United Nations A/75/272

General Assembly

Distr.: General
30 July 2020

Original: English

Seventy-fifth session
Item 25 of the provisional agenda*
Agriculture development, food security and nutrition

Agriculture development, food security and nutrition

Report of the Secretary-General

Summary

The present report addresses transformational change in food systems and how it can help accelerate the achievement of the Sustainable Development Goals and enhance food security and nutrition, including during the coronavirus disease (COVID-19) pandemic. From the food system perspective, the report elaborates on five entry points for transformation,[1] as reflected in several themes taken up during the 2020 high-level political forum on sustainable development: ending hunger and improving nutrition and human health; protecting and advancing human well-being; the key role of biodiversity and ecosystems in supporting sustainable and resilient food systems; sharing economic benefits; and territorial approaches to bolster local action to accelerate implementation. Within that framework, the report contains information, available analysis and recommendations for mitigating the impacts of COVID-19 on sustainable food systems. Partnership initiatives that can, even in the midst of crisis, mobilize the necessary means of implementation and strengthen collective action to improve food systems for sustainable development are also highlighted.

* A/75/150.

[1] Entry points are based on those defined in United Nations, *Global Sustainable Development Report 2019: The Future is Now – Science for Achieving Sustainable Development* (2019).

I. Introduction

1. In its resolution 74/242 on agriculture development, food security and nutrition, the General Assembly requested the Secretary-General to report to the Assembly at its seventy-fifth session on the implementation of the resolution and called upon the relevant organizations of the United Nations system, within their respective mandates and resources, to ensure that no one was left behind and no country was left behind in the implementation of the resolution.

2. In providing annual updates on global efforts to achieve the internationally agreed goals on agriculture development, food security and nutrition in line with the 2030 Agenda for Sustainable Development, the present report includes contributions from the Food and Agriculture Organization of the United Nations, the World Food Programme, the International Fund for Agricultural Development, the High-Level Panel of Experts of the Committee on World Food Security, the Global Environment Facility, the International Organization for Migration, the International Telecommunication Union, the United Nations Conference on Trade and Development, the secretariat of the United Nations Convention to Combat Desertification, the United Nations Human Settlements Programme (UN-Habitat), the United Nations Industrial Development Organization, the United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women), the United Nations Environment Programme, the secretariat of the United Nations Framework Convention on Climate Change, the United Nations Office on Drugs and Crime, the United Nations Office for Outer Space Affairs, the United Nations Office for South-South Cooperation, the United Nations Population Fund, the Economic Commission for Europe, the Economic and Social Commission for Asia and the Pacific and the Economic and Social Commission for Western Asia. The report is also based on inputs from the high-level political forum on sustainable development and other sources, including the Department of Economic and Social Affairs.

II. Overview

3. In the *Global Sustainable Development Report 2019: The Future is Now – Science for Achieving Sustainable Development* it is stated that "advancing the 2030 Agenda must involve an urgent and intentional transformation of socioenvironmental-economic systems, differentiated across countries but also adding up to the desired regional and global outcomes, to ensure human well-being, societal health and limited environmental impact. Achieving that transformation – a profound and intentional departure from business as usual – means carefully taking into account the interactions between Goals and targets."

4. The *Global Sustainable Development Report 2019* highlights food systems and nutrition patterns as one of the key entry points to leverage interlinkages and accelerate progress and transformation across all of the Sustainable Development Goals. Recognizing the interconnectedness of the Goals, a systemic approach that goes beyond individual Goals and targets has the potential to help eliminate hunger and all other forms of malnutrition, while eradicating poverty through economic growth and employment, sustaining biodiversity and natural resources, and addressing climate change.

5. In the present report, evidence is analysed to expand the understanding of sustainable food systems and examples are provided of promising actions to advance food security, nutrition, agriculture production and the sustainable management and use of natural resources to ensure progress in all dimension of sustainability. Section III contains a review of progress, gaps and challenges in shifting towards sustainable

food systems, and section IV presents a discussion of how integrated approaches in several areas[2] can address trade-offs in food systems. The focus of section V is on partnerships and initiatives with the potential to catalyse collective action. The final section contains recommendations, including for responding to the effects of coronavirus disease (COVID-19).

III. Progress towards Sustainable Development Goal 2 and related Goals and targets

6. In its political declaration adopted in 2019 (General Assembly resolution 74/4), the high-level political forum noted that greater efforts are needed to meet many Sustainable Development Goals, including for most of the food, nutrition and agriculture-related targets.

7. The world is not on track to achieve zero hunger by 2030. In *State of Food Security and Nutrition in the World 2020: Transforming Food Systems for Affordable Healthy Diets*, it is estimated that there are nearly 690 million people in the world, or 8.9 percent of the world population, who are hungry – up 10 million people in one year and nearly 60 million in five years. If recent trends continue, the number of people affected by hunger would surpass 840 million by 2030. A preliminary assessment suggests that the COVID-19 pandemic, under different economic growth scenarios, could add between 83 and 132 million people to the total number of undernourished in the world in 2020.

8. Addressing malnutrition in all its forms remains a major challenge. If the trends of stunting were to continue at the pre-COVID-19 pace, it is estimated that the World Health Assembly target of achieving a 40 per cent reduction in the number of stunted children by 2025 would only be reached in 2035.[3] Likewise, Sustainable Development Goal target 2.2, which calls for the achievement of the internationally agreed targets on stunting and wasting in children under 5 years of age by 2025, will not be reached until 2043, based on recent pre-COVID-19 trends.[4]

9. In 2019, before COVID-19, 21.3 per cent of children under 5 years of age (144 million) globally were affected by stunting; 6.9 per cent (47 million) were affected by wasting; and 5.6 percent (38 million) were affected by overweight.[5] In 2015, 14.6 per cent of babies worldwide were born with low birthweight. Only 44 per cent of children were exclusively breastfed for their first six months of life. Adult obesity continues to rise, with prevalence at 12.9 per cent in 2016. In the same year, 32.8 per cent of women of reproductive age (613 million) were affected by anaemia. The COVID-19 pandemic is expected to exacerbate such trends, in particular in vulnerable households, in the absence of adequate health and social protection systems.[6]

10. People around the world suffer from hunger, food insecurity and malnutrition because they cannot afford the cost of healthy diets. The most conservative estimate

[2] Areas are linked to those themes covered during the high-level political forum on sustainable development held in 2020.

