

February 2021

UNCTAD Research Paper No. 60
UNCTAD/SER.RP/2021/3

Seul Lee

Divya Prabhakar

Trade Analysis Branch
Division on International
Trade and Commodities
UNCTAD

seul.lee@unctad.org

divya.prabhakar@unctad.org

COVID-19 Non-Tariff Measures: The Good and the Bad, through a Sustainable Development Lens

Abstract

The 2030 Agenda for sustainable development recognizes international trade as a means to achieve the Sustainable Development Goals (SDGs). As such, a group of trade policy measures, commonly referred to as non-tariff measures (NTMs), i.e. measures other than ordinary customs tariffs that can have economic impact on international trade, may be both a boon and a bane for sustainable development.

Over 140 countries resorted to the use of such trade policy measures during the COVID-19 pandemic, both to facilitate and to restrict international trade. While many of these measures were put in place for legitimate policy objectives, such as ensuring access to or safety of essential goods, they had the potential to impact sustainable development, both directly or indirectly, through their impact on trade. Such implications, which can be both positive or negative, are often overlooked when any NTM is put in place. Taking the NTMs applied during the pandemic as a backdrop, this paper attempts to disentangle the linkages between NTMs and the SDGs. We explore the types of NTMs adopted, decode their four types of objectives, and assess the wide-ranging implications they can have for SDGs 1, 2, 3, 8, 10, 15 and 17. The goal is to encourage policymakers to carefully consider the implications such measures can have both for their economies and for others. To conclude, the paper proposes some policy considerations that should be taken in account before resorting to any potentially harmful trade policy response to difficult situations.

Key words: Non-tariff measures, COVID-19, Sustainable Development Goals (SDGs)



UNITED NATIONS

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 official Member States. The designations employed and the presentation of material on any map in this work do not imply the expression of any opinion whatsoever on the part of the United Nations concerning the legal status of any country, territory, city, or area or of its authorities, or concerning the delimitation of its frontiers and boundaries.

This paper represents the personal views of the author(s) only, not the views of the UNCTAD secretariat or member States. The author(s) accept sole responsibility for any errors. Any citation should refer to the author(s) and not the publisher. This paper has not been formally edited.

Contents

Acknowledgements	2
1. Introduction.....	3
2. Non-tariff measures during COVID-19: Incidence and objectives	4
2.1 Data and methodology	5
2.2 Incidence of NTMs during COVID-19.....	6
2.3 Decoding objectives of NTMs adopted during COVID-19	10
3. COVID-19 non-tariff measures and SDGs – exploring linkages	12
3.1 Objective 1 – To ensure adequate and affordable domestic supplies of essentials and medical goods for combatting the virus	14
3.2 Objective 2 – To eliminate entry of potential disease carriers into the national borders	19
3.3 Objective 3 – To ensure product quality and safety	21
3.4 Objective 4 – Various economic objectives	22
3.5 Beyond the objectives – The way countries imposed NTMs.....	23
4. Key lessons: towards a sustainable and resilient future	26
4.1 During emergencies: Immediate use of NTMs during emergencies	26
4.2 Following emergencies: Medium term leverage of NTMs for recovery	27
4.3 Long term: Application of NTMs for equipping the international trading system	28
5. Conclusions	30
Appendix	31
References	32

Acknowledgements

The authors would like to thank Ralf Peters for his encouragement and guidance. They would also like to acknowledge the contribution of Jenifer Tacardon-Mercado for desktop publishing and Graham Mott for comments. This paper benefited greatly from discussions during the preparation of the UNCTAD Report on COVID-19 (UNCTAD, 2020) and the Note by the Secretary-General on International Trade and Development (United Nations, 2020) with the drafting team.

Disclaimer: Data used in this study is based on several external sources including international as well as national media reports. While the authors have endeavoured to verify this information, they take no responsibility for its accuracy.

1. Introduction

Contemporary trade policy increasingly involves the use of Non-Tariff Measures (NTMs) designed to address a wide array of both trade related objectives, such as limiting trade with import quotas and export restrictions, as well as non-trade, public policy objectives, such as product safety, environmental protection, or national security. Regardless of their intended objectives, NTMs can alter the volume, direction, cost, and composition of international trade. The use of NTMs has been prominent during the coronavirus (COVID-19) pandemic, as a number of temporary measures were put in place by over 140 countries in pursuit of mostly non-trade related objectives, albeit with the larger goal of safeguarding public health over economic concerns. While the majority of these NTMs sought to serve legitimate objectives, they impacted the volume and speed of trade during the pandemic: some for better, and some for worse.

Indeed, exceptional circumstances require exceptional policy responses. Nonetheless, the use of NTMs can have unintended, yet far reaching implications for sustainable development (UNCTAD, 2018). For instance, while some commonly used NTMs during the pandemic sought to ease imports of medical goods, implying positive ramifications for health and well-being, others that created restrictions on imports or exports may have had negative implications for health, livelihoods, industrial development and economic growth. Aside from such direct implications, NTMs can also affect Sustainable Development Goals (SDGs) indirectly, through their impact on trade – a key driver of sustainable development. Oftentimes, a measure put in place without consulting trade partners, while in the interest of a few, can negatively impact others. Overall, the effects of a single NTM can be multi-dimensional. As such, the linkages between NTMs and SDGs can be complex and difficult to untangle. As SDGs are a focal point of the international development agenda, and with the rising influence of NTMs in international trade the need to disentangle these linkages becomes critical for implementing sound and sustainable trade policies in the future.

This research paper examines the various NTMs imposed by countries during the COVID-19 outbreak and attempts to assess the many implications these can have for SDGs. Section 2 provides an overview of the linkages between the COVID-19 pandemic and NTMs and a statistical overview of the different types of NTMs imposed. These are coded into the International NTMs Classification developed by the Multi-Agency Support Team (MAST) and classified based on their effect on trade, i.e. whether these were trade restricting or facilitating.¹ It then presents four broad categories of objectives these measures sought to directly address. In section 3, the paper analyses the potential linkages of these NTMs with the various SDGs, direct and indirect; positive and negative. In doing so, it considers the rationale of these NTMs, the impacts they had during the pandemic, as well as their long-run implications. Finally, in Section 4, the paper proposes some policy recommendations based on the key lessons from the use of NTMs during the pandemic. The goal of these recommendations is to help deliberate the use of NTMs in an effective and transparent manner, during and post-pandemic as well as in the long run, such that positive effects on SDGs can be maximized and negative minimized.

¹ Members to the MAST are the Food and Agriculture Organization of the United Nations (FAO), the International Monetary Fund, the International Trade Centre (ITC), the Organization for Economic Cooperation and Development (OECD), UNCTAD, the United Nations Industrial Development Organization, the World Bank and the World Trade Organization (WTO).

2. Non-tariff measures during COVID-19: Incidence and objectives

Non-tariff measures are closely linked to the current COVID-19 pandemic. They play an important role to protect human, animal and plant lives and to prevent pandemic outbreaks; have been used frequently during the pandemic to achieve trade and non-trade objectives; and play an important role for the economic recovery from the devastating economic and social effects of the pandemic.

- NTMs may have contributed to the **geographical concentration of the production** of certain goods. Environmental, product or post-production requirements impact production costs and contribute to location decisions. During the pandemic, value chains were disrupted and the high concentration of the production of certain drugs and medical products was considered critical. Certain forms of active pharmaceutical ingredients (APIs) i.e. those parts of a drug that produces the intended effects, for example, are overwhelmingly produced in China and India (Horner R, 2020).
 - NTMs such as **export restrictions have been used** to prevent shortages of supplies of medical products in exporting countries as a reaction to increased domestic demands. At the same time, other NTMs have been adapted to facilitate imports of important goods.
 - **Transparency in NTMs** is important for traders. OECD (2019) finds that increased transparency on sanitary and phyto-sanitary (SPS) measures and technical barriers to trade (TBT) in regional trade agreements boosts trade by around 25 per cent. During the pandemic, transparency in NTMs coming into force during the pandemic was particularly grim. Most data were collected from news articles.
 - Import and export **procedures reflect the regulatory requirements** at the border. During the pandemic, radical measures were taken to protect the health of the population. This frequently disrupted goods trade and long queues at the border showed the fragility the system. However, facilitating trade and the transport of goods is even more important during a pandemic to avoid logistical obstacles that lead to shortages of necessary supplies.
 - **Coordinated NTMs** and those based on international standards facilitate international trade. Knebel and Peters (2019) found that a higher regulatory similarity can reduce trade costs by about 25 per cent. A significant share of NTM-related costs stems from the fact that technical regulations are often very different between countries. It is costly if producers need to investigate regulatory requirements, adjust production to comply, and provide different certificates for each export destination. Regulatory convergence, through harmonization, equivalence, or mutual recognition, can reduce this burden and create economies of scale. Adherence to international standards in technical regulations is another form of harmonization if several countries follow the same strategy. Regulatory cooperation is always facilitating trade and enhancing competitiveness and of particular importance during a pandemic.
 - Imports of medical products below **quality standards** during the pandemic have demonstrated the necessity of technical NTMs to ensure high quality of goods and to protect the safety of consumers. For example, several countries imported face masks that did not meet quality standards (Broom D, 2020).
 - In the **recovery phase after the pandemic**, it is important that trade barriers are low. Trade is an enabler for sustainable development. The poorer and smaller traders are often disproportionately affected by the COVID-19 pandemic and by NTMs (Fugazza M et al., 2017). As such, addressing NTMs and Non-Tariff Barriers has a high importance.
-

The following section delves into the types of trade measures that countries used to respond to the challenges of the COVID-19 pandemic. For all NTMs imposed, the section investigates their broad underlying motives.

2.1 Data and Methodology

The trade policies in this research paper were found by UNCTAD and from databases of the Global Trade Alert, the ITC and the WTO with the cut-off date mid-August, 2020 (ITC, n.d.; WTO, n.d.).² Inclusion of data after mid-August would not cause a significant change in the research conclusion because only a few trade policies related to COVID-19 were newly introduced after mid-August. Goods measures in the WTO COVID-19 database are compiled by the WTO Secretariat from official sources. The Global Trade Alert and ITC databases are based on both media reports and official legislation. It is noteworthy that exhaustiveness is not guaranteed. Some trade policies may not have been covered by the research.

The trade policy data from the source databases were all compiled into one single UNCTAD COVID-19 dataset by taking all distinct measures and categorizing them by measure type.³ When a trade policy was taken due to COVID-19, and phased out later, each stage of the phase-out was recorded separately in the source databases as if it was a new trade policy. However, the compiled dataset treated the phase-out as a part of the original trade policy, as long as its type such as ban, authorisation, technical requirements stays the same. For example, if a country imposed an export ban in March, 2020 and exempted some products or countries from the ban in June, 2020, one export ban was considered to be in existence in total, despite the change in a list of banned products or countries.

For categorizing trade policies, the research used the International Classification of NTMs (hereafter, NTM classification), which is officially recognized by the United Nations (United Nations, Department of Economic and Social Affairs, Statistics Division, n.d.).⁴ UNCTAD and other members to the MAST developed this NTM classification to clearly identify and distinguish various forms of NTMs, collect data and develop statistics. It defines NTMs as policy measures other than ordinary customs tariffs that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both (UNCTAD, 2012). Within this predefined scope of NTMs, it categorises the measures into 16 chapters from A to P based on several criteria including

- (a) whether it applies to import or export;
- (b) whether it is a technical measure such as SPS measures or TBT, or a traditional instrument of commercial policy such as quotas, price control or contingent trade protective measures; and
- (c) whether it applies at the border or applies to the operation of firms in a market behind the border, such as local content requirements, trade-related investment measures and government procurement.

Description of each chapter is available in the Appendix.

² Per the WTO database "COVID-19: Trade and trade-related measures", trade measures are divided into three categories – goods measures, services measures and intellectual property measures. The research in this paper pertains only the goods measures.

