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Sustainable development

Towards the achievement of sustainable development: implementation of the 2030 Agenda for Sustainable Development, including through sustainable consumption and production, building on Agenda 21

Report of the Secretary-General

Summary

The present report, submitted pursuant to General Assembly resolution [76/202](#), provides an update on the implementation of the 2030 Agenda for Sustainable Development, building on issues included in Agenda 21 and focusing on the state of play with regard to sustainable consumption and production. The report is based on recent studies, reports, analysis and inputs from the United Nations system. The present report should be read in conjunction with reports on sustainable development submitted to the Assembly, the World Economic Situation and Prospects as of mid-2022 report, the report of the Secretary-General on progress towards the Sustainable Development Goals ([E/2022/55](#)), the *Financing for Sustainable Development Report 2022* and policy briefs in the United Nations Department of Economic and Social Affairs Policy Briefs series. In addition, the *Global Sustainable Development Report 2019* provides relevant framing and recommendations for action.

* [A/77/150](#).



I. Introduction

1. In its resolution 76/202, the General Assembly requested that the Secretary-General submit to the Assembly at its seventy-seventh session a report on the implementation of that resolution, with a particular focus on the state of play with regard to sustainable consumption and production and the application and promotion thereof, taking into account the impacts of, response to and recovery from the coronavirus disease (COVID-19), and that he recommend concrete actions to implement the 2030 Agenda for Sustainable Development in this regard.

2. In the same resolution, the General Assembly decided to include in the provisional agenda of its seventy-seventh session, under the item entitled “Sustainable development”, the sub-item entitled “Towards the achievement of sustainable development: implementation of the 2030 Agenda for Sustainable Development, including through sustainable consumption and production, building on Agenda 21”.

II. Promoting sustainable consumption and production patterns for the implementation of the 2030 Agenda for Sustainable Development, building on Agenda 21

A. Follow-up of the 2030 Agenda for Sustainable Development

Global situation in the face of multiple crises

3. When Member States adopted the 2030 Agenda in 2015, they were building on Agenda 21, which emerged from the 1992 United Nations Conference on Environment and Development, as well as on the Millennium Development Goals of 2000. Agenda 21 and the Millennium Development Goals both acknowledged that the social, economic and environmental dimensions of development were inextricably linked, but the 2030 Agenda identified these interlinkages as the foundation for any durable progress. Since 2015, extensive scholarship has been devoted to understanding and harnessing the interconnections among the 2030 Agenda’s 17 Sustainable Development Goals and their targets. As stated in the *Global Sustainable Development Report 2019*, “the true transformative potential of the 2030 Agenda can be realized through a systemic approach that helps identify and manage trade-offs while maximizing co-benefits” among the Goals and targets.¹

4. Today, the world is facing multiple crises – the COVID pandemic, the war in Ukraine and climate change – that make it clearer than ever that all dimensions of development are interrelated, and that all countries are interdependent in our globalized society. While parts of the world are recovering from the pandemic, high uncertainty still surrounds the global economic outlook as the global economy may be on the cusp of a new crisis. The war in Ukraine has upended the fragile recovery from the pandemic, triggering a humanitarian crisis in Europe, pushing up food and commodity prices and exacerbating inflationary pressures worldwide. Global inflation is projected to increase to 6.7 per cent in 2022, twice the average of 2.9 per cent during 2010–2020. Geopolitical and economic uncertainties are dampening business confidence and investment and further weakening short-term economic prospects. The global economy is now projected to grow by only 3.1 per cent in 2022

¹ Independent Group of Scientists appointed by the Secretary-General, *Global Sustainable Development Report 2019: The Future is Now – Science for Achieving Sustainable Development* (United Nations, New York, 2019).

and 2023.² Higher energy and food prices, rising inflationary pressures and slowing growth in the United States of America, the European Union and China are also weakening growth prospects in developing countries. The monetary tightening in the United States will sharply increase their borrowing costs. A growing number of developing countries, especially the least developed countries, face stagnant growth prospects and rising risks of a lost decade, amid high levels of debt distress.

5. The compounded effects of the COVID-19 pandemic, conflict and economic shocks, together with the risks posed by climate change-related extreme weather, have together undermined decades of progress towards improving food security globally. With millions around the world facing severe food insecurity – potentially joining the ranks of nearly a billion already living in poverty – an all-time high of up to 49 million people in 46 countries around the globe could be at risk of falling into famine or famine-like conditions unless they receive immediate assistance to save their lives and livelihoods.³ About 14 per cent of the world's food continues to be lost along the supply chain prior to the retail stage.⁴ In this context, in 2022, the growth of global trade is projected to slow down markedly after a strong rebound in 2021.⁵ In addition, the conflict in Ukraine has directly disrupted exports of crude oil, natural gas, grains, fertilizer and metals, pushing up energy, food and commodity prices. Food security concerns have prompted countries to impose export restrictions, further constraining the supply of agricultural products and critical agricultural inputs.

6. Even before 2020, poverty eradication remained the unfinished business of decades of international development efforts, and the COVID-19 pandemic, war and other crises have only made the situation worse. The majority of the poor are women and girls; new projections by the United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women) and the United Nations Development Programme (UNDP) estimate that, globally, 388 million women and girls will be living in extreme poverty in 2022. According to these new forecasts, 83.7 per cent of the world's women and girls in extreme poverty would live in sub-Saharan Africa (2.8 per cent) and Central and Southern Asia (20.9).

7. The global labour market outlook has also deteriorated since the International Labour Organization's last projections; a return to pre-pandemic performance is likely to remain elusive for much of the world in the coming years. Global unemployment is projected to stand at 207 million in 2022, surpassing its 2019 level by some 21 million. Since the onset of the recovery, employment growth trends in low- and middle-income countries have remained significantly below those observed in richer economies, owing largely to the lower vaccination rates and tighter fiscal space in developing countries. The impact has been particularly serious for developing nations that experienced higher levels of inequality, more divergent working conditions and weaker social protection systems even before the pandemic.⁶

8. The COVID-19 pandemic has been a key factor in slowing progress towards universal energy access. Globally, 733 million people still have no access to electricity, and 2.4 billion people still cook using fuels detrimental to their health and

² United Nations, Department of Economic and Social Affairs, "World Economic Situation and Prospects as of mid-2022" (New York, 2022).

