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International trade and development 2022

Note by the Secretary-General

The Secretary-General has the honour to transmit to the General Assembly the report prepared by the secretariat of the United Nations Conference on Trade and Development.

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Report prepared by the secretariat of the United Nations Conference on Trade and Development on international Trade and Development 2022

Summary

As the global economy and international trade began to show significant signs of recovery from the adverse shocks created by the coronavirus disease (COVID-19) pandemic, the ongoing war in Ukraine has presented yet another direct challenge for inclusive economic and social development across the globe. In particular, volatility in food, fuel and fertilizer markets, along with sharply increasing trade costs, present dire risks to vulnerable and insecure groups, particularly those in developing and least developed countries. Much like during the pandemic, responses from policymakers that amount to export restrictions on national security grounds can both alleviate and exacerbate the problem. At the same time, rising energy prices present an opportunity for a transition away from fossil fuels and give impetus to more robust policy measures in terms of the global sustainable energy transition required for countries to meet their Paris Agreement commitments. Trade can play a supportive role in a global energy transition by providing new market opportunities for developing countries that are potentially cost-competitive in terms of exporting renewable energy.

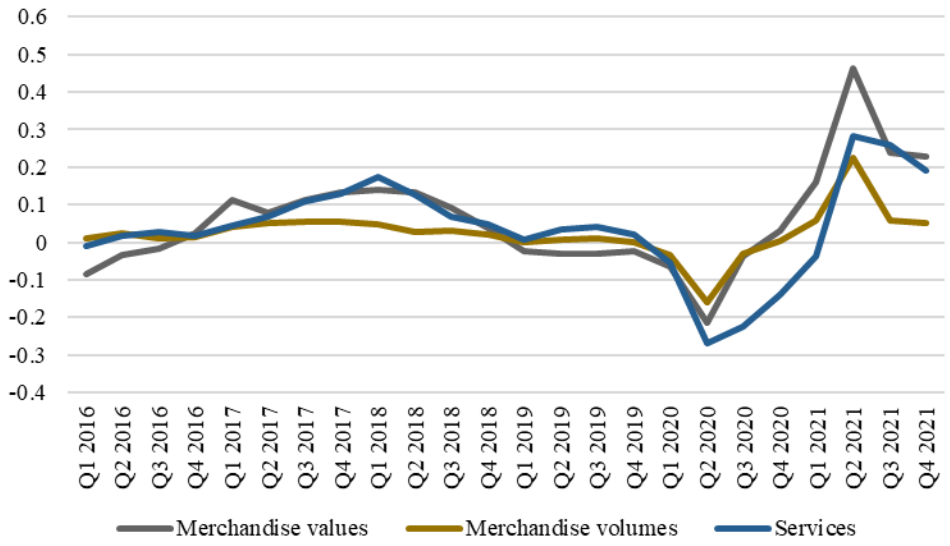
I. Trade trends: plunging waves of supply shocks

A. International trade trends in 2021

1. As major economies started to overcome the coronavirus disease (COVID-19) shock, the global economy recovered strongly in 2021. International trade, which fell by 9 per cent ($2.5 trillion) in 2020 from the previous year, started to rebound strongly after the second quarter of the year (see figure I). In 2021, global merchandise trade reached a record high of $28.5 trillion, an increase of about 13 per cent relative to the 2019 pre-pandemic level. The robust rebound in the trade value came mainly from the strong demand for manufacturing products but was also due to rising commodity prices. As shown in figure I, the growth rate of trade values far exceeded that of trade volume from the fourth quarter of 2020 onward.

2. Global trade in services, which fell by 17 per cent in 2020, recovered more slowly than merchandise trade. The primary sources of the decline were transport, tourism and hospitality services, which were the sectors most negatively affected by lockdowns and social distancing during the COVID-19 pandemic. In 2021, global tourism increased by 4 per cent from the previous year, but international tourist arrivals remained 72 per cent below the pre-pandemic year of 2019.[1] By contrast, lockdowns increased the demand for digitally deliverable services, which led to an increase in trade in information, communication and technology (ICT) goods and services.[2]

Figure I
Annual growth of international trade 2016-2021, by quarter



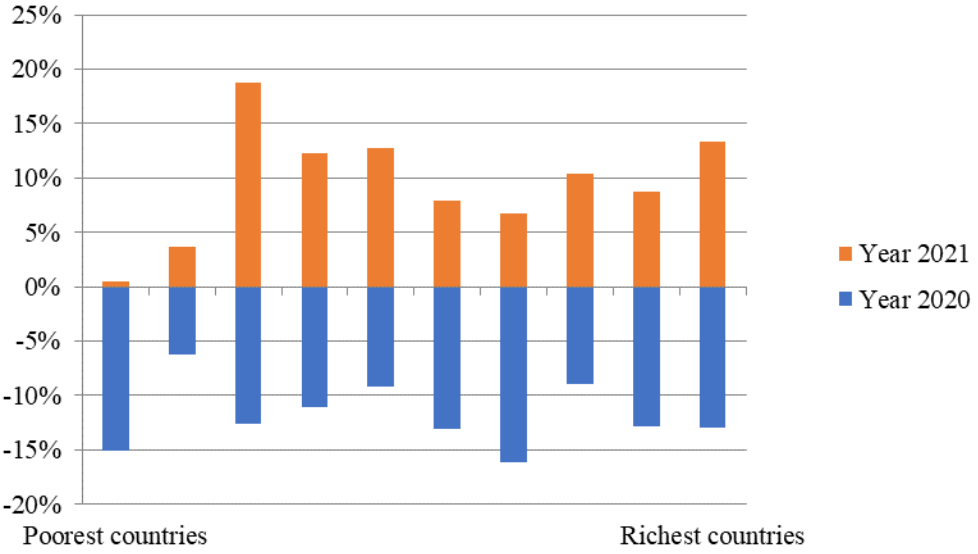
Source: UNCTADstat.

[1] World Tourism Organization, "Tourism grows 4 per cent but remains far below pre-pandemic levels", 18 January 2022.

[2] Estimates from UNCTADstat (https://unctadstat.unctad.org/EN/) suggest that trade in ICT services saw an annual increase of 10 per cent in 2020 and 19 per cent in 2021. With regard to ICT goods (i.e. home office equipment and communication equipment), the estimates based on national statistics of the United States of America, European Union and China suggest an annual trade growth by 6 per cent in 2020 and by 17 per cent in 2021.

