



Technical and statistical report

Trade policies to advance national climate plans

Guide for policymakers



**United
Nations**



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Abbreviations

CO ₂	Carbon dioxide
COP	Conference of the Parties
GPA	Agreement on Government Procurement
HS	Harmonized System
IEA	International Energy Agency
MFN	Most Favoured Nation
MSMEs	Micro, small, and medium-sized enterprises
NDC	Nationally determined contribution
OETS	Ocean Economy and Trade Strategies
P&C	(BioTrade) Principles and Criteria
PV	Photovoltaic
RCA	Revealed comparative advantage
REDD+	Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
SIDS	Small island developing states
SDG	Sustainable Development Goal
UNCC	United Nations Climate Change
UNCTAD	United Nations Conference on Trade and Development
UNFCCC	United Nations Framework Convention on Climate Change
WTO	World Trade Organization



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Context

- > **Achieving the Paris Agreement goals demands ambitious NDCs, scaled-up finance, and integrated development strategies, with trade as a key enabler.**

To meet the goals of the Paris Agreement,¹ Parties are required to prepare, communicate and update successive nationally determined contributions (NDCs) every five years, aiming for the highest possible ambition (UNFCCC, 2016). NDCs embody each country's commitment to reduce emissions, adapt to climate impacts, and promote sustainable development.

The first global stocktake under the Paris Agreement, concluded in December 2023 at the United Nations Climate Change Conference (COP28), noted significant, albeit insufficient, progress toward the Paris Agreement goals. It called for a comprehensive transformation across all sectors, essential to lower emissions, strengthen resilience and mobilize resources in a just and sustainable way to accelerate and amplify efforts to meet the agreed-upon goals (UNFCCC, 2024). As countries prepare their third round of NDCs (NDCs 3.0) before COP30 in 2025, they are encouraged to realign global emissions with climate goals that have ambitious, economy-wide emissions reduction targets across all sectors and with regard to greenhouse gases, considering each country's unique circumstances and common but differentiated responsibilities and respective capabilities (UNFCCC, 2024).

Almost 70 per cent of the NDCs of Parties to the Paris Agreement indicate the need for financial international support to implement at least part of their NDCs. (UNFCCC,

2024b). The decision on the New Collective Quantified Goal for climate finance was adopted at the United Nations Climate Conference (COP29) in November 2024 in Baku, Azerbaijan. It calls on all actors to work together to enable the scaling up of financing to developing country Parties for climate action from all public and private sources to at least \$1.3 trillion per year by 2035, and decided to set a goal, with developed country Parties taking the lead, of at least \$300 billion per year by 2035 for developing country Parties for climate action (UNFCCC, 2024a). These efforts significantly advance both climate ambition and implementation, particularly benefiting developing countries. Both can also be enhanced by embedding climate action within broader sustainable development frameworks, implementing mitigation policies that incorporate adaptation or co-benefits with the Sustainable Development Goals (SDGs). This approach diversifies economies, builds resilience, and drives more substantial emissions reductions (UNFCCC, 2024). In addition, expanding and

¹ The Paris Agreement is a legally binding international treaty on climate change. It was adopted by 196 Parties at the UN Climate Change Conference (COP21) in Paris, France, on 12 December 2015. It entered into force on 4 November 2016. Its overarching goal is to hold “the increase in the global average temperature to well below 2°C above pre-industrial levels” and pursue efforts “to limit the temperature increase to 1.5°C above pre-industrial levels.”

Addressing climate change challenges requires a comprehensive, integrated approach that connects climate policy with broader economic and development strategies.

developing new sustainable value chains can strengthen domestic resource mobilisation.

Addressing climate change challenges requires a comprehensive, integrated approach that connects climate policy with broader economic and development strategies. Effective climate action needs to be closely linked to human capital development, industrial strategy, climate policy, including carbon pricing as one of the instruments within the policy mix available to countries, and climate-aligned trade and investment policies. Furthermore, integrating climate ambitions within national and subnational development plans, economic strategies, and sectoral policies is essential to promote policy coherence and to maximize synergies between climate action, economic growth, and social development (OECD, 2025).

In this context, international trade plays a critical role in advancing the objectives

of the Paris Agreement and the SDGs. It enables access to environmentally preferable goods and services, technologies, and knowledge, especially those essential for implementation of NDCs, mitigation and adaptation plans, while supporting the development of climate-resilient and resource-efficient value chains.

This Guide provides policymakers with a six-step process to better integrate trade-related measures into NDCs. Step 1 considers the designation of focal points. Steps 2, 3, and 4 focus on identifying and selecting climate-strategic trade sectors to be targeted by the measures, while steps 5 and 6 address the formulation and adoption of the measures. To conclude, the Guide presents a step-by-step checklist to identify climate change-strategic trade sectors and trade-related measures.

Guide for policymakers

Trade policies to advance national climate plans

A companion guide provides guidance on integrating the investment dimension into NDCs and ensuring coherence between investment policy and promotion frameworks and climate objectives, with the aim of mobilizing international and domestic capital, technology and expertise to support effective NDC implementation.



Chapter 1

Trade as a tool to advance climate plans, including nationally determined contributions



> Trade policies have untapped potential to strengthen NDCs by advancing the energy transition, low-carbon diversification, and sustainable value chains.

National trade-related measures and policies have untapped potential to advance the ambition and implementation of NDCs and national climate plans. National trade-related measures such as tariffs, market-based mechanisms, subsidies, and technical regulations can facilitate the energy transition and the economic and social transformations to low-carbon economies, enhance the market for carbon-efficient products, and facilitate phasing out unsustainable economic activities (UNCTAD, 2023a). The inclusion of trade-related measures in NDCs and the mainstreaming of these measures in relevant national strategies, such as export or industrialization strategies, can also contribute to securing enhanced means of implementation in support of national climate goals while strengthening policy coherence.

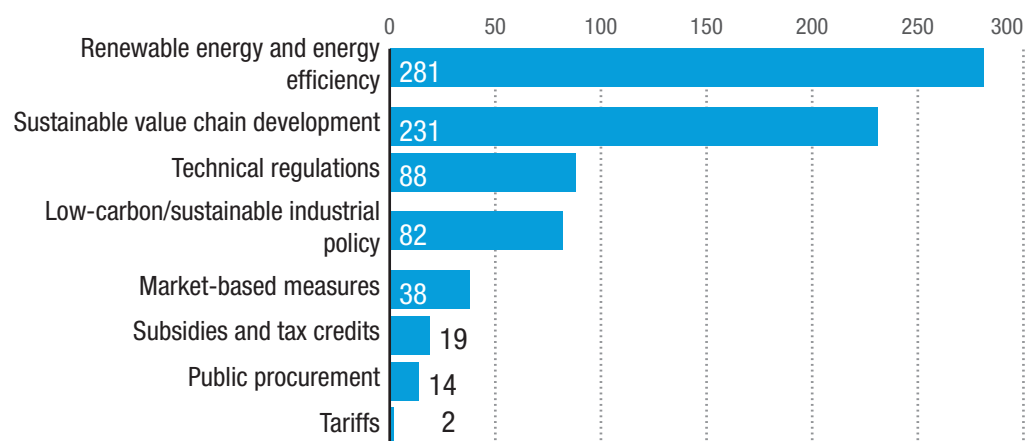
To increase the understanding of whether and how national trade-related measures are integrated into national climate plans, and how trade policy can support climate goals, UNCTAD mapped the use of trade-related measures in 2023 in the NDCs of 60 developing countries.²

The mapping identified 680 trade-related measures (UNCTAD, 2023a),³ most of which focus on increasing renewable energy and enhancing energy efficiency (281), and on promoting sustainable value chains (231). Direct trade policies, such as tariffs and technical regulations, are less prevalent (figure 1).

Figure 1

Trade-related climate measures target mostly energy and green value chains

Number of measures per category found in the Nationally Determined Contributions of 60 developing countries, 2023



² See UNCTAD (2023).

³ New and updated NDCs are available online at the NDC Registry of the United Nations Framework Convention on Climate Change as of 30 September 2023. List of identified measures available upon request.