[3] World Health Organization (WHO) and United Nations Children's Fund (UNICEF), "The extension of the 2025 maternal, infant and young child nutrition targets to 2030", discussion paper (n.d.).

[4] Food and Agriculture Organization of the United Nations (FAO) and others, *The State of Food Security and Nutrition in the World 2020: Transforming Food Systems for Affordable Healthy Diets* (Rome, 2020).

[5] UNICEF, WHO and World Bank Group, "Joint child malnutrition estimates, 2020 edition", interactive dashboard, available at https://data.unicef.org/resources/joint-child-malnutrition-estimates-interactive-dashboard-2020/.

[6] FAO and others, *The State of Food Security and Nutrition in the World 2020.*

shows that healthy diets are unaffordable for more than 3 billion people in the world.[7] Healthy diets are estimated to be, on average, five times more expensive than diets that meet only dietary energy needs through a starchy staple. The cost of a healthy diet exceeds the international poverty line (established at $1.90 purchasing power parity per person per day), making it unaffordable for the poor in every region in the world. The cost also exceeds average food expenditures in most countries in the global South: 57 per cent or more of the population cannot afford a healthy diet throughout sub-Saharan Africa and Southern Asia.

11. About 736 million people lived in extreme poverty globally in 2015, 79 per cent of them in rural areas.[8] With the onset of COVID-19, the poverty rate is projected to reach 8.8 per cent in 2020, rising for the first time since 1998 (see E/2020/57). An estimated 71 million additional people will be living in extreme poverty owing to COVID-19.[9] The pandemic will have severe repercussions for access to safe and nutritious food, and poor and marginalized groups will be among those who suffer the most from associated economic shocks. Gender-based inequalities, including reduced access to land, education, skills and the formal sector, leave many women without the means to escape poverty. The extreme poor, and especially marginalized groups, including indigenous peoples, face barriers in accessing productive resources, health, education, decent employment, social protection and public services.

12. Eradicating extreme poverty and ensuring food security and nutrition require economic inclusion and support for sustainable and resilient livelihoods, in particular in rural areas, to protect the extreme poor from risks and shocks.[10] Tackling gender inequalities can also rapidly improve food security, nutrition and the education of children, and can reduce child mortality. When women have access to land and other productive resources, there are immediate, beneficial effects on food security and nutrition in their communities.

13. Urban populations consume almost 80 per cent of food and account for a high prevalence of nutrition-related non-communicable diseases. Rapid urbanization, together with income growth in low- and middle-income countries, is accelerating a dietary transition towards higher consumption of animal products and processed foods, with corresponding shifts in production and additional pressure on natural resources, ecosystems and the climate.[11] COVID-19 has heavily affected the urban poor, threatening steady and affordable access to food. Ensuring access to nutritious food for the urban population is intimately linked to national food and poverty reduction programmes and requires the strengthening of linkages and mobility between rural and peri-urban areas and better connections between sustainable food systems and other systems, such as health systems and environment systems, as well as bold interventions for inclusive economic growth. Cities and local governments play a crucial role in averting COVID-19-related food emergencies and achieving sustainable food systems.

14. Reducing preharvest and post-harvest losses in quantity and quality at the production level in the agriculture, fisheries and forestry sectors is an important starting point to reduce the cost of nutritious foods along the food supply chain. Recent estimates show that about 14 per cent of the world's food is lost during the post-harvest production stage and before reaching the retail level.[12] Causes of losses

[7] Ibid.

[8] See https://unstats.un.org/sdgs/report/2019/goal-01/.

[9] *The Sustainable Development Goals Report 2020* (United Nations publication, Sales No. E.20.I.7).

[10] FAO, *FAO Framework on Rural Extreme Poverty: Towards reaching Target 1.1 of the Sustainable Development Goals* (Rome, 2019).

[11] FAO, *The Future of Food and Agriculture: Trends and Challenges* (Rome, 2017).

[12] FAO and others, *The State of Food Security and Nutrition in the World 2020*.

at the production level include exposure to adverse weather conditions, harvest and handling practices, marketing challenges and inadequate storage conditions. Adequate cold storage can be crucial to prevent losses of perishable foods. During transportation, good physical infrastructure and efficient trade logistics are of key importance to prevent food losses.

15. Biodiversity is indispensable to food security and nutrition, and it is a key component of sustainable food systems. Biodiversity supplies vital ecosystem services and enables increases in food production, helping to maintain healthy soils, pollinate plants, control pests and provide habitats for wildlife. However, globally, species extinction risk has worsened by about 10 per cent over the last three decades (see E/2020/57), including for domesticated plants and animals that are important for food production. For example, of the 7,745 extant local breeds of livestock reported globally, 26 per cent are at risk of extinction.[13] Integrated modelling and economic analysis can help increase agricultural productivity without loss of biodiversity or ecosystem services.

16. The preservation of natural resources and the protection of ecosystems have an impact on food security and nutrition. However, there are alarming trends in the unsustainable management and use of resources, and actions taken to reduce greenhouse gas emissions that lead to climate change, including those in the agricultural sector, have not been fast enough. During the period 2007–2016, the food system was responsible for 21–37 per cent of total anthropogenic greenhouse gas emissions, which makes it a major driver of climate change.[14] Such measures as promoting agroforestry, reducing food waste and discouraging the excess use of fertilizers in agricultural production could reduce that figure.[15] The integration of nature-based solutions into national COVID-19 responses could mitigate short- and midterm effects while ensuring long-term sustainability and resilience. Such measures to address the unsustainable management of natural resources and ecosystems has the potential to improve food security and nutrition, generate income opportunities and economic growth, and build the resilience of people and food systems to shocks, thus preventing future crises.