3. Poorer economies' trade recovered only slowly. While all country groups experienced a significant fall in exports in 2020, poorer economies, many in Africa, had only a limited export recovery in 2021 compared with more developed economies (see figure II). The recovery process has also been difficult for economies dependent on exports of services, particularly tourism. International trade of small island developing States remained well below 2019 averages even in 2021. The total exports (goods and services) of small island developing States fell by 45 per cent in 2020 and recovered by only 33 per cent in 2021. Among poorer and vulnerable economies, lower export revenues and reduced remittance receipts during the COVID-19 pandemic have exacerbated their acute financial constraints, which has impeded the ability of Governments to enact countercyclical policy actions.

Figure II
Export trends during 2020 and 2021, by countries ranked by gross domestic product per capita



Source: Calculations by the secretariat of the United Nations Conference on Trade and Development (UNCTAD), based on global trade update database.
Note: Median growth rates in merchandise exports.

B. International trade trends in 2022: after the Ukrainian conflict

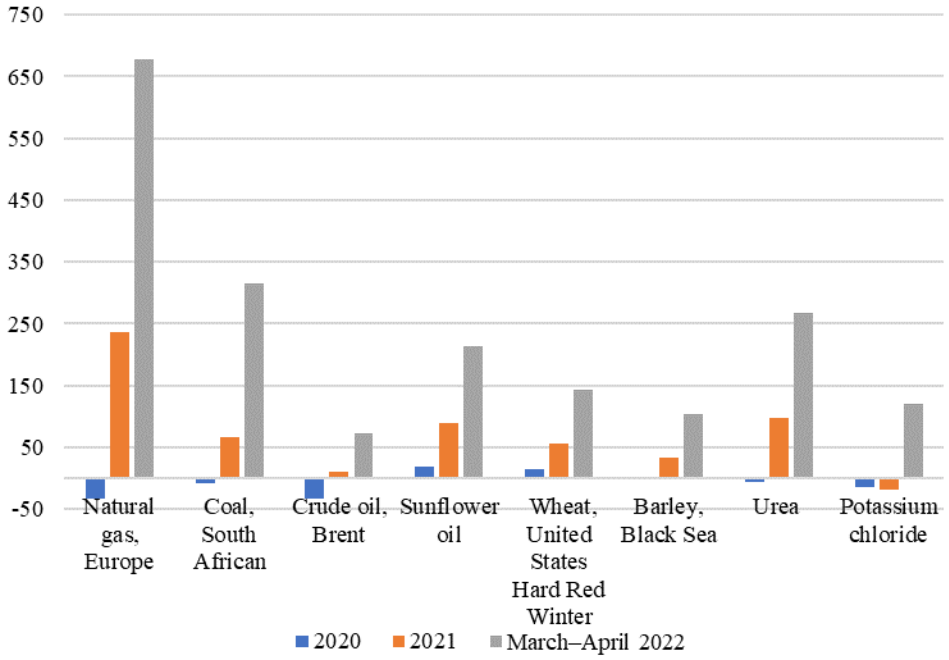
4. Geopolitical tensions will greatly influence global trade patterns in 2022. The conflict in Ukraine has increased global economic uncertainties, increased volatility in financial markets and accelerated a broad-based upward trend in commodity prices which started in mid-2020. The prices of essential commodities that are major exports of Ukraine and the Russian Federation soared at the onset of the conflict. Ukraine and the Russian Federation supply a third of the wheat and more than half of the sunflower oil and seeds traded globally. The prices of wheat and sunflower oil in March–April 2022 were 56 and 65 per cent higher, respectively, than in 2021, and 130 and 230 per cent higher, respectively, than the price levels in 2019 (see figure III). The Russian Federation is the world's leading natural gas exporter and a significant exporter of oil and fertilizers.[3] In Europe, which depends on natural gas from the Russian Federation, the price of natural gas in March–April 2022 showed an increase of over 650 per cent

[3] United Nations Conference on Trade and Development (UNCTAD),"The impact on trade and development of the war in Ukraine: UNCTAD Rapid Assessment", 16 March 2022.

from 2019 levels. The prices of fertilizers, such as urea and potassium, also rose significantly relative to 2019 levels.

5. Volatility in commodity prices increases the uncertainty of the prospect of long-term sustainable development in many developing countries. The current phase of high commodities prices could be an opportunity for exporters of fossil fuels to reduce their dependence on fossil fuel revenues and thus prevent fiscal stress during periods of low prices. For example, many oil-exporting economies such as Algeria, Angola, Iraq, Nigeria, Saudi Arabia and Venezuela (Bolivarian Republic of) faced deteriorating budget balances and were forced to cut spending and government investment as crude oil prices collapsed in 2014/15. However, high commodities prices, if they persist, shift productive resources from non-commodity sectors to commodity-intensive sectors, thereby reversing the diversification efforts of commodity-dependent developing countries.

Figure III
Price changes in selected commodities (percentage, relative to 2019)



Source: Calculations by UNCTAD based on data from the Food and Agriculture Organization of the United Nations and the World Bank.

Note: Changes in average prices in 2020 and 2021 and March–April 2022 relative to the 2019 average.

6. The war in Ukraine has exacerbated the rise in maritime transport costs and lowered shipping reliability. Before the conflict, transport costs were rising fast due to a surge in e-commerce activities, logistic capacity constraints, equipment shortages and lockdowns as a result of renewed viral infections in some parts of the world. Over 80 per cent of the volume of international merchandise trade is carried by sea, and the percentage is even higher for most developing countries.[4] Smaller and more vulnerable economies that are geographically remote from the main shipping routes now face reduced access to maritime transport.

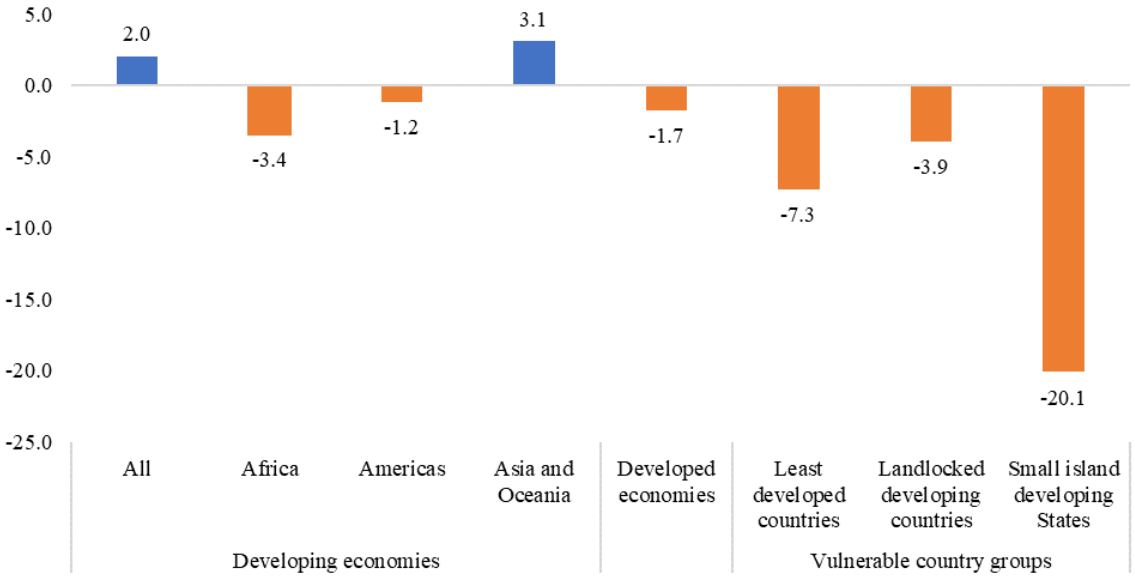
[4] *Review of Maritime Transport 2021* (United Nations publication, 2021).

