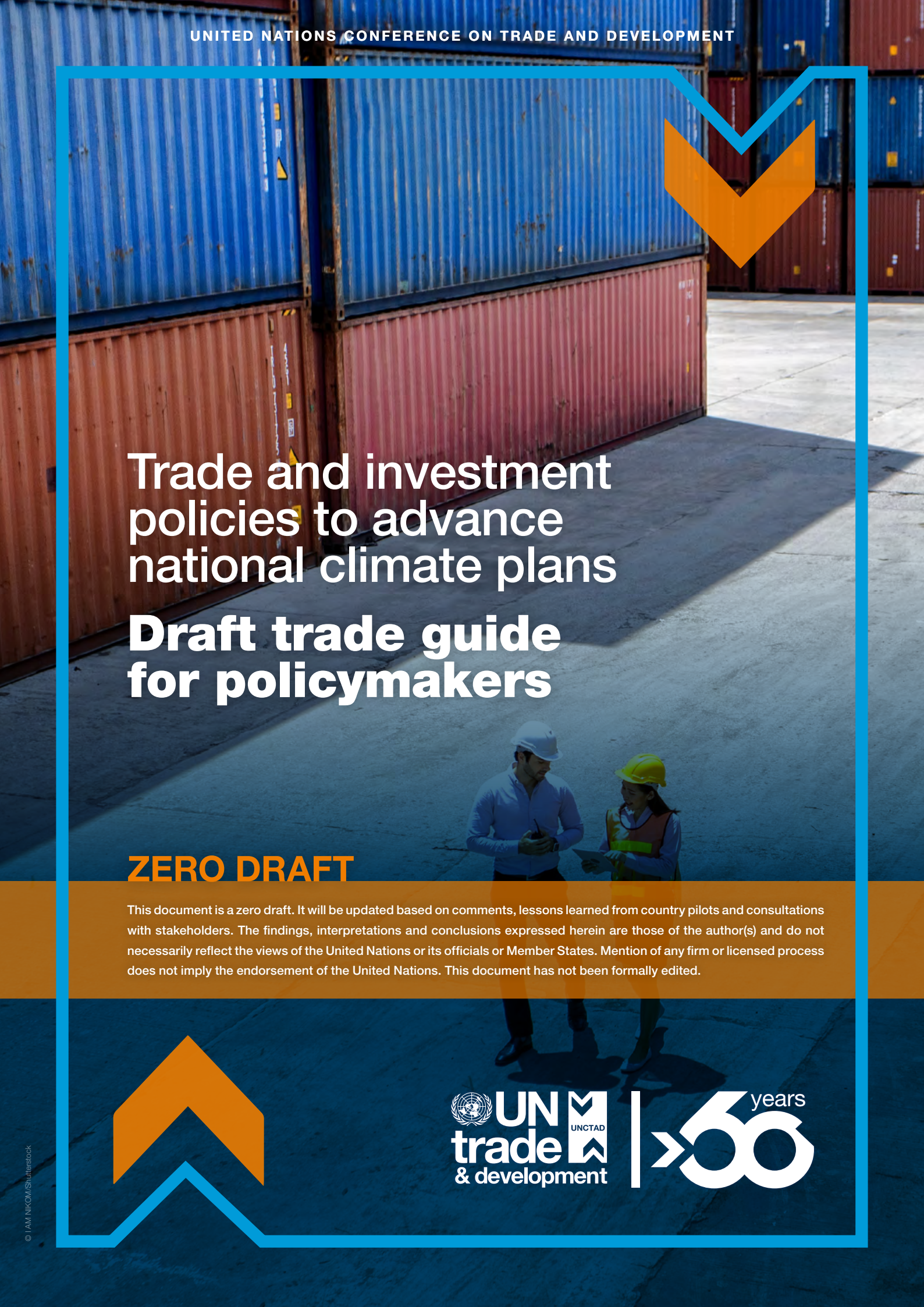
UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

Trade and investment policies to advance national climate plans

Draft trade guide for policymakers



ZERO DRAFT

This document is a zero draft. It will be updated based on comments, lessons learned from country pilots and consultations with stakeholders. The findings, interpretations and conclusions expressed herein are those of the author(s) and do not necessarily reflect the views of the United Nations or its officials or Member States. Mention of any firm or licensed process does not imply the endorsement of the United Nations. This document has not been formally edited.

UN trade & development UNCTAD | 60 years

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About UNCTAD

UNCTAD is the UN's leading institution dealing with trade and development. It is part of the UN Secretariat and has a membership of 195 countries, one of the largest in the UN system.

UNCTAD supports developing countries to access the benefits of a globalized economy more fairly and effectively by providing economic and trade analysis, facilitating consensus-building and offering technical assistance to help developing countries use trade, investment, finance and technology for inclusive and sustainable development.