³ The UNCTAD COVID-19 dataset is available in an excel format on UNCTAD's website. See <https://unctad.org/topic/trade-analysis/non-tariff-measures/covid-19-and-ntms>

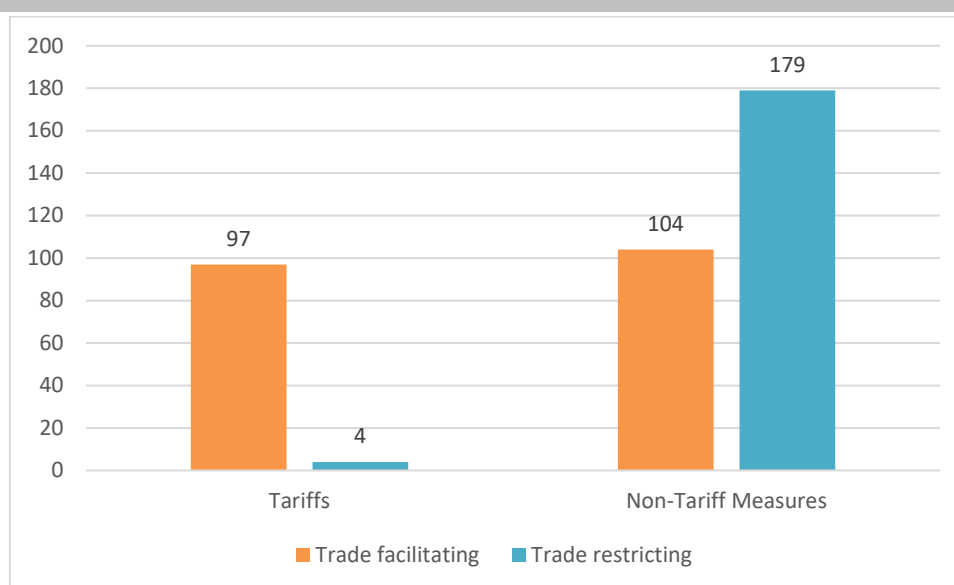
⁴ The NTM classification was developed in 2012 and revised in 2019 (UNCTAD, 2015a; UNCTAD, 2019). In this research, the 2019 revised version was used.

2.2 Incidence of NTMs during COVID-19

As of mid-August, countries had imposed 384 trade policy measures as a response measure to the COVID-19 pandemic. The countries relied on more NTMs than tariff measures by recording 283 and 101 measures, respectively.

As shown in Figure 1, the way of using tariff measures and NTMs differed - most tariff measures were to facilitate trade and targeted imports with over 100 countries either reducing or eliminating tariffs on essential goods, while NTMs were mainly used to restrict trade and applied to exports. To be specific, 97 out of 101 tariff measures were trade facilitating while only 4 measures were trade restricting. Also, slightly less than one third of NTMs (104 out of 283) were trade facilitating measures, while almost two thirds of them (179 out of 283) were trade restricting measures.

Figure 1. COVID-19 trade measures

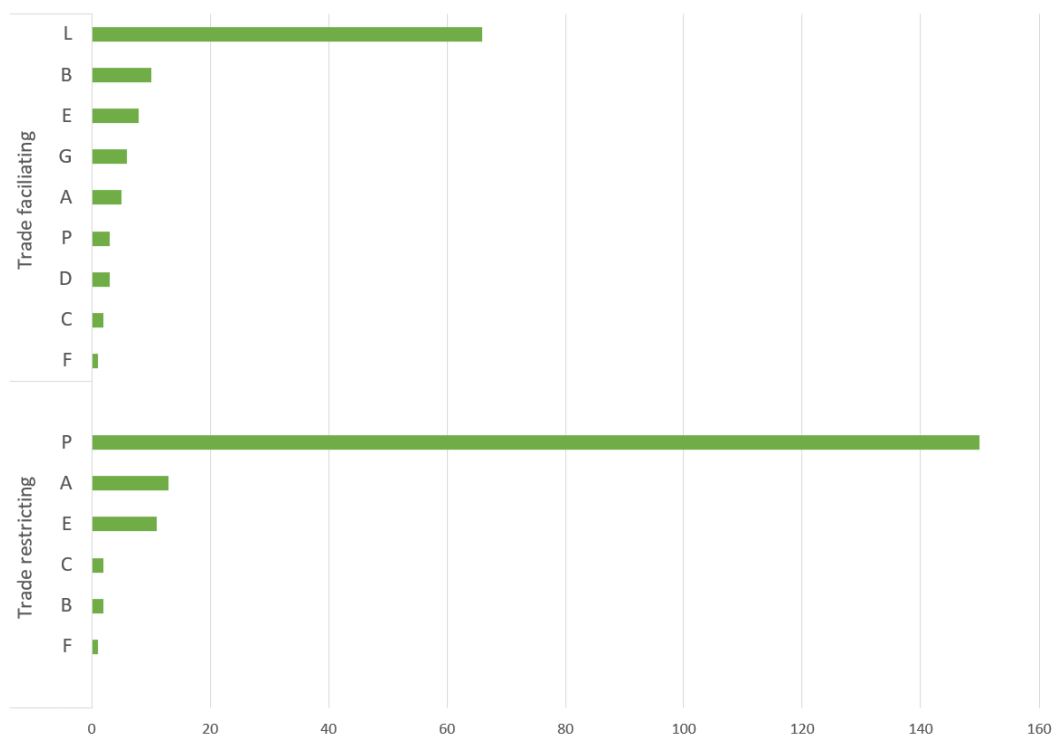


Source: Authors' calculations based on data as described in the methodology.

Figure 2 shows trade facilitating and restricting NTMs in detail. On the one hand, trade facilitating NTMs range across 8 chapters, namely *A. Sanitary and phytosanitary measures*; *B. Technical barriers to trade*; *C. Pre-shipment inspection and other formalities*; *D. Contingent trade-protective measures*; *E. Non-automatic import licensing, quotas, prohibitions, quantity-control measures and other restrictions not including sanitary and phytosanitary measures or measures relating to technical barriers to trade*; *F. Price-control measures, including additional taxes and charges*; *L. Subsidies and other forms of support*; and *P. Export-related measures*. They intervened mostly on import. There were only three applied to export - and did not have behind-the-border measures.

On the other hand, trade restricting NTMs ranged across 6 chapters, omitting chapters D and L. Five sixth of them (150 out of 179) applied to exports. They also included behind-the-border measures, affecting operations of firms.

Figure 2. Number of COVID-19 NTMs by chapter



Source: Authors' calculations based on data as described in the methodology.

To look at trade-facilitating measures more closely in Figure 3.a), countries tried to ease financial constraints of importing firms and relaxed requirements of imported products.

Firstly, countries took *L41 Tax and duty exemptions, reductions, other fiscal incentives reducing burden of taxes otherwise due* and *G4 Regulations concerning terms of payment for imports* to keep vitalizing importers. For example, Singapore eliminated import tariffs and other duties and charges on essential goods including medical, hygiene, pharmaceutical products and agricultural products. Also, Saudi Arabia postponed the collection of customs duties on imports for 30 days and the submission of a bank guarantee for three months.

Secondly, countries lifted quantitative restrictions that had already existed on imported goods such as *E125 Licensing for the protection of public health* and *E325 Prohibition for the protection of public health* under quantitative restriction chapter E. This trend extends to relaxation of *E231 Global allocation of import quota* and *E69 Other tariff-rate quotas not elsewhere specified*. For example, Switzerland temporarily increased the threshold of tariff-rate quotas of eggs, milk and cream, and butter to meet the demand in the retail trade. Moreover, countries exempted imported goods from SPS and TBT requirements under chapters A and B such as certification or good manufacturing practices. The exemption from domestic requirements was either conditional to the compliance with exporting countries' requirements or unconditional.

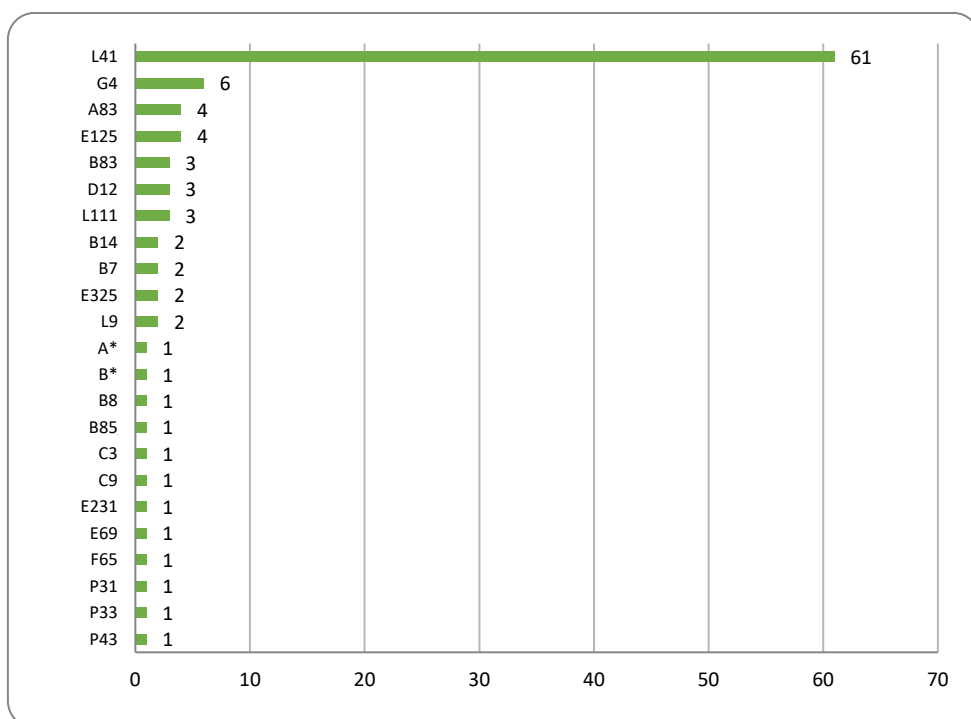
Trade formalities under chapter *C Pre-shipment inspection and other formalities* or subsidy measures other than *L41* under chapter *L Subsidies and other forms of support* recorded low. However, this low record is because the NTM classification does not consider procedural implementations as NTMs and because the databases did not capture subsidy measures that lack direct or indicative implication on trade.⁵ Besides those in the databases, countries adopted many measures streamlining and simplifying

⁵ The combined database which was a subject of this analysis contains subsidy measures reported by only one country, Australia.

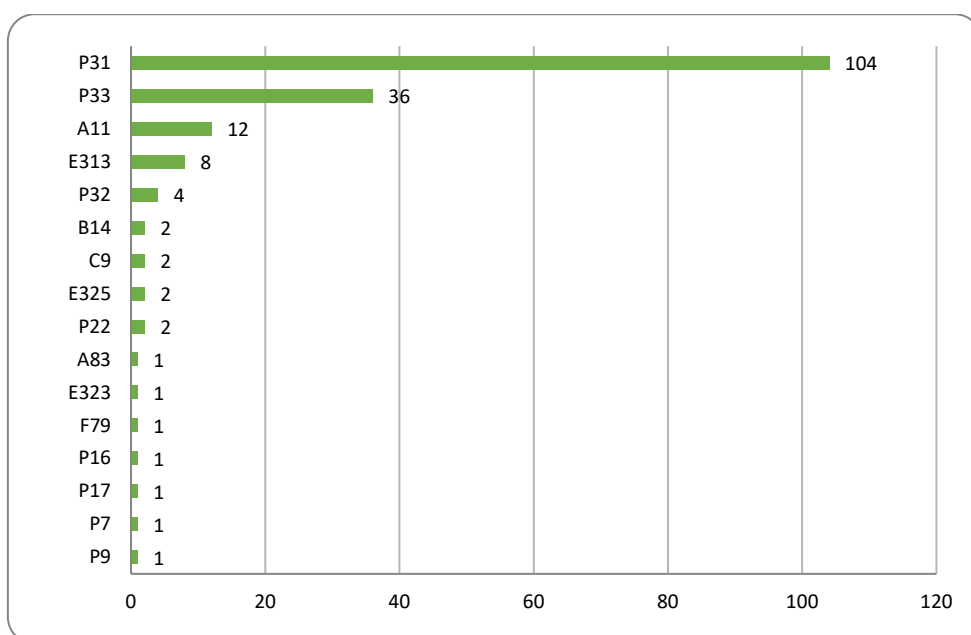
procedural formality of trade such as accepting an electronic copy of documents or an original document that is not yet translated to an importing country's language. Moreover, various measures that countries introduced or are introducing to save firms such as through bail-out or equity injection may in part have entailed elements that would be seen as NTMs under subsidy chapter L.

Figure 3. COVID-19 NTMs, by NTM Code

a) Trade facilitating NTMs



b) Trade restricting NTMs



Source: Authors' calculations based on data as described in the methodology.