1. Trade-related stakeholder engagement in nationally determined contributions

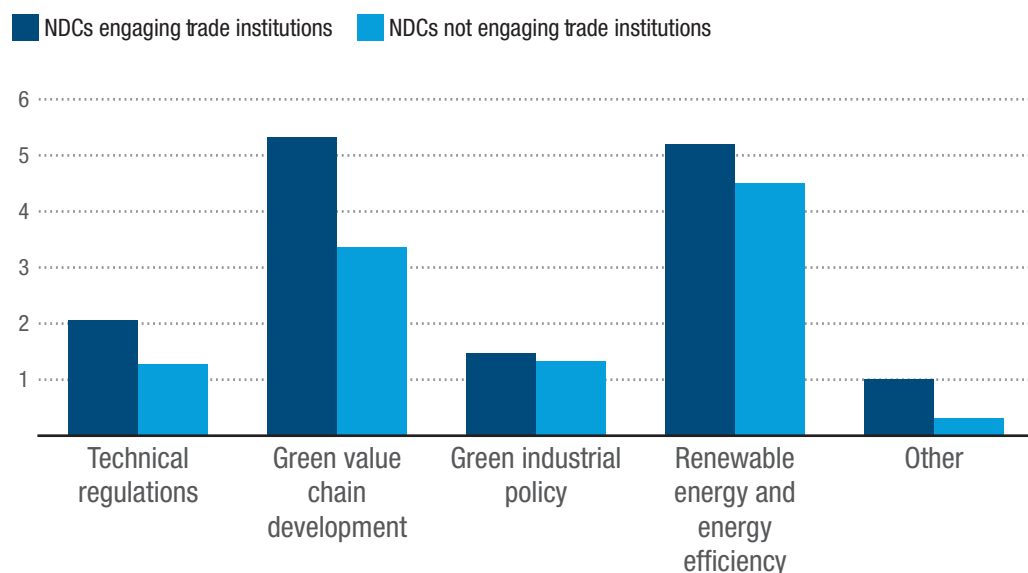
While 24 countries highlighted the central role of trade in their NDCs, only 15 involved ministries of trade or commerce in the formulation and implementation processes.

The mapping also revealed the potential for greater participation of trade stakeholders and ministries in the preparation, validation, and implementation of NDCs. While 24 countries highlighted the central role of trade in their NDCs, only 15 involved ministries of trade or commerce in the formulation and implementation processes. Not surprisingly, the NDCs involving trade officials employed nearly twice as many technical regulations and 59 per cent more sustainable value-chain-development measures than NDCs from countries not engaging trade institutions in the preparation of their contributions (figure 2).

Given the economic structure of many developing countries—typically characterized by a high prevalence of small-scale or artisanal producers, micro, small, and medium-sized enterprises (MSMEs), and cooperatives or producer associations—their inclusion in the planning and implementation stages is crucial to the viability of national climate action plans. MSMEs can contribute to innovative climate solutions through their adaptability to market changes and their role in decarbonising value chains. Yet, as highlighted in Box 1, the disadvantages faced by smallholders and MSMEs mean that their effective participation in international trade and sustainable value chains requires dedicated support measures. While most NDCs referenced consultations with associations representing smallholders and MSMEs,⁴ the mapping found that only 45 countries included specific measures for smallholders,⁵

Figure 2

Countries that involve government trade institutions in their NDCs show a higher number of trade-related measures than countries that do not engage trade institutions in the preparation of their contributions



⁴ In this analysis, smallholders are understood to be small-scale farmers, pastoralists, forest keepers and fishers who focus on family needs, prioritizing the stability of the household system, relying primarily on family labour for production, and using a portion of their output for family consumption. Therefore, the analysis used the following keywords: smallholder, small producer, artisanal producer, farmer, fisher, and pastoralists. Keywords considered for MSMEs were enterprise, small, medium, supply chain, value chain, business, company, entrepreneur, and firm.

⁵ Especially measures directed to farmers, artisanal fishers, and small-scale bioenergy producers.

Box I**The contribution to national climate goals of micro, small, and medium-sized enterprises**

Micro, small, and medium-sized enterprises face significant challenges in contributing to and benefiting from international trade and development in most developing countries. Despite representing most businesses and employment globally, MSMEs account for a small share of exports, particularly in least developed countries. Limited access to finance, weak integration into global value chains, and digital divides hinder their competitiveness (UNCTAD, 2025).

Despite these challenges, MSMEs have the potential to play a significant role in global efforts to mitigate climate change. While individually they may not be large carbon emitters, their vast numbers and cumulative impact make them critical actors in reducing greenhouse gas emissions. MSMEs contribute to mitigation efforts through various means, including innovation, carbon emission reduction practices, and integration into global value chains.

MSMEs' agility and ability to adapt swiftly to market changes make them well-suited to implement innovative climate solutions. For example, this can be achieved through investing in energy- and resource-efficient equipment, transitioning to renewable energy sources, and implementing efficient waste management systems. These actions contribute to emissions reduction and lead to cost savings and increased competitiveness. Examples of such practices documented by the International Trade Centre (ITC) include investments in energy efficiency, solar energy, waste reduction and recycling, and water management to adapt to high electricity costs and water shortages.

Furthermore, MSMEs play a crucial role in decarbonizing global value chains. As suppliers of raw materials, semi-finished goods, and services to larger companies, MSMEs can influence the emissions of upstream value chains. By adopting sustainable practices and reducing their emissions, MSMEs can contribute to lowering the overall carbon footprint of global value chains. This is particularly relevant considering that indirect emissions from suppliers account for up to 80 per cent of the total emissions attributed to large companies.

MSMEs are often disproportionately affected by the impacts of climate change and the transition to a low-carbon economy. Including them in NDC processes ensures that their needs and concerns are addressed and that they can efficiently contribute to achieving national climate goals. MSMEs may require assistance in addressing challenges such as limited access to finance and technology, and a lack of awareness of the benefits of sustainability and associated export opportunities. Providing targeted policy and financial support can enable MSMEs to realize their mitigation potential fully.

Source: ITC (forthcoming and 2021).

and just 26 addressed targeted actions for MSMEs. These measures and targets serve as a strong indicator of substantial integration of the interests of these constituents into national strategies.⁶ Notably, 67 per cent of NDCs involving government trade institutions included

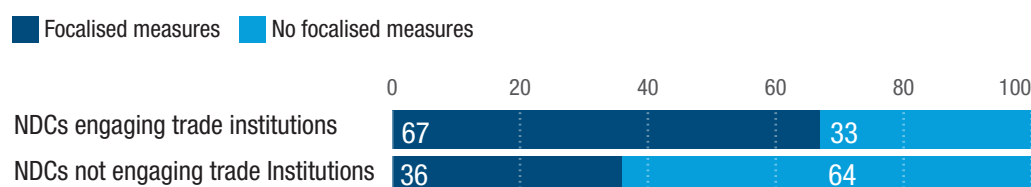
targeted measures for MSMEs, compared to only 36 per cent of other NDCs (figure 3).

To enable meaningful stakeholder engagement and ensure the effective implementation of trade and investment policies, consultations should provide

⁶ It is important to note three limitations of this analysis. First, the absence of references to consultations with certain groups in the NDCs does not necessarily mean that these consultations did not take place. Second, while some NDCs mention comprehensive measures, this does not guarantee their implementation, as plans and policies may not always translate into action. Third, the consultation of smaller stakeholders does not ensure that their interests will be effectively integrated into the execution phases, as their capacity may be limited.

Figure 3

NDCs engaging with trade institutions show a higher percentage of focalized measures for micro, small, and medium-sized enterprises than those not engaging trade institutions



participants with the opportunity to understand and exercise their roles in shaping, implementing, and evaluating NDCs. During the formulation stage, it is essential to identify relevant stakeholder groups within climate-strategic trade sectors and foster dialogue and cooperation among them. Ensuring inclusive consultations for the formulation and implementation of the NDC can be viewed as an initial step toward establishing efficient governance mechanisms that better align climate and trade strategic frameworks, broaden the ownership of climate-related trade measures, and contribute to enhanced resource mobilisation.