Context

The Paris Agreement requires Parties to prepare, communicate, and update successive nationally determined contributions (NDCs) every five years, aiming for the highest possible ambition to meet its goals (UNFCCC, 2015). NDCs embody each country's commitment to reducing emissions and adapting to climate impacts.

The first global stocktake under the Paris Agreement, concluded in December 2023 at the United Nations Climate Change Conference (COP28), noted significant progress towards the Paris Agreement goals, albeit insufficient. 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 goals (UNFCCC, 2024). As countries prepare their third round of NDCs (NDCs 3.0) before COP30 in 2025, countries are encouraged to realign global emissions with climate goals with ambitious, economy-wide emissions reduction targets across all sectors and greenhouse gases, considering each country's unique circumstances and common but differentiated responsibilities and respective capabilities (UNFCCC, 2024).

Implementation must also accompany ambition, and many previous NDCs' implementation is conditional on international support. Ongoing negotiations on the New Collective Quantified Goal for climate finance aim to substantially increase available resources, enhance their ease of access, and improve concessional terms for fiscally constrained countries. These efforts significantly advance both climate ambition and implementation, particularly benefiting developing countries. Both can also be increased by embedding climate action within broader sustainable development frameworks, implementing mitigation policies with adaptation or Sustainable Development Goals (SDG) co-benefits, and guiding development towards sustainability. This approach diversifies economies, builds resilience, and drives more substantial emissions reductions (UNFCCC, 2024). Additionally, expanding and developing new sustainable value chains can strengthen domestic resource mobilization.

Draft Guide for Policymakers: Trade policies to advance national climate plans

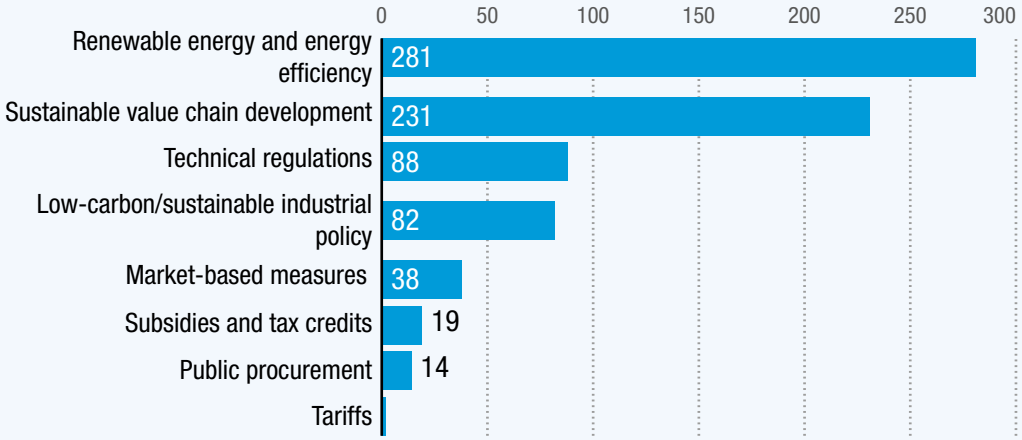
A companion guide also emphasizes the complementary role of international investment policies in creating the conditions for channelling investment, technology, goods, and services to support the energy transition, and mobilize capital flows for sustainable investment and greener economies in developing countries. These guides will be presented in one of UNCTAD's deliverables under the Baku Initiative on Climate, Finance, Investment and Trade (BICFIT) Dialogue, to be launched at COP29 in Baku, Azerbaijan.

Trade as a tool to advance climate plans, including NDCs

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, enhance the market for carbon-efficient products, and facilitate the phasing out of unsustainable economic activities (UNCTAD, 2023). 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 60 developing countries' NDCs identifying 680 trade-related measures (UNCTAD, 2023d).[1] Most of these focus on increasing renewable energy, enhancing energy efficiency (281), and promoting sustainable value chains (231), while direct trade policies like changing tariffs and technical regulations are less prevalent (Figure 1).

[1] New and updated NDCs available on the line UNFCCC NDC Registry as of 30 September 2023.

Figure 1
Trade-related climate measures target mostly energy and sustainable value chains. Number of measures per category found in NDCs of 60 developing countries, 2023