³ Food and Agriculture Organization of the United Nations (FAO) and World Food Programme (WFP), *Hunger Hotspots. FAO-WFP early warnings on acute food insecurity: June to September 2022 Outlook* (Rome, 2022).

⁴ FAO, *The State of Food and Agriculture 2019. Moving forward on food loss and waste reduction* (Rome, 2019).

⁵ United Nations, Department of Economic and Social Affairs, "World Economic Situation and Prospects: June 2022", Briefing, No. 161, 1 June 2022.

⁶ International Labour Organization, *World Employment and Social Outlook: Trends 2022* (Geneva, 2022).

the environment. At the current rate of progress, 670 million people will remain without electricity by 2030 – 10 million more than projected last year. The 2022 edition of *Tracking SDG 7 – The Energy Progress Report* shows that the impacts of the pandemic, including lockdowns, disruptions to global supply chains and the diversion of fiscal resources to keep food and fuel prices affordable, have affected the pace of progress towards the achievement of Sustainable Development Goal 7. Advances have been impeded particularly in the most vulnerable countries and those already lagging behind in energy access. Nearly 90 million people in Asia and Africa who had previously gained access to electricity can no longer afford to pay for their basic energy needs.

9. COVID-19 wreaked havoc worldwide on children's learning and well-being. Before the pandemic, progress in education was already too slow to achieve Sustainable Development Goal 4 by 2030. Today, over 600 million children and adolescents worldwide are unable to attain minimum proficiency levels in reading and mathematics, even though two thirds of them are in school. Compounding these inequities is a digital divide: two thirds of the world's school-aged children do not have an Internet connection in their homes, restricting their opportunities to further their learning and skills development.⁷ Child labour remains a persistent problem in the world today. The latest international estimates indicate that 160 million children – 63 million girls and 97 million boys – were in child labour globally at the beginning of 2020, accounting for almost 1 in 10 of all children worldwide.

10. Currently, 2 billion people still lack access to safely-managed drinking water services and 3.6 billion people lack safely-managed sanitation services, while climate change continues to threaten access to water and sanitation. Unsafe hygiene practices are widespread, compounding the effects on people's health. The impact on child mortality rates is devastating, with more than 700 children under the age of 5 dying every day from diarrhoeal diseases owing to poor sanitation, poor hygiene or unsafe drinking water.⁸

11. The global response to the COVID-19 pandemic, with hundreds of thousands of tons of medical waste generated, has also exacerbated an environmental crisis in waste and pollution, particularly plastics.⁹ The situation had already been dire. The combination of a growing global population and the unsustainable use of natural resources was having a devastating impact on our planet, propelling climate change, destroying nature and raising pollution levels. Around the world, 1 million plastic drinking bottles are purchased every minute, and 5 trillion single-use plastic bags are thrown away each year.¹⁰ Meanwhile, carbon dioxide (CO₂) emissions related to global energy rose by 6.0 per cent as demand for coal, oil and gas rebounded with the economy in 2021.¹¹ At current levels of global greenhouse gas emissions, the world remains on course to exceed the agreed temperature thresholds of either 1.5°C or 2°C above pre-industrial levels, which would increase the risks of pervasive climate change impacts beyond what is already being seen. Estimated adaptation costs in developing countries could reach \$300 billion every year by 2030.¹² Right now, only

⁷ United Nations Children's Fund, "Education: Every child has the right to learn". Available at www.unicef.org/education.

⁸ United Nations, "Water, Sanitation and Hygiene". Available at www.unwater.org/water-facts/water-sanitation-and-hygiene/.

⁹ World Health Organization, *Global analysis of health care waste in the context of COVID-19: status, impacts and recommendations* (Geneva, 2022).

¹⁰ United Nations Environment Programme (UNEP), "Our planet is choking on plastic". Available at www.unep.org/interactives/beat-plastic-pollution/.

¹¹ International Energy Agency, "Global Energy Review 2021: CO₂ Emissions". Available at www.iea.org/reports/global-energy-review-2021/co2-emissions.

¹² UNEP, *Adaptation Gap Report 2021: The gathering storm – Adapting to climate change in a post-pandemic world* (Nairobi, 2021).

21 per cent of climate finance provided by wealthier countries to assist developing nations goes towards adaptation and resilience, accounting for about \$16.8 billion per year.¹³

Opportunities and challenges

12. Climate change, biodiversity loss, pollution and waste are interlinked emergencies driven by human activities: addressing these crises will require major structural transformation in the way people live, work, produce and consume. Sustainable Development Goal 12 on sustainable consumption and production and Sustainable Development Goal 13 on climate action are mutually reinforcing goals that will be achieved only with a strengthened global action-oriented partnership that advances a bold system-wide transformative vision and high levels of investment from governments and the private sector.

13. According to the International Resource Panel of the United Nations Environment Programme (UNEP), the inefficient and irresponsible use of natural resources is the primary cause of biodiversity loss. Efforts so far to protect and restore nature have overlooked this biggest single factor.¹⁴ The extraction and processing of natural resources account for more than 90 per cent of global biodiversity loss and water stress, with the extraction and processing of biomass driving over 80 per cent of land-use-related biodiversity loss.¹⁵ Pollution is also closely connected to people's lifestyles. Waste continues to be a global challenge, and data is scarce. With the expansion of urban areas, the world's material consumption is expected to grow from 41.1 billion tons in 2010 to about 89 billion tons by 2050.¹⁶ Cities only cover 2 per cent of the world's land surface, but activities within their boundaries consume over 75 per cent of the planet's material resources.¹⁷ Consumption in Asia is set to increase as the continent hosts the majority of the world's megacities – cities housing more than 10 million people¹⁸ – and, as cities in sub-Saharan Africa are rapidly growing by 4 per cent every year,¹⁹ the biggest consumption jump in the coming decades will happen in Africa. The continent is expected to double in population by 2050, with material consumption jumping from 2 billion tons to 17.7 billion tons per year.²⁰

14. Information and communication technologies (ICTs) and digital technologies have significant impacts on sustainability and the environment and are particularly important in the post-COVID-19 era because the pandemic has accelerated the adoption rate of digital technologies across all sectors.²¹ This acceleration has produced sustainability and had environmental consequences such as e-waste and increased energy consumption, which has hampered global progress towards the Sustainable Development Goals. A paradigm shift towards the circular economy²² model could substantially improve the sustainability of both ICTs and the digital

¹³ United Nations, "Climate Adaptation". Available at www.un.org/en/climatechange/climate-adaptation.