The integration of trade policies into NDCs and national climate plans through this Guide can help to:

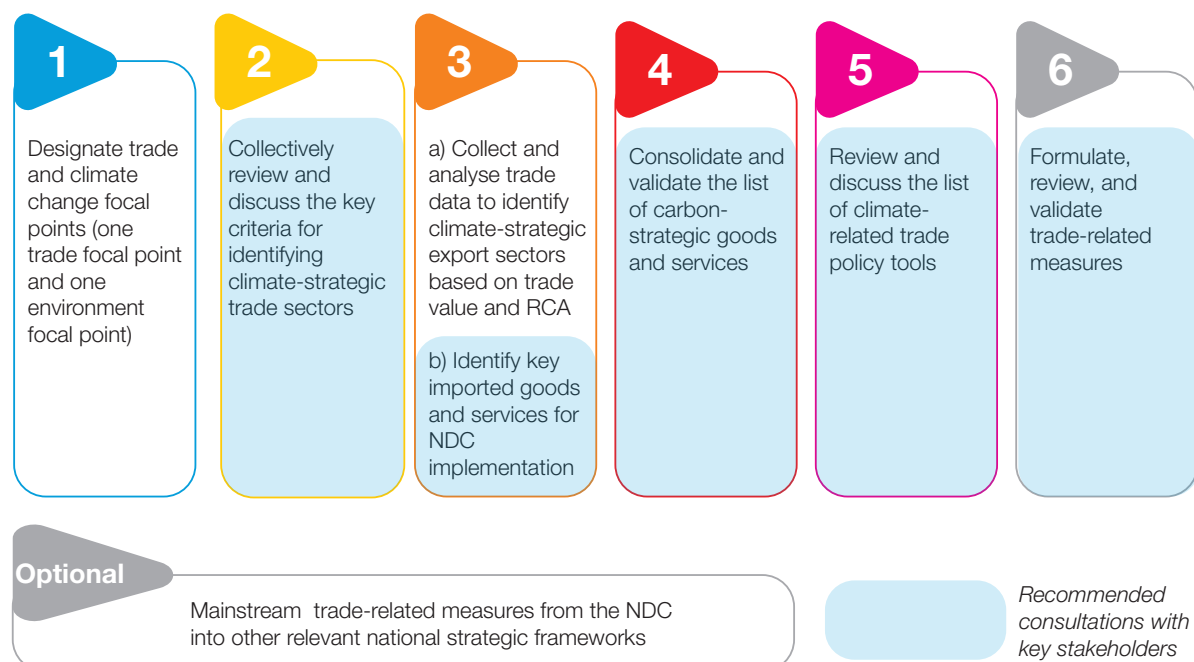
- Increase the level of ambition and implementation to achieve climate change goals in synergy with national SDGs priorities.
- Maintain or increase competitiveness and market access (mitigating the impact of measures, market trends, and consumer preferences).
- Enhance adaptation strategies and ensure the resilience of export sectors.
- Accelerate the transition to a low-carbon economy by identifying relevant opportunities to attract investment

and participate in global markets, and capture synergies with other SDGs.

- Strengthen sustainable export diversification and promote the integration of the most vulnerable people in low-carbon and climate-resilient value chains.
- Improve national policy coherence by providing an entry point to link climate change and trade, and investment strategies, aligned with other national and development priorities, including SDGs.

Based on this mapping and lessons learned from providing technical assistance on national sustainable export strategies and sustainable trade and climate change, it is suggested that the six-step process outlined below be used to include national trade-related measures, and identify priority low-carbon diversification sectors, and sustainable value chains in NDCs. The process aims to advance developing countries' low-carbon development goals while also strengthening climate resilience, preserving market access and export capacity, and thus helping advance the other SDGs. Following its presentation at UNFCCC COP29, it has been piloted in two developing countries (The Gambia and Madagascar) and reviewed during an expert meeting held in Geneva in January 2025.⁷

⁷ Ad hoc expert meeting on trade, investment, climate and sustainable investment, 31 January 2025, Geneva, Switzerland, More information available at <https://unctad.org/meeting/ad-hoc-expert-meeting-trade-investment-climate-and-sustainable-development> (accessed 5 March 2025).

Figure 4**Proposed steps for the design and inclusion of trade-related measures into nationally determined contributions**

Note: RCA: revealed comparative advantage. Revealed comparative advantage (RCA) is an indicator observing an economy's comparative advantage in producing and exporting certain commodity. It is based on Ricardian trade theory, which posits that patterns of trade among economies are governed by their relative differences in productivity. Although such productivity differences are difficult to observe, an RCA metric can be calculated using trade data to “reveal” such differences. While the metric can be used to provide a general indication and first approximation of an economy's competitive export strengths, it should be noted that applied national measures which affect competitiveness such as tariffs, non-tariff measures, subsidies and others are not taken into account in the RCA metric (UNCTAD, 2023b).

2. Formulating and including trade-related measures in nationally determined contributions

The formulation and inclusion of trade-related climate measures in NDCs can be conducted in six steps:

Step 1 focuses on designating one climate and one trade focal point to lead the consultations for the inclusion of trade-related measures in the NDC. Experiences from the pilot implementation of the present guide have shown that close coordination

between trade and environment ministries and strong buy-in from the climate focal point are crucial factors for the success of the consultations and the incorporation of their conclusions in the NDC.

Steps 2, 3, and 4 focus on identifying and selecting climate-strategic trade sectors to be targeted by the measures. Steps 5 and 6 address the formulation and adoption of the measures.

Consultations for the formulation design and inclusion of trade-related measures in NDCs should be undertaken through a whole-of-government approach and involve a broad

range of government, private sector, and civil society representatives. These consultations can take the form of two- to three-day technical consultations jointly organized by trade and environment ministries. They can also be embedded in sectoral consultations for the formulation of the NDC.

Recommendations for effective implementation of the guide

The recommendations that follow are derived from the pilot implementation of the guide. To maximize the relevance, effectiveness, and inclusiveness of the process, consultations should pay special attention to the following:

- Ensuring effective engagement of a diverse range of stakeholders from key trade sectors (e.g. industry, agriculture, tourism, energy) – they will know best how proposed measures may affect them and can suggest better alternatives that are more inclusive. Consulted experts and practitioners should include government officials and relevant private sector representatives, including MSMEs, women traders, and Indigenous Peoples and producer/farmer associations and cooperatives.
- Involving technical experts with the necessary knowledge to assess proposed measures from a climate standpoint and identify optimal options to minimize carbon dioxide (CO₂) emissions and maximize adaptation benefits.
- Providing initial capacity-building on the trade and climate change nexus, as not all participants may be thoroughly familiar with these linkages and their climate and development implications.
- Ensuring alignment between proposed measures and existing priorities in the NDC design and implementation process, both during and after consultations.
- Confirming the engagement of the trade focal point in future discussions on NDC design and implementation,

as well as the involvement of the climate focal point in consultations on developing strategies that include relevant measures related to climate-strategic trade sectors that can contribute to achieving NDC goals.

Identifying climate strategic trade sectors

Identifying trade sectors—both products and services—with significant climate action implications, such as on low-carbon economic diversification and adaptation, is a critical step in integrating trade-related measures into the NDC formulation process. This approach ensures that efforts focus on sectors where trade and climate change intersect most strongly, thereby maximizing the impact of the selected measures.

Highlighting key trade sectors also facilitates the alignment of proposed measures with national priorities and provides a basis for mainstreaming climate action into other national policy instruments, such as export strategies. In addition, it facilitates identifying needs and non-trade policies to support the development of the selected trade sectors. In this regard, potential synergies with strategic instruments such as National Biodiversity Strategies and Action Plans (NBSAPs) could be explored, particularly for adaptation-related measures.

Another important aspect to consider when identifying climate strategic trade sectors is the role of services and the importance of complementary services in supporting climate action. Box 2 describes how trade in services could support the deployment of renewable energy.

Based on UNCTAD's mapping of trade-related measures in NDCs in developing countries and recent research findings on trade and climate change (UNCTAD 2023a, 2023b), it is suggested that the trade sectors considered for the design and inclusion of trade-related measures in NDCs meet at least one of the four following criteria:

1. Environmentally preferable goods and services: Does the production or use



of the considered good help mitigate CO₂ emissions? Does the good represent a low-carbon alternative to a mainstream equivalent? Trade sectors such as energy-efficient appliances (reduced energy consumption), low-carbon energy production equipment, and agroforestry (products linked to carbon sequestration) would meet this criterion. Environmentally preferable goods or services would typically be at the heart of low-carbon economic diversification efforts.

2. High CO₂ emissions goods: Are the goods or services considered linked to high CO₂ emissions? High-emission goods would typically be associated with major CO₂-emitting sectors identified in the NDC. Emissions could result from the production of

an exported good (e.g. cement) or from the use of an imported one (e.g. used cars). Goods and services meeting this criterion would be the focus of mitigation efforts.

3. Strong climate-change-adaptation implications of export sectors: Is the considered export sector vulnerable to climate change, and does it require adaptation measures to maintain desired trade levels and the associated socioeconomic benefits (e.g. overall employment or rural development)? Identifying export sectors with high adaptation needs is not only crucial for the preparation of NDCs, but also critically important for updating export, agricultural or industrial strategies that consider climate risks and promote economic diversification toward

Box 2

Services sectors critical to the energy transition

The provision of services will be essential across multiple sectors to support the transition to renewable energy. In particular, service-related activities play a critical role in the operation and maintenance of solar photovoltaic (PV) and onshore wind energy projects. Key phases such as installation, grid connection, operation, maintenance, and decommissioning account for the largest share of employment along the value chains of both energy sources—representing approximately 75 per cent of labour requirements in solar photovoltaic (PV) and 80 per cent in onshore wind projects. In addition, the deployment of decentralized renewable energy solutions offers significant potential to generate employment, particularly in remote areas, while also improving access to reliable power.