7. The higher container shipping costs put inflationary pressure on global consumer prices. Freight rate surges could increase global consumer prices by 1.6 per cent in 2023, rising as much as 2.4 per cent in the least developed countries and 8.1 per cent in small island developing States.[5] Meanwhile, the closure of ports in Ukraine has had a strong negative effect on food security, as the ports are essential for the export of grains. Many developing countries depend heavily on supplies from Ukraine, and sourcing from alternative providers leads to higher transport costs as a result of longer shipping distances.

8. The overall effects of the conflict on many developing countries could be considerable. Approximately 1.7 billion people living in 107 economies are severely exposed to at least one dimension of the food, energy and financial shocks caused by the conflict. Among them, 35 are least developed countries and 40 are small island developing States, signifying their particular vulnerabilities to external trade shocks.[6]

9. High food and energy prices exacerbate current account deficits and increase the external financing needs of vulnerable developing countries. The merchandise trade deficit in 2021 of the least developed countries was $84 billion, which equalled around 7 per cent of their gross domestic product (GDP) in 2020. The trade deficit of small island developing States stood at $17 billion, or 20 per cent of their aggregate GDP in 2020. In comparison, the average trade deficit was 3.4 per cent in developing Africa and 1.2 per cent in developing America (see figure IV). Food import bills in developing regions are estimated to be 20 per cent higher in 2021 than 2020 owing to high food prices and a threefold increase in freight costs.[7]

Figure IV
Magnitude of the current-account deficit in 2021 (as a percentage of 2020 gross domestic product)



Source: UNCTADstat.
Note: 2020 GDP figures used. Analytical definition of small island developing States used.

[5] See TD/B/C.I/MEM.7/26.
[6] United Nations, "Global impact of war in Ukraine on food, energy and finance systems", Global Crisis Response Group Brief, No. 1, 13 April 2022.
[7] UN News, "World food import bill to reach record high in 2021", 11 November 2021.

10. The April 2022 projection of global trade in 2022 has been reassessed downward by almost 2 percentage points compared with pre-conflict estimates.[8] Still, the impact of the current trade shock is likely to vary across countries. Naturally, close trading partners of the Russian Federation and Ukraine are most adversely affected in the short run. As those countries scramble to find alternative suppliers, prices have risen considerably in international markets, putting great strain on their finances. In the medium to long term, the rising international prices of food, fuel and fertilizers may increase the risk of the global economy entering into a period of stagflation (i.e. persistent inflation combined with stagnant demand).

11. The current conflict may speed up the restructuring of global supply chains. The need to diversify sources of supplies of energy, food and industrial inputs, for example, could lead to a shift from offshoring production to nearshoring or reshoring. For example, the European Commission has proposed a European Chips Act to address challenges related to the shortage of semiconductors in the wake of the COVID-19 pandemic and increase semiconductor production in Europe. This may intensify regional integration and cooperation with neighbouring or "like-minded" countries. Nearshoring may provide greater resilience in times of crisis and may help developing countries diversify and upgrade their exports towards higher value-added products and higher skill-intensity services. For instance, expanding and deepening regional value chains in the context of the African Continental Free Trade Area holds great potential for diversification and value-upgrading in Africa.

II. Trade policy and the international trading system

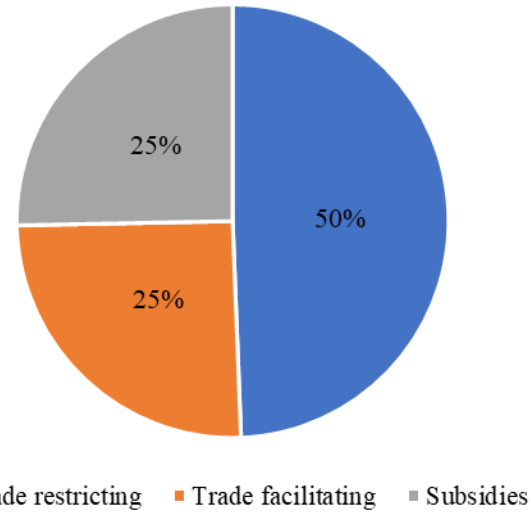
A. Trade policy responses to the Ukraine crisis

12. Countries have put in place trade-related policy instruments to mitigate the supply shocks triggered by the Ukraine conflict. As of mid-May 2022, more than 300 trade-related policy instruments have been recorded. Almost 80 per cent of such policy instruments affect agricultural products or fertilizers (see figure V).[9] Half of these are export-restricting measures, such as export bans on wheat and fertilizers, implemented by more than 60 countries. Other instruments include import-facilitating measures, such as reductions in tax and import tariffs on grain and other staple foods and the provision of subsidies to importers, consumers and businesses.

[8] WTO, "Russia-Ukraine conflict puts fragile global trade recovery at risk", 12 April 2022.

[9] Data are from the Agricultural Market Information System, Global Trade Alert, the International Food Policy Research Institute and UNCTAD. The methodology follows the International Classification of Non-Tariff Measures, see www.unctad.org/ntm.

Figure V
Trade-related measures on agriculture and fertilizers in response to the Ukraine conflict, 2022



Source: UNCTAD, based on the Agricultural Market Information System, Global Trade Alert and the International Food Policy Research Institute.