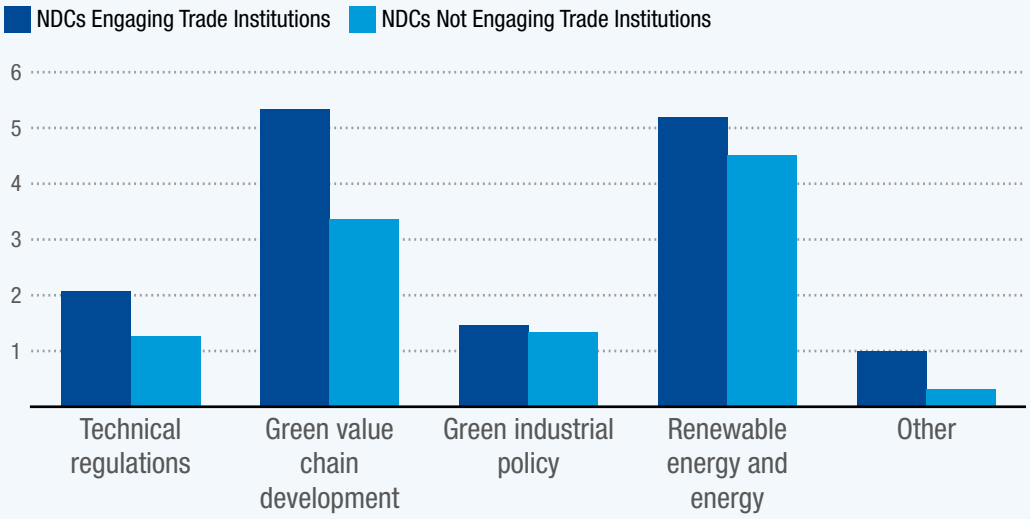


Note: Measures could appear in more than one category. *Source:* (UNCTAD, 2023).[2]

Trade-related stakeholder engagement in NDCs

The mapping also revealed a potential for greater participation of trade stakeholders and ministries in NDC elaboration, validation, and implementation processes. While 24 countries highlighted the central role of trade in their NDCs, only 15 involved governmental trade institutions[3] in the formulation or implementation processes. Unsurprisingly, the NDCs that involve trade officials employed nearly twice as many technical regulations and 59% more sustainable value chain development measures than other countries (Figure 2).

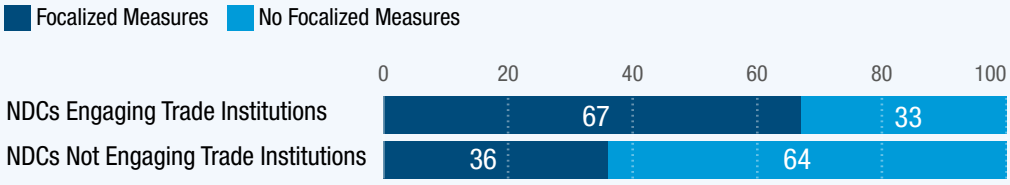
Figure 2:
Average number of trade-related measures by engagement with trade institutions.



[2] See UNCTAD (2023) and Section 3 Methodology for a description of each category.
[3] Institutions like the Ministry of Trade, Chamber of Trade, or Secretary of Trade.

Given the economic structure of many developing countries—typically characterized by a high prevalence of small-scale or artisanal producers and MSMEs and cooperatives or associations of producers —their inclusion in the planning and implementation stages is crucial to the viability of national climate action plans. While most NDCs referenced consultations with associations representing smallholders[4] and SMEs,[5] the mapping found 45 countries include specific measures for smallholders[6] and just 26 addressed targeted actions for SMEs.[7] Notably, 67% of NDCs involving governmental trade institutions included targeted measures for SMEs, compared to only 36% of other NDCs (see Figure 3). Given the disadvantages they already face, the limited consideration of widespread targeted measures for smallholders and SMEs could create challenges to their participation in international trade and sustainable value chains.

Figure 3
Percentage of NDCs with Focalized Measures for SMEs by Engagement of Governmental Trade Institutions



The integration of trade policies into NDCs and climate plans could support:

- Increasing the level of ambition and implementation to achieve climate change goals
- Increasing/maintaining competitiveness issues and market access (mitigating the impact of measures, market trends and consumer preference)
- Enhancing adaptation strategies to attract the necessary investment and ensure the resilience of export sectors
- Accelerating the transition to a low-carbon economy through the identification of relevant opportunities to attract investment and to participate in global markets
- Contribute to sustainable export diversification and integration of the most vulnerable people in these value chains
- Improving national policy coherence by providing an entry point to link climate change and trade and investment strategies aligned with other national priorities.
- Support the alignment of national climate plans, including NDCs, with SDGs priorities at the national level.

[4] This analysis understands smallholders as small-scale farmers, pastoralists, forest keepers, and fishers who are characterized by family-focused motives, prioritizing the stability of the household farming system, relying primarily on family labor 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.

[5] Keywords considered: enterprise, small, medium, supply chain, value chain, business, company, entrepreneur, and firm.

[6] Especially measures directed to farmers, artisanal fishers, and small-scale bioenergy producers.

[7] 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 political influence and capacity may be limited.