¹⁴ International Resource Panel, *Building Biodiversity: The Natural Resource Management Approach* (2021).

¹⁵ Ibid.

¹⁶ International Resource Panel, *The Weight of Cities: Resource Requirements of Future Urbanization* (Nairobi, 2018).

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ United Nations Human Settlements Programme (UN-Habitat), *The State of African Cities 2014: Re-imagining sustainable urban transitions* (Nairobi, 2014).

²⁰ International Resource Panel, *The Weight of Cities*.

²¹ United Nations, "Ensure digital technologies are 'a force for good', Guterres says in message for International Day", 17 May 2021. Available at <https://news.un.org/en/story/2021/05/1092052>.

²² International Telecommunication Union (ITU) Recommendation ITU-T L.1023 (assessment method for circular scoring).

transformation. In this regard, standardization is one of the critical tools that enable global learning and knowledge-sharing at the international level.

15. Food systems, with such a far-reaching impact on both human and planetary health, make it clear that any successful policy interventions will need to take the interlinkages among Sustainable Development Goals and sectors into account. Achievement of the 2030 Agenda is underpinned by the concepts of food security and nutrition, which are inseparable from the urgency of eradicating extreme poverty, tackling climate challenges, building community resilience, responsibly managing and conserving natural resources, and sustainably managing biodiversity. Agrifood systems produce 11 billion tons of food a year, employing 4 billion people directly or indirectly. The agrifood sector, including forestry and fisheries, also accounts for one third of the anthropogenic greenhouse gas emissions driving climate change and occupies 37 per cent of the Earth's land area. At the first United Nations Food Systems Summit, convened in September 2021, innovative solutions and strategies were agreed with the aim of transforming agrifood systems and leveraging those changes to deliver progress across all of the Sustainable Development Goals.

16. Prior to COVID-19, the tourism sector recorded steady growth over decades, creating significant benefits – both direct and indirect – in terms of socioeconomic development and employment. However, this growth also brought important challenges related to the carrying capacity of destinations, the impact on natural and cultural resources and on communities' social structures, climate change, and a fair distribution of income generated by the sector. The Secretary-General's policy brief, entitled "COVID-19 and Transforming Tourism", shows that the impact of the pandemic on tourism affects economies, livelihoods, public services and opportunities on all continents. While sustaining the livelihoods dependent on the sector must be a priority, rebuilding tourism is also an opportunity for transformation, with a focus on leveraging its impact on the destinations visited and building more resilient communities and businesses through innovation, digitization, sustainability and partnerships.

17. At the regional level, the Economic and Social Commission for Asia and the Pacific (ESCAP) indicates that its region is one of the largest global markets, with robust economic growth driven by increasing domestic consumption and intraregional trade. However, unsustainable consumption and production patterns that exacerbate inequality and environmental degradation, intensifying existing risks and vulnerabilities in a changing climate, continue to drive some of this growth. The region plays an increasing role in global value chains and transportation, presenting significant opportunities for circular economy practices. The Economic and Social Commission for Western Asia (ESCWA) reports that in the Arab region, trends of unsustainable consumption and production patterns are reflected in increasing food loss and waste, water scarcity, rapidly rising energy use and high generation of waste with very low levels of reuse and recycling. The percentage of municipal waste recycled is around 10 per cent or less in the Arab countries that have reported this figure.²³ Domestic material consumption per unit of gross domestic product (GDP) was 1.7 kg/\$, compared with 1.2 kg/\$ for the rest of the world, and the material footprint per unit of GDP was almost equal to the world average in 2017. In 2019, 100 kg was the estimated amount of wasted household food per capita compared with 73.5 kg for the rest of the world. In 2018, 103 per cent of available freshwater was withdrawn, compared with only 17 per cent for the rest of the world.²⁴ As the great disparity in freshwater resources makes clear, the development context differs widely

²³ *Arab Sustainable Development Report 2020 (E/ESCWA/SDD/2019/2)*.

²⁴ ESCWA, "Arab SDG Monitor." Available at <https://arabsdgmonitor.unescwa.org>.

from region to region, and from community to community, and policy interventions must therefore be tailored to the local context.

B. Sustainable consumption and production

18. Within this context, in its resolution [76/202](#), the General Assembly decided to extend the mandate of the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns until 31 December 2030. The 10-Year Framework has contributed, through its One Planet network and six global programmes on sustainable public procurement and consumer information, to strengthening multi-stakeholder cooperation on sustainable consumption and production and set the stage for cooperation across countries and sectors of society in close collaboration with the United Nations system to elevate best practices, and scale up and increase impact on global environmental challenges. The decision to extend the mandate of the 10-Year Framework is both an opportunity and a responsibility to implement an ambitious vision for multilateral and multi-stakeholder cooperation on sustainable consumption and production beyond 2022. Multilateral initiatives such as the 10-Year Framework, as well as national and regional regulations, have contributed to enhancing the system's capacity towards sustainable use of resources and waste recovery, including through eco-design and renewable energy. Nevertheless, the growth rate of resource extraction outpaces improvements in efficiency and in end-of-use recovery by a factor of two to three, resulting in ever-decreasing quantities of secondary materials available for use.²⁵

19. The Intergovernmental Panel on Climate Change warns that the vulnerability of ecosystems to climate change is strongly influenced by human society, including from unsustainable consumption and production.²⁶ By shifting to sustainable consumption and production, society can move from a trade-off scenario, where improvements in human well-being come at a steep environmental cost, to a co-benefit scenario, allowing human and planetary well-being to be mutually reinforcing. However, despite its well-documented potential to deliver win-win outcomes, sustainable consumption and production has so far not been adequately implemented.

Examples of United Nations development system support for implementing sustainable consumption and production

20. UNEP continued to provide strategic leadership and encourage sector-wide collaboration in several high impact sectors. In the textile sector, UNEP accelerated a just transition towards a sustainable and circular textile value chain, while supporting sound management of chemicals. Under the framework of the European Union-funded project “Innovative Business Practices and Economic Models in the Textile Value Chain”, UNEP is working on increasing access to environmental and life-cycle data, and on providing evidence of environmental and socioeconomic impacts of different business models in the textiles value chain. In this regard, UNEP and the Global Opportunities for Sustainable Development Goals (GO4SDGs) initiative have launched the West Asia Sustainable Fashion Academy, providing capacity development to governments, the private sector and young people to integrate circularity and resource efficiency into the textile and fashion sector. In addition, UNEP, through the GO4SDGs initiative, is coordinating the Circular Economy Coalition for Latin America and the Caribbean, and has launched the publication *Circular Economy in Latin America and the Caribbean: A Shared Vision*.