13. Food export restrictions by significant exporters will exacerbate price volatility and increase the risk of food insecurity globally. Five basic foodstuffs – wheat, palm oil, corn, sunflower oil and soybean oil – that are affected by the export restrictions account for almost 90 per cent of imported calories. The total amount of food exports affected by trade restrictions is equivalent to 17 per cent of the total calories traded globally in April 2022. However, emergency food export restrictions may be necessary for food-insecure developing countries to pre-empt or mitigate the threat of critical domestic supply shortages of staple foods. Because they are insignificant exporters in the global food markets, such measures implemented by net food-importing developing countries would have little influence over the global food supply conditions.

14. About 40 countries impose trade restrictions targeting products and services to or from the Russian Federation. For example, with regard to financial services, such restrictions cover deposits, transactions, credit, credit ratings, investment and securities-related services. Insurance services for selected goods were also restricted.[10] The imposition of SWIFT sanctions could imply a 10 per cent rise in transaction costs.[11] On measures related to transport services, restrictions on air, road and maritime transport, together with boycotts by shipping companies, may lead to a productivity decrease in transport services of 50 per cent between the Russian Federation and the countries imposing such restrictions, and of 5 per cent between East Asia and Europe.[12]

[10] Norton Rose Fulbright, “Russian sanctions: European developments in the area of financial services”, March 2022.
[11] WTO, *The Crisis in Ukraine: Implications of the War for Global Trade and Development* (Geneva, 2022).
[12] Ibid.

B. Efforts of the international trading system to maintain an open global market

15. Maintaining open and predictable world markets for energy, food, and inputs for food production is critical to countering the negative impacts of the current supply shock.[13] The Global Crisis Response Group on Food, Energy and Finance has urged all economies to keep their food markets open and to cease trade restrictions and export bans to maintain international trade in food and fertilizers.[14]

16. The multilateral trading system at WTO recognizes the importance of exercising restraint on export restrictions and excessive stockpiling of essential products. During the COVID-19 pandemic and up to August 2021, Governments across the world used more than 320 non-tariff measures.[15] Two thirds of such measures were trade-restricting; half of those involved export restrictions of various forms to prevent shortages of essential goods and stricter safety and quality standards. Such export-restrictive measures were deemed necessary and justifiable for emergency public health. However, taken simultaneously by many countries, they collectively caused a global supply shortage and an increase in prices, and disproportionately affected import-dependent vulnerable countries and populations.

17. It remains vital to place trade-restricting measures under multilateral oversight and review to encourage restraint and moderation in their use. The Global Crisis Response Group has called upon WTO members to consider strengthening their obligations to promote transparency and control over export restrictions on food.[16] Current WTO rules generally prohibit export restrictions but allow temporary restrictions to prevent or relieve the critical shortage of foodstuffs and other essential goods.

18. WTO members responded to the call and concluded the Twelfth Ministerial Conference of the World Trade Organization late on 17 June 2022, after prolonging the negotiations by almost three days. The package of outcomes contains ministerial declarations and decisions that mainly address the responses of WTO to global crises, such as the COVID-19 pandemic and the current risk of food insecurity, including a new multilateral commitment not to impose export restrictions on foodstuffs purchased for humanitarian purposes by the World Food Programme.[17]

19. The Twelfth Ministerial Conference also achieved a historic agreement on fisheries subsidies after over 20 years of negotiations, which corresponds directly to

[13] WTO, document WT/GC/248.

[14] United Nations, “Global impact of war in Ukraine on food, energy and finance systems”, Brief No. 1, 13 April 2022.

[15] See the database on COVID-19 trade measures available at the UNCTAD website.

[16] United Nations, “Global impact of war in Ukraine on food”.

[17] The Twelfth Ministerial Conference of the World Trade Organization package includes the ministerial outcome document (WT/MIN(22)/W/16/Rev.1, 16 June 2022), a ministerial declaration on the emergency response to food insecurity (WT/MIN(22)/W/17/Rev.1, 16 June 2022), a ministerial decision on World Food Programme food purchases exemptions from export prohibitions or restrictions (WT/MIN(22)/W/18, 10 June 2022), a ministerial declaration on the WTO response to the COVID-19 pandemic and preparedness for future pandemics (WT/MIN(22)/W/13, 10 June 2022), a ministerial decision on the Agreement on Trade-Related Aspects of Intellectual Property Rights (WT/MIN(22)/W/15/Rev.2, 17 June 2022), a decision on the work program on e-commerce (WT/MIN(22)/W/23, 16 June 2022), and an agreement on fisheries subsidies (WT/MIN(22)/W/22, 17 June 2022).

Sustainable Development Goal target 14.6.[18] The agreement prohibits the granting of subsidies that contribute to illegal, unreported and unregulated fishing and to fishing on overfished stocks. However, WTO members failed to reach a consensus on the treatment of subsidies that contribute to overcapacity and overfishing. The agreement confirms continuing negotiations on this issue with a view to making recommendations to the Thirteenth WTO Ministerial Conference, to be held before 31 December 2023. Another outcome eagerly awaited by the international community was a waiver of certain elements of the Agreement on Trade-Related Aspects of Intellectual Property Rights to help developing countries produce COVID-19 vaccines.[19] The agreement provides a time-bound exemption targeted at patents associated with the production of COVID-19 vaccines. The agreement also commits WTO members to decide, before 17 December 2022, whether to extend the coverage of this waiver to COVID-19 diagnostics and therapeutics. The outcome was historic, though it afterwards received a significant amount of criticism both from civil society and the pharmaceutical industry. Civil society criticized the agreement because it fell short of a full waiver of the intellectual property rights associated with vaccine production. The pharmaceutical industry felt that waiving intellectual property rights would reduce incentives for the industry to engage in the development of COVID-19 vaccines, diagnostics and therapeutics.[20]

20. In the long run, the war in Ukraine represents a significant challenge for multilateralism. Coming on the heels of the COVID-19 pandemic, the war in Ukraine defies the underlying principle of international cooperation, with important consequences for human, food, energy and environmental security. The Bridgetown Covenant adopted at the fifteenth session of UNCTAD in October 2021 underscores that it is vital to strengthen multilateralism and the rules-based, multilateral trading system, with an emphasis on ensuring that the system works effectively for developing countries and is a driver of inclusive and sustainable development.[21] In the current context of conflict, it remains imperative to uphold multilateralism to achieve policy coherence across all dimensions of sustainable development, including by aligning the trade architecture with the fundamental objectives of the Sustainable Development Goals through reform efforts.

III. Trade and the Sustainable Development Goals: energy transition through trade as a cross-cutting factor for achieving multiple Sustainable Development Goals

21. The war in Ukraine has laid bare the ongoing dependence of the global economy on fossil energy sources (oil, gas and coal) and its fragility with regard to trade disruptions of fossil fuels. The vast majority of countries, or 145 of the United Nations Member States in 2020, are net-importers of fossil fuels.[22] For these countries, a shift

[18] Sustainable Development Goal target 14.6 calls countries to, by 2020, "prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, and eliminate subsidies that contribute to IUU fishing, and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the WTO fisheries subsidies negotiation".