Note 1: A11 Prohibitions for SPS reasons, A83 Certification requirements for SPS reasons, B14 Authorization requirements for importing certain products for TBT reasons; B7 Product quality, safety or performance requirements for TBT reasons; B8 Conformity assessment for TBT reasons; B83; Certification requirements for TBT reasons; B85 Traceability requirements for TBT reasons; C3 Requirement to pass through specified port of customs; C9 Other pre-shipment inspections and formalities n.e.s.; D12 Anti-dumping duties; E12 Licensing for non-economic reasons; E23 Quotas - Temporary; E31 Import prohibition for economic reasons; E32 Import prohibition for non-economic reasons; E69 Other tariff-rate quotas not elsewhere specified; F79 Internal taxes and charges levied on imports not elsewhere specified; G4 Regulations concerning terms of payment for imports; L11 Transfers of funds (monetary transfers) by the Government (to an enterprise) - Grants; L41 Tax and duty exemptions, reductions, other fiscal incentives reducing burden of taxes otherwise due; L9 Support for consumers or producers not elsewhere specified; P16 Conformity assessments for exports; P17 Export prohibition for sanitary and phytosanitary reasons; P22 Export monitoring and surveillance requirements; P31 Export prohibition for reasons other than SPS or TBT; P32 export quotas for reasons other than SPS or TBT; P33 Licensing, permit or registration requirements to export for reasons other than SPS or TBT; P43 Export charges or fees levied in connection with services provided; P7 Measures on re-export; P9 Export measures not elsewhere specified

Note 2: The NTM codes are assigned based on NTM classification consistently to both measures introduced or relaxed. NTM codes are assigned based on the nature of the measure and independently of the code categorized as facilitating or restrictive.

Disaggregated types of trade restricting NTMs are shown in Figure 3.b). A sweeping majority were quantitative restrictions to export. The most prevalent measure was *P31 Export prohibition* such as Brazil's temporary export ban on personal protective equipment, ventilators, hospital beds and medical monitors. It was followed by, among others, *P33 Licensing, permit or registration requirements to export* and *P32 Export quota*. The use of P33 and P32 have two implications. Firstly, there is room for these measures to be a *de facto* prohibition of P31-nature because the grant of export licence is at discretion of government authorities and the quota might be too low to be commercially meaningful. Secondly, some countries used P33 and P32 as intermediary measures over the course of lifting the total ban of P31. For example, India banned export of personal protective equipment (PPE) overall and then changed it to a monthly quota with an export licence.

Albeit small, countries also imposed trade restricting measures on import, most of which were the prohibition due to different reasons. One is *A11 Prohibitions for sanitary and phytosanitary reasons*. For example, the Russian Federation temporarily restricted import of exotic and decorative animals and live fish from China because of their potential risk of carrying the COVID-19 virus. Countries based their prohibition on specific characteristics or risks of a product. Another is non product-specific prohibition due to economic reasons - *E313 Temporary prohibition, including suspension of issuance of licences for economic reasons*. For example, Colombia limited import of fuel ethanol because reduced demand during the lockdown increased the ethanol reserves, pushing its storage capacity to the limit. Lastly, non product-specific prohibition due to non-economic reasons, namely, *E325 Prohibition for the protection of public health for non-economic reasons*, and *E323 Prohibition for the protection of the environment for non-economic reasons*. For example, the Republic of Korea banned the import of plastic waste to promote recycling of domestic waste, which surged during the pandemic.

P16 Conformity assessments related to sanitary and phytosanitary measures and technical barriers to trade and B14 Authorization requirements for importing certain products related to technical barriers to trade were introduced for quality control. As countries raised questions on the quality of medical supplies produced in China, the Chinese government imposed new export certification and inspection

requirements on certain supplies such as surgical face masks, testing kits and thermometers. Moreover, importing countries added an authorization requirement to ensure the product quality (Reuters, 2020a).⁶

Similar to the trade facilitating NTMs, trade formalities under chapter C recorded low. They are for example, a mandatory quarantine period of ships before docking to a port. Although the databases captured only few, many countries are known to have put in place similar measures.

2.3 Decoding objectives of NTMs adopted during COVID-19

Based on a review of all 283 NTMs imposed during the pandemic, the central rationale for each NTM - trade-facilitating or restricting - can be assigned to one out of four broad categories. These are summarized and elucidated in Table 1.

Of all NTMs, nearly 60 per cent were put in place in pursuit of objective 1, i.e. to ensure adequate and affordable domestic supplies of essentials and medical goods for combatting the virus.

Table 1. Key objectives of COVID-NTMs

Objectives	Mechanisms	Main target Products	NTMs used	SDG Linkages
<p>Objective 1 To ensure adequate and affordable domestic supplies of essentials and medical goods for combatting the virus</p>	<p>(i) Restricting exports of essential goods</p> <p>(ii) Easing imports of essential goods</p>	<p>Medical/ pharmaceutical/ personal protective goods and essential food items</p>	<p>Chapter A - Elimination of certification requirements for SPS (A83)</p> <p>Chapter B - Elimination of product quality, safety and performance requirements (B7); Elimination of certification requirements TBT (B83) reasons; Elimination of Conformity assessment related to technical barriers to trade (B8); Elimination of traceability requirements (B85)</p> <p>Chapter C – Requirement to pass through specified port of customs (C3) and Other pre-shipment inspections and formalities (C9)</p> <p>Chapter D – Anti-dumping duties (D12)</p> <p>Chapter E - Exemption from obtaining non-automatic import license for public health reasons (E125), Temporary import quotas (E231)</p>	<p>SDG 2 - End hunger, achieve food security and improved nutrition and promote sustainable agriculture</p> <p>SDG 3 - Ensure healthy lives and promote well-being for all at all age</p> <p>SDG 10 - Reduce inequality within and among countries</p>

⁶ Although it was not captured in the combined database, some countries adopted standards of other countries or international organizations to ensure the quality. It is trade restricting in a sense that it adds additional requirements for market access but compared to the case of establishing the country's own standards, adoption of standards of other countries or international organizations does not add another requirement to the products that already comply with such standards.

Objectives	Mechanisms	Main target Products	NTMs used	SDG Linkages
			<p>Chapter F - Import licence fee (F65)</p> <p>Chapter L - Tax and duty exemptions, reductions, other fiscal incentives reducing burden of taxes otherwise due (L41)</p> <p>Chapter P - Export Prohibitions (P31); Export Quotas (P32), Export Licensing Requirements (P33), Measures on Re-export for food products (P7)</p>	
<p>Objective 2 To eliminate entry of potential disease carriers into the national borders</p>	<p>(i) Prohibiting exports for SPS reasons</p> <p>(ii) Prohibiting imports for SPS reasons</p>	<p>Wildlife/live animals, plant-based foods, second-hand goods</p>	<p>Chapter A - Prohibitions for SPS reasons; (A83) Certification requirements for SPS reasons (A11)</p> <p>Chapter C – Other pre-shipment inspections and formalities (C9)</p> <p>Chapter E – Import prohibition for the protection of public health (E325)</p> <p>Chapter P – Export prohibition for sanitary and phytosanitary reasons (P17), Export measures not elsewhere specified (P9)</p>	<p>SDG 1 - End poverty in all its forms and everywhere</p> <p>SDG 3 - Ensure healthy lives and promote well-being for all at all age</p> <p>SDG 15 - Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse and degradation and biodiversity loss</p>
<p>Objective 3 To ensure product quality and safety</p>	<p>Increasing inspections and checks for imported and exported medical and personal protective products</p>	<p>Medical/ pharmaceutical/ personal protective goods and essential food items</p>	<p>Chapter B – Elimination of Authorization Requirements (B14)</p> <p>Chapter P - Conformity assessments of exports for SPS reasons (P16)</p>	<p>SDG 3 - Ensure healthy lives and promote well-being for all at all age</p>
<p>Objective 4 Economic objectives: – Protect domestic industries – COVID financial relief for businesses/ otherwise – Manage domestic demand and supply</p>	<p>(i) Subsidies</p> <p>(ii) Prohibit imports of domestically produced goods</p> <p>(iii) Extending time frames for tax payments</p>	<p>Multiple products</p>	<p>Chapter E – Temporary import prohibition, including suspension of issuance of licences (E313); Prohibition for the protection of environment (E323)</p> <p>Chapter F – Internal taxes and charges levied on imports not elsewhere specified (F79)Chapter G –</p>	<p>SDG 8 - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</p>

Objectives	Mechanisms	Main target Products	NTMs used	SDG Linkages
- Relieve pressure on national currency			Regulations concerning terms of payment for imports (G4) Chapter L – Transfer of funds by the government to an enterprise – Grants (L11), Support for consumers or producers not elsewhere specified (L9)	

3. COVID-19 non-tariff measures and SDGs – exploring linkages

The relationship between NTMs and SDGs can often be convoluted. The linkages between the two can be *direct or indirect*; implications of NTMs on SDGs can be *positive or negative*; and their overall impact on the source and destination country can be *distinct or similar*. Moreover, the same NTM can have both positive and negative sustainability implications for a given country. This can be understood as follows (UNCTAD, 2015b):

Linkages: Direct vs. Indirect Linkages

- **Indirect linkages** i.e. how NTMs can influence sustainable development through their influence on trade. NTMs can sometimes become obstacles to trade as they may raise costs for foreign suppliers, in turn impairing the development potential of trade. This can have implications for poverty, food security, employment, economic growth and industrialization. By disproportionately affecting developing and least developed countries, small and medium sized enterprises (SMEs) and women, these NTMs can also have implications for equality (UNCTAD, 2018).
- **Direct linkages**, on the other hand, pertain to the immediate effect of NTMs on sustainable development. Technical NTMs, such as SPS and TBT measures, are designed to safeguard human, plant and animal life, and the environment, among others. They seek to ensure that traded products are safe for consumption and use, and of good quality. Such NTMs directly regulate issues related to sustainable development goals: food, nutrition and health, sustainable energy, sustainable production and consumption, climate change and the environment.

Implications: Positive vs Negative; Source country vs. Destination country

Measures introduced during the COVID-19 pandemic sought to serve a wide range of objectives as mentioned in Table 1. All measures both trade restricting and trade facilitating, had both positive and negative implications for sustainability in the source and destination country, either indirectly through an impact on trade or directly, underpinning serious safety and health concerns. The negative and positive implications of any given NTM on sustainability are two sides of the same coin. Table 2 decodes this to set the stage for understanding COVID-19 NTMs and their relationship with SDGs. This mapping benefits from a United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) – UNCTAD project on mapping NTMs to SDGs for non-COVID-19 emergency measures (United Nations ESCAP, 2019).

Table 2. The web of NTM-SDG linkages: One NTM, many sustainability implications

	Sustainability implication for country imposing the measure	Sustainability implication for other country(ies)
Certification requirements for medicines for SPS reasons (A83)	<ul style="list-style-type: none"> - Positively affects health and well-being (SDG 3) by ensuring medicines' quality and safety - Negatively affects health and well-being in emergency situations (SDG 3) by restricting timely access to medicines 	<ul style="list-style-type: none"> - Negatively affects export earnings and economic growth (SDG 8) by raising compliance and thus business costs for exporters
Export restrictions on food for reasons other than SPS and TBT (P31)	<ul style="list-style-type: none"> - Positively affects food security (SDG 2) by ensuring domestic grain availability - Negative and positive effects for netfood sellers and buyers, respectively (SDG 8) 	<ul style="list-style-type: none"> - Negatively affects food security (SDG 2) by restricting grain availability
Product quality requirements for TBT reasons (B7)	<ul style="list-style-type: none"> - Positively affects sustainability (SDG 12) by ensuring high product quality - Negative implications for health and well-being (SDG 3) by restricting timely availability of medicines due to an additional complicated procedure. 	<ul style="list-style-type: none"> - Same as for imposing country
Certification requirements for medicines for TBT reasons (B 83) – recognition of foreign certification as equivalent	<ul style="list-style-type: none"> - Positively affects health and well-being (SDG 3) by ensuring medicines' quality and safety - Positively affects health and well-being in emergency situations (SDG 3) by allowing timely access to medicines 	<ul style="list-style-type: none"> - Positively affects export earnings and economic growth (SDG 8) by reducing compliance and thus business costs for exporters
Import prohibition of wild animals for the protection of public health (E325)	<ul style="list-style-type: none"> - Positively affects health and well-being (SDG 3) by preventing a SPS risk 	<ul style="list-style-type: none"> - Positively affects conservation of biodiversity (SDG 15) by discourage hunting, poaching and trafficking

In this section, we elucidate the complex web of COVID-19 NTMs per objective, and how they did or could have positive or negative implications for sustainability, directly or indirectly.