²⁵ Circle Economy, *The Circularity Gap Report 2022* (2022).

²⁶ Intergovernmental Panel on Climate Change, *Climate Change 2022: Impacts, Adaptation and Vulnerability: Summary for Policymakers* (Geneva, 2022).

GO4SDGs is also partnering with the UNEP Finance Initiative to promote South-South cooperation between Africa and Latin America and the Caribbean on financial mechanisms to scale up the transition to a circular economy in both continents. UNEP, serving as the secretariat of the One Planet network (10-Year Framework of Programmes on Sustainable Consumption and Production Patterns), has also coordinated an inclusive consultative process to inform the development of the One Planet network strategy,²⁷ building on experience, mobilizing the key assets, partnerships, tools and solutions developed across the One Planet network.

21. Building on years of work by UNEP and other United Nations entities to address plastic pollution, Member States endorsed a historic resolution at the fifth United Nations Environment Assembly to end plastic pollution and forge a legally binding international agreement by 2024. The resolution addresses the full life cycle of plastic, including its production, design and disposal. The resolution establishes an Intergovernmental Negotiating Committee, which will begin its work in 2022, with the ambition of completing a draft legally binding global agreement by the end of 2024. This instrument would reflect diverse alternatives to address the full life cycle of plastics, the design of reusable and recyclable products and materials, and the need for enhanced international collaboration to facilitate access to technology, capacity-building and scientific and technical cooperation. The treaty also resonated in the recently concluded 2022 United Nations Ocean Conference in Lisbon and in its outcome, “Our Ocean, Our Future, Our Responsibility”.

22. The Plastic Waste Amendments to the Basel Convention came into force on 1 January 2021. Since then, the secretariat of the Basel Convention has been supporting the development of technical guidelines for the identification and environmentally sound management of plastic waste, and has set up a Plastic Waste Partnership to promote action at the global, regional and national level. Against this background, research by United Nations University (UNU) related to sustainable consumption and production focuses on the processes, practices and governance of product cycles and value chains. Using the Republic of Korea as a case study, the research of UNU is aimed at identifying strategies and guidelines for effective post-pandemic plastic waste management, as well as at developing plastic taxation guidelines for a more sustainable design of the country’s legislation on plastic management. In the area of sustainable water, energy and food systems, UNU is undertaking a research development project that aims at establishing an agrophotovoltaic sustainable energy system based on photovoltaic solar technology that provides food, water and electricity to the local populations of Mali and the Gambia, while increasing the resilience of the agricultural sector against climate change.

23. Helping consumers to consume sustainably is central to achieving the Sustainable Development Goals. Sustainable labels, guidelines and certification schemes allow consumers to make consumption choices that are environmentally, economically and socially sustainable. Initiatives such as the BioTrade initiative of the United Nations Conference on Trade and Development (UNCTAD) have been directing consumers and producers towards more sustainable consumption and production patterns that respect biodiversity and the environment.

24. WFP works with local manufacturers and distributors to produce simple, effective hermetic storage silos and bags that significantly reduce post-harvest grain losses as part of its pro-smallholder farmer support programme. In addition, one of the core areas of the contribution of WFP to national development plans includes

²⁷ In accordance with the road map validated by the Board of the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, Fourth Meeting of the Group of Friends.

sustainable infrastructure, which is focused on food systems, climate adaptation and disaster preparedness.

25. Tourism is a key sector for sustainable consumption and production. The Sustainable Tourism Programme of the One Planet network, led by the World Tourism Organization (UNWTO) and UNEP, is aimed at accelerating sustainable consumption and production in tourism policies and practices to address the challenges of pollution, biodiversity loss and climate change. Within this context, the Global Tourism Plastics Initiative²⁸ involves a growing number of tourism businesses and organizations that have joined forces to take up the challenge of plastic pollution. The Initiative works across the tourism value chain with relevant stakeholders, including suppliers and waste management platforms. In addition, UNWTO officially launched the Glasgow Declaration on Climate Action in Tourism at the twenty-sixth Conference of the Parties of the United Nations Framework Convention on Climate Change, with more than 450 signatories agreeing to raise their climate ambitions to halve carbon emissions by 2030 and achieve net zero by 2050.

26. The United Nations Industrial Development Organization (UNIDO) is implementing an eco-effective strategy that provides a methodology for management of the whole life cycle of products and production processes in agribusiness. In 2021, customized eco-effectiveness management guidelines were compiled and standards for the assessment of regional and enterprises' performances were drafted and tested for their applicability in pilot cities and enterprises. In addition, in 2021 UNIDO convened global consultations on the circular economy,²⁹ which brought together more than 320 representatives from relevant entities to enhance stakeholder engagement and bring multilateralism towards sustainable consumption and production. As requested by the General Conference of UNIDO,³⁰ the consultations provided a forum to facilitate exchanges on best practices and emerging innovations in the light of existing challenges, while promoting the adoption of the circular economy by the industries of Member States.

27. The work of the World Trade Organization (WTO) on trade and environment has become increasingly focused on using trade policies to help to tackle specific environmental challenges and seize the trade opportunities resulting from rapidly expanding markets in green goods and services. Efforts include the WTO negotiations on fisheries subsidies, the Environmental Goods Agreement and the launch of three new environmental initiatives on trade and environmental sustainability, plastic pollution and reforms of fossil fuel subsidies. As such, the ongoing negotiations and initiatives being undertaken by WTO have strong links to Sustainable Development Goal 12 on sustainable production and consumption.

28. International standards such as those developed by ITU have provided countries, cities, the ICT sector and other stakeholders with the exact tools they need to build back better and greener. One of the ITU green standards has provided the ICT sector with the guidance it needs to set the world's first ICT sector-specific science-based targets, approved by the science-based target initiative, to reach net zero in line with the Paris Agreement and the Sustainable Development Goals. Furthermore, to improve the sustainability performance of the entire ICT value chain, ITU has developed technical standards that directly support the transition of the ICT sector

²⁸ One Planet network, "Sustainable Tourism Programme – Global Tourism Plastics Initiative". Available at www.oneplanetnetwork.org/programmes/sustainable-tourism/global-tourism-plastics-initiative.

