments/objectives/goals/targets, including

- **2030 Agenda** (SDG 1.5, 9, 13 [14]); **SFDRR** 2015-2030; and **EW4All** initiative
- **2015 Paris Agreement**, Art. 7 (**Global Goal on Adaptation**) – note importance of **metrics/indicators**; Art. 8 (Averting, minimizing, addressing loss and damage)
- Sharm-El-Sheikh Adaptation Agenda (2022) includes Global 2030 Adaptation Outcome Target with focus on climate-resilient transport infrastructure
- UAE Framework for Global Climate Resilience (2023) targets: by 2027: multi-hazard EWS, climate information services for risk reduction and systematic observation, by 2030: Impact, vulnerability and risk assessment; National Adaptation Planning; Implementation; Monitoring, evaluation and learning
- **Antigua and Barbuda Agenda for SIDS** (2024); **Awaza Programme of Action for LLDCs** 2024–2034 - Priority area 4: Enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change and disasters
- **Sevilla Commitment on FFD** (2025) (para. 44: trade-related digital & physical infrastructure)
- **Geneva Consensus** (2025) – resilient transport/supply chains; implementation of PA on CC; climate finance
- **UN Decade for Sustainable Transport 2026-2035**

Legal obligation in EU Climate Law 2021 (Art. 5): compliance with EC technical guidance on climate-proofing of infrastructure 2021-2027 already required for new EU infrastructure & EU infrastructure funding

Action needed to adapt and build resilience

Accelerate action to ensure that by 2030 critical transport infrastructure is climate resilient to 2050 *(cf. MPGCA Milestones Transport')*

High-quality risk assessments based on the best available science/data to **develop effective adaptation measures, prioritize resources** and **avoid maladaptation**

- **Well designed & innovative technical solutions; improved data** collection/availability; **early planning; systems thinking;** integrate **ecosystem approaches**
- **Mainstream** CC considerations in transport infrastructure planning/operations
- **Human capacity building and affordable finance/technology transfer urgently needed -** particularly for ports/critical transport infrastructure in developing countries (UNCTAD, 2022)
- Development & implement of strong **policy and legal frameworks** (see UNCTAD, 2020; Asariotis et al, 2024); as well as **standards** (eg ISO 14090; ISO 14091), technical **guidance** (eg PIANC 2020; 2022; EC, 2021), **methodological tools** (e.g UNCTAD, 2018; UNECE, 2024)
- Integrate considerations into **NAPs & NDCs**, Development, DRR, Transport policies / planning

Continuing gaps: targeted NDC measures; climate finance for transport infrastructure adaptation

UN trade & development

UNCTAD

Topic:

Small Business, High Impact: Micro, Small and Medium-sized Enterprises in Climate Action