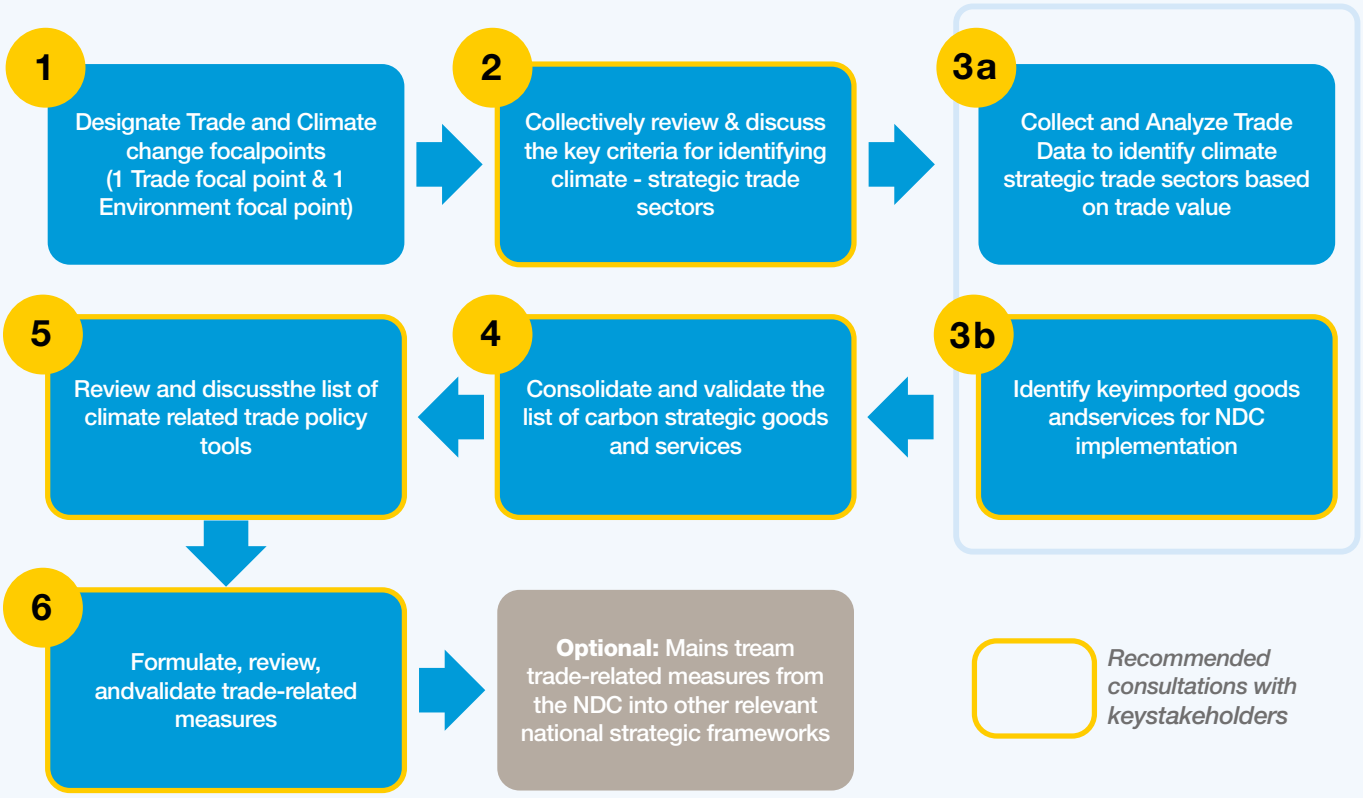
Based on this mapping and lessons learned from UNCTAD's decade of technical assistance in National Green Export Strategies and Sustainable Trade and Climate Change, UNCTAD suggests the following methodology for including national trade-related measures and identifying priority low-carbon diversification sectors and sustainable value chains for inclusion in NDCs. The methodology aims to advance developing countries' mitigation goals while advancing climate adaptation and sustainable development priorities.

Formulating and including trade-related measures in NDCs

The formulation and inclusion of trade-related climate measures in NDCs can be conducted in six steps (Figure 4):

- Designating a climate and a trade focal point to lead the country team responsible for elaborating 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. To maximize the relevance, effectiveness, and inclusivity of the process, special attention should be given to consultations with sectoral experts (e.g., industry, agriculture, tourism) and relevant private sector representatives, including small and medium enterprises, cooperatives, women, and Indigenous Peoples' associations.

Figure 4
Proposed steps for the formulation and inclusion of trade-related measures into NDCs



Identifying climate strategic trade sectors

Identifying trade sectors (products and services) with significant climate action implications—such as low-carbon economic diversification and adaptation—is a crucial step in adopting impactful trade-related measures as part of the NDC formulation process. It enables targeting sectors with the strongest trade and climate change links, ensuring that trade-related measures selected have the greatest impact in terms of low carbon development, climate resilience, or carbon emission reduction. Highlighting key trade sectors also facilitates the alignment of proposed measures with national priorities. It also provides a basis for mainstreaming climate action into other national policy instruments, such as export strategies.