17. Climate change and the degradation of ecosystems increase disaster and crisis risk, increasing the frequency, intensity and magnitude of climate extremes. It is estimated that between 2006 and 2016, about a quarter of the cumulative damage and loss resulting from climate-related disasters in developing countries was suffered by agriculture. That places the livelihoods, and therefore the income and nutritional sustenance, of the more than 2.5 billion people who depend on agriculture and agriculture systems, and their families, at risk.[16] About 23 per cent of the economic impact of natural disasters is absorbed by agriculture in developing countries.[17] It has also been estimated that as much as 83 per cent of drought-related damage and loss in developing countries happens in agriculture, which is of serious concern given that the frequency and intensity of droughts is likely to be aggravated by climate change.[18] Agriculture and food systems must become more productive, regenerative and resilient to deal with those threats.

[13] FAO and Commission on Genetic Resources for Food and Agriculture. *The State of the World's Biodiversity for Food and Agriculture*.

[14] FAO and others, *The State of Food Security and Nutrition in the World 2020*.

[15] United Nations, *Global Sustainable Development Report 2019*.

[16] FAO, *The Impact of Disasters and Crises on Agriculture and Food Security 2017* (Rome, 2018).

[17] Ibid.

[18] FAO (2018), "FAO's work on climate change: United Nations Climate Change Conference 2018", 2018.

18. Approximately one third of the land used for food, fibre and feed production is degraded, representing 1.6 billion hectares worldwide.[19] Land-use changes, through deforestation, the expansion of crop and grazing lands into native vegetation, unsustainable agricultural and forestry practices and infrastructure development, have led to land and water degradation and put the world's ecosystems under intense pressure, increasing risks of pests and disease. Landscape changes bring people and livestock into closer contact with wildlife, which increases the exposure and risk of disease transmission between them, driving the (re-)emergence of infectious diseases. Land-use changes in tropical systems, or where wildlife biodiversity richness is high, pose a particularly elevated risk.[20] Progress towards Sustainable Development Goal target 15.3 – land degradation neutrality – can reduce such risks while also improving food security.

19. Water availability is decreasing at an alarming rate owing to overuse in the industrial, domestic and agricultural sectors. Agriculture accounts for 70 per cent of freshwater withdrawals worldwide,[21] in particular those related to intensive and large-scale agriculture. In areas with rapidly growing populations and intensifying agricultural production, the world needs innovative models for integrated water management between the different use sectors, as well as technologies for efficient water use.

20. Covering more than 70 per cent of the surface of the planet, oceans and seas provide half of the world's oxygen, sequester carbon and serve as home to 80 per cent of life on Earth.[22] Annual fish consumption has more than doubled since the 1960s.[23] Fish contributes to animal protein intake for poor, rural and coastal communities, especially in low-income food-deficit countries and in small island developing States, addressing "hidden hunger" and micronutrient deficiencies.[24] Fish is more efficiently converted into protein than terrestrial food, with lower environmental impact.[25] However, fish production systems are threatened by climate stress, competition over water resources and overexploitation. Over one third of fish stocks are overfished.[26] Illegal, unreported and unregulated fishing occurs at every stage of the fisheries value chain, affecting vulnerable communities, in particular. The fraction of marine fish stocks that are within biologically sustainable levels decreased from 90.0 per cent in 1974 to 65.8 per cent currently.[27]

21. Shifting to healthy diets that include sustainability considerations would not only help reduce hunger, food insecurity and malnutrition in all its forms (Goal 2) but could deliver enormous savings for costs related to health care (Goal 3) and combating climate change (Goal 13) by 2030. A global switch to healthy diets would almost entirely offset the health-care costs associated with unhealthy diets, estimated

[19] FAO and Intergovernmental Technical Panel on Soils, *Status of the World's Soil Resources* (Rome, 2015).

[20] Mark Everard and others, "The role of ecosystems in mitigation and management of Covid-19 and other zoonoses", *Environmental science and policy*, vol. 111 (September 2020), pp. 7–17.

[21] FAO, *Water for Sustainable Food and Agriculture: A Report Produced for the G20 Presidency of Germany* (Rome, 2017).

[22] FAO, "FAO working for SDG 14: healthy oceans for food security, nutrition and resilient communities", 2017.

[23] FAO, *The State of World Fisheries and Aquaculture 2018: Meeting the Sustainable Development Goals* (Rome, 2018).

[24] Committee on World Food Security, High Level Panel of Experts on Food Security and Nutrition, *Nutrition and Food Systems* (September 2017).

[25] Ray Hilborn and others, "The environmental cost of animal source foods", *Frontiers in Ecology and the Environment*, vol. 16, No. 6 (August 2018), pp. 329–335.

[26] FAO, *The State of World Fisheries and Aquaculture 2018.*

[27] FAO, *The State of World Fisheries and Aquaculture 2020: Sustainability in Action* (Rome, 2020).

to reach $1.3 trillion per year in 2030; while the diet-related social cost of greenhouse gas emissions, estimated at $1.7 trillion, could be cut by up to three quarters.[28]

22. Countries need an integrated approach to transform food systems to prevent the next pandemic, to deliver affordable healthy diets to everyone and to reduce the threat of diseases to local livelihoods and to food and nutrition security. The COVID-19 pandemic, coupled with the emergence of antimicrobial resistance within and across sectors, including human, animal (terrestrial and aquatic) and plant health, highlights the need for integrated approaches that address human, animal and environmental health jointly. While there are some initiatives, urgent action is needed at the national, regional and global levels to scale up the resourcing, implementation and monitoring of national action plans and to take the global measures necessary to address antimicrobial resistance and other health threats, including through multisectoral coordination and surveillance mechanisms.

23. Acute food insecurity is a challenge for countries in special situations. About 135 million people in conflict situations were estimated to be food insecure in 2019 because of conflict-driven acute food insecurity and growing weather and economic shocks. Of the 77 million acutely food insecure people in the world, half were in conflict countries in the Middle East and Asia. The COVID-19 pandemic threatens to exacerbate such conditions and may also worsen acute food insecurity in small island developing States and countries that depend on food imports, remittances and tourism.