3.1 Objective 1 - To ensure adequate and affordable domestic supplies of essentials and medical goods for combatting the virus

NTMs used during the pandemic to achieve objective 1 affected SDGs 2, 3 and 10. Some negatively by restricting exports of essential goods, and some positively by easing imports of essential goods.

A. SDG 2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture

SDG 2 aims to end all forms of hunger and malnutrition by 2030 by ensuring availability and accessibility of nutritious and safe food to all people, particularly the poor and most vulnerable. Among other far-reaching targets under this goal: **target 2.b** specifically calls for the correction and prevention of all forms of trade restrictions and distortions in world agricultural markets, including agricultural export subsidies or export related measures covering in any form - export restrictions or bans, export licensing requirements or export quotas, in accordance with the mandate of the Doha Development Round (United Nations, Department of Economic and Social Affairs, Sustainable Development Goals, n.d.).

Negative implications on SDG 2 during COVID-19 caused by -

(i) Export curbs on food items

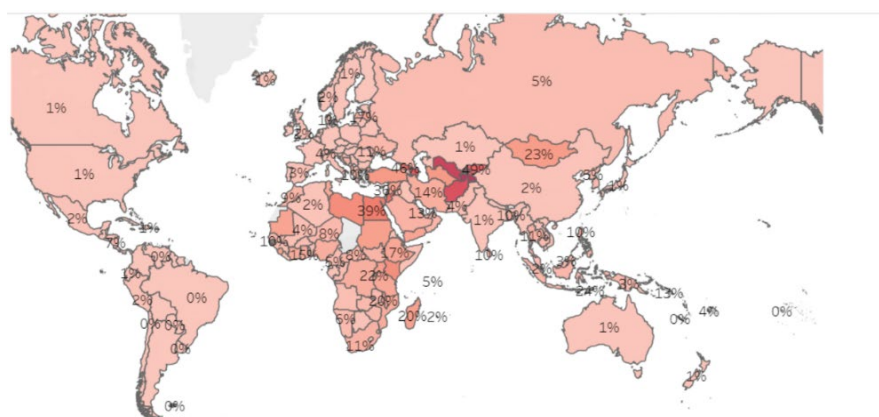
P31 Export Prohibitions; P32 Export Quotas P33 Export Licensing Requirements and P7 Measures on Re-export for food products; P7 Measures on re-export

As per the COVID-19 food export restrictions tracker maintained by the International Food Policy Research Institute (IFPRI), 35 countries had imposed some form of export-related measure on agricultural products as of mid-August 2020. Among the most prominent were bans on the export of grain by the Russian Federation, the world's largest exporter accounting for 8 per cent of global wheat market share. Export restrictions were also announced by major rice exporters like Viet Nam and Cambodia, who together account for over 10 per cent of global supply of rice. Aside from wheat and rice, export-related measures were imposed on other essential commodities like barley, pulses, processed grains, and vegetables.

Rice-export restrictions by major exporters including Viet Nam, Thailand and Cambodia, coupled with logistical disruptions in other rice exporting countries such as India, led to a price increase of US\$100 per tonne (more than 20 per cent) in the price of the "Thai 5 per cent broken rice", a benchmark global market indicator, within two weeks after the restrictions were announced (FAO, 2020). The price of rice — a staple food in Asia and beyond — hit a seven-year high due to the coronavirus outbreak as importers rushed to stockpile the grain while exporters curbed shipments (Tan H, 2020). A study conducted by the IFPRI to assess the possible impacts of such export constraints concluded that such restrictions only in the rice and wheat markets by large exporters could significantly boost global prices, pushing as many as 18 million more people into hunger in 2020 (Sulser T and Dunston S, 2020). Fortunately, most of these measures were too short-lived to have a significant impact in the world food markets (OECD, 2020a). Yet, such food protectionism can have **direct, negative implications for SDG 2** and can be detrimental to food security. The impact is magnified when the country imposing the NTM has a large footprint in global markets (Stockholm International Peace Research Institute (SIPRI), 2020). Global markets for cereals, particularly corn and wheat but increasingly rice, are important for meeting the dietary needs of billions of people worldwide, especially in the Middle East and Africa (Hendrix C S, 2020). Countries who rely heavily on world markets for their food consumption are most likely to be affected (SIPRI, 2020). For instance, for countries such as Libya, Egypt, Afghanistan, Uzbekistan, Tajikistan, Kyrgyzstan, the restricted flows in food imports accounted for 31- per cent - 70 per cent of their overall caloric consumption in the commodity concerned. In African countries, who met about 85 per cent of their food requirements through imports, such restrictions affected at least 10 per cent

of food imports, and up to 80 per cent of imported calories in some cases (SIPRI, 2020). In countries such as Yemen, Djibouti and the Syrian Arab Republic – where food shortages are already significant and malnutrition widespread, restricted flows in food imports accounted for over 20 per cent of their caloric consumption (IFPRI, 2020).

Figure 4. Share of restricted flows in food imports (kcal) due to COVID-19 food export restrictions, cumulative



Source: IFPRI Food Export Restrictions Tracker.

Positive implications on SDG 2 during COVID-19 resulting from -

(i) Easing imports of food items

L41 Tax and duty exemptions, reductions, other fiscal incentives reducing burden of taxes otherwise due and Elimination of certification requirements for SPS (A83); Temporary import quotas (E23); Exemption from obtaining non-automatic import licensing requirements (E125)

Many countries adopted measures allowing for exemptions from, or reductions in various forms of taxes on essential food items, as well as eliminating certification/licencing requirements, to ease imports by expediting imports. By eliminating administrative formalities associated with filing and payment of taxes and filing returns during the exceptional circumstances that the pandemic presented, countries sought to ensure timely supply of critical food products to feed the domestic population. By **indirectly** affecting trade, such measures can help ensure domestic supply of essential food items, having **positive** linkages with SDG 2.

(ii) Export curbs on food items

P31 Export Prohibitions; P32 Export Quotas and P33 Export Licensing Requirements, P7 measures on re-export of food items;

While export restrictions and quotas on essential food products can negatively impact the availability of the essential products in import-dependent countries, these measures can ease the pressure on domestic food markets and ensure local food security in countries imposing the ban. This implies a **direct, positive** linkage with SDG 2. Net-food sellers in countries imposing export curbs, however, can suffer from declining food prices. In most developing countries, though, there are more net buyers than sellers, including among the poor.

B. SDG 3 Ensure healthy lives and promote well-being for all at all age

SDG 3 was designed to ensure “*health and well-being for all, at every stage of life*” through addressing health priorities such as reproductive, maternal and child health; communicable, non-communicable and environmental diseases; universal health coverage; and access to safe, effective, quality and affordable medicines and vaccines for all. Of all targets, **target 3.8** is particularly relevant in the context of trade and COVID-19 as it is concerned with the need to ensure quality health-care services and access to safe and affordable essential medicines and vaccines.

Negative implications on SDG 3 during COVID-19 caused by -

(i) Export curbs on medical supplies

P31 Export Prohibitions; P32 Export Quotas and P33 Export Licensing Requirements on medical, pharmaceuticals and personal protective products and equipment; P22 Export monitoring and surveillance requirements

Such NTMs were designed to restrict exports of essential medical supplies and PPE to ensure adequate domestic supplies to manage or prevent the disease outbreak. Several countries imposing restrictions have historically been key exporters of medical and personal protective equipment. For instance, the European Union’s restrictions covered products for which there was an estimated \$10.3 billion in foreign sales in 2019. The United States of America as well restricted exports of products which had accounted for \$1.1 billion of its total global exports in 2019. China, the key global exporter of PPE also restricted exports (Bown C P, 2020a).

Table 3. Export market share of countries using export restrictions

HS6 Code	Product	Country	Nature of NTM	Export Share
621790, 630790	Medical masks	China	Export prohibition	35 per cent
902212	CT System	Germany	Licensing or permit requirement for imports	26.20 per cent
902214	X-ray equipment	Germany	Licensing or permit requirement for imports	25.10 per cent
401590; 621020; 401511	Gloves; Gloves examination non-sterile	China	Export prohibition	24.30 per cent
901839	Bougies, catheters, drains and sondes, and parts	United States	Licensing or permit requirement for imports	22 per cent
902000	Breathing masks	United States	Licensing or permit requirement for imports	21.50 per cent
392390, 392690	Biohazard bag	China	Export prohibition	21.40 per cent

Source: UN COMTRADE database accessed through World Bank.

The 20 developing countries with the highest numbers of COVID-19 cases depend on five exporters for 80 per cent of their imports of critical medical goods and PPE: the European Union, the United States of America, China, Japan and the Republic of Korea (Espitia A et al. 2020). Specifically, for products needed for case management and diagnostics, the shares of imports from these exporters are even higher at about 90 per cent and range between 50 to 60 per cent for protection equipment and hygiene products. (Espitia A et al. 2020). Further, many countries in Africa, such as Tunisia, Senegal, the Congo and Niger, also depend on much of their imports of hospital masks from the European Union member States and faced limited supplies during the

pandemic (Bown C P, 2020b). Likewise, the United States of America restrictions on respirators impacted several Latin American countries who have sourced much of their supplies from the United States of America in the past. Apart from the direct impact on imports, these export restrictions also indirectly impacted supplies by causing disruptions in global supply chains. The biggest pharmaceutical companies in the world, for instance, are mostly American and European. Yet these companies – and the pharmaceutical industry as a whole – rely on global supply chains for essential raw material and intermediate inputs. China and India, for instance, are the source of 75 per cent to 80 per cent of the active pharmaceutical ingredients (APIs) for the United States of America (Horner R, 2020).

The tendency to protect their own populations is understandable but should be tempered with comprehension of the external effects (Coke-Hamilton P & Peters R, 2020). These outright bans and restrictions on exports negatively impacted trade, and thus accessibility of essential supplies to import-dependent countries with no domestic capacity to meet their own requirements. These NTMs can be said to have **indirect linkages** with SDG 3. Further, by disrupting supply chains, these restrictions put at risk, front-line medical personnel (OECD, 2020b).

Positive implications on SDG 3 during COVID-19 resulting from -

(i) Streamlined import regulations and procedures

L41 Tax and duty exemptions, reductions, other fiscal incentives reducing burden of taxes otherwise due and exemption from obtaining non-automatic import licensing requirements (E125); Elimination of certification requirements for SPS (A83) and TBT (B83) reasons, Elimination of product quality, safety and performance requirements (B7), Elimination of Conformity assessment related to technical barriers to trade (B8); Elimination of traceability requirements (B85)

As in the case of food items, nearly 40 countries exempt the private sector from having to pay customs duties, value added tax (VAT), Goods and Services Tax (GST) and other forms of taxes for critical medical, personal protective equipment in order to make it easier for doctors, nurses and patients financially to get desperately needed medical equipment. In a similar vein, a few countries also exempt medical equipment and PPE, from non-automatic import licensing requirements to ease supply of critical medical goods, eliminated import authorization and certification requirements, and eased several import procedures to expedite imports of medical equipment as well as pharmaceutical products. By **indirectly** affecting trade, these measures helped ensure domestic supply of essential medical items.

Box 1: Dealing with patent barriers (N11) to ensure access to medicines during COVID-19

Measures related to intellectual property rights (IPR) in trade belong to chapter N of the NTMs classification. Just like any other NTM, IPRs have a legitimate objective. Enforcement of IPRs serves as a bedrock of innovation by ensuring that creators can benefit from their inventions through patents, copyrights, trademarks, or geographical indications. On the other hand, IPRs can become a barrier to trade by raising market prices of protected goods, which disproportionately affects low, and middle-income countries who have to pay royalties for the imported products. The problem is intensified in case of critical goods such as medicines or critical environmental technologies.