Based on UNCTAD NDC mapping and recent research findings on trade and climate change (UNCTAD 2023b, UNCTAD 2023d, UNCTAD 2023g), it is suggested that trade sectors considered for the formulation 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), renewable energy production equipment, or 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 considered goods or services 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 associated socioeconomic benefits (e.g. 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 considering climate risks and for promoting economic diversification towards 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 due to the impact of response measures[8] adopted by key trade partners? The potential adverse impacts of response measures on developing countries' exports have been recognized in Articles 4.8 and 4.10 of the UNFCCC. The Paris Agreement also states that its Parties shall consider in the implementation of the Agreement the concern of the economies most affected by the impacts of

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

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 an effective identification of climate strategic trade sectors:

- First is the identification of top national import and export sectors, which will be conducted 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.

Box 1
Services sectors critical to the energy transition

Jobs in service-related fields are critical to the ongoing operation and maintenance of solar PV and onshore wind projects. The installation, grid connection, operation, maintenance, and decommissioning phases have the largest employment share throughout the value chains in both energy sources, accounting for 75 and 80 per cent of the labour services in the solar PV and onshore wind projects, respectively. Significant job opportunities may also be created due to the deployment of decentralized renewable solutions, which provide reliable power and jobs in remote areas.

Renewable energy firms will face challenges recruiting construction, operations, and maintenance workers due to the surge in new wind and solar PV installations. The International Energy Agency (IEA) finds that the number of workers pursuing qualifications relevant to renewable energy sector jobs is not keeping pace with growing demand. This applies to vocational workers like electricians and construction workers, as well as to professionals in science, technology, and engineering.[10] The skills gap is more acute in developing countries.

Trade in services has the potential to facilitate the transfer of technologies and skills to developing countries, helping to accelerate the deployment of renewable energy. Trade policies, when deployed appropriately and in tandem with other non-trade policies, are critical to realizing this potential.

Source: IRENA (2023), UNCTAD (2023b)

[9] The Katowice Committee of Experts on the Impacts of the Implementation of Response Measures (KCI). Its 2020 – 2025 work plan covers issues such as economic diversification and transformation, Assessing and analyzing the impacts of the implementation of response measures, and facilitating and building capacity on tools and methodologies to assess the impacts of the implementation of response measures. Resources on the impact of response measures can be found at: https://unfccc.int/topics/mitigation/workstreams/response-measures/documents-and-resources.

[10] IEA, 2023. Clean Technologies Are Driving Job Growth in the Energy Sector, but Skills Shortages Are an Increasing Concern.

Identifying key export sectors

In addition to the total trade value, the list should also include 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.

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

Implementing key measures from NDCs often relies on using imported goods or 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 impacting 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 preparing the climate strategic trade sectors list.

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 in relation to their area of expertise;
- When preparing the list of top trade sectors, a trade value threshold or ranking (e.g., top 100 imports and exports) can be used to emphasize products generating significant trade flows. Additional criteria, such as employment level or domestic value-addition prospects, can also be used. Economic complexity and product-relatedness methodologies can be used to identify products in these strategic sectors. These tools allow for the assessment of existing productive capacities within countries, as well as the identification of desirable products that are close to one another and can be supported by the country's productive space. Criteria can also be assigned to prioritize the list of results, taking into account product desirability across different indices (see Annex for a description of using economic complexity and product relatedness as tools for strategic diversification).
- 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 the 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 sub-national level with each sector assessed individually, while also exploring potential synergies between sectors (and products).

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

1. Using 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 following tools can serve as a reference for designing trade-related measures. Depending on national circumstances and priorities, additional options may be selected.

1.
Sustainable (green and blue) export value chain development

Measures focusing on export value chains are among the most common trade-related measures observed in NDCs (UNCTAD, 2023). Among all trade policy tools developing countries use to support climate action, they 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, cement, and inland tourism (UNCTAD, 2023).

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

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 strategy or hydrogen strategy)
- 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 for export purposes).

Box 2
UNCTAD mapping on ocean economic measures in NDCs and its approach in promoting oceans economy strategies

Ocean measures are almost ubiquitous in NDCs, as oceans represent a vast space for climate action (70 percent of the biosphere). The ocean absorbs 25 percent of all carbon dioxide emissions and captures 90 percent of the excess heat (United Nations, 2024). In the case of Small Island Development States (SIDS)' NDCs, ocean measures represent the lion's share of their pledges. A total of 606 measures with a clear focus on oceans were documented within 39 SIDS NDCs. 54 per cent of the ocean measures submitted by SIDS in their NDCs focus on sustainable ocean economy, while 46 per cent seek the conservation of the ocean space, showing a balanced approach between sustainable use and marine conservation (UNCTAD, 2024, forthcoming). Only 20 per cent of ocean measures identified were considered trade- related.