IV. Thematic discussion: actions to support transformative change for sustainable food systems

24. Current food systems do not sufficiently support the high ambitions of the 2030 Agenda: they are not serving everyone's nutritional needs and are one of the largest causes of global environmental change – degrading soil, depleting freshwater, polluting waterways, reducing biodiversity and accelerating climate change, with significant social and economic costs. More sustainable practices and approaches exist, and there is enormous potential in food systems to unlock multiple and often reinforcing social, environmental and economic benefits. The challenge is to recognize and minimize trade-offs. Themes covered during the 2020 high-level political forum on sustainable development are used to illustrate the types of synergies and trade-offs that the transformation of food systems can engage.

Theme 1. Ending hunger and improving nutrition and human health

25. Multiple trade-offs and synergies exist among the dimensions of sustainable food production and across spatial and temporal scales. The focus on cheaper calories underpinning diets and the production of energy-dense staple crops has made food (dietary energy) cheap, thus contributing to the reduction of hunger and the threat of famine during the past 60 years, but it has also led to an increase in malnutrition in all its forms. Diversifying cereal production systems to include coarse cereals, such as sorghum and millet, and alternating staple crops with soil-enriching legumes are measures that have proven to be effective for the alleviation of micronutrient deficiencies and also for the adoption of agronomic practices that increase climate

[28] FAO and others, *The State of Food Security and Nutrition in the World 2020*.

resilience and reduce greenhouse gas emissions.[29] The diversification of production also reduces the exposure of farmers to the risk of crop failure, pests and diseases, and price fluctuations, while improving land, soil and water management and increasing resilience to climate change.

26. Food systems with rich genetic and species diversity also have a direct impact on the quality of diets. They can support more diverse food supply chains while ensuring access to and the affordability of safe and nutritious food, especially fruits and vegetables. Coordinated interventions around crop and livestock production, forestry, fisheries and aquaculture are needed to promote sustainable agriculture and should be accompanied by the promotion and incentivization of responsible consumer behaviour and choices. Diverse food supply chains would also be important to mitigate the impacts of COVID-19.

27. In 2014, the Second International Conference on Nutrition adopted the Rome Declaration on Nutrition and its Framework for Action, acknowledging that "current food systems are being increasingly challenged to provide adequate, safe, diversified and nutrient rich food for all that contribute to healthy diets." The United Nations Decade of Action on Nutrition (2016–2025), proclaimed by the General Assembly in its resolution 70/259, includes as the first of its six thematic areas, "sustainable, resilient food systems for healthy diets."[30]

28. Nutrition-sensitive value chain approaches can help countries identify entry points for policy interventions, investment decisions and capacity development to improve food security and nutrition outcomes, including during the pandemic. For example, the use of public food procurement programmes, including school feeding, have shown potential for helping move towards nutrition-sensitive food systems, with benefits for food consumers, food producers and local communities. Strengthening such programmes has the potential to mitigate the effects of COVID-19 by supporting locally produced food and the livelihoods of producers, and increasing food availability where global food and supply chains may be partially disrupted.

29. Support for women working in the agriculture sector (60 per cent of all women working in in South Asia and sub-Saharan Africa are agricultural workers) is also important (see A/73/164), given that women are also among the hungriest in the world. Furthermore, women's nutritional and health outcomes indicate disparities between them and their children and other demographic groups. Based on research in South Asia, women frequently must make trade-offs between time spent doing agricultural work and time left caring for themselves and their children, including time needed to prepare nutritious food.[31] Food systems that address such trade-offs can empower women working in agriculture and reduce hunger.

30. Nutrition is important for pregnant women and infants, to support lifelong health. Undernutrition in pregnancy increases the risks of obstructed labour, premature birth, low birthweight babies and postpartum haemorrhage. Specific nutrition interventions to minimize such risks include support for exclusive breastfeeding up to 6 months of age and continued breastfeeding, together with appropriate and nutritious food, up to 2 years of age; fortification of foods; micronutrient supplementation; and treatment of severe malnutrition.

[29] Kyle Frankel Davis and others, "Assessing the sustainability of post-Green Revolution cereals in India", *Proceedings of the National Academy of Sciences of the United States of America*, vol. 116, No. 50 (December 2019).

[30] United Nations Decade of Action on Nutrition Secretariat, "United Nations Decade of Action on Nutrition 2016–2025: work programme".

[31] United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women), *Progress of the World's Women 2019–2020: Families in a Changing World* (New York, 2019).

31. Promoting responsible consumer behaviour is important for advancing sustainable food systems and incentivizing national policies to improve sustainability in all dimensions. Educating consumers to make healthy dietary choices requires awareness-raising campaigns and nutrition education for lasting behavioural change.

32. Family farming is the predominant form of food and agricultural production in both developed and developing countries, producing over 80 per cent of the world's food in value terms, in particular the food consumed by the rural and urban poor.[32] Family farmers – including peasants, fisherfolk, pastoralists, indigenous peoples, traditional communities, mountain farmers, forest users, women and young people[33] – hold unique potential to become agents of development strategies and contribute to food security and better nutrition.

33. Those working in the agriculture sector and living in rural areas, are often not covered by social protection and public health systems.[34] COVID-19 responses should therefore consider the specific needs of family farmers to maintain productive capacity, in particular where severe impacts of COVID-19 impede access to markets and cause significant food losses. Social protection systems should be extended to rural areas and, along with other public interventions, be used to sustain livelihoods and well-being, thereby mitigating the socioeconomic impact of the COVID-19 crisis.

Theme 2. Protecting and advancing human well-being

34. Efforts to eradicate poverty and hunger are closely interlinked with economic, social and cultural drivers. Higher incomes and decent jobs enable access to higher-quality, nutritious food. In turn, food security and improved nutrition are key enabling factors for adult labour productivity. They also affect children's capacity to develop, learn and grow, affecting both the present learning capacity and the future productivity and earnings of children. Maintaining childhood nutrition is thus essential to break the intergenerational cycle of poverty. Promoting nutrition-sensitive social protection for rural poverty reduction involves strengthening coherence across sectors and policies, enhancing social inclusion and increasing access to sanitation, health and education to promote better nutritional outcomes. Trade-offs between interventions in agricultural sectors, food systems and the environment should be carefully addressed to avoid negative impacts on poverty, hunger and inequality.