[19] WTO, document IP/C/W/688.

[20] See, for example, OXFAM International, "WTO agrees a deal on patents for COVID vaccines – but campaigners say this is absolutely not the broad intellectual property waiver the world desperately needs", 17 June 2022; and Jane Byrne, "Pharma industry slams WTO move on TRIPS waiver", BioPharma Reporter, 20 June 2022.

[21] See TD/541/Add.2.

[22] Based on data in UNCTADstat, "fossil fuels" include SITC section 3 except division 35 (electrical current). No data is available for Monaco and San Marino; trade data for Liechtenstein is reported together with Switzerland.

towards a higher share of renewable energy in domestic consumption would translate into a reduction in external dependence, lower exposure to shocks and volatility emanating from global oil, gas and coal markets and an increase in energy security. In this context, it is crucial to ensure that international trade facilitates, rather than impedes, the global sustainable energy transition required for countries to meet their Paris Agreement commitments.

22. A sustainable energy transition involves an economy-wide shift from fossil fuels to renewable energy systems. The transition aims at limiting the future extent of climate change by substantially reducing energy-related carbon emissions to achieve net-zero global carbon emissions towards the middle of this century. Global energy sector decarbonization requires significant divestment of fossil fuel energy assets and corresponding investment in zero-carbon technologies to replace them. The International Energy Agency estimates that to reach net-zero carbon emissions by 2050, annual clean energy investment worldwide will need to more than triple by 2030 to around $4 trillion.[23]

23. Despite an urgency to achieve net-zero carbon emissions, the war in Ukraine may have hampered national efforts to meet national net-zero commitments. A sustainable energy transition would call for new regulations or financial disincentives with regard to the use of fossil fuels or economic instruments to improve energy efficiency. However, many countries have adopted tax cuts and fossil fuel subsidies[24] to mitigate the impact of increased energy prices. Securing new fossil fuel energy sources dominates Governments' short-term responses to the induced supply and price shocks in oil and gas markets. For example, while it agreed on a partial import ban on Russian oil,[25] European Union member States have turned to buying fossil fuels from alternative suppliers to overcome their dependence on Russian oil and gas.[26] On the other hand, some countries are said to have massively increased purchases of Russian oil.[27]

24. At the same time, the energy price shock increases incentives for countries to increase renewable energy investments over the long term.[28] European Union member States plan to increase renewable energy supply, improve energy efficiency and reduce consumption in parallel with diversifying its oil and gas imports.[29] Germany has introduced ambitious updates to its Renewable Energy Sources Act, whereby 80 per cent of its energy is to come from renewables by 2030 and approach 100 per cent by 2035 through increased subsidies for renewables.[30] Concerted efforts are needed to provide financial and technical support to low-income net energy-importing countries to help them reduce their fossil fuel dependence. Achieving Sustainable

[23] International Energy Agency, 2021, Net Zero by 2050.

[24] See Noah Browning and Stephanie Kelly, "Analysis: Ukraine crisis could boost ballooning fossil fuel subsidies", Reuters, 8 March 2022; Martin Arnold, "Shielding EU energy users from high prices may backfire, warn economists", *Financial Times*, 17 April 2022; and Sambit Mohanty and Gawoon Phil Vahn, "Fuel for thought: tax cuts, subsidies reflect Asia's belief expensive oil is here to stay", S&P Global: Commodity Insights blog, 31 May 2022.

[25] Sam Fleming, Valentina Pop and Andy Bounds, "EU leaders agree to ban majority of Russian oil imports", *Financial Times*, 30 May 2022.

[26] Under a recent deal, the United States will increase exports of natural gas to Europe. See The White House, "Fact sheet: United States and European Commission announce task force to reduce Europe's dependence on Russian fossil fuels", 25 March 2022.

[27] Sharon Cho, "More Russian oil than ever before is heading for China and India", Bloomberg, 26 May 2022.

[28] United Nations, "Global impact of the war in Ukraine on food".

[29] European Commission, "REPowerEU: joint European action for more affordable, secure and sustainable energy", 8 March 2022.

[30] Robin Whitlock, "Germany raises the bar on renewable energy with new set of laws for 100 per cent renewable power", *Renewable Energy Magazine*, 14 April 2022.

Development Goal 7, in particular enhancing access to sustainable and modern energy, is essential, as the ability to advance other Sustainable Development Goals, such as those listed below, hinges on access to affordable renewable energy.[31]

Food security (Goal 2)

25. Access to clean energy contributes to achieving food security. Electrifying rural agricultural areas in developing countries enables local producers to integrate into modern agricultural value chains. Stand-alone renewable energy systems based on solar and wind resources can provide affordable off-grid electricity in remote agricultural areas where possibilities for grid connection are absent.

Gender equality (Goal 5)

26. Expanding access to affordable and reliable energy through trade also contributes to advancing gender equality and women's empowerment. Traditional gender roles within the household mean that women and girls perform most basic subsistence tasks, including collecting biomass fuels for cooking. In addition, air pollution arising from the inefficient use of wood and kerosene for cooking leads to over 3.8 million premature deaths a year, primarily among women and children engaged in household cooking.[32] Because of the differing patterns of energy use by women and men, more widely available energy, including through alternative energy sources, would reduce the time and labour burdens that women face and enhance their income-earning opportunities.

Decent jobs and prosperity for all (Goal 8)

27. Promoting trade in renewable energy can facilitate decent work and economic growth. Increased trade in renewable energy technologies can create significant employment gains and decent jobs. On average, the equivalent of one United States dollar invested in the renewable energy sector generates three times more employment than in the fossil fuel sector. Estimates indicate that over 11.5 million people are employed in the renewable energy sector today. This figure could increase to 30 million by 2030, with additional employment for 40 million workers in related activities.[33]

Sustainable and resilient infrastructure for all (Goal 9)

28. Widening the dissemination of renewable energy technologies through trade and increasing the cross-border transmission of renewable energy can develop reliable, sustainable and resilient industrial infrastructure. Decarbonizing the industrial sector, which currently accounts for over one third of global carbon emissions, remains essential. Off-grid solar, wind and mini-hydro energy systems are also expected to expand small-scale industrial and entrepreneurial opportunities to 800 million people in remote communities who are currently without access to electricity and hundreds of millions more who have a very limited or unreliable electricity supply.[34]

[31] United Nations, "Theme report on energy transition: towards the achievement of SDG7 and net-zero emissions", 2021.