Ocean Economy and Trade Strategies (OETS) seek to support coastal developing countries, and particularly SIDS, in realizing economic benefits from the sustainable use of marine resources, expanding their carbon absorption potential, and understanding the law of the sea, trade, and climate multilateral legal and institutional frameworks, underpinning the potential of ocean economic sectors. Sectors identified follow the UNCTAD Ocean Trade classification and Ocean data set as guiding state-of-the-art methodological tools. Sectors covered include fisheries, seafood processing, ships and high-tech marine-based manufactures, coastal tourism, maritime transport, coastal and marine environmental services, marine R&D, and offshore energy. The OETS approach and Green 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 among the next product group with a larger carbon absorption potential. Due to their versatility seaweed can immensely contribute 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, 2024).

Source: UNCTAD Ocean Economy and Fisheries Programme (2024). Available at: https://unctad.org/topic/trade-and-environment/oceans-economy

2.
Technical regulations

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 level of energy efficiency or the level of emissions 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; and
- Favor the purchase of environmentally preferable goods through mandatory consumer information.

3. Tariffs

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

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, 2022). Indeed, tariff cuts should not be implemented in a way that is susceptible to hindering the ability of developing countries 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? This may require consulting technical experts to identify key technological and infrastructure investment requirements to build production facilities; achieving production levels that enable economies of scale; assessing competition with established firms, domestic legal framework; and legal barriers arising from patent protection and licensing of low-carbon technologies.

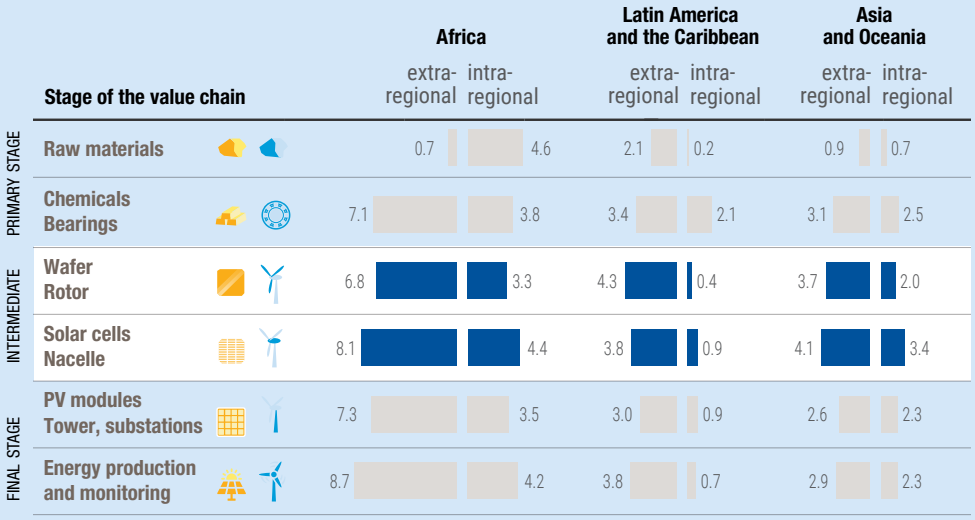
- What are the current and projected revenues associated with the tariff? An analysis of both current and future revenue implications is essential to assess the impact of the proposed measure on public finances.
- Could increasing tariffs on high-emission or energy-inefficient goods offset the revenue loss, and what would be the social impact of such changes?

Box 2
Potential of South-South collaboration in solar and wind value chains.

High tariffs on intermediate-stage goods can be an obstacle for most developing countries pursuing to enter green/sustainable energy value chains at the assembly stage. For instance, developing countries' average tariffs on products that are part of the solar and wind value chains range from 2.5 % in Asia and Oceania to 7.1% in Africa compared to 1.88 % in developed countries. Lower tariffs on intermediate goods across the solar and wind energy value chains could facilitate developing countries' entry into these value chains, especially in Africa, which has the highest intra-regional tariffs. These higher tariffs among developing countries suggest South-South cooperation opportunities for fostering regional integration by reducing tariffs (UNCTAD, 2024). Under the Global System of Trade Preferences (GSTP), developing countries can also cooperate on the demand side to ensure large enough demand to reach economies of scale.

Figure 5
Lowering tariffs on intermediates could help develop green energy industries, notably in Africa.