²⁹ UNIDO, "Global consultations on circular economy". Available at www.unido.org/our-focus-safeguarding-environment/global-consultations-circular-economy.

³⁰ UNIDO resolution GC.18/Res.7 (UNIDO activities in energy and the environment).

towards the circular economy model.³¹ The green standards of ITU have provided the specifications and requirements for developing a universal power adapter and charger solution for ICT devices. In 2022, ITU has been providing technical assistance to 10 countries globally by supporting them with their e-waste regulation. In collaboration with the World Economic Forum, ITU also developed a toolkit on policy practices for e-waste management, which provides guidance on how to develop national e-waste policies and regulations based on the principle of extended producer responsibility.

29. Achieving sustainability in production and consumption in connection to food systems cannot be seen in isolation from achieving overall sustainable development. The work of FAO on the sustainable bioeconomy is aimed at identifying biomass-based solutions to keep value within the agricultural system. FAO has established a comprehensive framework on the sustainable bioeconomy in close cooperation with the public and private sectors. FAO is also implementing a United Nations joint programme to develop tools and approaches that facilitate a cross-sectoral approach for collaborative and integrated food systems development. FAO and the Organisation for Economic Co-operation and Development have jointly developed *Guidance for Responsible Agricultural Supply Chains*, a global voluntary standard for responsible business conduct in the agricultural sector. FAO also developed the Voluntary Code of Conduct for Food Loss and Waste Reduction, which provides a framework that governments can use to design policies, institutions and legislation for the reduction of food loss and waste by improving the resilience, efficiency, inclusiveness and sustainability of agrifood systems. In addition, FAO is involved in the Sustainable Food Systems Programme of the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, a platform that fosters collaboration among different stakeholders and provides forums for sharing and extending experience, innovative tools and knowledge on food system transformation.

30. In 2020, to tackle the global plastic burden, the International Atomic Energy Agency (IAEA) launched Nuclear TECHNOlogy for Controlling Plastic Pollution (NUTEC Plastics), which is aimed at highlighting the unique contributions of nuclear technology to the global, regional and national actions for the reduction of plastic pollution. IAEA also supports its member States in their food waste reduction efforts by building national capacities and capabilities for the application of food irradiation, a technology that extends shelf life while ensuring higher levels of safety and quality. Currently, more than 60 countries worldwide have developed regulatory frameworks based on domestic and international standards that enable the use of irradiation for food products. The sterile insect technique is another important and environment-friendly technique to reduce losses of agricultural produce through the control of major insect pests. The technique, developed and transferred by IAEA to its member States in collaboration with FAO, has produced substantial socioeconomic and environmental benefits for numerous countries in Central and South America, North Africa, the Middle East and South-East Asia through enhanced and sustainable investment in horticultural production, as well as by securing existing and opening new export markets.

31. UN-Habitat is part of the One Planet network's Sustainable Buildings and Construction Programme, which works to improve and share knowledge of sustainable construction, and to mainstream sustainable building solutions. The Programme promotes resource efficiency, mitigation and adaptation efforts, and a shift to sustainable consumption and production patterns in the buildings and

³¹ ITU green standards developed by ITU-T SG5 on “EMF, environment, climate action, sustainable digitalization, and circular economy”.

construction sector. One example of these efforts is the Net Zero Carbon Buildings Commitment.

32. At the regional level, in April 2022, the Economic Commission for Europe (ECE) launched a new platform, named “CIRCULAR STEP”, to facilitate the exchange of experiences, share best practices and engage stakeholders in the transition to the circular economy. The platform will unite governments, the private sector, academic and research institutions, civil society and other actors from all ECE member States.

33. The Asia-Pacific region is at a turning point in preventing industrialization and urbanization that will lead to irreversible resource depletion and environmental degradation, which will in turn endanger economic and social development in the long term. While there is some progress towards policies conducive to sustainable consumption and production, the large material footprint and weak waste recovery and prevention systems in the Asia-Pacific region pose real challenges. ESCAP continued to emphasize the centrality of the concept of resource efficiency as a key approach to spearheading environmental sustainability and sustainable consumption and production patterns. In 2021, at the eighth Asia-Pacific Forum on Sustainable Development, an in-depth review of Sustainable Development Goal 12 was undertaken by preparing a Sustainable Development Goal profile and holding a round table. The deliberations revealed that the waste recovery and prevention systems in the region still remained insufficient for the rate of domestic production and consumption. Moreover, the majority of growing Asian towns and cities use open dump sites, and only approximately 10 per cent of solid waste ends up in properly engineered and managed landfill sites. Against this background, the ESCAP project on localizing the Sustainable Development Goals helped four cities in Cambodia, Fiji, the Philippines and Thailand to deal with household, industrial and municipal waste management by integrating and aligning with resource-related Sustainable Development Goals, especially Goal 12.³² Another project on integrated resource management (urban nexus) supported 12 cities with a water-energy-food/land integrated approach to the sustainable management of natural resources in urban areas.³³ The “Closing the Loop” project in Indonesia, Malaysia, Thailand and Viet Nam was focused on addressing the leakage of plastic waste into the marine environment from cities and helping to increase the recovery rate for reuse and recycling.³⁴ At the institutional level, ESCAP is in the process of setting up the Resource Panel of the Association of Southeast Asian Nations (ASEAN) as part of the ASEAN Community Vision 2025.

C. Strengthening science-policy interface, data and digitalization

34. In March 2022, the twenty-fifth session of Commission on Science and Technology for Development was held, where ministerial discussions highlighted the role of science, technology and innovation in building back better from the COVID-19 pandemic, while advancing the full implementation of the 2030 Agenda for Sustainable Development. Participants remained concerned over the digital connectivity gaps, as shown clearly during the COVID-19 pandemic, and reiterated the need for enhanced international collaboration in scientific research and strengthened technological cooperation through technology transfers and capacity-building. A priority of the session was the use of science, technology and innovation

³² ESCAP, “Localizing the 2030 Agenda in Asian & Pacific Cities”. Available at www.unescap.org/projects/dal11.