[32] World Health Organization, "Household air pollution and health", 26 July 2022.

[33] International Labour Organization, "Renewable energy jobs have reached 12 million globally", 21 October 2021.

[34] *Policy Brief in Support of the High-Level Political Forum: Leveraging Energy Action for Advancing the Sustainable Development Goals* (United Nations publications, 2021).

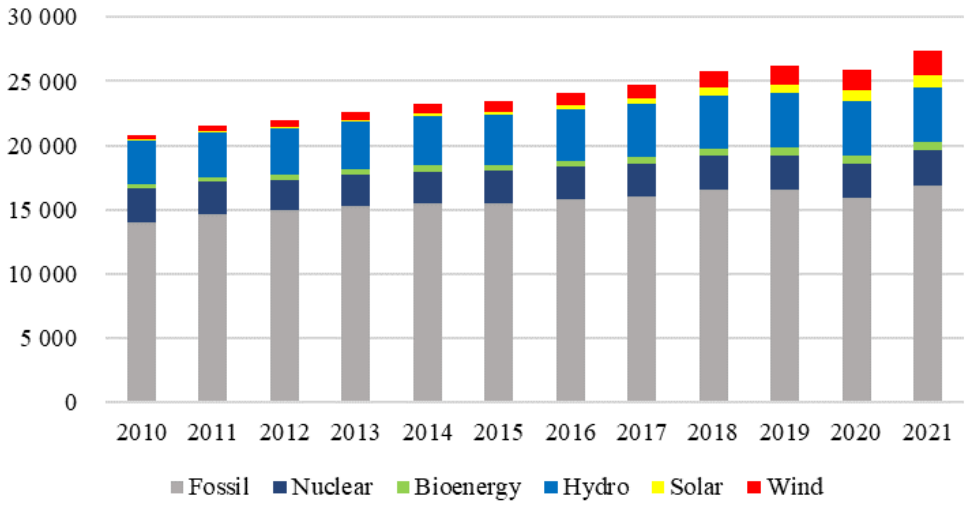
Combating climate change (Goal 13)

29. Renewable energy trade helps combat climate change by assisting countries to acquire energy-efficient goods and technology necessary to significantly reduce CO_2 emissions and depart from fossil fuel-based systems. The Green Climate Fund of the United Nations Framework Convention on Climate Change financially supports such transfers.

A. Trends in renewable energy production and trade

30. In 2021, the fastest-growing sources of new electricity supply were wind and solar, accounting for 10 per cent of the global electricity supply. Wind and solar are becoming the cheapest sources of electricity: in 2021, solar power generation rose by 23 per cent and wind power generation by 14 per cent. Along with other clean power sources such as bioenergy, nuclear and hydropower generation, a total of 38 per cent of world electricity generation in 2021 was CO_2 emission-free (see figure VI).

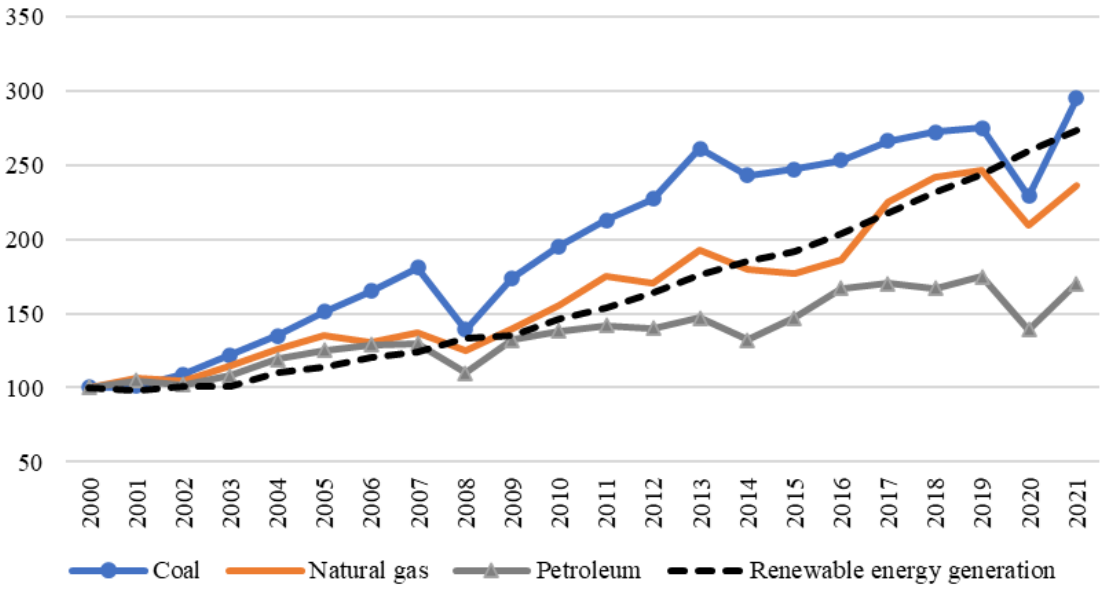
Figure VI
Evolution of world electricity generation, by source (terawatt-hours)



Source: Dave Jones, "Global electricity review 2022", Ember Publishing, 2022.

31. However, within the fossil energy sources, the demand for coal has increased steeply. Despite coal having the highest CO_2 emissions per unit of electricity generated, its abundance, relative cost advantages and ease of transportation continue to make it a preferred energy source. Strong international demand for coal is reflected in a much higher increase in traded volume since the 2000 level than natural gas and petroleum and is at par with the rate of growth of renewable energy (see figure VII).

Figure VII
Changes in the volume of global trade in fossil fuel and renewable energy
(2000 = 100)

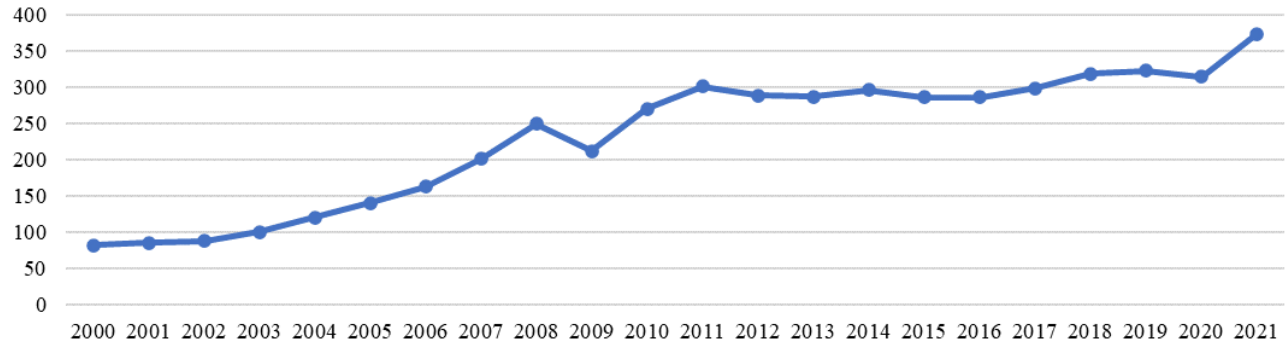


Source: UNCTAD, "Trading in the wrong direction", 3 November 2021.
Note: 2021 figures are preliminary, and renewable energy generation values are for power generation capacity and not trade.