During a pandemic, like COVID-19, where the need to ensure access to medical supplies can be at its peak, enforcement of IPR, patents in this case, can be concerning and restrict timely availability of essential, potentially life-saving drugs. In response of such a situation, one specific trade facilitating measure adopted by Israel with the aim to ensure access to medicines is worth mentioning, given its positive implications for SDG 3. Israel issued a compulsory patent license⁷ related to lopinavir/ritonavir (brand name Kaletra), an HIV medicine that was being tested for treatment of COVID-19. By doing so, Israel allowed generic versions of the drug to be imported from a company based in India (Hetero) even though the drug is patent protected in the country. The license was issued in response to a difficulty in obtaining required quantities of Kaletra from the patent holder in Israel, in a short time span (WIPO, 2020).

By issuing compulsory licenses, countries can facilitate imports of life-saving drugs, positively contributing towards **SDG 3** *Ensure healthy lives and promote well-being for all at all age* - **Target 3.b** which calls for providing access to affordable essential medicines and vaccines as per the TRIPS Agreement and Public Health to developing countries in the interest of protecting public health and ensuring access to medicines for all.

While Israel was the only country to have issued a compulsory license during the pandemic, other countries, including Germany, Colombia, Ecuador and Canada, enacted bills allowing governments to suspend patents and issue compulsory licenses of COVID-19 regimens, when considered necessary (WIPO, 2020).

⁷ In the context of medicines, compulsory licensing was conceptualized by the 1994 Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement, which requires all WTO members to implement and enforce international patent protection standards. The Agreement allows waiving off the enforcement of this requirement by Members "in the case of a national emergency." By issuing compulsory licenses, countries may grant a license to a manufacturer to make, use, sell or import a patented drug even without permission of the patent owner.

C. SDG 10 Reduced inequalities within and among countries

SDG 10 calls for reducing inequalities in income, as well as those based on age, sex, disability, race, ethnicity, origin, religion or economic or other status within a country. While no specific target under this SDG relates to the impact of regulatory policies on the poor and most vulnerable, it is pertinent to highlight how some restrictions imposed on exports of medical and food items had negative consequences for the world's poorest.

Negative Implications on SDG 10 during COVID-19 caused by -

(i) Export curbs

P31 Export Prohibitions; P32 Export Quotas P33 Export Licensing Requirements and P7 Measures on Re-export for food products; P7 Measures on re-export

Restrictions on exports of essential foodstuffs and medical supplies were frequent during the pandemic. With some of the largest exporters such as Viet Nam and the Russian Federation restricting exports, prices of food items increased sharply, though only for a short time period, posing a challenge for food security of those dependent on imports. In specific, “when such impacts are overlaid onto global maps of hunger, it becomes clear that those affected are in parts of the world where severe hunger is already concentrated” (Stockholm International Peace Research Institute, 2020). For instance, as rice imports in the African region dried up due to the supply disruptions caused by major suppliers, including India, Viet Nam and Cambodia, reducing or banning rice exports, the price of a bag of imported rice rose by more than 7.5 per cent between the third week of March and end of April in many cities in the Sub-Saharan Africa, which also happen to be the world's largest importers of rice. Bags of locally produced rice too became about 6-8 per cent more expensive (Stockholm International Peace Research Institute, 2020). Such high prices can strain budgets of the poorest and make it more difficult for them to afford other, more expensive foods such as fish, meat, dairy, fruits and vegetables (FAO, 2020). Senegal's rice imports, for example, fell by 30 per cent due to international supply disruptions (Reuters, 2020b).

The same holds for export bans on medical supplies which nearly cut off the poorer nations from crucial technologies when they need it the most. Many LDCs and developing countries do not produce medical supplies domestically (Tembo D and Adhikari R, 2020). Countries like Cape Verde, Niger, Tunisia, Serbia, and Senegal source between 50 per cent and 90 per cent of their PPE from the European Union. In such a scenario, the European Union's ban on exports of PPE threatens their access to global markets for medical imports. It has been estimated that even if one of the large producers of say, ventilators, imposes an export ban, world prices could shoot up by 10 per cent. There are no nations in Africa, the Middle East or South Asia that export ventilators and only one nation in Latin America does (Bown, Chad P., 2020b). Several poor countries depend on the European Union suppliers for their essential medical equipment (Bown C P., 2020a).

For the low income countries who lack the resources to procure essential food and medical supplies available to their populations, such measures can worsen their ability to manage the crisis, further exacerbating inequalities among countries, having **direct, negative** implications for SDG 10.

3.2 Objective 2 - To eliminate entry of potential disease carriers into the national borders

NTMs used during the pandemic to achieve the objective 2 affected SDGs 1, 3 and 15 by prohibiting, or imposing other forms of restrictions, on imports and exports of products that could be potential carriers of the disease or increase risk of contracting it. These included live animals, cigarettes, food items from infected countries, second-hand goods and khat. Of these, restrictions on live animals/wildlife, bearing SPS risks were common. The implications of these measures are discussed below.

A. SDG 1 End poverty in all its forms and everywhere

SDG 1 aims to eradicate global poverty by ensuring that the poor and the most vulnerable get access to all basic resources and services, and supporting communities affected by conflict and climate-related disasters. **Target 1.4** in specific calls for ensuring, by 2030 that “*all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.*”

Negative Implications on SDG 1 during COVID-19 caused by -

(i) Ban on wildlife trade

P17 Export prohibition for SPS reasons; A11 Import prohibitions for SPS reasons; A83 Certification requirements

The ban on wildlife trade imposed by many countries to limit transmission of the virus, while seen as a positive step towards wildlife and biodiversity conservation, could have a negative impact on indigenous people and local communities who depend on such trade for their livelihoods. Wildlife is used globally on a daily basis, from medicinal plants and edible fungi, to wild meat in Europe, North America, Southern Africa and elsewhere. In some countries, such trade has been promoted as part of its larger goal to eradicate poverty and an additional source of income to sustain rural livelihoods (Challender D et al. 2020). Its roots extend to every continent and the trade is valued at billions of dollars annually. It enables people in many parts of the world to meet their basic needs and can provide livelihood benefits from harvesting or farming. In the light of this, a blanket ban on wildlife trade can have serious, **indirect, negative** implications for SDG 1.

B. SDG 3 Ensure healthy lives and promote well-being for all at all age

Positive implications on SDG 3 during COVID-19 resulting from -

(i) Ban on wildlife trade

A11 Prohibitions for SPS Reasons; A83 Certification Requirements for SPS Reasons; P17 Export prohibition for sanitary and phytosanitary reasons

At least six countries took measures to suspend imports of live animals considered possible intermediate hosts of the virus. Countries banned imports of exotic and decorative animals, also including insects, arthropods, amphibians, reptiles, live fish and other hydrobionts; as well as some plant-based food products from infected countries. Imposed with the goal of safeguarding populations' health and well-being, these measures prohibiting imports for SPS reasons or imposing certification requirements contributed directly and positively to public health and well-being.

On the export side, China banned exports of wildlife, covering wild-caught species recognized nationally and internationally as threatened species; hunting, trading and transport of terrestrial wild animals for human consumption; as well as wild animals born and raised in breeding facilities. The ban was imposed in an attempt to safeguard public health and safety and to limit human exposure to wild animals that could carry the virus. Given the interconnected world we live in, and as was witnessed during the pandemic, such diseases can cross national borders at alarming speeds, escalating into global epidemic events. According to the WHO, nearly 75 per cent of all epidemics in the recent decades that have threatened global health including HIV and Ebola have spilled over from animals (Fleming S, 2020).

C. **SDG 15 Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse and degradation and biodiversity loss**

This SDG focuses on preserving diverse forms of life on land and ensuring that the benefits of land-based ecosystems, including sustainable livelihoods, will be enjoyed for generations to come (United Nations, Department of Economic and Social Affairs, Sustainable Development Goals, n.d.). Of all the targets, **target 15.7** calls for an urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products. Sub target 15.7.1, specifically focuses on the proportion of **traded wildlife** that was poached or illicitly trafficked.

Positive Implications on SDG 10 during COVID-19 resulting from -

(i) Ban on wildlife trade

P17 Export prohibition for SPS reasons; A11 Import prohibitions for SPS reasons; A83 Certification requirements

The fact that the outbreak originated in a wet market and that the virus could be transmitted from animals to humans, compelled many countries to ban imports and exports of live animals temporarily until the pandemic subsided. The rationale was simple: to avoid trade in products which could be potential carriers of the virus. Bans were imposed on trade in exotic and decorative animals, including insects, arthropods, amphibians, reptiles, and live fish and other hydrobionts from infected countries. Of these, Viet Nam's ban on wildlife imports and an urge to close all illegal wildlife markets is noteworthy as it is designed to be permanent and intended to avoid future pandemics (Humane Society International, 2020).

The possibility that the new virus passed through an intermediary host, like pangolins, before infecting humans has drawn attention to illegal trade in wild animals. Pangolins are in fact, often considered the most trafficked mammals in the world, despite trade in pangolins and pangolin products being banned under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).⁸ Such illegal and unsustainable wildlife trade has been touted as a threat to many of the world's species. This is true for previous contagions like the Ebola and SARs viruses.

While most of these bans were temporary, they can have positive long-term implications for wildlife trade and can lay the groundwork for a permanent ban on the same, in turn providing a big boost in the fight against the illegal wildlife trade – an **direct, positive implication** for SDG 15. The health and economic damage that the pandemic has caused can provide an impetus to properly address the issue. Consumption and demand for wild meat is driving severe declines and extinctions in wildlife populations in Southeast Asia (World Wildlife Fund). A permanent ban on wildlife imports or exports can have positive effects on biodiversity species conservation and depletion of national resources. The World Economic Forum 2020 Global Risks Report also ranks biodiversity loss and ecosystem collapse as one of the top five threats humanity will face in the next ten years (World Economic Forum, 2020).

3.3 Objective 3 - To ensure product quality and safety

By increasing inspections and other requirements for imported and exported medical and personal protective products, NTMs adopted to achieve objective 3 have both negative and positive implications for SDG 3. The specific implications of these are discussed below.

⁸ CITES is an international agreement between governments, aimed to ensure that international trade in specimens of wild animals and plants does not threaten their survival.

A. SDG 3 Ensure healthy lives and promote well-being for all at all age

Negative implications on SDG 3 during COVID-19 caused by -

(i) Additional inspections and conformity assessment requirements for trade in medical products

B7 Product quality, safety or performance requirements; P11 Authorization or permit requirements to export, for technical reasons; P12 Export registration requirements for technical reasons; P14 Product quality, safety, or performance requirements; P16 Conformity assessments; P9 Export measures n.e.s.

China imposed additional inspections and documentary requirements at the border prior to the export of various medical supplies and PPE to demonstrate that the products meet the relevant regulatory standards in the destination country (Reuters 2020a). These measures slowed down exports of the regulated products, impacting timely availability by lengthening approval process by days or weeks. A large number of test kits and medical equipment were blocked at warehouses in the source country as it took time to receive official clearance, further reducing the number of masks on the market, and negatively impacting health and well-being of many (The Wall Street Journal, 2020). This indicates a clear **indirect** linkage with SDG 3.

Positive implications on SDG 3 resulting from -

(i) Additional inspections and conformity assessment requirements for trade in medical products

P31 Export Prohibitions; P32 Export Quotas P33 Export Licensing Requirements and P7 Measures on Re-export for food products

The export related measures imposing new requirements for exports slowed down trade, thus having negative implications for SDG 3. Yet, these measures were in fact imposed to respond to a rising number of concerns raised over the quality of traded medical supplies and PPE, and aimed to enhance levels of regulatory oversight so that uncertified products not meeting international standards do not flood the markets. In China, additional documentation requirements and stricter inspection processes have been introduced to check products for mould or spoilage, whether they have a valid best-before date and whether they are broken or constitute an infringement of intellectual property rights. The authorities also committed to look for hidden/fake/sub-quality goods (Wong A and Wilkinson A, 2020). These quality control measures can be **directly** linked with SDG 3, given their intent to regulate the safety and quality of medical and personal protective equipment which may otherwise have adverse effects on human health. Although seemingly stringent, such requirements can also push manufacturers and exporters to ensure that medical products meet important health and safety standards (UN News, 2020).

3.4 Objective 4 - Various economic objectives

Many NTMs were introduced in pursuit of various economic objectives: protection of domestic industries, provision of COVID financial relief for businesses/otherwise, management of domestic demand and supply and to ease pressure on national currency. NTMs taken to achieve the objective 4 affected SDG 8 positively by providing subsidies, prohibiting imports of domestically produced goods, and extending time frames for tax payments.