³³ Ibid., “Urban Nexus”. Available at www.unescap.org/projects/urban-nexus/project-overview.

³⁴ Ibid., “Closing the Loop”. Available at www.unescap.org/projects/ctl/our-approach.

for sustainable urban development in a post-pandemic world. This discussion identified the numerous challenges faced by developing countries in fulfilling the triad goals of liveability, economic prosperity and environmental sustainability in urban and peri-urban areas.

35. The engagement of the Department of Economic and Social Affairs in science, technology and innovation for the Sustainable Development Goals includes initiatives promoting data management and e-governance, the use of science, technology and innovation in the forest sector and its use for social inclusion, youth employment and development. Publications and policy briefs address information and analysis on fintech, technology for statistics and big data, artificial intelligence and frontier technologies.

36. Digitization has allowed for some mitigation of the effects of the COVID-19 pandemic, helping to combat the virus and ensuring the continuity of many economic activities.³⁵ Amid slowing economic activity, the pandemic led to a surge in e-commerce and accelerated digital transformation. Global Internet bandwidth use rose by 35 per cent in 2020, the largest one-year increase since 2013.³⁶ Within this context, in 2021, the Secretary-General released a report entitled “Our Common Agenda”, which includes a call to “protect the online space and strengthen its governance” and to advance a Global Digital Compact that would promote an “open, free and secure digital future for all”. The Office of the Secretary-General’s Envoy on Technology is charged with facilitating dialogue on these recommendations and other aspects of “Our Common Agenda” that are aimed at accelerating global digital cooperation.

37. Although digital innovation and technologies advance sustainable development, they also come with environmental and social risks. In this regard, the One Planet network, the International Resource Panel, the UNEP Digital Transformation subprogramme and the Coalition for Digital Environmental Sustainability are establishing a diverse, multi-stakeholder expert group to embed science-based recommendations into key agendas and networks. The recommendations provide a pathway towards sustainable consumption and production that can accelerate and scale environmentally and socially sustainable products and services, as well as behaviours and lifestyles. Moreover, the One Planet network, the Life Cycle Initiative, the International Resource Panel, Go4SDGs, UNEP regional offices, United Nations economic commissions and other partners have established a network of scientific and technical partner institutions in Africa, the Asia-Pacific region and Latin America with the objective of providing contextualized and targeted capacity development in the uptake of the Hotspot Analysis Tool for Sustainable Consumption and Production and other scientific tools and resources. The partner institutions will, following a “train-the-trainer” process, function as key knowledge centres in their regions to provide science-based and data-driven support for sustainable consumption and production.

38. UNU research bridges data and digital gaps in thematic areas such as waste management, water reuse and waste quantification. An example is the SMART-WaterDomain project, which is aimed at developing a systematic framework to facilitate the smart reuse of wastewater resources. In addition, ensuring the development and efficient implementation of recycling infrastructure, sound policies and legal instruments requires a foundation of reliable e-waste data. The UNU-hosted Sustainable Cycles (SCYCLE) project (hosted by the United Nations Institute for Training and Research since 2022) is a global effort that includes key international

³⁵ See [TD/B/EDE/5/2](#).

³⁶ UNCTAD, *Digital Economy Report 2021: Cross-border data flows and development: For whom the data flow* (Geneva, 2021).

stakeholders involved in e-waste statistics. Its objective is to assist countries in the production of sound, national e-waste data.

39. The Global E-waste Monitor and Regional E-waste Monitor of ITU is used to track the quantities and flows of e-waste and demonstrate the global potential of the circular economy. In addition, in 2022, the Digital Public Goods Alliance, ITU and the World Meteorological Organization issued a report and called for weather, climate and hydrological information data sets to be freely available as digital public goods.³⁷

40. FAO plays a key role in promoting the use and adoption of digital technologies to facilitate the transformation of agrifood systems and leverage emerging opportunities for achieving the Sustainable Development Goals. Within this context, FAO is promoting a policy agenda and public investments to address the digital divide and “massify” digital benefits. FAO also jointly leads the Global Coalition for Data and Digital Food Systems Innovation of the United Nations Food Systems Summit. The Coalition ensures that data and digital technologies are used to their fullest potential to drive public good climate, biodiversity, nutrition and development outcomes through the transformation of food systems.

41. At the regional level, to help to improve the management of natural resources, including by facilitating traceability throughout supply chains, ECE has developed a blockchain-based initiative in the garment and footwear sectors that includes policy recommendations, implementation guidelines and an information exchange standard to ensure the traceability and transparency of value chains. The initiative appeals to the private sector through the Sustainability Pledge, which provides a United Nations-brokered way for industry stakeholders to advance due diligence and responsible business models, and verify sustainability claims for conscious consumption choices. ESCAP indicates that the rapid adoption of digital technologies in response to the COVID-19 pandemic has drastically transformed the socioeconomic activities of citizens across the Asia-Pacific region. Governments in the Asia-Pacific region have provided more digital services for online shopping, remote working, e-health services and distance learning. The Republic of Korea, for example, has been a pioneer in various fifth generation (5G) digital services. China and other countries in the region have become the world’s factories for digital hardware, and also create digital technology applications and new social media. However, the accelerated adoption of digital technologies has also exacerbated the risks of the widening digital divide. In response, ESCAP members and associate members adopted the Action Plan for Implementation of the Asia-Pacific Information Superhighway (2022–2026) in November 2021, which is aimed at bridging the digital divide and accelerating digital transformation.

D. Financing for development

42. While many developed countries saw a rapid economic recovery from the shock of the COVID-19 pandemic in 2021, developing countries did not regain lost ground. The tightening of global financing conditions in the face of rising inflation is putting more countries at risk of debt distress, further constraining their fiscal space and hampering economic growth and sustainable development. Today, 60 per cent of the least developed and other low-income countries are already at high risk of, or in, debt distress. The “great finance divide” has been a key driver of divergence. Developed countries borrowed record sums at ultra-low interest rates to support their economies and people through the COVID-19 pandemic, and to invest in recovery. Despite support from the international community, the pandemic response of poor countries

³⁷ ITU, “Call for weather, climate & hydrological information datasets to be made open and freely available as digital public goods” (January 2022).

has been limited by fiscal constraints. Tax revenues declined, reflecting downward trends in overall economic activity, and many countries were forced to reprioritize expenditure and cut spending in areas critical to the Sustainable Development Goals, such as education and public investment. In crisis situations, access to long-term financing, international public finance and lending by development banks, as well as commercial financing, enables countries to respond and recover. However, for many countries, greater perceived and actual default risks are translating into higher borrowing costs in financial markets.³⁸

43. Climate change will continue to exacerbate financing challenges, particularly in vulnerable countries. Greenhouse gas emissions, particularly carbon emissions resulting from the burning of fossil fuels, are the main drivers of climate change and have a range of other health and environmental consequences. For the most part, however, current energy prices do not reflect the societal cost of carbon emissions, namely, the costs that societies will have to bear because of increases in global temperatures, extreme weather conditions and other effects of climate change.