However, the rapid expansion of PV and wind installations presents significant challenges for renewable energy firms in recruiting skilled workers for construction, operations, and maintenance roles. According to the International Energy Agency (IEA, 2023), the number of individuals obtaining qualifications relevant to the renewable energy sector is not keeping pace with rising labour demand. This shortfall affects both vocational workers—such as electricians and construction personnel—and professionals in science, technology, and engineering fields. Addressing this skills gap is essential in the formulation of NDCs, and requires the implementation of concrete measures to develop and expand the requisite workforce.

Trade in services has the potential to facilitate the transfer of technologies and skills to developing countries, supporting the acceleration of renewable energy deployment. Accessing international services markets enables developing nations to source quality, reliable, and specialized services—such as engineering, consulting, and digital technologies—that are crucial for building science, technology, and innovation capacity in the energy sector. Successful technology transfer is further strengthened when trade policies are coordinated with non-trade policies, including those focused on education, research, and regulatory frameworks, ensuring coherence and maximum developmental impact.

Source: IEA (2023), IRENA and ILO (2023) and UNCTAD (2023c).



climate-resilient production. Goods and services meeting this criterion would be at the centre of adaptation efforts.

4. High exposure to response measures: Is the product or service likely to face market access challenges because of the impact of the implementation of response measures adopted by key trade partners?⁸ The potential adverse impacts of response measures on developing country exports have been recognized in Articles 4.8 and 4.10 of the United Nations Framework Convention on Climate Change (UNFCCC). The Paris Agreement also states that its Parties shall consider in the implementation of the Agreement the concerns of the economies most affected by the impacts of response measures, particularly developing country Parties. The Agreement further institutionalized the discussion on this issue.⁹

Preparing the list of climate-strategic trade sectors

Two entry points should be considered to ensure the effective identification of climate-strategic trade sectors:

- First is the identification of the country's main import and export sectors, using trade data.
- Second is the identification of key goods and services whose import is necessary to ensure the implementation of measures from the NDC.

The identification of these two groups of goods and services will be carried out through expert consultations and data

analysis.

Identifying key export sectors

In addition to total trade value, another factor that should be considered in identifying climate-strategic trade sectors is the revealed comparative advantage (RCA) of traded products, which provides a helpful indication of the importance of the considered sector(s) for the economy in question. UNCTAD has used this combination of high RCA and high trade value to identify priority export sectors as part of its sustainable export-value-chain-support projects.¹⁰ Not all major import and export sectors will necessarily meet the above criteria or be considered relevant for further consideration. When shortlisting top trade sectors, focal points and experts might emphasize sectors with the highest potential in terms of low-carbon growth, climate resilience, and inclusion of the most vulnerable.

Economic complexity and product-relatedness methodologies can also be used to identify products in these strategic sectors. These tools allow for assessing existing productive capacity within countries and identifying desirable products that are close to one another and can be supported by the country's productive space.¹¹ Criteria can also be assigned to prioritize the list of results, considering product desirability across different indices.¹²

Identifying key imported goods and services related to priority sectors from the nationally determined contributions

Implementing key measures from NDCs often relies on using imported goods or

⁸ Response measures can be defined as actions, policies and programs that countries, as Parties to the United Nations Framework Convention on Climate Change, undertake in response to climate change (Anger-Kraavi and Chan, 2021). They can include emissions trading schemes, carbon taxes and levies, subsidies, carbon border adjustment measures, or carbon labelling, among other measures (Anger-Kraavi and Chan, 2021).

⁹ See UNFCCC (undated) for more information on the impact of implementation of response measures.

¹⁰ See <https://unctad.org/project/supporting-member-states-developing-and-launching-sustainable-product-export-strategies> (accessed 5 March 2025).

¹¹ See UNCTAD (2024d) for a description of the economic complexity methodology.

¹² See the Annex for a description of using economic complexity and product-relatedness as tools for strategic diversification.



services (e.g. electric cars, photovoltaic cells, green engineering services). While their total import value might not be sufficient to place them among the top national imports, the conditions under which these goods and services are traded will influence their price and availability, thus positively or negatively affecting the success of national mitigation efforts (e.g. reduced tariffs on energy-efficient appliances or cooling systems not produced domestically will directly influence consumer prices). It is, therefore, essential to identify these goods as part of the preparation of the climate-strategic trade sectors list. This effort will require consultations with experts responsible for formulating sectoral measures.

The identification of key imported goods and services related to priority sectors from the NDC should not only consider established technologies, but also take into account emerging ones, so as to ensure efficient access of domestic entrepreneurs and consumers to next-generation green goods and related services. When identifying key imported goods and services, national focal points and experts are invited to look into the national potential and existing plans for the development of domestic production. This information will be important in selecting the type of trade-related measure to be adopted in relation to these goods (see the following chapters on recommended types of trade-policy measures).

Considerations regarding the preparation and use of the climate-strategic sectors list

- Both trade and climate focal points should take an active role in the sector identification and selection process.
- Sectoral experts (e.g., agriculture, industry, transport) should be consulted about the identification and selection of goods and services related to their area of expertise.
- When preparing the list of top trade sectors, a trade value threshold or ranking (e.g., the top 100 imports and

exports) can be used to emphasize products generating significant trade flows. Additional criteria, such as employment levels, job creation where mostly needed, inclusion of most vulnerable communities, or domestic value-addition prospects, can also be used.

- When possible, the list of climate-strategic trade sectors should include information on key trade partners and major export markets. This information will facilitate the identification of market access requirements (e.g., compliance with specific energy efficiency standards or deforestation prevention regulations), which, in turn, will support the formulation of effective trade-related measures.
- In addition to informing the formulation of trade-related measures in NDCs, lists of climate-strategic sectors can serve as a reference to support the preparation of trade, agriculture, and industry strategies, thus facilitating the adoption of a comprehensive national approach to promoting trade in low-carbon products and services.

Entry points for inclusion of trade-related measures and main categories of measures

Once finalized, the list of climate strategic trade sectors will serve as a basis for the formulation of measures in support of national climate and development goals. Measures should be designed through stakeholder consultations, including at subnational levels, with each sector assessed individually and consulted with relevant communities. Potential synergies between sectors (and products) should also be explored.

When formulating trade-related climate measures, stakeholders are encouraged to consider one or several of the following objectives:



1. Use trade tools to promote low-carbon economic diversification.
2. Support adaptation efforts by strengthening trade in climate-resilient sectors.
3. Promote the import and export of low-carbon and carbon-efficient goods to support national decarbonization efforts.
4. Preserve/ensure market access and anticipate the implications of response measures from key trade partners.

The tools presented in the following chapters can serve as a reference for the selection and design of trade-related measures. They are presented with their potential uses in the context of NDCs. Their content is based on the findings from UNCTAD (2023a) mapping of trade-related measures in NDCs.¹³

Given the variety of the targeted sectors (e.g., low-carbon, agri-food value-chain development, regulation of high-emission fuel imports) and the broad range of expertise and stakeholders involved in the process of designing measures, it is recommended that measures first be developed within working groups that bring together experts and practitioners from different fields.

Adopting a multidisciplinary approach helps ensure that all relevant issues (technical, regulatory, commercial) and trade and climate implications will be fully considered. Participating stakeholders should collectively review proposed measures before they are shortlisted and submitted for inclusion in the NDC. Alignment or complementarity with existing NDCs and other SDGs priorities and actions should be encouraged whenever possible.

As part of the measure formulation process, it is important to distinguish between conditional commitments, which depend on financial assistance or technology transfer for implementation, and unconditional commitments, which will be carried out regardless of the provision of additional external resources. For conditional commitments, stakeholders are encouraged to specify the required financial and technical support, as well as any necessary technology transfers, to achieve the mitigation or adaptation benefits associated with the proposed measures. Clearly defining these funding and technical assistance needs can serve as a first step in mobilizing trade-related support mechanisms, such as Aid for Trade to advance national climate goals.¹⁴ To enhance resource mobilization and strengthen the effectiveness of the proposed measures, efforts should be made to promote coherence and complementarity between climate and trade strategies, including by integrating relevant climate-related priorities and actions into national export strategies.

¹³ Further analysis of the proposed tools along with additional examples of their use in the context of NDCs can be found at: <https://unctad.org/publication/mapping-trade-related-measures-nationally-determined-contributions>. Depending on national circumstances and priorities, additional options may be selected.

¹⁴ See https://www.wto.org/english/tratop_e/devel_e/a4t_e/aid4trade_e.htm (accessed on 2 May 2025).