A. SDG 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

SDG 8 emphasizes on provision of decent work opportunities and quality jobs, putting “people” at the centre of development. The goal sees productive employment as a driver for sustainable development and economic growth (United Nations, Department of Economic and Social Affairs, Sustainable

Development Goals, n.d.). **Targets 8.5** and **8.6** call for promoting full employment and reducing the proportion of unemployed youth.

Positive implications

E313 Temporary import prohibition, including suspension of issuance of licenses; E323 Import prohibition for the protection of environment; F79 Internal taxes and charges levied on imports not elsewhere specified; G4 Regulations concerning terms of payment for imports; L11 Transfer of funds by the government to an enterprise – Grants ; L9 Support for consumers or producers not elsewhere specified; P43 Export charges or fees levied in connection with services provided

At least 15 NTMs imposed during the initial COVID-19 pandemic were directed towards protection of jobs and local industries. While some of these entailed a temporary ban or other special requirements on imports of medical supplies as well as food products to safeguard jobs and domestic production, others involved provision of subsidies and financial support to local businesses.

In the Bahamas, for example, the import of non-medical protective masks has been banned as a local mask industry, including small tailors, has emerged.. The ban was imposed to provide an impetus to job creation (Loopnews Caribbean, 2020). To support domestic manufacturers, Iran also banned the import of medical supplies that were available domestically (Iran Front Page, 2020). India imposed a health cess on import of medical equipment in pursuit of a similar objective (Financial Express, 2020). On the other hand, Australia introduced subsidies for small scale industries and farming households with a view of protecting jobs of the most vulnerable.

While such measures can have trade-distortive effects, their use can have positive impacts on local businesses and jobs in difficult times. Providing subsidies and financial support to small and medium-sized industries can prevent widespread job losses by helping maintain local production. Similarly, measures that ban imports to avoid the decline of local industries, while a protectionist measure, can help preserve jobs and livelihoods during economic downturns. It is important, however, that such measures are temporary and aim to protect enterprises that are otherwise healthy.

3.5 Beyond the objectives - The way countries imposed NTMs

Apart from the direct and indirect impact that NTMs can have on SDGs, the way in which they are imposed and the underlying principles and practices of implementation also have sustainability implications. Transparency, cooperation and solid partnerships are a cornerstone of the international trading system. During COVID-19, it was noted that there is often a lack of such transparency and coordination in the imposing NTMs. This relates to SDG 17 and is discussed in detail below.

A. SDG 17 Strengthen the means of implementation and revitalize the global partnership for sustainable development

While SDGs 1 to 16 constitute substantive goals that countries ultimately pursue, SDG 17 directs the way how to achieve the 16 SDGs. SDG 17 aims to strengthen the means of implementation such as international trade and enhance global partnership among the public and private sectors, civil society, international organizations, and other actors together. According to the United Nations' 2030 Agenda for Sustainable Development (2015), "international trade is an engine for inclusive economic growth and poverty reduction, and contributes to the promotion of sustainable development." Thus, United Nations Member States committed to "continue to promote **a universal, rules-based, open, transparent, predictable, inclusive, non-discriminatory and equitable multilateral trading system** under the WTO, as

well as meaningful **trade liberalization**" (United Nations, 2015). The commitments are set out in the three targets 17.10, 17.11 and 17.12.⁹

Negative implications on SDG 17 caused by

(i) Limited transparency

WTO members are obliged to notify their trade measures regarding SPS, TBT, quantitative restrictions, import licensing, trade remedies, etc. to the WTO as one of their transparency obligations. However, many COVID-19 measures that appear to have been subject to the WTO notification requirements were not notified or notified in delay. Also, in some cases, full information on the measures is not published online or in other languages. For the databases used here, official sources and media reports were actively sought to fill this absence. However, there is still room for improvement by recording measures more thoroughly and cross-checking them with information already notified. Currently, the databases lack information that has already been notified and stored in the WTO notification database. .

The lack of transparency not only hinders cooperation with other countries, but also makes it difficult for firms to adapt to the new situation in the best possible way. Therefore, it has **direct, negative** implications on the open trading system mentioned in SDG 17, particularly **Target 17.10**.

(ii) Limited coordination of actions

Most COVID-19 trade measures in the databases were devised and imposed at a country level, in comparison to regional or multilateral levels. The urgency and uncertainty of the situation may explain countries' independent reactions, especially at the initial phase of pandemic. These reactions created frictions in various forms due to lack of coordination. The export restrictions imposed on medical goods during the pandemic, for example, led in some cases to the shutdown of production lines on which countries relied. There are several examples showing that export restrictions have in fact made it harder to procure essentials (Fiorini M et al. 2020). However, efforts to coordinate trade measures hardly translated into concrete actions.

Few exceptions are regional approaches within the European Union and the Eurasian Economic Union. When individual Member States of the European Union, for example, sought a ban on the export of medical devices from their territory, including to neighbouring member States, the European Commission imposed a ban on the export of certain medical devices and protective equipment to destinations outside the European Union.¹⁰

The weak cooperation is a missed opportunity of leveraging the crisis with higher efficiency of the multilateral trading system. Also, individual actions undermined trust in the system. Therefore, it has **direct, negative** implications on SDG 17, particularly **Target 17.10**.

⁹ Target 17.10 Promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system under the World Trade Organization, including through the conclusion of negotiations under its Doha Development Agenda.

Target 17.11 Significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries' share of global exports by 2020.

Target 17.12 Realize timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries, consistent with World Trade Organization decisions, including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access (United Nations, 2015).

¹⁰ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020R0402>

(iii) Limited clarity of rules

The unprecedented situation of the pandemic left unencountered questions of the multilateral trading rules under the WTO. Among many questions, one actively discussed question is what kind of export control measures are compliant with the WTO rules? GATT Article XI which provides for the elimination of quantitative export restrictions leaves room in its paragraph 2(a) for taking “export prohibitions or restrictions temporarily applied to prevent or relieve critical shortages of foodstuffs or other products essential to the exporting contracting” countries. However, it is not clear whether countries have been appropriately guided by the WTO jurisprudence when devising export control measures.

Another question is, even if trade measures are not compliant with the WTO rules, can the pandemic situation justify them as an exception? Although several WTO provisions including GATT Article XX explain exceptional conditions under which a WTO-incompatible measure can be justified, they do not include pandemics per se.

Unclear rules risk the maintenance of the rule-based trading system, increasing chances of countries to adopt disguised trade protectionist measures intendedly and unintendedly. These risks seem to continue because various recovery measures that countries are introducing may affect trade, such as provision of subsidies based on firms’ environmental performance or public procurement where selection criteria include domestic job creation effects. Therefore, limited clarity of rules has **direct, negative** implications on SDG 17, particularly **Target 17.10**.

Potentially positive implications on SDG 17 caused by

(i) Tariff reduction

As mentioned in the earlier chapter, almost all tariff measures were trade facilitating. According to the database, 75 countries across different income levels reduced or exempted import tariffs temporarily. Mostly medical supplies, foodstuff or other essential goods were subject to such measures.

Tariff reduction or exemption *numerically* improved two SDG indicators. First, one indicator of **Target 17.10** *Promotion of a multilateral trading system* is the worldwide weighted average of tariff. Second, an indicator of SDG **Target 17.12** *Duty-free and quota-free market access for LDCs* is the weighted average tariffs faced by developing countries, least developed countries and small island developing.

Moreover, tariff reduction and exemption may have positive implications on SDG Target 17.11 *Increase of exports by developing countries*, considering that the production of certain medical supplies, such as masks, gloves and other PPE, is less technology-intensive than respiratory machines, thus having lower entry barriers. Additionally, some developing countries already have industrial foundations in sectors of textiles and printing that can be easily converted to produce such medical supplies. Continuation of trade facilitating tariff measures by importing countries and timely and effective policy support for the creation, conversion and scale-up of the PPE manufacturing would be a key for developing countries to tap their export potential.

4. Key lessons: towards a sustainable and resilient future

The use of NTMs was prominent during the COVID-19 pandemic, with most applied NTMs being geared towards legitimate policy objectives. Many of the applied measures had positive implications for trade and sustainability and reflect a positive development/trend in the use of NTMs, or trade policy in general, during emergencies. Yet, as the preceding analysis has shown, many applied NTMs either did, or could have, far-reaching negative implications. To this end, it becomes necessary to avoid resorting to the use of what may often be called counterproductive measures and, when considered unavoidable, making more responsible use of such policies. The aim should be to carefully consider whether an NTM is needed at all or whether there are alternatives, to design high-quality NTMs where they are needed, and then to implement them strategically and with full transparency, so as to minimise potential adverse impacts on trade and sustainability. The use of both trade facilitating and trade restricting measures during the COVID-19 pandemic and its consequences, positive and negative, carry several lessons for trade policy makers and the international trade community at large. This section presents some of these findings as well as further recommendations that could: (i) minimize the incidence and negative impact of trade policy measures **during** emergency situations; (ii) support recovery efforts **following** the COVID-19 pandemic; and (iii) help build a better international trading system that contributes to achieving the SDGs in the **long-run**, to eliminate potential negative consequences of trade policy measures.

4.1 During emergencies: Immediate use of NTMs during emergencies

(i) Considering alternatives

The use of export restrictions on medical and food supplies have the potential to disrupt global value chains at a time where the need in fact is to keep trade flowing. The fear of shortage for medical supplies appears to have been justified given the shortages worldwide, and thus corresponding measures politically understandable, although globally non-solidary. However, restrictions on food items seemed unnecessary and often a response to hoarding and panic buying. As the food crisis of 2007-08 has shown, export restrictions are not an answer to such situations and planned policy alternatives such as provision of emergency food assistance, social protection programs for the most vulnerable, setting up of food banks and community-based groups, use of e-commerce channels for food delivery and cash-grants could be better solutions. Likewise, financing expansion of production capacity of manufacturers of key medical supplies and strengthening delivery mechanisms to provide other in-kind assistance, such as protective kits, to elderly people or those with chronic illnesses can be more beneficial (Cullen M T, 2020).

“Emergency measures designed to tackle COVID-19, if deemed necessary, must be targeted, proportionate, transparent, and temporary, not create unnecessary barriers to trade or disruption to global supply chains, and be consistent with WTO rules”

G20 Trade and Investment Ministerial Statement

(ii) Emphasizing trade facilitation measures to minimize logistics disruptions

While NTMs imposing additional checks on traded goods to ensure product quality and safety are necessary, smoothing customs procedures, expediting certifications, strengthening risk-management, and using information technology to the fullest can help ensure fast supply of goods without letting such NTMs impede trade flows, as was witnessed during the pandemic, with goods lying at the border for clearance for several days.

(iii) Enhancing transparency

Where no alternatives exist and the situation demands a trade policy response, it is important that transparency be upheld, and the measures be published to inform the private sector and other countries.

New or amended policy measures, including related procedures and forms should be published in a timely manner at the full scope. A centralized system presenting all the measures taken across government agencies would facilitate the access to information. Moreover, the WTO Agreement on Agriculture, for instance, specifies that when implementing export restrictions, countries should consider their implications on food security, give notice to the Committee on Agriculture, and consult other WTO members.

(iv) Coordinating actions

Pursuing greater regulatory cooperation can help expedite trade in essential goods and meet high demand. During the pandemic, many countries accepted other countries' standards and conformity assessment procedures as equivalent. Some countries also accepted international standards, thus eliminating non-critical trade requirements in the interest of public health. Such common product standards and mutual recognition procedures can facilitate supply responses as well as cross-border production arrangements (Fiorini, Matteo et al. 2020). As evidenced by the European Union and the Eurasian Economic Union, existing frameworks such as bilateral mutual recognition agreements (MRAs), regional trade agreements, and public-private forums can be used as a base for aforementioned coordinated actions. For example, the rules of origin regulation for PPE-related textile products is being discussed under the African Continental Free Trade Area (AfCFTA) negotiations (OECD, 2020c).

4.2 Following emergencies: Medium term leverage of NTMs for recovery

(i) Setting back the return to the less desirable normal

Most trade measures were taken on a temporary basis to address the emergency situation. It implies that these measures are expected to be lifted once the pandemic situation is over. Indeed, it is important to ensure that measures that had to be imposed because their contribution to more important and urgent goals outweighed their negative impact on the SDGs during the pandemic are phased out once the level of importance and urgency decreases. Otherwise, then-legitimate measures will return as market distorting measures (OECD, 2020b).