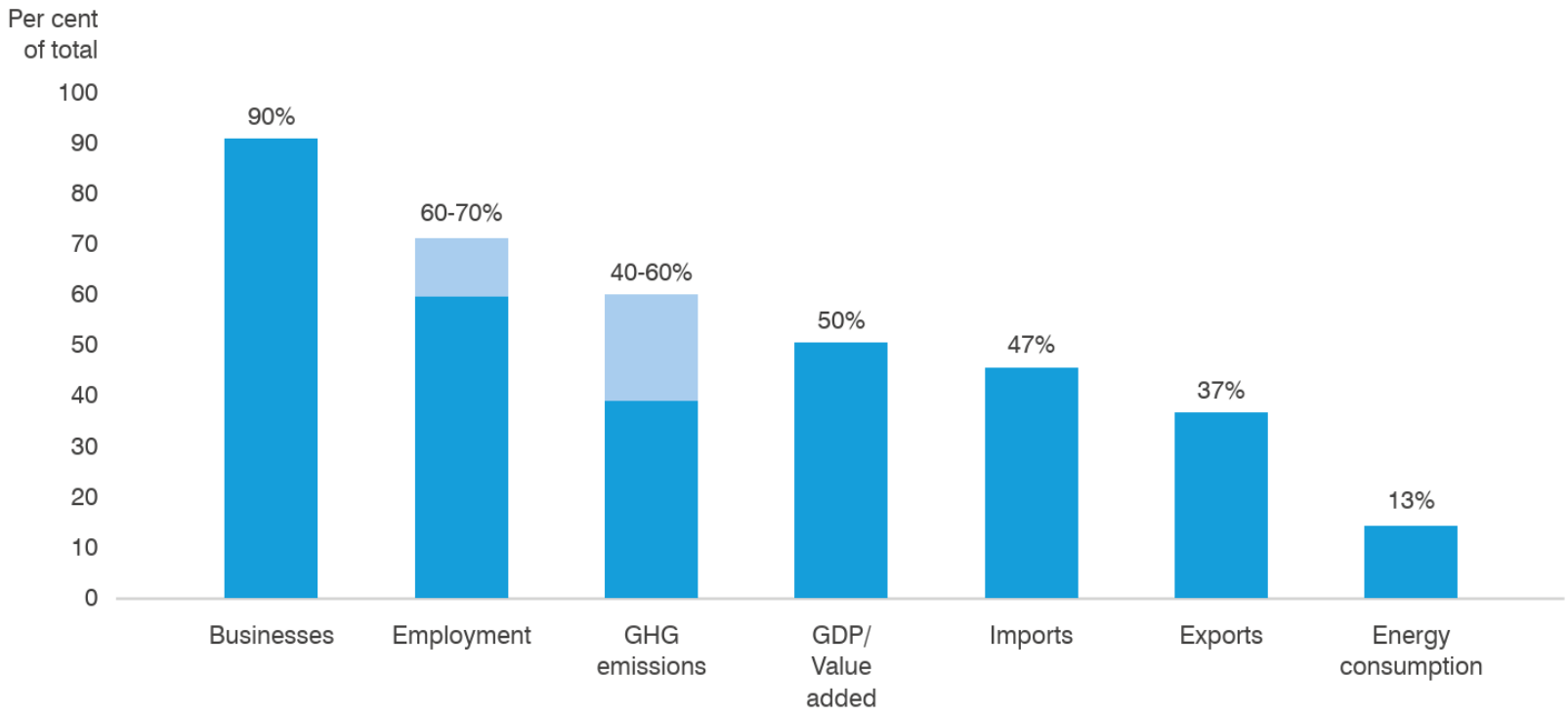
Lorenzo Formenti,
ITC

Contents

Small business, high impact

International Trade Centre

MSMEs are engines of economic growth and sustainability

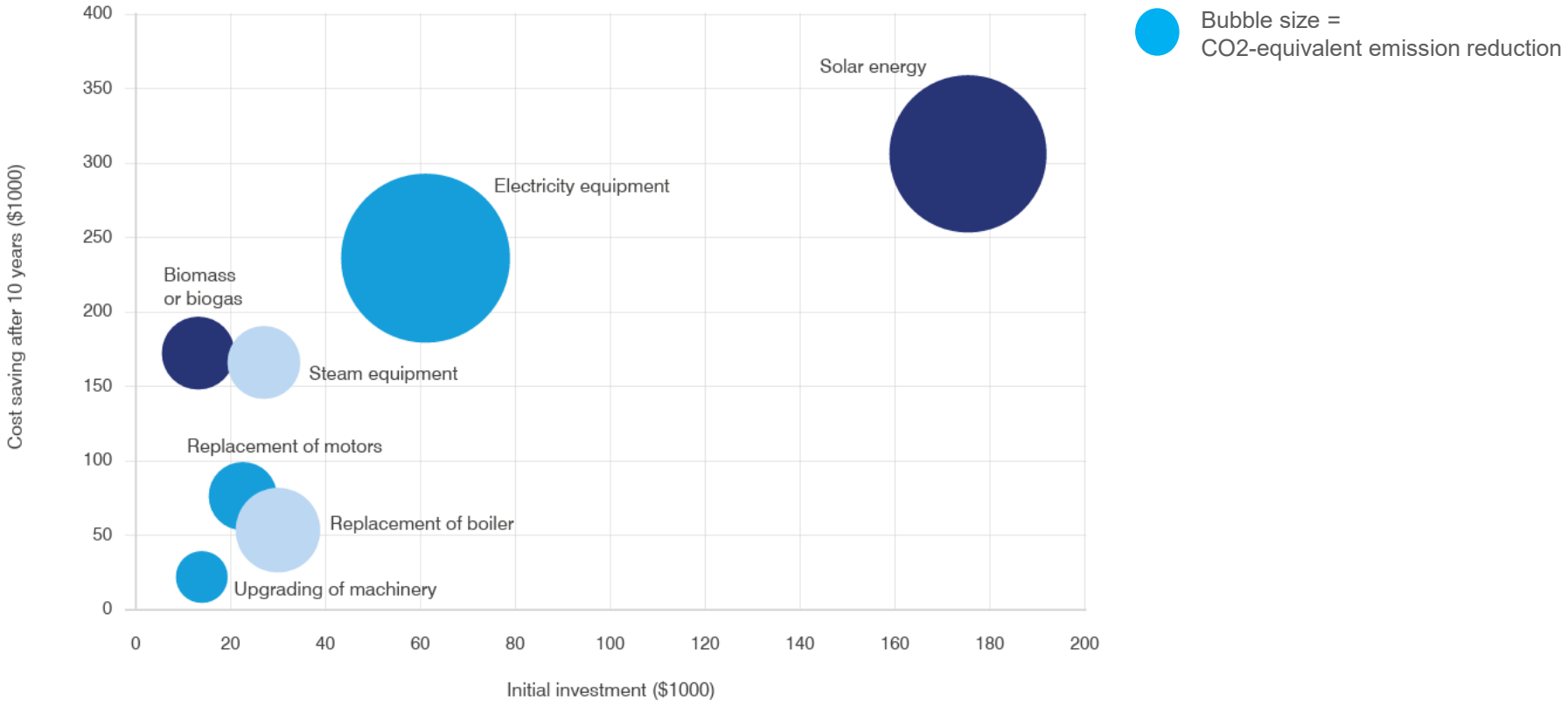


Source: ITC (2025) based on multiple sources

Climate change mitigation

International Trade Centre

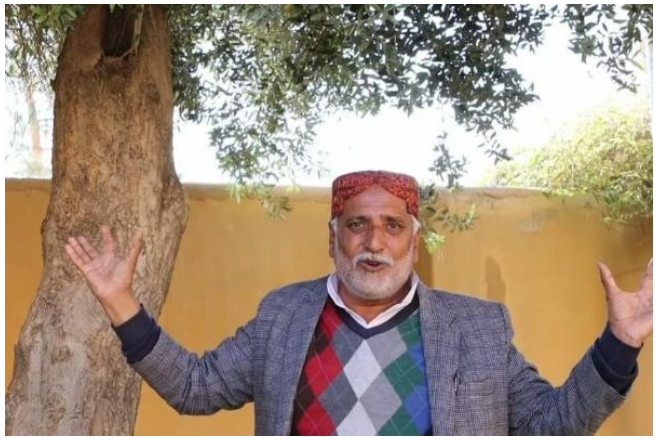
Resource efficiency enables MSMEs to cut emissions and costs



Source: ITC (2021). Note: Figures are averages based on 202 resource efficiency measures by MSMEs.

Climate change adaptation

- **Pakistan's agrifood sector** faces severe **climate hazards**: Drought and floods, irregular weather patterns, water scarcity.
- Livestock farming is largely affected: Fodder and water shortage, animal stress and losses.
- **Adaptation measures**: **diversification,** i.e. planting a **olive orchard**, and **water conservation**, i.e., **rainwater harvesting.**
- **Olive oil** sold to producers of homeopathic medicinal products, processors and consumers.
- **Diversified income streams, value added, resilience** (e.g. olive leaves from prooning as fodder).



Source: ITC (2023). Evidence from the Growth for Rural Advancement and Sustainable Progress (GRASP) programme

A policy-practice gap

International Trade Centre

National climate plans, i.e. “Nationally Determined Contributions (NDCs)”:

- **86% of Parties** emphasized the **private sector's role in climate action**, up 15% from previous NDCs:
  a. Co-developing and delivering renewable energy and energy efficiency programs
  b. Driving industrial and sectoral decarbonization efforts
  c. Implementing adaptation measures (e.g., water supply, agriculture, coastal protection, tourism).

- **22% of Parties** specifically noted **MSMEs, start-ups, and entrepreneurs** as drivers of low-carbon development, innovation, and green job creation.