44. A carbon tax will ensure that economic agents invest in green energy sources by putting a price on greenhouse emissions. Consequently, consumers will also be forced to adjust their consumption behaviours and patterns, generally being incentivized to invest in energy efficiency, change their lifestyle habits or switch to cleaner forms of energy where options are available. The *United Nations Handbook on Carbon Taxation for Developing Countries*, published by the United Nations Committee of Experts on International Cooperation in Tax Matters in 2021, addresses critical topics on the role of a carbon tax in shaping policies and informing behavioural changes by economic agents, thereby promoting sustainable production and consumption. Some developing countries already impose levies or charges on plastics, wastewater and water management to tackle air and water pollution and curb deforestation. The Committee of Experts will, during its 2021–2025 session, also develop guidance to assist developing countries in these efforts, as well as analysing how such taxes interact with other climate change measures in national economies.

45. Effective implementation by national Governments and other partners requires strategies to mobilize both public and private financing for the Sustainable Development Goals. Attracting private investment, through appropriate incentives, to sectors and business models that support sustainable consumption and production is critical. Moreover, public-private partnerships can contribute to financing the necessary infrastructure, while ensuring that those investments are aligned with sustainability principles.

46. The United Nations development system also plays a key role in financing for development. For example, under the United Nations Sustainable Development Goal Financing Task Team, UNEP has contributed leadership and technical support to help to address the seven priority areas of the Addis Ababa Action Agenda, the Paris Agreement and the Sendai Framework for Disaster Risk Reduction 2015–2030. The UNEP Finance Initiative is facilitating action plans, supported by the Joint Programme on Financing a Green, Inclusive and Sustainable Recovery under the Executive Office of the Secretary-General. This helps banks to set and implement short- and long-term targets to align banking portfolios representing more than \$80 trillion with the Sustainable Development Goals and the Paris Agreement, including by setting targets relating to resource efficiency and the circular economy under the Principles for Responsible Banking.³⁹ A study, developed by the UNEP

³⁸ United Nations, Inter-agency Task Force on Financing for Development, *Financing for Sustainable Development Report 2022* (United Nations publication, 2022).

³⁹ UNEP Finance Initiative, *Resource Efficiency and Circular Economy Target Setting, Principles for Responsible Banking – Guidance for Banks* (Geneva, 2022).

Finance Initiative and GO4SDGs, on financing for the circular economy in Latin America and the Caribbean finds that some countries have started to include circular economy measures to reach mitigation targets set in their nationally determined contributions and to develop comprehensive circular economy strategies and road maps.

47. The research of UNU on sustainable financing continues to be focused on insurance instruments, investment and capacity-building. The Pacific small island developing States are highly vulnerable to natural hazards, but generally have a limited capacity to effectively manage the risks or overcome the significant economic losses caused by a disaster. UNU, in collaboration with the United Nations Capital Development Fund and UNDP, have developed disaster risk financing instruments, including climate risk insurance, through the Pacific Insurance and Climate Adaptation Programme.⁴⁰

48. At the regional level, ECE has been developing guidelines for the use of public-private partnerships in waste-to-energy projects for non-recyclable waste in a way that is consistent with the Sustainable Development Goals. This helps public-private partnerships to contribute in the financing of relevant infrastructure while ensuring that their investments are aligned with sustainability principles.

E. Partnerships for sustainable development

49. In response to various challenges that have been compounded by the extraordinary circumstances created by the COVID-19 pandemic, governments and stakeholders have been taking a multi-stakeholder approach as a complementary means of implementation of the Sustainable Development Goals in order to build back better, faster and fairer. New or upgraded multilateral and multi-institutional partnerships have been steadily on the rise in the post-COVID-19 context.⁴¹ In this regard, one of the key recommendations of the 2022 Partnership Forum of the Economic and Social Council was the need to set up partnerships for times of crisis.

50. The United Nations continues to promote effective multi-stakeholder partnerships. For example, the Department of Economic and Social Affairs, through its 2030 Agenda Partnership Accelerator initiative,⁴² is assisting governments and stakeholders in the Bahamas, Cambodia, Jamaica, Maldives, Mauritius, Mexico, Senegal, Seychelles and Sri Lanka in building their capacities in forging and strengthening their multi-stakeholder partnerships. The Department is also managing a number of online knowledge platforms, such as the Partnership Platform, the SDG Acceleration Actions and the SDG Good Practices. These platforms help to bolster initiatives and partnerships across various stakeholders and sectors in support of the Sustainable Development Goals and facilitate engagement and knowledge-sharing.

51. UNEP, in collaboration with UNIDO, continues to support the Global Alliance for Circular Economy and Resource Efficiency. In 2021, member countries of the Global Alliance explored the nexus between the circular economy and climate change, green recovery and biodiversity during high-level events, including the 2021 World Circular Economy Forum, the 2021 United Nations Climate Change Conference and

⁴⁰ UNU, “Pacific Insurance and Climate Adaptation Programme”. Available at <https://unu.edu/projects/mcii-pacific-regional-climate-risk-adaptation-and-insurance-prcrai.html#outline>.

⁴¹ United Nations, Department of Economic and Social Affairs, “Partnerships in response to COVID-19: building back better together”, New York, 2021.