At the same time, countries may also consider turning temporary measures into permanent measures, if the measures bring more benefits to the SDGs in the long term. For example, tariff reductions or exemptions for medical supplies, and trade bans of wildlife have more positive implications than negative ones.

(ii) Revitalizing the private sector

The private sector is a crucial partner that can lift the burden from governments "towards a sustainable and resilient future". Developing countries could turn the crisis into an opportunity. Countries should use some trade policies to support swift and resilient return of the private sector to trade and make them partners in recovery. For example, streamlined trade policies, including streamlined NTMs, can enable export-oriented firms to re-join the global value chains (GVC).¹¹ These firms not only bring foreign currency, but also tend to pay higher wages, making more income flow into communities (Djankov S & Ugo P, 2020).

(iii) Building a resilient economy

The economy that is being rebuilt should be more resilient to uncertainties and risks. As mentioned in Chapter 3, countries should create an environment where the private sector can swiftly create, convert or scale-up businesses, responding to the changing demand. The pandemic hit hard LDCs' export earnings because of falling demand, falling commodity prices and supply chain disruption in textiles and clothing

¹¹ UNCTAD has developed a NTMs Cost-Effectiveness Toolkit. See <https://unctad.org/webflyer/assessing-cost-effectiveness-non-tariff-measures-toolkit>

(WTO, 2020b).¹² Not to be hit as much by another crisis, the countries need to diversify heavily-commodity-based industry and eliminate bottlenecks to industry conversion. Options could be to streamline NTMs and trade regulations between industries, to make information on industry-specific NTMs accessible and understandable even by outsiders, or to build capacity of producers to quickly adapt to NTMs of other industries.

Moreover, countries should prepare policies and regulations to cope with the situation in the future when vaccines against COVID-19 are developed or another crisis comes. A well-devised intellectual property system including those mentioned in Box 1. can smoothen production and distribution of the vaccines. Also, trade measures that facilitate sourcing of quality information and communication equipment and devices and that promote digital economy will buffer the shock of another crisis.

4.3 Long term: Application of NTMs for equipping the international trading system

Policy measures, NTMs or tariffs, that are more trade facilitating or restricting, often have two sides. A key to design and implement measures following good regulatory practices. Transparency, global dialogue and cooperation and compliance with rules are essential in building the confidence in the international trading system and making the system contribute to SDGs.

(i) Building a more transparent system

The current situation shows the value of mechanisms that ensure interventions are transparent, and of systems to help governments coordinate and cooperate to address shortages. Even with a common shock (e.g. a pandemic), there will be differences in supply capacity and demand for products across countries. Such differences may not be obvious and can be revealed through sharing information and coordination. Governments need information systems that allow them to determine where supply capacity exists. Firms, in turn, should be able to form expectations regarding final demand in the short and medium run and have information on the availability of critical components and inputs needed to produce prioritised products. Identifying real-time bottlenecks in the supply chain and measures to address them requires cooperation between industry and government, as well as among governments.

For this, the transparency system of agricultural commodity trade can be replicated, for example, in the medical supplies. A transparency mechanism targeting essential medical and pharmaceutical products could be established not to repeat failures of initial COVID-19 responses, but to make data-based systematic responses to future health crises and the development of COVID-19 vaccines. The Agricultural Market Information System (AMIS) was created after the 2007-2008 food crisis in order to enhance food market transparency and reduce uncertainty. Involving major importing and exporting countries and private operators, AMIS generates harmonized market information on stocks, prices, forecasts, etc.

The International NTMs Classification and the global effort to enhance transparency in NTMs, coordinated by UNCTAD with the MAST group, could be expanded to include short time policy changes and strengthen its cooperation with approaches, such as the Global Trade Alert that is already collecting certain short term policies. Governments, however, play a key role in data provisions and need to be fully involved.

(ii) Making clearer rules for a rule-based system

During the global economic crisis of 2008, trade restricting measures affected only about 1 per cent of world imports. At that time, G20 leaders committed to refrain from protectionist measures and to uphold

¹² Attention is needed not to generalize the situation of LDCs to all developing countries. For example, Malaysia, the world largest rubber producer, experienced an increase in export and some developing countries joined the export of PPE (Bamber P et al. 2020).

the rules-based trading system, and WTO trade rules created some certainty for businesses (OECD, 2020b).

As mentioned in section 3, during this crisis, trade rules on some policy responses are not fully clear. If export restrictions on medical supplies cannot be avoided entirely in the current political context, agreements to place strict conditions on their temporary use are vital. Also, if the current COVID-19 pandemic is so exceptional that the use of WTO-incompliant measures is justified, countries should agree on criteria which constitute such an exceptional situation and the manner in which the measures should be used.

Supporting the WTO dispute settlement mechanism and accumulating the WTO jurisprudence would be the starting point. If there are not enough legal instruments at this moment to set clearer rules, countries can also consider adding or amending the instruments. For example, often discussed is to insert emergency provisions to trade agreements.

(iii) Making a finer-meshed web of cooperation

As previous chapters show, trade measures leave implications on SDGs of less-trade-related sectors like wildlife, food and health, national policies. In turn, regional and international agreements such as CITES have further implications on trade. Therefore building a multilateral trading system that supports the SDGs achievement requires cooperation, not only in trade-specific areas but also in these other areas. For example, existing MRAs of medical supplies facilitated production - by benefiting from economies of scale - and trade of safe and quality products. Countries can continue working for formal recognition and equivalence arrangements for certification and acceptance of foreign and preferably and ultimately, international standards that would help prevent rigid enforcement of national standards with their detrimental trade-restricting effects, especially in a crisis where unilateral action can have high humanitarian costs. In addition, the Basel convention affects safer trade of hazardous substances including medical wastes.

As a starting point for nurturing cooperation from various perspectives, developing informal forms centred on information exchange, dialogue, and peer review may be more feasible. Such cooperation should encompass the private sector given that the latter has a much better grasp of the relevant area and supply chains. Close cooperation between regulators will become more effective if combined with the use of contracts between buyers and sellers that are engaged in the process and endorse the cooperation.

5. Conclusions

NTMs are critical elements of trade policy. Often used for valid reasons, they can be useful tools to achieve legitimate objectives. This also makes them indispensable. However, they are sometimes viewed with a myopic lens of national self-interest. The profound implications they can have often seem overlooked. This results in negative consequences for trade and development. As the analysis has shown, NTMs imposed during COVID-19 had many positive effects, yet, they also did, or have the potential to be damaging - be it in terms of the threat they posed to public health, food security or livelihoods. This is not surprising given the degree of global interconnectedness. It also highlights how challenging it can be to make more effective use of NTMs. With NTMs, there are always multiple sides to the story and NTMs adopted during the pandemic demonstrate this well. It thus becomes critical to carry out a thorough, ex-ante review of NTMs, not only with the national but also, global interests in mind. The international trade community is highly interdependent. Every action can have far-reaching and wide-ranging repercussions. It is important that the pros and cons of any trade measure are weighed against each other, as well as against other alternatives that could help achieve similar results with minimal negative consequences. Sometimes, NTMs could emerge as the only reasonable solution to a given problem. To better prepare for this, it is essential to strengthen the international trading system to deal with any damaging repercussions that may result from them. Comprehensive and up-to-date data is fundamental to good policies; as is transparency and cooperation - at a bilateral, regional, and multilateral level. During the pandemic, there were several encouraging trends on this front. Many countries used trade policy cautiously, intelligently, and collaboratively. For instance, the use of export restrictions on food, even though evident, was much lower than during the food crisis of 2007-08, which had taught countries that these measures could be detrimental. Regulatory cooperation, at least at bilateral and regional levels was also promising. Moreover, many NTMs were also relaxed rather quickly.

Yet, the very fact that so many countries resorted to the use of trade restrictive measures possibly without considering their possible negative effects needs some reflection, so that more pragmatic and well-balanced policy responses can be adopted during future crises. Globalization had been faltering even before the pandemic. Greater use of trade restrictive measures will only accelerate its retreat, ushering in a climate of even more uncertainty. Turning inwards is not only a threat to the lives and livelihoods of millions during global crises; it can fuel protectionist sentiments in the longer term. Exceptional circumstances do require exceptional responses, and exceptional responses are best worked upon together, rather than in isolation. This alone will help engender confidence in the ability of the international community to achieve sustainable trade policy outcomes.

Appendix

UNCTAD International Classification of Non-tariff Measures

Chapter A. **Sanitary and phytosanitary measures:** requirements restricting the use of specific substances, hygienic requirements or other measures for preventing the dissemination of diseases as well as conformity assessment measures related to food safety, such as certification, testing and inspection, and quarantine.

Chapter B. **Technical measures:** labelling requirements and conformity assessment measures relating to technical product requirements, including certification, testing and inspection.

Chapter C. **Pre-shipment inspection:** requirements and formalities to be performed in the exporting country prior to shipment.

Chapter D. **Contingent trade measures:** measures to counteract adverse effects of imports, including antidumping, countervailing, and safeguards measures.

Chapter E. **Quantitative restrictions:** licensing requirements, quotas and other quantity control measures, import prohibitions that are not related to sanitary and phytosanitary or technical barriers to trade measures.

Chapter F. **Price controls:** measures to control or affect the prices of imported goods to support or stabilize the domestic price of competing products or raise tax revenue. Includes para-tariff measures.

Chapter G. **Finance measures:** policies restricting payments for imports, including regulation of access and cost of foreign exchange and terms of payment.

Chapter H. **Measures affecting competition:** exclusive or special preferences or privileges accorded to one or a limited number of economic operators. Includes state trading monopolies, sole importing agencies and compulsory use of national services or transport.

Chapter I. **Trade-related investment measures:** policies that restrict investment by requiring local content or conditioning investment on balancing of exports and imports.

Chapter J. **Measures affecting distribution of imported products:** restrictions on distribution of imported goods within the country.

Chapter K. **Restrictions on after-sales services:** measures that limit provision of services that are accessory or ancillary to the sale of a good.

Chapter L. **Subsidies:** measures that relate to subsidies that affect trade.

Chapter M. **Government procurement policies:** restrictions on foreign bidders for public projects and contracts.

Chapter N. **Restrictions related to intellectual property.**

Chapter O. **Rules of origin:** measures that pertain to determining the origin of products, or their inputs.

Chapter P. **Export measures:** measures applied by a country on its exports; includes export taxes, export quotas or export prohibitions.