Trade-related policy measures, i.e. trade regulations, industrial policies, financial incentives:

- Between 2013 and 2023, only **2-5% of measures** implemented worldwide **targeted MSMEs**.

Source: National climate plans (UNFCCC Synthesis Report 2025), Trade-related policy measures (ITC, 2025)

Challenges for MSME inclusion in NDCs

- Climate stakeholders are not aware of MSME potential and needs
- Small business stakeholders have limited **awareness** and mastery of climate issues
- NDC lead agencies and line ministries work in **silos** (across and within)
- MSMEs have **limited technical capacity** and **finance** for climate investments (support is weak)
- Business support organisations (BSOs) are not equipped to “catalyze” interests

Source: ITC (2025)

Out Now!

A new ITC guide:

- ✓ Data-driven insights into the role of MSMEs in climate action
- ✓ Principles, methods and steps for successful MSME inclusion
- ✓ A menu of options for NDC-relevant, trade-related technical assistance

ITC's support to NDC design in Iraq

- **Who?**

ITC, at the formal request of the **Government of Iraq**, through the Ministry of Environment.

- **What?**

Provide targeted **technical support** to the **development of Iraq's revised NDC (2025)**, to ensure that MSME needs and trade-related touch points were reflected in the updated submission.

- **How?**

a. **Technical paper** to outline the state of play of MSME-led climate action and identify priority sectors and action pathways (short vs. long term).

b. **Consultation session** with the Ministry of Trade, private sector associations, labour associations, local experts, and the Ministry of Environment to build a shared understanding of MSMEs' role in Iraq's climate goals.

Source: National climate plans (UNFCCC Synthesis Report 2025), Trade-related policy measures (ITC, 2025)