⁴² A collaboration among the Department of Economic and Social Affairs, the Global Compact, the United Nations Development Corporation, the United Nations Office for Partnerships and the Partnering Initiative.

the fifth United Nations Environment Assembly. In 2022, member countries of the Global Alliance will focus their attention on the role of circular economy in addressing plastic pollution. Other prioritized thematic areas include the circular economy and waste, pollution and chemicals, as well as the potential of the extended producer responsibility. Moreover, the 10-Year Framework and its One Planet network continue to provide a unique space for multi-stakeholder and cross-disciplinary partnerships between countries, the private sector, non-governmental organizations and civil society to develop new policies, e-tools and solutions. One of the key pillars of the new strategy of the 10-Year Framework is to expand cooperation with an increasing number of United Nations entities, through the multi-partner trust fund.

52. Together with partners, UNU is implementing projects such as the “Green African Transformation Pathways: Building a Partnership for Africa-EU Collaboration on Low-Carbon Development” project, implemented by a consortium of partners and funded by the German Federal Ministry for Economic Cooperation and Development. The project explores Africa’s development priorities in the context of the Africa-Europe partnership, and outlines ways in which the European Green Deal could be beneficial for both continents.

53. The partnership approach of UNWTO has been the key to multiple programmes, especially the UNWTO start-up competitions and innovation challenges, which seeks to find the most innovative start-ups advancing the Sustainable Development Goals. For example, the UNWTO Gastronomy Tourism Startup Competition, a global public-private initiative that is aimed at identifying start-ups with the greatest potential to promote sustainable innovation in the tourism and the gastronomy sector.

54. The partnerships of UNIDO take the form of project-specific collaborations, or long-term global alliances focused on a specific theme, as crystallized in the organization’s flagship partnership model, the Programme for Country Partnership. During 2021, 12 countries pursued Programme for Country Partnerships as innovative multi-stakeholder and country-level models. Such Partnerships bring together development partners, including financial institutions, under the leadership of the host Government to accelerate inclusive and sustainable industrial development and the Sustainable Development Goals.

55. ITU, together with the Governments of Germany and Estonia, and the Digital Impact Alliance, launched an initiative, “GovStack”, to assist national Governments in establishing proprietary information technology infrastructure in support of their national development objectives in 2020. Since January 2022, ITU has been complementing these efforts by ensuring that the capabilities of GovStack support environmental efforts and do not produce any additional burdens for the climate. It does this by guiding Governments to procure environmentally friendly equipment on which to run GovStack; identifying and reporting climate-friendly technologies to be used within the GovStack infrastructure; and helping to select countries to implement policies and regulations to treat the electronic and electrical waste resulting from GovStack infrastructure, and elsewhere, in an environmentally sound manner. Furthermore, in order to raise the awareness of young people on climate change, digital sustainability and e-waste in particular, ITU holds the Generation Connect Global E-waste Iconathon to leverage the participation of youth worldwide.

56. For action by non-party stakeholders, the Marrakech Partnership for Global Climate Action is an important instrument for cooperation, and for influencing production and consumption patterns. Under the leadership of the High-Level Climate Champions, the Marrakech Partnership supports the implementation of the Paris Agreement by enabling collaboration between governments and the cities, regions, businesses and investors that must act on climate change, guided by the long-term

goals of the Paris Agreement. The focus is on the transformation of environmental, economic and social systems, promoting higher ambitions for all stakeholders to collectively strive for the 1.5°C temperature goal and a climate-neutral and resilient world.

57. At the regional level, the ESCAP Sustainable Business Network, composed of representatives of the private sector from the Asia-Pacific region, was set up to engage the private sector to work towards the 2030 Agenda. Recognizing that business must take a leading role in the green transformation in the region in order to build back better and greener from the COVID-19 pandemic, in May 2022, the Executive Council of the Network adopted the Asia-Pacific Green Deal for business. In the Arab region, ESCWA recently implemented several regional initiatives to enhance the management of natural resources and waste reduction, such as green technology for the agriculture sector, the use of a tool to assess food loss and waste, youth engagement for desertification and drought, and the use of renewable energy in the agrifood value chain. ESCWA also collaborated with ECE in implementing a project that addresses food waste. During 2021, ESCWA promoted the food loss and waste measuring methodology for fresh produce through the implementation of a pilot in Morocco, along with a related code of good practice.

III. Conclusions

58. Developing countries suffer from a triple environmental crisis of the climate, biodiversity and pollution impacts of resource-intensive production processes. Such impacts have been exacerbated by the COVID-19 pandemic, which aggravated global plastic pollution in particular. At the fifth session of the United Nations Environment Assembly, United Nations Member States endorsed a historic resolution to end plastic pollution and forge an international legally binding agreement by 2024. The implementation of sustainable consumption and production as part of a strategy to recover from the global pandemic will bring the socioeconomic benefits of using resources while minimizing the impacts.⁴³

59. Sustainable Development Goal 12 calls for a reduction in global material consumption and food waste and the rationalization of inefficient fossil fuel subsidies, all of which will advance progress in mitigating and adapting to climate change. Halting deforestation and ramping up afforestation, which will be made possible in part by reshaping current agricultural approaches, will address climate change by creating carbon sinks, while also safeguarding biodiversity and water catchments. Moving away from a fossil fuel-based linear economy towards bio-based circular economies will not only address climate change but also reduce pollution, waste and the degradation of nature, ensure a sustainable recovery from the COVID-19 pandemic and improve the health and well-being of current and future generations. Enabling policies, new business models, innovative financing models, science, technology, innovation and digitization together with investments in human capital is critical to advancing sustainable consumption and production initiatives. When society shifts towards sustainable consumption and production patterns, the collective benefits for human well-being and environmental sustainability can be realized.

60. Enhanced cooperation and partnerships on sustainable consumption and production, including through the 10-Year Framework, will be critical to scaling up and accelerating action for the shift to sustainable consumption and production patterns. These partnerships will also be key to supporting countries' efforts, at the national level, to adopt a value-chain approach, scale up vital national fiscal and

⁴³ See [E/2022/55](#).

economic policies and strategies, redirect investments and create innovative financial models to overcome sectoral silos in order to achieve sustainable patterns of consumption and production.

61. It is critical, however, to keep the central principle of the 2030 Agenda – to leave no one behind – at the heart of all efforts to achieve Sustainable Development Goals 12 and 13. Achieving these goals must not jeopardize the eradication of poverty in all its dimensions. A “just transition” must further provide for those whose livelihoods depend on the old ways of production and consumption. Achieving the Sustainable Development Goals and leaving no one behind will be impossible without collective, multisectoral and multi-stakeholder action on a planetary scale.