35. Poverty accounts for about half of the observed variation in undernourishment and child stunting, especially in rural areas, where poor access to basic infrastructure – including safe water and sanitation – affects both the production and the optimum utilization of food.[35] The extreme poor are the most vulnerable to food price volatility and the most dependent on agricultural activities, often as labourers rather than family farmers, and are dependent upon the use, conservation and restoration of natural resources and biodiversity for their livelihoods. Children, women and indigenous peoples face additional constraints and are even more vulnerable to poverty and food insecurity. Populations in contexts that are characterized by poor nutrition, such as those in prisons, require supplementary nutrition. COVID-19 risks pushing additional millions of people back into extreme poverty.

[32] FAO, *The State of Food and Agriculture: Innovation in Family Farming* (Rome, 2014).

[33] FAO and International Fund for Agricultural Development (IFAD), *United Nations Decade of Family Farming 2019–2028: Global Action Plan* (Rome, 2019).

[34] International Labour Organization, "COVID-19 and the impact on agriculture and food security", 17 April 2020.

[35] FAO, *The State of Food Security and Nutrition in the World 2019: Safeguarding against Economic Slowdowns and Downturns* (Rome, 2019).

36. Women's poverty has been strongly correlated with a lack of household food security and nutritional well-being, yet women continue to be disproportionately associated with lower productivity compared with men, as they are burdened with unpaid care and domestic work, make up a higher proportion of informal labourers, receive lower average salaries and continue to have inadequate access to social protection. It is critical to address the multidimensional factors affecting women's well-being by adopting systemic approaches that address women's risks and vulnerabilities and support the transformation of unequal power relations between men and women (see E/CN.6/2020/3).

37. About 71 per cent of all child labour is concentrated in the agricultural sector. Key policy responses to buffer the impact of COVID-19 and achieve Sustainable Development Goal target 8.7, to end child labour in all its forms by 2025, will not only need to decrease the dependence of farmers on child labour, but also ensure the long-term sustainability and resilience of food systems. That includes domestic supply chains and subsistence farming, as well as opportunities for young people to advance rural transformation and reduce extreme poverty.

Theme 3. Sustainable and resilient food systems: the key role of biodiversity and ecosystems

38. Food production currently utilizes 50 per cent of habitable land, and the expansion of agricultural land continues to be the main driver of deforestation.[36] Deforestation and habitat fragmentation have led to humans and animals coming into close proximity and have been associated with the spread of infectious diseases, threatening livestock and human health. The intensification of livestock production systems to accommodate the dietary preferences of a progressively affluent and urbanized population could increase human vulnerability to diseases through zoonoses and increased antimicrobial resistance.[37]

39. There is an inextricable link between biodiversity, food systems and environmental sustainability. The efficient management of landscapes, seascapes and ecosystems, and their biodiversity, helps to protect natural systems and managed production systems, increase resilience to climate change, shocks and disasters, and, indirectly, reduce human disease risks. Despite progress made since 2010 to conserve biodiversity, the Aichi Biodiversity Targets were not met, and levels of coverage and protection too often have only a minor impact.[38]

40. With attention focusing on increased production, including strengthened national production in areas with less that optimal productive potential, the COVID-19 response may result in additional pressure being placed on natural resources and ecosystems. It will be important to avoid investments that increase pressure on water, land and other resources, while also encouraging efforts to diversify production systems and invest in increasing productivity sustainability to compensate for possible pandemic-related disruptions in global and regional value chains.

41. The current situation provides a space to engage agricultural sectors towards the adoption of an ambitious post-2020 global biodiversity framework that safeguards food security and nutrition, and addresses trade-offs between improved food and nutrition security and the sustainable use of ecosystem services. The framework

[36] United Nations Environment Programme, *Global Environment Outlook 6: Healthy Planet Healthy People* (2019).

[37] FAO, "Shaping the future of livestock: sustainably, responsibly, efficiently", 2018.

[38] A post-2020 global biodiversity framework is currently being negotiated under the aegis of the Convention on Biological Diversity.

should reflect the positive contributions of biodiversity to agricultural sectors and food security, support the enhanced use of biodiversity to increase the sustainable productivity of agricultural sectors and promote measures to increase the sustainability of food production in order to reduce negative externalities on biodiversity.

42. To advance action on biodiversity, several knowledge generation issues require urgent attention: address the critical gaps in data and expand monitoring programmes for biodiversity to increase levels of coverage and the protection of biodiversity; support multidisciplinary research on food and agricultural systems, with an increased focus on the role of biodiversity and healthy ecosystems; and research and widely implement options for sustainably using biodiversity to support food and agriculture. Multi-stakeholder, cross-sectoral and international cooperation is important to facilitate more effective and coherent policies and research and monitoring. Space technologies, including satellite remote sensing integrated with geospatial technologies and location-based services, can be used to monitor the extent of land and water use changes and of the impacts of natural disasters or the long-term impacts of a changing climate on agricultural land.[39]

43. Public policies should recognize the nexus between nature and the economy and account for depreciation of the natural capital, natural resources, loss of biodiversity and negative impacts on ecosystem services. Stronger cooperation between the agricultural and environmental sectors, and increased investments in and integration of biodiversity in national strategic and sustainable development planning would improve results and minimize trade-offs. Holistic and integrated approaches that articulate decision-making processes and promote and incentivize responsible behaviours for protecting the environment and restoring degraded ecosystems are also needed.

44. It is crucial to recognize the contribution of the food and agricultural sectors to the conservation and sustainable use of biodiversity, as well as the key role played by small-scale food producers, indigenous communities and other rural actors. Integrating biodiversity into policies and incentivizing sustainable practices, as well as mapping the impact of practices adopted by public and private actors on biodiversity, have led to positive results in countries.[40] Net positive and sustainable farming or regenerative and/or restorative agriculture and agroecology is an example of a broad nature-based solution that provides net positive gains to nature and biodiversity. Global initiatives, including the United Nations Decade on Ecosystem Restoration (2021–2030) and the United Nations Decade of Ocean Science for Sustainable Development (2021–2030), are helpful in raising awareness and mobilizing action.