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

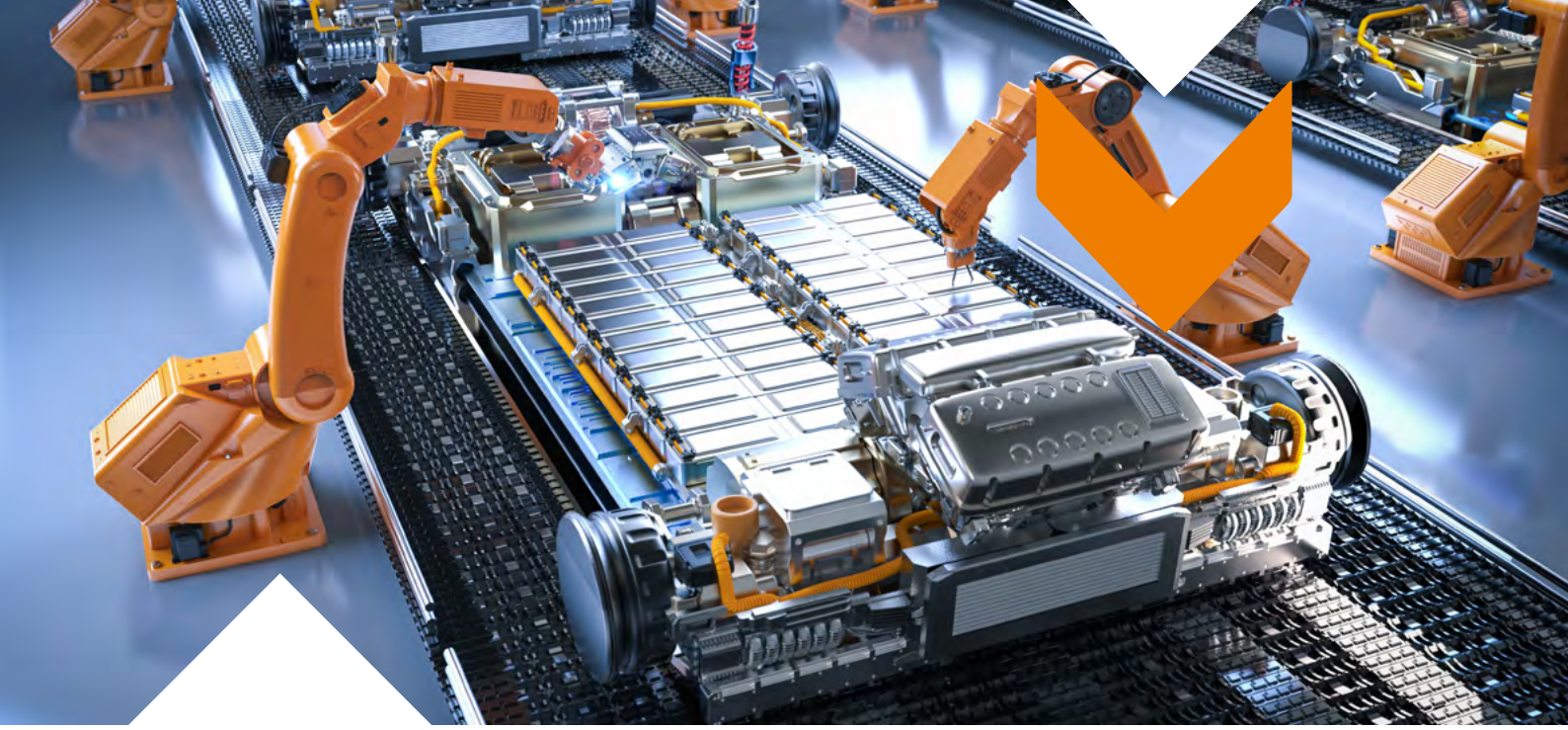


Source: UN GCRG – technical team calculations, based on UN Comtrade and UNCTAD.

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

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;
- Collaborate with other developing countries to develop and enter/move up sustainable value chains and consider pooling demand for end products.



4.
Public procurement, subsidies, and tax exemptions

In the same way as tariffs have been used as policy instruments to try 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 not available domestically and in the absence of plans to develop local production. This can be facilitated by the introduction of a “sustainability lens”, with the inclusion of requirements to favour the sourcing of low carbon products and services, in all public procurement biddings. Examples of public procurement measures included in NDCs range from the public acquisition of LEDs to that of electric or hybrid vehicles or the purchase of energy-efficient appliances.

Unlike public procurement, subsidies and tax exemptions introduced in NDCs mostly target individuals and businesses and are mainly used to promote the acquisition of environmentally preferable goods such as electric cars and energy-saving lamps.

Taxes have also been used in NDCs to disincentivize the import of high-emission goods, such as certain types of cars. In this case, taxes on brown goods and subsidies on their sustainable alternatives have been combined to reinforce each other mutually.

Measures linked to public procurement, subsidies, and tax exemptions should be designed to prevent unjustifiable discrimination and ensure compliance with WTO requirements.