Chapter 2

Sustainable export value chain development



- > **Sustainable export value chain development is a widely used trade-related measure in NDCs, linking climate action with low carbon economic diversification, biodiversity conservation, and social development.**

Measures focusing on sustainable export value chains are among the most common trade-related measures in NDCs (UNCTAD, 2023a). Among the trade policy tools developing countries use to support climate action, these types of measures are also the ones with the strongest development focus and the broadest scope. Examples of sustainable export value chains or sectors targeted by trade-related measures in NDCs include timber and non-timber forest products, agrifood and livestock, and tourism (UNCTAD, 2023a).

Due to their broader nature, sustainable export-value-chain development measures can be linked to additional objectives such as biodiversity conservation (e.g. support for protected terrestrial and marine areas in conjunction with sustainable tourism), ocean economy development, reforestation, protection against soil/land degradation (e.g. planting cashew trees or native drought-resistant and soil-conservation species for export purposes), rural development, and economic empowerment of women, among other objectives.

Examples of potential uses of these measures in the context of NDCs

- Supporting the development of selected sustainable value chains through the preparation of sustainable export strategies (e.g., tourism or green hydrogen strategy).
- Reducing the emissions of specific links of key export value chains (e.g., development of a methane capture program for agro-industrial wastewater, introduction of an energy efficiency program for the tourism sector, or generalization of climate-smart agriculture practices to produce selected export crops).

- Enhancing climate resilience and domestic value addition (e.g., establishment of grain export processing zones, development of local capacity for the processing of sustainable timber and non-timber forest products for export purposes).

UNCTAD has developed various tools that can support the development of sustainable export value chains and help countries address climate change and other environmental challenges. For instance, Box 3 describes recent findings from UNCTAD's work on mapping ocean economic measures in NDCs in small island developing states (SIDS). The analysis showed the importance of balancing sustainable use and marine conservation in these economies. Furthermore, through its Ocean Economy and Trade Strategies (OETS), UNCTAD has supported selected SIDS in realising the economic benefits from the sustainable use of marine resources (see Box 3). The Annex presents a set of UNCTAD technical cooperation tools that can be used to support the implementation of trade-related measures in NDCs while enhancing co-benefits in terms of economic diversification, market access, or biodiversity conservation.

A total of 606 measures with a clear focus on oceans were documented within the NDCs of 39 SIDS.

Box 3**UNCTAD mapping of ocean economic measures in nationally determined contributions in small island developing states and its approach to promoting ocean economy strategies**

Measures linked to the ocean economy (e.g. fisheries and aquaculture or coastal tourism) are commonly found in NDCs, as oceans represent a vast space for climate action (70 per cent of the biosphere), absorb 25 per cent of all carbon dioxide emissions, and capture 90 per cent of excess heat (United Nations, 2025). In the case of small island developing states (SIDS), ocean measures represent the lion's share of their pledges. A total of 606 measures with a clear focus on oceans were documented within the NDCs of 39 SIDS, and 54 per cent of the ocean measures submitted by SIDS in their NDCs focus on the sustainable ocean economy and 46 per cent seek the conservation of the ocean space – showing a balanced approach between sustainable use and marine conservation (UNCTAD, 2024a). Only 20 per cent of the ocean measures identified were considered trade-related.

Ocean Economy and Trade Strategies (OETS) aim to help coastal developing countries, and particularly SIDS, realize the economic benefits from the sustainable use of marine resources, expand their carbon absorption potential, and understand the law of the sea, trade, and climate multilateral legal and institutional frameworks that underpin the potential of ocean economic sectors. Sectors identified follow UNCTAD's ocean trade classification and ocean data set as their guiding, state-of-the-art methodological tools. Fisheries, seafood processing, ships, and high-tech marine-based manufactures, coastal tourism, maritime transport, coastal and marine environmental services, marine research and development, and offshore energy represent some of the sectors covered. The OETS approach and Sustainable Export Strategies with a focus on marine products have been successfully implemented in Barbados, Belize, Costa Rica, and Ecuador.

UNCTAD has identified seaweed as a product group with significant carbon absorption potential. Due to its versatility, seaweed can contribute immensely to climate action, food security, and gender equality. An example of this potential is that seaweed and kelp forests have a much higher absorption rate than mangroves and terrestrial forests (UNCTAD, 2024b).

Source: UNCTAD, Ocean Economy and Fisheries, available at <https://unctad.org/topic/trade-and-environment/oceans-economy> (accessed 5 March 2025).





Chapter 3

Technical regulations



- > **Technical regulations can help to reduce carbon dioxide emissions and promote low-carbon goods, but they must comply with international trade and international climate change law.**

Technical regulations apply to both imported and domestically produced goods. They are introduced through national legislation to set out product characteristics such as maximum emission requirements or minimum energy-efficiency levels for targeted goods. Technical regulations are also used to define control and certification procedures (e.g., testing and certification requirements) to ensure compliance with the requirements they introduce. Another important element of technical regulations is the introduction of mandatory symbols, marking, or labelling requirements on the products they regulate. Such labels are often used to inform consumers of the energy efficiency or emissions levels of targeted goods.

Examples of potential uses of these measures in the context of NDCs

- Reducing emissions and/or energy consumption of imported high-emission goods (e.g., mandatory performance requirements for imported appliances).
- Driving up the performance of imported and exported goods with decarbonization potential.
- Promoting the purchase of environmentally preferable goods

and services through mandatory dissemination of consumer information.

When designing and applying technical regulations and other trade-related measures in support of national climate goals, policymakers and regulators should ensure full compliance with their relevant obligations under international trade and international climate change law. Box 4 outlines key considerations for ensuring the legal compliance of technical regulations under these two frameworks.



Box 4

Ensuring the compliance of technical regulations with WTO and UNFCCC requirements

An analysis of the applicable WTO and UNFCCC legal requirements (UNCTAD 2022a) highlights that climate change mitigation can be regarded as a legitimate policy objective for the adoption of technical regulations. The analysis also underlines key requirements to ensure that climate change-related technical regulations do not result in arbitrary or unjustifiable discrimination or create unnecessary obstacles to international trade:

- Technical regulations should not lead to less favourable treatment for imported products compared to 'like' products produced in another country or domestically.
- Technical regulations should not be more trade-restrictive than is necessary to fulfil their climate change mitigation objective, considering the risks non-fulfilment would create.
- Where relevant international standards exist, they should be used or serve as a basis for technical regulations, except when such international standards or relevant parts would be an ineffective or inappropriate means for the fulfilment of the climate change mitigation objective pursued.

In addition to these requirements, the analysis points out the existence of obligations for developed countries to consider the specific needs of developing countries and to minimize the adverse trade effects of technical regulations and other trade-related response measures. It also underscores the role of technical and financial assistance, as well as technology transfer, in mitigating the potential negative trade and development impacts of climate response measures.





Chapter 4

Tariffs



- > **Tariff reductions can lower the cost goods needed for climate mitigation, but in developing countries they should not impede value addition or industry growth.**

Despite having the potential to lower the cost of imported environmentally preferable goods necessary for climate change mitigation (Deere Birkbeck, 2021), tariff cuts are seldom included in NDCs (UNCTAD, 2023a). Paradoxically, average tariffs on essential environmentally preferable goods, such as renewable energy production equipment, are often significantly higher than those for fossil fuels in both developed and developing importing countries (UNCTAD, 2022a, 2023a, 2024).

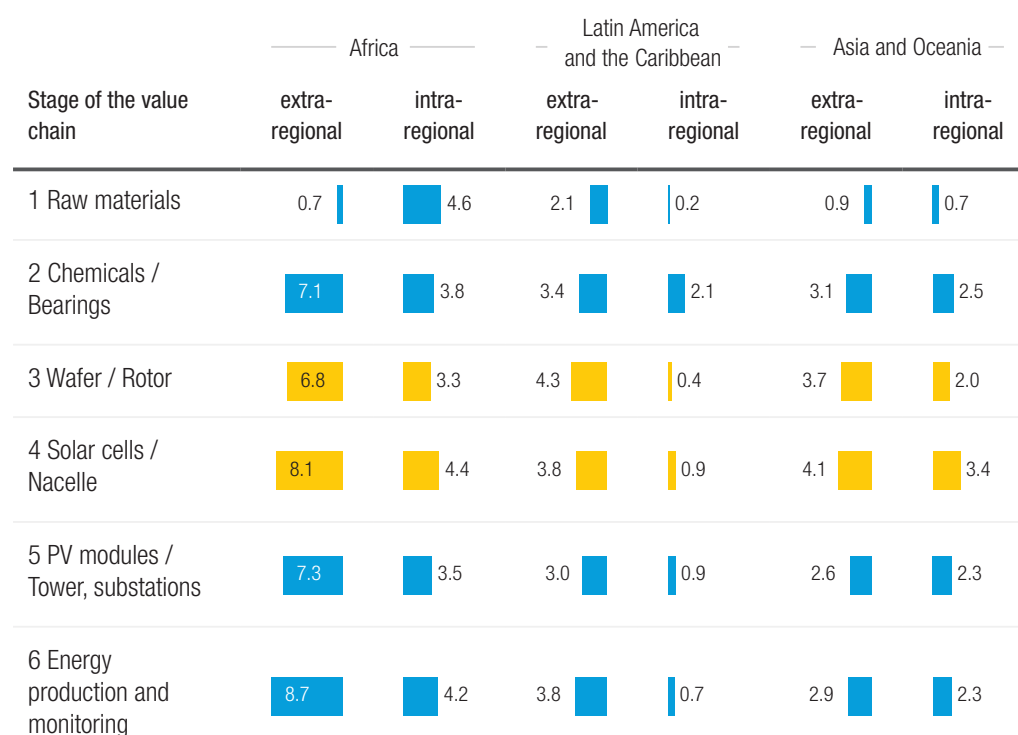
In addition, the average tariffs on products that are part of the solar and wind value chain in developing countries are often

higher than those in developed countries. Those tariffs range from 2.5 per cent in Asia and Oceania to 7.1 per cent in Africa,