32. Trade in renewable energy systems and components grew exponentially between 2000 and the beginning of the financial crisis in late 2008. Renewable energy systems and components cover machines and mechanical appliances needed for renewable energy generation.[35] Since 2008, growth has settled in at a lower rate (see figure VIII), partly due to the discontinuation of subsidy programmes that major economies provided to the end-user installation of solar panels and feed-in tariff schemes allowing renewable energy producers to sell their electricity to the national or regional electricity grid. Rare-earth metals remain in short supply, and supply is expected to tighten as sanctions in response to the Ukraine crisis remove mineral imports from the Russian Federation from global supply chains.[36]

[35] Renewable energy systems and components as listed in the first and second submissions of WTO member States, Committee on Trade and Environment, see WTO, document TN/TE/19 (32 products at HS 6-digit level mainly from chapters 84 and 85 for machinery and mechanical appliances, and electrical equipment).
[36] Namibia Economist, "Africa's rare Earth element opportunity", 11 May 2022.

Figure VIII
Trade in renewable energy system and components
(Billions of United States dollars)



Source: UN Comtrade database. Data for 2021 is preliminary.

B. Trade and development policy in support of energy transition

33. Developing countries are poised to become exporters of renewable energy thanks to their natural comparative advantages of high solar insolation and/or high wind speed regimes. For example, sustainable electricity produced in North Africa can be transmitted to Europe and added to European grids and can achieve lower final consumer costs per kilowatt-hour than sustainably generated electricity produced in Europe. Several initiatives have been launched to promote cross-Mediterranean transmission links to enable such trade in sustainably generated electricity. [37] However, exports of sustainably generated electricity from sub-Saharan African countries to Europe are not yet feasible unless electricity transmission becomes technically feasible and its costs remain sufficiently low.

34. Hydrogen also presents an attractive export opportunity to developing countries. If transmission of sustainably generated electricity to developed-country markets is too costly, developing regions such as sub-Saharan Africa can use locally generated "green" electricity to produce hydrogen, which can be shipped to distant markets where it can be transformed back into electricity. Once the up-front investments for large-scale production facilities are made, sub-Saharan Africa can be cost-competitive throughout the entire hydrogen-producing process.[38] As such, Africa has captured 11 per cent of globally announced sustainably produced hydrogen projects during the past year.[39] Africa is also well endowed with lithium, platinum metals and various rare-earth metals used in renewable energy systems and components, and these mineral products are experiencing a sharp rise in demand.

35. Trade policy can support developing countries if it facilitates the dissemination of renewable energy-producing systems and technology. The trading of renewable energy systems and components faces significant market access barriers in international trade. As shown in the table below, the average tariffs on products related to renewable energy production are roughly twice as high as those on fossil fuels across countries, regardless of the level of development of importing countries.

[37] Mokhtar Benasla and others, "The transition towards a sustainable energy system in Europe: what role can North Africa's solar resources play?", *Energy Strategy Reviews*, vol. 24 (April 2019).
[38] Nour AbouSeada and Tarek M. Hatem, "Climate action: prospects of green hydrogen in Africa", *Energy Reports*, vol. 8 (November 2022).
[39] Schalk Burger, "Africa capturing green hydrogen projects", Mining Weekly, 25 February 2022.

Non-tariff measures, such as product requirements to protect health and safety, are becoming increasingly more important than tariffs as a determinant of market access conditions for renewable energy products. For example, the import restrictiveness of non-tariff measures, measured as an equivalent to tariff rates (i.e. the ad valorem equivalent of non-tariff measures), is higher for renewable energy products than for fossil fuels. A study published in 2016 assessed that the carbon intensity of the GDP of the European Union would be 0.02 per cent lower if tariffs on environmental goods were eliminated.[40]

Import tariffs on energy products (percentage)

	Developed economies	*Developing economies*	*Least developed countries*
Renewable energy products (32 HS 6-digit products)[a]	1.05	4.55	6.04
Fossil fuels (HS2701, HS2709, HS2710 and HS2711)	0.63	2.08	3.18

Source: UNCTAD Trade Analysis and Information System database.
Note: Simple average, effectively applied tariffs of the most recently available tariff data (2019–2021).
[a] Renewable energy systems and components as listed in the first and second submissions of WTO member States, Committee on Trade and Environment, see WTO, document TN/TE/19 (32 products at HS 6-digit level mainly from chapters 84 and 85 for machinery and mechanical appliances, and electrical equipment).

36. While not directly addressing energy transition, trade policy may also be designed to encourage more environmentally friendly production patterns. For example, carbon border adjustment mechanisms could change trade patterns in favour of countries where production is relatively carbon efficient. However, these policy approaches may be highly complex. For example, an UNCTAD analysis of the European Union's carbon border adjustment mechanism, announced in July 2021, highlights that while the mechanism may do well in preventing carbon leakage, it may do very little to mitigate climate change and could affect the exports of developing countries considerably.[41] Ultimately, a measure such as a carbon border adjustment mechanism would require a holistic international approach with accompanying policies that are capable of narrowing, and eventually eliminating, the gaps between developed and developing countries.