45. Participatory land-use planning can help to systematically assess physical, social and economic factors in ways that encourage and assist land users in increasing their productivity and improving sustainability and resilience.[41] Sustainable land and water management approaches optimize ecological interactions between plants, animals, humans and the environment. Integrated landscape management and land resource planning practices can help optimize interactions between different land use types to reverse degradation and improve food security and livelihoods, particularly

[39] FAO and Commission on Genetic Resources for Food and Agriculture. *The State of the World's Biodiversity for Food and Agriculture* (2019).

[40] FAO, Biodiversity Mainstreaming Platform, available at http://www.fao.org/biodiversity/mainstreaming-platform/en/.

[41] FAO, "Participatory land use planning workshop proceedings: Georgetown, Guyana, 17–18 June 2013", Land and Water Division Working Paper, No. 5 (Rome, August 2013).

those of vulnerable populations.[42] Water scarcity must also be addressed. In the Arab region, approaches to management have involved intraregional agriculture and land investment strategies to ensure food security while protecting land rights and the sustainable use of resources.

46. Technologies for sustainable agriculture can play a key role in addressing the challenges facing the agricultural sector in developing countries and increasing the climate resilience of farmers. Mechanization can improve productivity and incomes, benefiting both the food security and the livelihoods of the farming community. Appropriate equipment for application can increase the utilization efficiency of fertilizers and agrochemicals, reduce environmental pollution and improve soil health, while microirrigation techniques can conserve water use while reducing ground water pollution through deep percolation.

Theme 4. Sharing economic benefits

47. Recent decades have seen increases in agricultural production and trade in agriculture and food commodities. Consumers, both in developed and developing countries, have better access to diversified food baskets with lower overall food prices. A sharp increase in developing country participation in global trade has corresponded with an equally sharp decline in extreme poverty worldwide.[43] However, while inequalities between countries were reduced on average, inequalities within countries persisted. Income grew for the poorest 40 per cent of the population in the majority of countries observed between 2011 and 2016, but in more than a quarter of those countries, their income grew less than that of richer households.

48. The participation of developing countries in global food markets has increased, but the globalization of value chains has corresponded with increased specialization, dependence on longer value chains and stricter product quality and safety standards imposed on farmers, which can be difficult for small producers to meet. Many smallholders are left behind, and in some cases the availability, diversity and affordability of food has deteriorated, in particular for the poor, who depend heavily on locally produced and traded food and commodities. Unregulated, large-scale agricultural commercialization might make poor farmers worse off, and interventions are warranted to ensure fair access to profitable markets for smallholder farmers.[44] Support is also needed to improve competitiveness and productivity at the processing level.

49. Diversifying agricultural practices away from illicit crop cultivation can lead to increased food security, income generation, employment opportunities and integration into licit economies. Support to local production and markets would be critical in response to the pandemic, with local production potentially compensating for the possible disruption of food supply chains caused by the economic slowdown and increasing the purchasing capacity of net import countries.

50. To ensure that small-scale producers, small retailers and small and medium-sized enterprises can increase incomes and well-being from participating in long and concentrated food value chains, improvements are needed in infrastructure and access to extension services, innovation and technology. Many experiences have shown that when small and medium-sized enterprises are given access to training and microcredit, smallholders can produce higher quality and environmentally and

[42] FAO and Committee on World Food Security, *Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security* (Rome, 2012).

[43] *The Sustainable Development Goals Report 2019* (United Nations publication, Sales No. E.19.I.6).

[44] FAO, *State of Agricultural Commodity Markets 2020* (forthcoming).

socially responsible products, responding to increasing public awareness of the environmental impacts of agricultural activities and improving rural economies.

51. Public and private investment in storage and light processing can help reduce food loss and waste, while climate information, market access, credit and social insurance should be provided to enable farm families to adapt and diversify their livelihoods.[45] Food loss and waste can be reduced by improving value chain integration and reusing lost produce in view of the circular economy.

52. Young people are three times as likely as adults to be unemployed. Nearly 156 million working young people live in extreme or moderate poverty in emerging and developing countries.[46] Protecting workers and their rights at the workplace and ensuring safe mobility within and between countries is central to fighting poverty and food insecurity. Seasonal migrant workers are made even more vulnerable by the pandemic, as they may not be able to secure seasonal work.[47] Urgent action is needed to ensure that labour force shortages do not disrupt food availability and to support workers, including migrant workers, who have lost incomes owing to travel and other restrictions during the pandemic.

53. More extensive access to information and communications technologies can gradually create additional livelihood opportunities for smallholder farmers, young people and other rural actors, as well as empowering them to contribute to rural development. Countries can develop national digital agriculture strategies, scale up digital services and solutions in the agricultural sector and share knowledge about digital agriculture innovations globally. Investments in communications infrastructures are needed to close the digital divide.

Theme 5. Territorial approaches to bolster local action and accelerate implementation

54. A territorial focus – one that is centred on the development of a territory including multiple sectors and implementation by a range of stakeholders – can strengthen the physical, economic, social and political connections between small urban centres and their surrounding rural areas. In the developing world, about half of the total urban population, or almost 1.5 billion people, live in cities and towns of half a million inhabitants or fewer. Too often ignored by policymakers and planners, territorial networks of small cities and towns are important reference points for rural people, as the places where they buy their seeds, send their children to school and access medical care and other services. Territories can act as catalysts for the transformation of sectors and economic development, bringing together natural and human assets and serving as places for the activation of resources.[48]

55. Full-fledged territorial development is intersectoral and requires extensive consultations with stakeholders and a long-term commitment to coordination across many ministries, which can be difficult to achieve because it requires long-term dialogue and planning. Focusing territorial approaches on food systems can simplify coordination, making it easier to build momentum around a territorial initiative. This

[45] FAO, *Climate-Smart Agriculture Sourcebook: Summary*, 2nd ed. (Rome, 2017).