Figure 5

Lower tariffs on intermediates could help in developing green energy industries, notably in Africa

Trade-weighted average applied tariffs (%) by stage, within and between regions, 2020-2022



Source: UNCTAD (2024c).

Note: Effectively applied tariffs are tariffs charged on imports, including preferential tariffs under free trade agreements. The label "Asia and Oceania" excludes China.

compared to 1.88 per cent in developed countries (UNCTAD, 2024c). Moreover, tariffs on intermediate-stage products of the solar and wind value chain can reach up to 8.1 per cent in Africa and 4.1 per cent in Asia and Oceania. These higher tariffs among developing countries, and particularly in Africa, suggest South-South cooperation opportunities for fostering regional integration by reducing tariffs (UNCTAD, 2024c) as shown in figure 5.

Tariff reductions can, therefore, be an option to lower the cost of strategic sustainable goods not produced domestically (e.g. renewable energy systems and components, or mineral products needed for renewable energy production) (UNCTAD, 2022b). However, tariff cuts should not be implemented in developing countries in a way that hinders their ability to add value to their resources or develop their industry. The following considerations should be considered when assessing the relevance of tariff reductions:

- Can sustainable goods be efficiently produced domestically or through international collaboration, including South-South cooperation? This may require consulting technical experts to identify key technological and infrastructure investment requirements to build production

facilities, achieve production levels that enable economies of scale, assess competition with established firms, and examine the domestic legal framework and legal barriers arising from patent protection and licensing of low-carbon technologies.

- What are the current and projected revenues associated with the tariff? An analysis of both current and future revenue implications is essential to assess the impact of the proposed measure on public finances.
- Could the revenue loss be offset by fiscal gains from other sources?

Examples of potential uses of these measures in the context of NDCs

- Lowering the cost and promoting the domestic adoption of imported goods used for low-carbon production or energy-efficiency purposes.
- Collaborating with other developing countries to develop and enter/move up sustainable value chains and considering pooling demand for end products.





Chapter 5

Public procurement, subsidies and tax exemptions



- > **Public procurement, subsidies, and tax exemptions can drive the adoption of sustainable goods and support low-carbon transitions, but they must be designed to comply with WTO rules and avoid discrimination.**

In the same way that tariffs have been used as policy instruments to reduce carbon emissions, public procurement, subsidies and tax exemptions can be used to facilitate the importation of sustainable goods needed to support the transition to a low-carbon economy. Public procurement programs can be tailored to include provisions to facilitate the import of carbon-efficient goods when equivalent products are unavailable domestically and in the absence of plans to develop local production. This can be supported by introducing a “sustainability lens” that includes requirements to favour the sourcing of low-carbon products and services in all public procurement biddings. Examples of public procurement measures included in reviewed NDCs range from the public acquisition of LED light bulbs to electric or hybrid vehicles and energy-efficient appliances.

UNCTAD (2023a) mapping of trade-related measures in NDCs showed that, unlike public procurement, subsidies and tax exemptions introduced in NDCs primarily target individuals and businesses and are mainly used to promote the acquisition of environmentally preferable goods such as electric cars and energy-saving lamps.¹⁵

Measures linked to public procurement, subsidies, and tax exemptions should be designed to prevent unjustifiable discrimination and ensure compliance with World Trade Organization requirements (see Box 4).

Examples of potential uses of these measures in the context of NDCs

- Promoting the acquisition, adoption and import of sustainable goods.
- Disincentivizing the import, domestic production, and adoption of high-emission goods.
- Scaling up demand through sustainable public procurement.

¹⁵ For instance, “acquisition and installation of 1,500 LED lamps in public lights in Bobo Dioulasso”. Contribution Déterminée au Niveau National (CDN) Du Burkina Faso 2021-2025.



Box 5

Key applicable World Trade Organization requirements

Two major WTO legal principles – National Treatment and Most-Favoured-Nation (MFN) status – are especially relevant for designing trade-related measures in the context of nationally determined contributions (NDCs). They both aim to ensure non-discrimination against foreign products and trade partners:

- The National Treatment principle mandates that imported goods and services must be treated no less favourably than their domestic equivalent.
- The MFN principle requires WTO members to extend any advantage, favour, privilege or immunity granted to one trading partner to all other WTO members (with some exceptions regarding free trade agreements and developing countries).

These principles are present in the General Agreement on Tariffs and Trade and embedded in the Technical Barriers to Trade Agreement (applicable to technical regulations), the Agreement on Subsidies and Countervailing Measures, and the Agreement on Government Procurement (GPA). However, many developing countries have not joined the GPA, and those that have joined are only bound if the procurement exceeds the threshold set in Appendix 1 of this plurilateral agreement (WTO, 2012).

The compliance of proposed trade-related measures with applicable WTO obligations should be systematically assessed whenever a risk of unjustified discrimination or of disguised restriction on international trade exists. The participation of trade experts in the process of designing measures can facilitate the identification of such risks and contribute to improving the design of the trade-related measures included in NDCs.

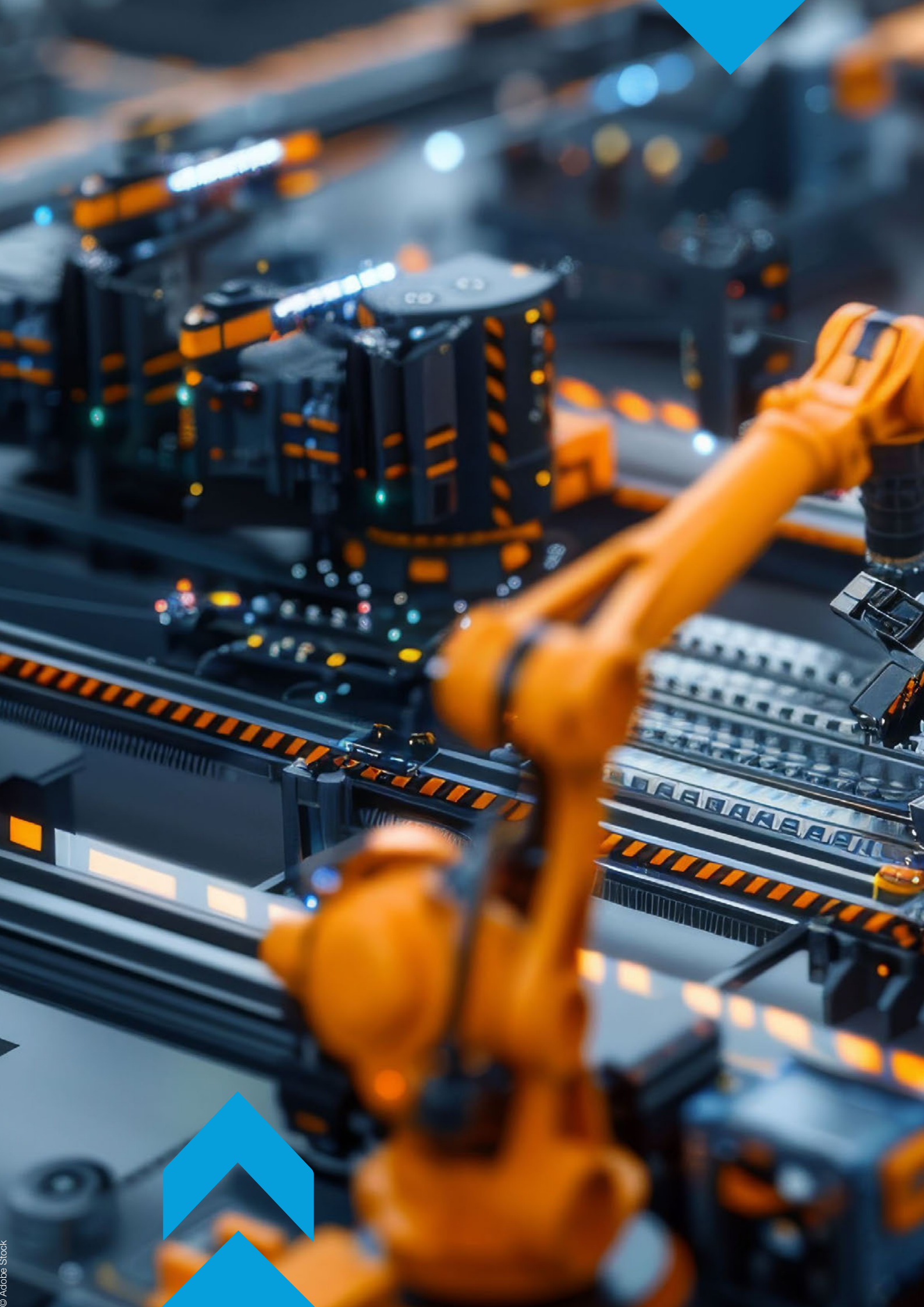
Note: See UNCTAD (2022a) for more information on designing climate change-related technical regulations.