37. Trade liberalization of renewable energy components has been on the agenda of the multilateral trade negotiations. The Doha Round launched in 2001 called for WTO negotiations on the reduction or, as appropriate, the elimination of tariff and non-tariff barriers to environmental goods and services. However, these negotiations failed to achieve consensus even on the coverage of what could be classified as environmental goods and services. Subsequently, plurilateral negotiations on an Environmental Goods Agreement initiated in 2014 by a group of 17 WTO members also failed to reach a consensus and were suspended in 2016.[42] Most recently, in 2020, 50 WTO members launched the Trade and Environmental Sustainability Structured Discussions, during which many members have called for renewed negotiations on

[40] European Commission, *Trade Sustainability Impact Assessment on the Environmental Goods Agreement* (Brussels, 2016).
[41] UNCTAD, "A European Union carbon border adjustment mechanism: implications for developing countries", 2021.
[42] See https://ustr.gov/trade-agreements/other-initiatives/environmental-goods-agreement.

environmental goods and services, and some have also called for beginning negotiations on inefficient fossil-fuel subsidies.[43]

38. Fossil-fuel subsidies are the largest stumbling blocks to a sustainable energy transition. Estimated at over $440 billion annually, fossil-fuel subsidies encourage more production and consumption of fossil fuels and allow some producers to produce and export more cheaply, distorting the export potential of other countries.[44] These subsidies distort trade and investment decisions, diverting trade and investment away from renewable energy projects toward fossil-fuel projects while locking in carbon-intensive energy systems for decades into the future. There has been strong recognition of the urgent need to redress fossil-fuel subsidies. In 2021, 197 countries agreed to accelerate efforts to phase out inefficient fossil-fuel subsidies at the twenty-sixth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change. Many countries are also engaged in other initiatives, such as the Trade and Environmental Sustainability Structured Discussions mentioned above, which aim at using trade rules to phase out such subsidies. On 14 December 2021, 45 WTO members issued a ministerial statement on fossil-fuel subsidies to encourage the global release of financial resources to support a sustainable energy transition.[45]

39. Trade policy is one of many tools for a sustainable energy transition. A common framework of trade disciplines can limit fossil-fuel subsidies and improve the competitiveness of renewable energy sources. Nevertheless, trade policy is an element of national sustainable energy policy.[46] To deliver economy-wide development benefits, national energy policies need to encompass policy objectives that go beyond energy production, such as addressing the obligation of energy service providers to provide universal access, rekindling subsidies to target vulnerable and disadvantaged consumers and regularizing informal energy providers.[47] Such regulations will be important to ensure that private entities operate in a competitive market and that consumers are protected.[48]

IV. Conclusion and recommendations to the international community

40. The global economy recovered strongly but unevenly in 2021. While world trade reached record high levels, some countries, particularly the poorest, lagged considerably. Trade recovered at a substantially lower pace for the African region and in economies dependent on exports of services, particularly tourism. In many developing countries, economic recovery was subdued mainly as a result of slow progress in vaccination roll-outs, limited policy support and a sluggish recovery in some service sectors.

41. Geopolitical tensions are expected to significantly influence international trade patterns in 2022 and beyond. The war in Ukraine came at a time when the global recovery was fragile, and recovery risks were building in various major economic centres. The conflict has increased global economic uncertainties and volatility in financial markets and accelerated a broad-based upward trend in commodity prices,

[43] WTO, document WT/CTE/W/249.

[44] International Energy Agency, “Energy subsidies: tracking the impact of fossil-fuel subsidies”. Available at www.iea.org/topics/energy-subsidies.

[45] WTO, document WT/MIN(21)/9/Rev.1.

[46] General Assembly resolution 70/186.

[47] *Manual on Consumer Protection* (UNCTAD/DITC/CPLP/2017/1).

[48] *Access by Consumers to Essential Services: Energy, Water and Sanitation* (United Nations publication, 2022).

especially with regard to those commodities that the Russian Federation and Ukraine export in significant amounts: oil, natural gas and cereals.

42. Commodity price volatility creates substantial macroeconomic challenges, particularly for low-income and net food- and/or net fuel-importing countries. This leads to large swings in external balances and mounting inflationary pressures, hampering the sustainability of current account deficits and debt while creating food insecurity. Roughly a quarter of the world population living in more than 100 countries is estimated to be severely exposed to at least one of three dimensions – food, energy and finance – brought on by the shock.

43. Coming on the heels of the pandemic, the war in Ukraine has significant consequences for human, food, energy and environmental security. It has heightened the need for countries to cooperate multilaterally in trade policy. As underscored in the Bridgetown Covenant adopted at the fifteenth session of UNCTAD, it is vital to strengthen multilateralism and the rules-based, multilateral trading system that works as a driver for inclusive and sustainable development.

44. Food export restrictions will further exacerbate price volatility and jeopardize global supplies if these measures become pervasive and are used by leading exporters.

45. The short-term fossil-fuel supply crisis and price shocks in oil and gas markets brought on by the Ukraine conflict have led many countries to secure new fossil-fuel energy sources. Nevertheless, over the long-term, these shocks provide countries with incentives to shift to renewable energy sources to increase their resilience to global shocks and potentially catalyse greater progress in advancing countries' sustainable energy transition objectives. Trade can support a global energy transition if the international community succeeds in making renewable energy technologies available for all.

46. Expanding trade in renewable energy can help ensure affordable access to energy (Sustainable Development Goal 7), while at the same time contributing to the achievement of many other Sustainable Development Goals. A timely global energy transition will limit the future extent of climate change and achieve net-zero global carbon emissions towards the middle of this century. Developing countries are poised to become competitive exporters of renewable energy products.

47. Against the above, multilateralism needs to be upheld with policy coherence across all dimensions of sustainable development, including aligning the trade architecture with the fundamental objectives of the Sustainable Development Goals through reform efforts. In the implementation of and follow-up to the Bridgetown Covenant, which is aligned with the 2030 Agenda, and in its work to achieve progress towards the Sustainable Development Goals and the relevant outcomes of other major United Nations conferences, UNCTAD should continue to contribute by monitoring global, regional and national trends and policies that could affect, or foster, the ability of countries to build a fairer, more equitable, resilient, inclusive, just and sustainable world – a world of shared prosperity.[49]

48. Open and predictable world markets remain essential for food security. It remains vital that trade-restricting measures be placed under multilateral oversight and review to encourage restraint and moderation in their use. Enhanced transparency and systematic monitoring will encourage restraint and an early rollback of existing measures. As stated in the ministerial declaration on the emergency response to food insecurity at the Twelfth Ministerial Conference of the World Trade Organization, least developed countries and net food-importing countries should receive technical

[49] See TD/541/Add.2.

and financial assistance with a view to improving their agricultural productive capacity and access to agricultural inputs.[50]

49. Beyond efforts at the national level, the international community needs to holistically adopt a trade policy to facilitate the dissemination of renewable energy-producing systems and technology. International trade must facilitate the global transition to renewable energy to meet the Paris Agreement commitments. At the same time, concerted efforts by the international community to provide financial and technical support to low-income net energy-importing or energy-exporting countries are imperative to help them reduce their fossil-fuel dependency. Lowering market access barriers to developing countries' renewable energy goods and services will effectively speed up the global energy transition.

[50] WTO, document WT/MIN(22)/W/17/Rev.1.