[46] International Labour Organization, *World Employment Social Outlook: Trends 2019* (Geneva, 2019).

[47] FAO, “Migrant workers and the COVID-19 pandemic”, policy brief, 7 April 2020.

[48] Jean-Philippe Tonneau and others, “The territory: a response to the development crisis”, in *Living Territories to Transform the World,* Agricultures et défis du monde collection, Patrick Caron and others, coordinators (Paris, Editions Quæ, 2017), pp. 27–34.

"agroterritorial" approach is intersectoral to the extent that the food system encompasses agriculture, agro-industry, agroprocessing and associated services.

56. The development of rural economies is often more rapid and inclusive when integrated with that of smaller urban areas. In the agroterritorial development approach, links between small cities and towns and their rural "catchment areas" are strengthened through infrastructure works and policies that connect producers, agro-industrial processors and ancillary services, and other downstream segments of food value chains, including local circuits of food production and consumption.

57. Policymakers should recognize the catalytic role of small cities and towns in mediating the rural-urban nexus and providing smallholder farmers with greater opportunities to market their produce and share in the benefits of economic growth. Small cities and towns can also serve as hubs for a thriving service sector, which would drive broad-based economic growth in rural areas and the structural transformation of the economy as a whole.

58. In the context of a territorial development strategy, a key aspect will be the development of agro-industry alongside the infrastructure needed to connect rural areas and urban markets. In the coming years, many small-scale farmers are likely to leave agriculture, and most will be unable to find decent employment in isolated, largely low-productivity rural economies. A dynamic agro-industrial sector and growth of services in well-connected rural areas would create jobs in local economies, especially for women and young people, improving incomes and supporting overall gains in nutrition, health and food security.

V. Partnership initiatives to accelerate transformative action for Sustainable Development Goal 2

59. Action to transform food systems requires three different, but related, types of activity: (a) understanding the complexity of food systems; (b) identifying leverage points; and (c) mobilizing alliances and partnerships with the capacity to act on that information and deliver the crucial means of implementation. Current data and analysis tend to be subsectoral, however, and investment and coordination are urgently needed to produce the comprehensive evidence and analytical tools that are required to develop a more comprehensive assessment of how food systems can be improved to become drivers of sustainable development. Monitoring the Sustainable Development Goals helps to understand that complexity and the interactions between the various components. Improved data generation and availability should be prioritized and appropriately supported. For example, Sustainable Development goal indicator 2.4.1 (proportion of agricultural area under productive and sustainable agriculture) brings together themes on productivity, profitability, resilience, land and water, and decent work.

60. Integrated data systems and complex analysis across different sectors and dimensions of sustainable food systems are crucial for identifying trade-offs and for better integrating emergency operations and development activities. This is particularly important to help countries mitigate the effects of COVID-19 – including unemployment and food value chain disruptions and the subsequent loss of access to food and nutrition owing to lack of income – and to help build long-term resilience for people and the planet. Prioritizing sustainable food systems in subnational, national and global interventions, maximizing synergies, minimizing trade-offs and using resources effectively will help the world recover from the pandemic and simultaneously ensure that progress towards the 2030 Agenda is not jeopardized.

61. Agro-industry is already an important sector in many agriculture-based economies. Based on data from the United Nations Industrial Development Organization, in sub-Saharan Africa, food and beverage processing represents between 30 and 50 per cent of the total manufacturing value added in most countries, and in some, that figure is more than 80 per cent.[49] However, the growth of agro-industry is often held back by the lack of essential infrastructure. Developing agro-industry through a territorial approach is one way of generating employment, and it leverages the growing demand for processed foods in both urban and rural areas. Territorial planning allows for more integrated interventions to address such issues as land tenure and access for the urban and rural poor to opportunities, services and resources.[50]

62. Southern countries can significantly assist each other in quickening the speed of achieving the Goals. The second High-level United Nations Conference on South-South Cooperation, which was held in March 2019, in Buenos Aires, demonstrated the great potential of South-South cooperation as a means to ensure food security and nutrition, including through the promotion of sustainable agriculture and food systems, and food processing agro-industries.

63. Preparations for the food systems summit, to be held in 2021 as part of the decade of action to deliver the Sustainable Development Goals, will provide an opportunity to consolidate evidence and knowledge about synergies and trade-offs. Stakeholders will have the opportunity to build on ongoing initiatives[51] and bring greater coherence to policy processes and actions. The overarching goal of the summit is to help stakeholders understand and manage complex choices to ensure that future food systems deliver on the objective of ending hunger and malnutrition, stem the increase in obesity and nutrition-related non-communicable diseases, reduce climate effects, protect and restore the environment and biodiversity, and create a more inclusive, equitable and fair economy for all. The summit will provide an opportunity to strengthen the science-policy interface and to develop a robust technical framework for all stakeholders to identify key investment areas, explore avenues for collaboration and foster partnerships to achieve the Goals. Science has a particularly vital role that requires increasing investment in science for sustainability and in natural and social science institutions based in developing countries, as well as expanding access to technologies.

64. The summit will also provide an opportunity to leverage support for other initiatives, align policies and promote the use of existing policy instruments and guidelines, such as the Committee on World Food Security. The Committee is currently developing voluntary guidelines on food systems for nutrition and policy recommendations on agroecological and other innovative approaches. Future work is aimed at accelerating progress towards meeting Goal 2 targets, including thematic areas on gender equality and women's empowerment, the engagement of young people and employment in agriculture and food systems, data collection and analysis, and the reduction of inequalities.

65. Other partnerships and initiatives that have the potential to accelerate integration and scale up progress towards sustainable food systems include various

[49] United Nations Industrial Development Organization, *International Yearbook of Industrial Statistics 2020* (2020).

[50] Vito Cistulli, Mia Heikkilä and Rob Vos, "Global dimensions of malnutrition: territorial perspectives on food security and nutrition policies", in: *OECD Regional Outlook 2016: Productive Regions for Inclusive Societies*, OECD, ed. (Paris, OECD Publishing, 2016), pp. 281–294.