Chapter 6

Market-based measures



> **Market-based measures can make climate action more cost-effective, generate income for developing countries, and support low-carbon development, but require careful design to avoid negative trade impacts.**

As early as 1997, the Kyoto Protocol introduced the use of market-based tools, such as carbon-emission trading, in support of mitigation efforts (UNFCCC, 2023a). Market-based mechanisms can help improve the cost-effectiveness of climate actions, stimulate private investment, and contribute to financing the efforts of developing countries.

For the purpose of the present guide, three main categories of market-based mechanisms can be distinguished (UNCTAD 2024e):

1. Baseline and Credit Schemes under which a baseline level of emissions is established for a specific activity or sector, and participating entities earn tradeable carbon credits for reducing emissions beyond this baseline.
2. Cap and Trade Systems in which a limit (cap) is set on the total amount of GHGs that can be emitted by covered entities and where participants are required to hold a quantity of tradeable allowances or permits equivalent to their emissions.
3. Carbon taxes, defined as a levy imposed on CO₂ emissions associated with the production and/or use of a good or service.

In its 2023 mapping of trade-related measures in NDCs (UNCTAD 2023a), UNCTAD identified measures linked to the Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (REDD+) Framework as the most common type of market-based measures included in national climate plans. REDD+ schemes allow developing countries to sell carbon credits linked to forest carbon sequestration on international markets. In

some NDCs, the sale of carbon credits on international markets has been combined with sustainable trade in non-timber forest products, therefore generating additional income in support of climate-friendly production and trade initiatives. Article 6 of the Paris Agreement provides a framework for the trading of carbon credits (UNCTAD 2024e). At UNFCCC COP29, Parties agreed on the final building blocks of this framework, making country-to-country trading and a carbon crediting mechanism fully operational.¹⁶ This development paves the way for a greater use of carbon credits to support developing countries' efforts toward low-carbon development and climate resilience as part of their NDCs.

Other market-based mechanisms related to international trade found in NDCs include border carbon mechanisms. Such mechanisms, allowing the imposition of a carbon levy on selected imported goods, have incentivised other economies to explore implementing their own carbon pricing. Carbon border adjustment has also raised concerns in some countries, due, among other factors, to potentially greater negative trade impacts on developing countries (UNCTAD, 2021). Technical cooperation, along with North-South and South-South and triangular collaboration, is needed to strengthen institutional capacity

¹⁶ See: <https://unfccc.int/news/cop29-un-climate-conference-agrees-to-triple-finance-to-developing-countries-protecting-lives-and> and https://unfccc.int/sites/default/files/resource/COP29%20outcomes_A6.2_6.4_6.8.pdf?download



and minimize the negative spillover effects of border carbon adjustment mechanisms on developing countries (IMF et al, 2024).

Examples of potential uses of these measures in the context of NDCs

- Mobilizing international carbon markets in support of forest carbon sequestration.
- Generating additional income in favour of value chains based on the export of sustainable non-timber forest products and forest ecosystem services (e.g. sustainable tourism).





Chapter 7

Step-by-step checklist to identify climate change- strategic trade sectors and trade- related measures



This chapter provides a detailed step-by-step checklist to identify climate change-strategic trade sectors and trade-related measures.

1. General objective:

- ✓ Identify and prioritize sustainable trade sectors that can support low-carbon economic diversification and create opportunities for sustainable growth and increased climate resilience and formulate supporting trade-related measures for inclusion into the NDC.
- ✓ Identify and leverage opportunities to use trade primarily as a mitigation tool, focusing on reducing the carbon footprint of major trade sectors and facilitating trade in essential goods and services that help lower national CO₂ emissions.

or can it be considered an emerging or future major sustainable export?

- ✓ Does the considered good or sector present a high revealed comparative advantage ($RCA > 1$)?
- ✓ Does the considered sector or good meet at least one of the following criteria:
 - i. Environmentally preferable;
 - ii. High CO₂ emissions;
 - iii. Strong climate change adaptation implications;
 - iv. High exposure to response measures?

If yes to the above, include the product in the climate strategic sector list.

2. Engaging and identifying relevant trade stakeholders

- ✓ Have both trade and climate focal points been actively involved in the preparation of the consultations?
- ✓ Are stakeholders from all relevant key trade sectors (e.g. industry, agriculture, tourism, energy), including MSMEs, smallholder and their cooperatives, and women entrepreneurs, involved in the consultations?
- ✓ Have technical experts with the ability to identify suitable options from a mitigation and adaptation perspective been identified to support the discussions?

Key imported goods and services in relation to priority sectors from the NDC

- ✓ Can the import of the considered good or service be considered essential to supporting planned emission reductions in relation to a key sector addressed in the NDC?
- If yes to the above, include the product in the climate strategic sector list.
- ✓ Can the goods or services be sourced domestically, or can domestic production be developed in the short to medium term, including through South-South trade?

Record this information to inform the formulation of trade measures.

3. Identifying sector/ environmental goods

Top export sector

- ✓ Does the considered good or sector generate significant export revenues (relative to the country's export basket),

Inclusion into national strategies

- ✓ Are any of the sectors included in the climate-strategic trade sector list considered priority sectors in a relevant national strategy or policy framework (e.g. export, industrial, or agricultural strategy)?



Record this information to inform the formulation of trade-related measures in order to prioritize the use of resources and maximize synergies with existing plans or programs.

4. Formulating measures

Review each identified climate-strategic trade sector and consider the following options for adopting trade-related measures, depending on the relevance of the proposed objectives and product categorisation. Whenever possible, use multi-stakeholder working groups to initiate the formulation of measures.

1. Harnessing trade to promote low-carbon economic diversification

Export sectors:

- i. Is the sector a competitive, sustainable export sector or an emerging domestic sector linked to a competitive export sector?

Consider implementing a sustainable export-value chain support program.

Note: In the case of sectors associated with carbon sequestration, consider the development of REDD+ and carbon market schemes aligned with the Paris Agreement to generate additional income.

Import sectors/goods:

- ii. Is the sector or good used as an input in the production of low-carbon goods?

If yes, consider introducing tariff cuts, tax exemptions or targeted subsidies after confirming their compatibility with existing national plans to produce the considered good and assessing the economic impact of the measures considered.

Note: Explore potential alternative revenue sources to compensate for tariff revenue losses.

2. Supporting adaptation efforts by strengthening trade in climate-resilient sectors

All export sectors:

- i. Is the considered sector a major export sector threatened by climate change (e.g. decreasing yields, sea-level rise, etc.)?
- ii. Are adaptation solutions available nationally or in other countries?
- iii. Does the sector benefit from a dedicated support project or program?

Consider implementing a sustainable export-value-chain support program with a strong climate-change adaptation component for low-emission export sectors or key export sectors not associated with high-emission levels.

3. Facilitating/promoting the import and export of low-carbon and carbon-efficient goods to support national decarbonization efforts

Sustainable import sectors (production tools/equipment, consumer goods, and public or collective equipment):

- i. Is the sector at the centre of low-carbon production processes?

If yes, consider introducing technical regulations to ensure an optimal level of carbon efficiency of traded goods or a level that allows for the development of complementary sectors.

In the case of public or collective equipment, consider introducing sustainable public procurement initiatives and technical regulations to accelerate emissions reduction.

- ii. Can equivalent goods be competitively produced domestically or regionally in the short run?