References

- Bamber P et al. (2020). *Four reasons why globalized production helps meet demand spikes: The case of medical devices and personal and protective equipment*. World Bank Blogs. World Bank. Washington, D.C. [Four reasons why globalized production helps meet demand spikes: The case of medical devices and personal and protective equipment \(worldbank.org\)](https://www.worldbank.org/en/blog/2020/04/29/four-reasons-why-globalized-production-helps-meet-demand-spikes-the-case-of-medical-devices-and-personal-and-protective-equipment)
- Bown C P (2020a). *COVID-19: Demand spikes, export restrictions, and quality concerns imperil poor country access to medical supplies*. Why Turning Inwards Won't Work. VoxEU CEPR Press. London. [COVID-19 and Trade Policy: Why Turning Inward Won't Work. Covid-19 and Trade Policy \(8\).pdf](https://voxeu.org/article/covid-19-and-trade-policy-why-turning-inward-won-t-work)
- Bown C P (2020b). *EU limits on medical exports leave many poor countries vulnerable to COVID-19*. Peterson Institute for International Economics. Peterson Institute for International Economics. Washington D.C. [EU limits on medical exports leave many poor countries vulnerable to COVID-19 | PIIE](https://www.piie.com/publication/eu-limits-on-medical-exports-leave-many-poor-countries-vulnerable-to-covid-19).
- Broom D (2020). *Coronavirus: here's what you need to know about face masks*. World Economic Forum. [COVID-19: here's what you need to know about face masks | World Economic Forum \(weforum.org\)](https://www.weforum.org/agenda/2020/03/coronavirus-face-masks/)
- Challender D et al. (2020). *Coronavirus: why a blanket ban on wildlife trade would not be the right response*. The Conversation. [Coronavirus: why a blanket ban on wildlife trade would not be the right response \(theconversation.com\)](https://theconversation.com/coronavirus-why-a-blanket-ban-on-wildlife-trade-would-not-be-the-right-response-141111)
- Coke-Hamilton P and Peters R (2020). *Export restrictions: Fighting COVID-19 with hands tied*. UNCTAD. [Export restrictions: Fighting COVID-19 with hands tied | UNCTAD](https://unctad.org/en/publication-detail.aspx?publicationid=2454)
- Cullen M T (2020). *COVID-19 and the risk to food supply chains: How to respond?* FAO. Rome. [COVID-19 and the risk to food supply chains: How to respond? \(fao.org\)](https://www.fao.org/publications/collection-detail.aspx?lang=en)
- Djankov S and Ugo P (2020). *COVID-19 in Developing Economies*. VoxEU CEPR Press. London. [COVID-19 in Developing Economies](https://voxeu.org/article/covid-19-in-developing-economies).
- Espitia A et al. (2020). *Trade and the COVID-19 crisis in developing countries*. VoxEU CEPR Press. London. [Trade and the COVID-19 crisis in developing countries | VOX, CEPR Policy Portal \(voxeu.org\)](https://voxeu.org/article/trade-and-the-covid-19-crisis-in-developing-countries)
- FAO (2020). *Why export restrictions should not be a response to COVID-19: Learning lessons from experience with rice in Asia and the Pacific*. Rome. [Why export restrictions should not be a response to COVID-19: Learning lessons from experience with rice in Asia and the Pacific \(fao.org\)](https://www.fao.org/publications/collection-detail.aspx?lang=en)
- Fleming S (2020). *It's time to get serious about the causes of pandemics: UN report*. World Economic Forum. [The world is treating the symptoms of COVID-19, not its causes | World Economic Forum \(weforum.org\)](https://www.weforum.org/agenda/2020/03/it-s-time-to-get-serious-about-the-causes-of-pandemics-un-report/)
- Financial Express* (2020). *Budget 2020: Cess on imported medical devices to lead to cost escalation for patient, says MTal*. 2 February. [Budget 2020: Cess on imported medical devices to lead to cost escalation for patient, says MTal - The Financial Express](https://www.financialexpress.com/budget-2020-cess-on-imported-medical-devices-to-lead-to-cost-escalation-for-patient-says-mtal/)
- Fiorini M et al. (2020). *COVID-19: Expanding access to essential supplies in a value chain world*. Why Turning Inwards Won't Work. VoxEU CEPR Press. London. [COVID-19 and Trade Policy: Why Turning Inward Won't Work. Covid-19 and Trade Policy \(8\).pdf](https://voxeu.org/article/covid-19-and-trade-policy-why-turning-inward-won-t-work)
-

-
- Fugazza M, Olarreaga M, Ugarte C (2017). On the heterogeneous effects of non-tariff measures: Panel evidence from Peruvian firms. UNCTAD Blue Series Papers 77, United Nations Conference on Trade and Development.
- Hendrix C S. (2020). *Wrong tools, wrong time: Food export bans in the time of COVID-19*. Peterson Institute for International Economics. Washington D.C. [Wrong tools, wrong time: Food export bans in the time of COVID-19 | PIIE](#)
- Horner R (2020). *The world needs pharmaceuticals from China and India to beat coronavirus*. The Conversation. [The world needs pharmaceuticals from China and India to beat coronavirus \(theconversation.com\)](#).
- Humane Society International (2020). *Vietnam bans wildlife imports, closes illegal wildlife markets as part of global crackdown*. Washington D.C. [BREAKING: Vietnam bans wildlife imports, closes illegal wildlife markets as part of global crackdown - Humane Society International \(hsi.org\)](#)
- IFPRI (2020). COVID-19 Food Trade Policy Tracker. Washington D.C. See [COVID-19 Food Trade Policy Tracker | IFPRI : International Food Policy Research Institute](#) (accessed 15 August 2020)
- ITC (n.d.). Tracking of COVID-19 Temporary Trade Measures. Market Access Map. See <https://www.macmap.org/covid19> (access 27 August 2020)
- Iran Front Page* (2020). Iran Bans Import of Medical Items Obtainable at Home. 13 May. [Iran Bans Import of Medical Items Obtainable at Home | Iran Front Page \(ifpnews.com\)](#)
- Loopnews Caribbean* (2020). Bahamas bans importation of non-medical protective face masks. 10 April. [Bahamas bans importation of non-medical protective face masks | Loop News \(loopnews-caribbean.com\)](#)
- OECD (2020a). *Food Supply Chains and COVID-19: Impacts and Policy Lessons*. OECD Policy Responses to Coronavirus (COVID-19). Paris. [Food Supply Chains and COVID-19: Impacts and Policy Lessons \(oecd.org\)](#)
- OECD (2020b). *COVID-19 and international trade: Issues and actions*. OECD Policy Responses to Coronavirus (COVID-19). Paris. [COVID-19 and international trade: Issues and actions \(oecd.org\)](#)
- OECD (2020c). *Africa's Response to COVID-19: What roles for trade, manufacturing and intellectual property? OECD Policy Responses to Coronavirus (COVID-19)*. Paris. [Africa's Response to COVID-19: What roles for trade, manufacturing and intellectual property? \(oecd.org\)](#)
- Reuters* (2020a). China imposes more checks on mask exports to ensure quality control. 10 April. [China imposes more checks on mask exports to ensure quality control | Reuters](#)
- Reuters* (2020b). How Africa risks reeling from a health crisis to a food crisis. 24 April. [How Africa risks reeling from a health crisis to a food crisis | Reuters](#)
- SIPRI (2020). *The impact of COVID-19 on critical global food supply chains and food security*. Stockholm. [The impact of COVID-19 on critical global food supply chains and food security | SIPRI](#)
- Sulser T and Dunston S (2020). *COVID-19-related trade restrictions on rice and wheat could drive up prices and increase hunger*. IFPRI Blog: Research Post. IFPRI. Washington D.C. [COVID-19-related trade restrictions on rice and wheat could drive up prices and increase hunger | IFPRI : International Food Policy Research Institute](#)
-

-
- Tan H (2020). Rice prices surge to 7-year high as coronavirus sparks stockpiling. CNBC Agriculture. [Rice prices surge to 7-year high as coronavirus sparks stockpiling \(cnbc.com\)](https://www.cnbc.com/2020/04/15/rice-prices-surge-to-7-year-high-as-coronavirus-sparks-stockpiling.html)
- Tembo D and Adhikari R (2020). *How poor countries can deal with the economic shock of COVID-19*. *World Economic Forum*. [5 ways poor countries can deal with the economic shock of COVID-19 | World Economic Forum \(weforum.org\)](https://www.weforum.org/articles/2020/04/15/how-poor-countries-can-deal-with-the-economic-shock-of-covid-19.aspx).
- The Wall Street Journal* (2020). China's Export Restrictions Strand Medical Goods U.S. Needs to Fight Coronavirus, State Department Says. 16 April. [China's Export Restrictions Strand Medical Goods U.S. Needs to Fight Coronavirus. State Department Says - WSJ](https://www.wsj.com/articles/china-s-export-restrictions-strand-medical-goods-u-s-needs-to-fight-coronavirus-state-department-says-11618544000)
- UNCTAD (2010). *Non-tariff Measures: Evidence from Selected Developing Countries and Future Research Agenda* (United Nations publication, New York and Geneva). [Non-tariff Measures: Evidence from Selected Developing Countries and Future Research Agenda](https://unctad.org/publication/non-tariff-measures-evidence-from-selected-developing-countries-and-future-research-agenda)
- UNCTAD (2015a). *International Classification of Non-Tariff Measure 2012 Version* (United Nations publication, New York and Geneva). [International Classification of Non-Tariff Measure 2012 Version](https://unctad.org/publication/international-classification-of-non-tariff-measure-2012-version)
- UNCTAD (2015b). *Non-tariff measures and sustainable development goals: Direct and Indirect Linkages*. Policy Brief. (United Nations publication. New York and Geneva). [NON-TARIFF MEASURES AND SUSTAINABLE DEVELOPMENT GOALS: DIRECT AND INDIRECT LINKAGES \(unctad.org\)](https://unctad.org/publication/non-tariff-measures-and-sustainable-development-goals-direct-and-indirect-linkages)
- UNCTAD (2018). *Non-Tariff Measures: Economic Assessment and Policy Options for Development*. (United Nations publication. New York and Geneva). [Non-Tariff Measures: Economic Assessment and Policy Options for Development \(unctad.org\)](https://unctad.org/publication/non-tariff-measures-economic-assessment-and-policy-options-for-development)
- UNCTAD (2019). *International Classification of Non-Tariff Measure 2019 Version* (United Nations publication. Sales No. E.19.II.D.14. Geneva). [International Classification of Non-Tariff Measure 2019 Version](https://unctad.org/publication/international-classification-of-non-tariff-measure-2019-version)
- UNCTAD (2020). *Assessing cost-effectiveness of non-tariff measures: A toolkit*. UNCTAD/DITC/TAB/INF/2020/7. [Assessing cost-effectiveness of non-tariff measures: A toolkit](https://unctad.org/publication/assessing-cost-effectiveness-of-non-tariff-measures-a-toolkit)
- UNCTAD (n.d.). COVID-19 trade measures. COVID-19 and NTMs. See <https://unctad.org/topic/trade-analysis/non-tariff-measures/covid-19-and-ntms> (accessed 14 January 2021)
- United Nations (2015). *Transforming our world: Agenda for Sustainable Development*. A/RES/70/1. New York. 21 October. [Transforming our world: Agenda for Sustainable Development](https://www.un.org/sustainabledevelopment/)
- United Nations (2020). Note by the Secretary-General on International Trade and Development to the General Assembly Seventy-fifth Session. A/75/225. 23 July.
- United Nations, Department of Economic and Social Affairs, Statistics Division (n.d.). International Classification of Non-Tariff Measures (ICNTM). International Family of Classifications. See <https://unstats.un.org/unsd/classifications/Family/Detail/2015> (accessed 14 January 2021)
- United Nations, Department of Economic and Social Affairs, Sustainable Development Goals (n.d.). *Sustainable Development – The 17 Goals*. [THE 17 GOALS | Sustainable Development \(un.org\)](https://www.un.org/sustainabledevelopment/)
- United Nations ESCAP (2019). *Navigating Non-Tariff Measures towards Sustainable Development*. *Asia-Pacific Trade and Investment Report*. <https://www.unescap.org/sites/default/d8files/knowledge-products/APTIR2019-H%3DN.pdf>
-

-
- United Nations News (2020). Illegal trade in fake or faulty COVID-19 products booming, new UN research reveals. [Illegal trade in fake or faulty COVID-19 products booming, new UN research reveals | UN News](#)
- WIPO (2020). COVID-19 IP Policy Tracker: Legislative and reg. measures. Geneva. See [COVID-19 IP Policy Tracker \(wipo.int\)](#) (accessed 15 August 2020)
- Wong A and Wilkinson A (2020). *China Imposes New Export Restrictions for COVID-19 Medical Products*. Bird & Bird. [China Imposes New Export Restrictions for COVID-19 Medical Products \(twobirds.com\)](#)
- World Bank (2020). *Database on COVID-19 Trade Flows and Policies*. The World Bank. Washington D.C. [Database on COVID-19 Trade Flows and Policies \(worldbank.org\)](#)
- World Economic Forum (2020). *The Global Risks Report. Insight Report|15th Edition. Geneva.* [WEF_Global_Risk_Report_2020.pdf \(weforum.org\)](#)
- World Wildlife Fund (n.d.). *Wildlife Trade and Public Health*. World Wildlife Fund. Gland. [Wildlife Trade and Public Health | WWF \(panda.org\)](#)
- WTO (2020a). ASEAN Declaration and Statements on COVID-19. COVID-19 Proposals. See [The table below compiles WTO members' proposals and statements on COVID-19 and world trade | WTO](#) (accessed 15 August, 2020)
- WTO (2020b). *The COVID-19 Pandemic and Trade-related Developments in LDCs*. Information Note. WTO. Geneva. [The COVID-19 Pandemic and Trade-related Developments in LDCs | WTO](#)
- WTO (n.d.). COVID-19: Measures affecting trade in goods. COVID-19. See [COVID-19: Measures affecting trade in goods | WTO](#) (accessed 15 August, 2020)
-