[51] See Jessica Fanzo and others, "The Food Systems Dashboard is a new tool to inform better food policy", *Nature Food*, vol. 1, No. 5 (May 2020), pp. 243–246; Christophe Béné and others, "Global drivers of food system (un)sustainability: a multi-country correlation analysis", *PLoS ONE*, vol. 15, No. 4 (2020).

United Nations decades, such as the Third Industrial Development Decade for Africa (2016–2025), the United Nations Decade of Action on Nutrition (2016–2025), the Third United Nations Decade for the Eradication of Poverty (2018–2027), the United Nations Decade of Family Farming (2019–2028) and the United Nations Decade on Ecosystem Restoration (2021–2030). Capitalizing on the commitment of all stakeholders, United Nations decades mobilize unified action that can assist the pandemic response efforts of countries and foster their efforts to achieve sustainable development.

66. Partners in the Global Network Against Food Crises operate along three interlinked dimensions: generating evidence-based information and analysis; leveraging strategic investments to prepare for, prevent and respond to food crises; and fostering political uptake and functional coordination across sectors to address other dimensions driving food security crises. Their work can help in collecting and disseminating evidence of the impact of COVID-19 on food security and nutrition and in mobilizing actors on the ground to address immediate and longer-term challenges.

67. Sector-specific issues related to agriculture and climate change are also being discussed by the parties to the United Nations Framework Convention on Climate Change under the Koronivia joint work on agriculture. The work focuses on six specific subtopics, such as soil health or livestock management, in a road map leading to the twenty-sixth Conference of the Parties to the United Nations Framework Convention on Climate Change. A report on progress and outcomes of the work is expected at the Conference, to be held in November 2021.

68. The Mountain Partnership addresses the unique challenges facing mountain regions by promoting agrobiodiversity conservation and sustainable food systems in mountains, and strengthening value chains and boosting local mountain economies through partnerships between smallholder farmers and the private sector.[52] Amid the COVID-19 crisis, the partnership is providing assistance to countries to ensure that national responses reach mountain communities, which are among the most vulnerable segments of the population to the impacts of COVID-19 on the economy and supply chains.

69. The United Nations COVID-19 response and recovery multi-partner trust fund is a United Nations inter-agency finance mechanism launched by the Secretary-General to support low- and middle- income programme countries in overcoming the health and development crisis caused by the pandemic. The fund's assistance targets those who are the most vulnerable to economic hardship and social disruption, with three priorities: tackle the health emergency; focus on socioeconomic impact and recovery; and support countries to build back better.

VI. Conclusions and recommendations

70. **The impacts of the COVID-19 pandemic, the extraordinary measures adopted to suppress it and the subsequent economic impacts have exposed significant vulnerabilities in many contemporary food systems. Those vulnerabilities threaten food security and nutrition and risk exacerbating inequalities in access to healthy diets. At the same time, the weaknesses may also be viewed as opportunities for deliberate action to transform agriculture, food security and nutrition to accelerate progress towards achieving the Sustainable**

[52] Mountain Partnership, "Mount Partnership Products initiative", available at www.fao.org/mountain-partnership/our-work/regionalcooperation/climate-change-and-mountain-forests/mountain-partnership-products-initiative/en/.

Development Goals. To accomplish that objective, Governments and their development partners may wish to:

(a) **Recognize that food systems transformation may offer one of the most effective responses to threats to food security and nutrition caused by the COVID-19 pandemic and its broader repercussions;**

(b) **Actively participate in preparations towards the food systems summit, to be convened by the Secretary-General, with a view to consolidate evidence, knowledge and understanding about interconnections, interactions and trade-offs in food systems and to engage with diverse stakeholders in identifying opportunities for improved collective action at the territorial, national, regional and global levels;**

(c) **Support the development and implementation of policies, practices, investments and innovations in agriculture, food supply chains and food environments that enable healthy and balanced diets and provide incentives for public and private sector actors to adopt practices and innovations aligned with the promotion of healthy and balanced sustainable diets;**

(d) **Ensure that nutrition is fully incorporated into policies, programmes, investments and incentives that are provided by the public sector and the multilateral system to encourage the adoption of innovation and good practices across the spectrum of stakeholders concerned;**

(e) **Actively participate in and support the multi-stakeholder policy process of the Committee on World Food Security for the development of voluntary guidelines on food systems for nutrition;**

(f) **Target direct interventions to support family farmers and to enable contextualized, comprehensive and long-term solutions, even in situations of crisis, including measures to re-establish access to inputs, increase demand for produce grown by family farmers and provide financial support, including grants to rebuild production capacity;**

(g) **Recognize the critical dependence of food systems on biodiversity and ecosystem services, promote the improved management of biodiversity, enhance its contribution to ecosystem services and call for better multi-stakeholder, cross-sectoral and international cooperation;**

(h) **Fully integrate biodiversity and ecosystems into strategic national planning, and adopt nature-based solutions to advance the restoration, conservation and sustainable use and management of natural resources and biodiversity, while simultaneously achieving other Goals;**

(i) **When designing policies, carefully address trade-offs between interventions in agricultural sectors, food systems and the environment to avoid negative impacts on poverty, hunger and inequality;**

(j) **Promote decent work, entrepreneurship and green, sustainable technologies and practices in agricultural sectors and value chains to make agriculture and livelihoods more sustainable;**

(k) **Promote territorial approaches to foster the rural-urban continuum and improve food security, reduce poverty and create opportunities for both the rural and urban poor;**

(l) **Recognize the catalytic role of small cities and towns in providing smallholder farmers with greater opportunities to market their produce and share in the benefits of economic growth;**

(m) **Improve social protection and ensure access to basic goods and health protection, including the expansion of cash transfer programmes to low-income family farmers and the inclusion of emergency cash support through existing public agriculture programmes and policies to ensure a minimal level of production;**

(n) **Establish preparedness mechanisms that foster the resilience of people and systems to future shocks, and strengthen international coordination for responses to crises and the mobilization of adequate resources and support to countries.**