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

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

4.0.1. Market-based measures

Already in 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 climate action's cost-effectiveness, stimulate private investment, and contribute to financing developing countries' efforts. Our mapping identified measures linked to REDD+ as the most common type of market-based measures included in NDCs. 'REDD' stands for 'Reducing emissions from deforestation and forest degradation in developing countries. The '+' stands for additional forest-related activities that protect the climate, namely sustainable management of forests and the conservation and enhancement of forest carbon stocks (UNFCCC, 2023b). REDD+ schemes allow developing countries to sell carbon credits linked to forest carbon sequestration on international markets and can be viewed as an export of ecosystem services. To maximize its impact, REDD+ has been combined with sustainable trade in non-timber forest products in some NDCs.

Carbon pricing mechanisms/schemes are another key market-based mechanism that can be included in NDCs, in addition to carbon credit trading (REDD+). Ongoing discussions on border carbon adjustment mechanisms that allow the imposition of a carbon levy on selected imported goods has incentivized more advanced economies to explore putting their own carbon pricing in place but have raised concerns with others. Technical cooperation is needed to strengthen institutional capacities.

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).

Detailed checklist for the identification of climate change strategic sectors and trade-related measures formulation [to be uploaded as a pdf]

This section provides a detailed step-by-step checklist for identifying climate change strategic trade sectors and formulating trade-related measures.

General objective:

a. Identify and prioritize sustainable trade sectors that can support low-carbon economic diversification and create opportunities for sustainable and climate-resilient growth and formulate supporting trade-related measures for inclusion into the NDC.

b. 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.

Relevant trade stakeholders' engagement and identification

a. Is a focal point at the trade ministry or relevant government agency identified and engaged?

b. Are the relevant stakeholder groups in the selected key strategic sectors, SME and productive associations identified?

Sector/environmental goods identification

Top export sector

c. Does the considered good or sector generate significant export revenues (relative to the country's export basket), or can it be considered as an emerging or future major sustainable export?

d. Does the considered good or sector present a high revealed comparative advantage (RCA>1)?

e. 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

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

a. Can the import of the considered good or service be considered as essential to support 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

b. 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

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 strategy, industrial strategy, agricultural strategy).

Record this information to inform the formulation of trade measures (to prioritize the use of resources and maximize synergies with existing plans or programs)

Formulation of measures

Review each identified climate strategic trade sector and consider the following options for the adoption of trade-related measures depending on the relevance of the proposed objectives and product categorization

1. Harnessing trade to promote low-carbon economic diversification

Export sectors:

a. **Is the sector a competitive sustainable export sector or an emerging domestic sector linked to a competitive export sector?**

Consider the implementation of a sustainable export value chain support program

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

Import sectors/good:

a. **Is the sector or good used as an input in the production of exported 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 which "brown" tariff could be increased to compensate tariff revenue loss.

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

All export sectors:

a. **Is the considered sector a major export sector threatened by climate change (e.g. decreasing yields, sea level rise…)?**

b. **Is the sector a significant source of CO2 emissions, and can these emissions be reduced while maintaining a comparative advantage?**

(if the sector is a major CO2 emitter that cannot be decarbonized, it may not be strategic for the use of trade-related measure formulation)

c. **Are adaptation solutions available nationally or in other countries?**

d. **Does the sector benefit from a dedicated support project or program?**

Consider the implementation of 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):

a. Is the sector at the centre of clean production processes?

If yes, consider introducing technical regulations to ensure an optimal level of carbon efficiency of traded goods or that allow 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

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

If no, consider introducing tax tariff cuts. Tariff reduction could support the rapid deployment of low-carbon goods and technologies and acquire future capacity to produce the good.

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 skill transfer

High emission import and export sectors:

a. Are more sustainable alternatives available?

If yes, consider introducing technical regulations. NB: tariff hikes on high-emission import sectors may be combined with tariff cuts on their environmentally preferable alternatives to compensate revenue loss. When relevant, consider eliminating subsidies to fossil fuels.

If not, the sector might not be relevant for trade-related measure formulation

4. Preserve/Ensure market access and anticipate the impact of response measures from key trade partners

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

b. 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 the adoption of technical regulations, the introduction of a domestic carbon pricing scheme and other climate policies, and the elimination of subsidies to fossil fuels. The right policy mix will depend on countries' capacities and resources.

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Annex

Tools for strategic diversification: Economic complexity and product relatedness

1. Calculating economic complexity 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 (HS 6-digit level) as a proxy for production data, further refined by disaggregating data by unit quantity and price range using the methodology proposed in Freire (2017). Each product is represented by 8-digits: the first six digits correspond to the 6-digit HS code, the seventh digit corresponds to the unit quantity code and the eighth represents the unit value group based on product price ranges. This granular product analysis provides a more precise understanding and investment targeting by distinguishing products within the same Harmonized System 6-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 is 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.

Previous UNCTAD initiatives

This methodology has already been applied in UNCTAD's technical cooperation project at the Port of Suape in Pernambuco, Northeastern Brazil.[11] 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.

[11] The report and product information are available at https://unctad.org/project/study-economic-complexity-suape-industrial-complex-pernambuco-brazil

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