If no, consider introducing tariff cuts. Tariff reduction could support the rapid deployment of low-carbon goods and technologies and lead to the acquisition of future capacities to produce the goods.

If yes, the sector might not be a relevant target for the formulation of a trade-related measure. Nevertheless,



consider introducing measures to facilitate trade in services to support technology and skills transfer.

High emission import and export sectors:

- iii. Are more sustainable alternatives available?

If yes, consider introducing technical regulations.

Note: Tariff cuts on environmentally preferable alternatives may also be considered. When relevant, consider eliminating subsidies to fossil fuels.

If no, the sector might not be relevant for the design of trade-related measures.

4. [Preserving/ensuring market access and anticipating the impact of responses by key trade partners](#)

- i. Does a carbon border-pricing mechanism target the sector or product?

- ii. Are a growing number of climate-related technical regulations being adopted by trade partners?

Consider investing in reducing and monitoring CO₂ emissions associated with production processes, including securing renewable energy sources.

Consider adopting technical regulations, introducing a domestic carbon-pricing scheme and other climate policies, and eliminating subsidies for fossil fuels. The right policy mix will depend on countries' capacities and resources.

In the case of conditional commitments (i.e., measures whose implementation depends on securing external assistance), the specific financial and technical support, as well as technology transfer requirements necessary for measure implementation, should be identified and clearly spelled out for each measure.



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Annex

UNCTAD technical assistance tools to support sustainable export value chain development

The following UNCTAD Technical Assistance Tools illustrate various approaches that can be used to support the development of sustainable export value chains and highlight the diversity of intended co-benefits.

Sustainable value chain strategy development

Over the past 10 years, as part of its work on sustainability and trade, UNCTAD has been supporting over 30 developing countries from all five continents in harnessing sustainable export value chains as drivers for sustainable development, low-carbon economic diversification, social inclusion, and climate resilience. UNCTAD's approach is based on the premise that developing countries can use the sustained demand for sustainable goods in export markets to develop sustainable production practices, increase local value addition, develop low-carbon sectors, and promote climate change adaptation. To that end, UNCTAD has developed and refined a methodology for the identification and prioritization of high-potential sustainable export value chains and the formulation of national and regional sustainable export strategies.

Working on competitive sustainable export sectors, UNCTAD, in close collaboration with a government-appointed national focal point, leads a team of national experts to conduct an in-depth value chain analysis covering each link of the selected value chains and combining quantitative analysis and stakeholder consultations. The analysis examines critical factors such as sustainable production opportunities, climate resilience considerations, sustainable value addition options, collaboration among value chain actors, current and potential export markets, financing, Non-Tariff Measures, Non-Tariff Barriers, and options to enhance the participation of female and young entrepreneurs. Findings are used by national experts, through consultations with key national stakeholders, to guide the formulation of a sustainable value chain strategy, which includes a detailed action plan. Both the analysis findings and the sustainable value chain strategy are reviewed and refined during a national validation workshop that brings together government officials from key ministries (e.g., trade, environment, agriculture), entrepreneurs (including micro, small, and medium enterprises (MSMEs) and cooperatives representatives), researchers, community representatives, and other key value chain actors. The inclusiveness of the consultation process helps promote collaboration between different categories of value chain actors, contributes to the identification of synergies, facilitates the construction of a shared vision, and paves the way for the implementation of the sustainable value chain strategy and action plan. Validation workshops also contribute to building capacity and raising awareness among national stakeholders on the integration of trade, sustainable production, and climate change. Further to the validation workshop, the national strategy is revised by national experts in consultation with the national focal point and UNCTAD to integrate stakeholders' inputs. Once finalized, the strategy is officially endorsed by the government through formal correspondence to UNCTAD.

An implementation monitoring meeting bringing together lead actors for the implementation of the action plan, along with potential partners and donors, may be organized between six months and a year following the validation workshop to support the implementation of



the action plan, build additional synergies, and explore additional funding opportunities. Having dedicated funds available to developing countries that want to conduct such analysis would help advance sustainable development and climate ambitions.

For more information:

<https://unctad.org/project/inclusion-green-initiatives-afcfta-national-implementation-strategies-20-african-countries>

<https://unctad.org/project/supporting-member-states-developing-and-launching-sustainable-product-export-strategies>

BioTrade

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services suggests that restoring natural lands or preventing their destruction could deliver more than a third of the action needed by 2030 to keep global warming to below 2 degrees Celsius. The work implemented under UNCTAD's BioTrade Initiative contributes to climate change mitigation and adaptation efforts by conserving biodiversity and providing guidelines and tools for countries to develop sustainable export value chains.

BioTrade is defined as the collection, production, transformation and commercialization of biodiversity-based goods and services that meet specific environmental, social and economic sustainability criteria known as the BioTrade Principles and Criteria (P&C). The P&C offer a comprehensive framework, along with a set of guidelines, to help governments, companies and organizations adopt sustainable practices to conserve and sustainably use biodiversity while ensuring the fair and equitable sharing of benefits among value-chain actors. The P&C are recognized as a guideline relevant to the implementation of nature-based solutions at the Intergovernmental Consultations on Nature-based solutions for supporting sustainable development conducted under United Nations Environmental Assembly Resolution 5/5.

The BioTrade and climate relationship is clearly defined under Principle 2: Sustainable use of biodiversity. It requires BioTrade activities to be based on adaptive management practices and measures to prevent or mitigate negative environmental impacts. In particular, two criteria address climate change mitigation and resilience:

Criteria 2.2. Measures are taken to prevent or mitigate negative environmental impacts of the activities, including in relation to flora and fauna; soil, air and water quality; the global climate; use of agrochemicals; pollution and waste disposal; and energy consumption.

Criteria 2.3. Activities contribute to measures that strengthen resilience and the adaptive capacity of species and ecosystems to climate-related hazards and natural disasters.

For more information:

<https://unctad.org/topic/trade-and-environment/biotrade>

<https://unctadstat.unctad.org/EN/Biotrade.html>

Prioritising climate-smart trade sectors using economic complexity and product-relatedness

The following methodology has been applied in UNCTAD's technical cooperation project at the Port of Suape in Pernambuco, Northeastern Brazil. This project identified 141 products with diversification potential. The goal was to identify opportunities to diversify beyond primary commodities and into more complex products. This



analysis integrated quantitative economic complexity and product space methods with qualitative insights from regional stakeholders, evaluating the feasibility and desirability of potential products across seven indices to support local development.

Below are key steps for the identification of climate-smart trade sectors.

1. Calculating economic and product complexity

This step involves calculating average economic and product complexity, along with developing a measure of proximity between products. This is done by constructing a bipartite network of countries and products and applying the method of reflections, which requires comprehensive trade data across all products and countries. The method relies on comprehensive trade data (Harmonized System [HS] six-digit level) as a proxy for production data, further refined by disaggregating data by unit quantity and price range. Each product is represented by eight digits: the first six digits correspond to the six-digit HS code, the seventh digit corresponds to the unit quantity code, and the eighth digit represents the unit value group based on product price ranges. This granular product analysis provides for a more precise understanding and investment targeting by distinguishing products within the same HS six-digit codes based on price variations.

2. Identifying productive opportunities in target economies

After calculating global economic and product complexity and proximity between products, production data for the target economy are needed to assess the current productive space. By matching product space data, an initial list of potential products is generated and filtered to include those products with above-average economic complexity and export potential. Export opportunities are assessed through a monetized overlap index, which estimates the alignment between potential exports and growing import markets.

3. Aligning with climate-smart trade opportunities

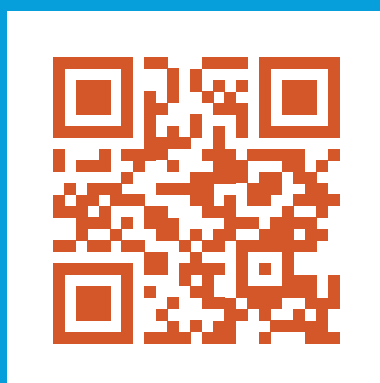
To refine the list of potential products, further criteria can be applied to prioritize products that align with climate-smart trade sectors, resulting in an environmentally strategic selection.

For more information:

<https://unctad.org/project/study-economic-complexity-suape-industrial-complex-pernambuco-brazil>

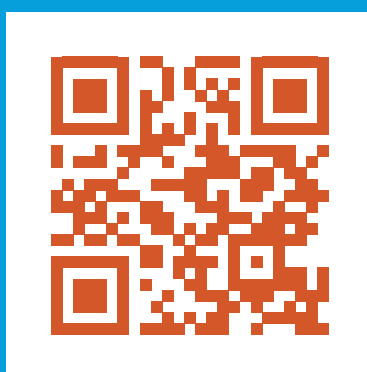






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