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Agriculture development, food security and nutrition

The future of food and agriculture: drivers and triggers for achieving sustainable agrifood systems

Report of the Secretary-General**

Summary

In the present report, the Secretary-General highlights how the transformation of agrifood systems can simultaneously advance progress on multiple Sustainable Development Goal targets, to enable access to safe and nutritious food, reduce environmental impact, increase resilience to conflict, climate and economic shocks, conserve and sustainably manage biodiversity and ecosystems, and contribute to peace and security.

The report contains a review of progress made towards the achievement of Sustainable Development Goal 2 and interlinked targets on sustainable agriculture, food security and nutrition, as well as key drivers and challenges for the future of food and agriculture. Capitalizing on the most recent literature, major threats, challenges and emerging trends are presented to identify strategic opportunities to enable agrifood systems to play their role towards accelerating progress on the 2030 Agenda for Sustainable Development and the Sustainable Development Goals.

The present report complements the *Sustainable Development Goals Report 2023*, entitled “Towards a Rescue Plan for People and Planet”, and the *Global Sustainable Development Report 2023*.

* [A/78/150](#).

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I. Introduction

1. The General Assembly, in its resolution [77/186](#) on agriculture development, food security and nutrition, requested the Secretary-General to submit to the Assembly at its seventy-eighth session an action-oriented report on the implementation of that resolution. Accordingly, the present report contains updates on progress made and maps ways for transformation as follows: institutional innovation for integrated food and agricultural policy support; ways to address trade-offs, improve the sustainability of agriculture and manage resources and ecosystems at all levels; and ways to strengthen the resilience of agrifood systems against shocks, conflicts and crises.

2. The present report was drafted with contributions from across the United Nations system and capitalizes on existing literature and the outcomes of relevant discussions, including the *Global Sustainable Development Report 2023* and the high-level political forum on sustainable development.

II. Overview

3. Progress toward sustainable agriculture, food security and nutrition, already lagging, faces unprecedented global challenges. The fragile recovery from the coronavirus disease (COVID-19) pandemic was disrupted by the war in Ukraine, which amplified multidimensional crises in food, energy and finance, slowing down progress in human and sustainable development.

4. To play their role in achieving the Sustainable Development Goals, agrifood systems must meet increased demand for nutritious food, put less pressure on natural resources, produce fewer greenhouse gas emissions and food waste, be inclusive of multiple sectors and stakeholders, including civil society, Indigenous Peoples, youth and the private sector, be more resilient to climate change, and provide decent, gender-responsive and equitable livelihoods and employment opportunities. This is even more challenging against a backdrop of weakened financial systems and limited fiscal space.

5. “Business as usual” is no longer an option.¹ Only transformative change will lead to the achievement of the Sustainable Development Goals. Achieving food security and nutrition goals requires more sustainable, inclusive and equitable agrifood systems, which in turn requires a better understanding of the multiple interconnected trends influencing food and agriculture. It is essential to identify strategic levers and triggers to unlock transformation at scale.

III. Progress, drivers and challenges in the achievement of Sustainable Development Goal 2 and related Goals

A. Global situation of food security, nutrition and sustainable agriculture

6. Global hunger, measured by the prevalence of undernourishment, remained relatively unchanged in 2022 compared with 2021, affecting around 9.2 per cent of the world population, well above the pre-pandemic level of 7.9 per cent in 2019. It is estimated that between 691 and 783 million people in the world faced chronic hunger

¹ See FAO, *The future of food and agriculture: trends and challenges* (Rome, 2017).

in 2022. Taking the mid-range figure of approximately 735 million, that is about 122 million more people than in 2019.²

7. The economic recovery from the pandemic in 2021 slowed in 2022. Rising prices of food, agricultural inputs and energy, magnified by the impact of the war in Ukraine, undermined the recovery of employment and the incomes of the most vulnerable people, hindering a decline in hunger. Progress was made towards reducing hunger in most subregions in Asia and Latin America, but hunger is still on the rise in Western Asia, the Caribbean and all subregions of Africa. Nearly 20 per cent of the population are facing hunger in Africa.³

8. In 2022, the prevalence of moderate or severe food insecurity at the global level remained unchanged for the second year, after a sharp increase from 2019 to 2020. Some 29.6 per cent of the global population – 2.4 billion people – were moderately or severely food insecure in 2022, 391 million more than in 2019, with relatively more women and people in rural areas denied access to safe, nutritious and sufficient food year round.⁴

9. Among children under 5 years of age, over 148 million (22.3 per cent) were stunted, 45 million (6.8 per cent) were wasted and 37 million (5.7 per cent) were overweight. Steady progress has been made in increasing exclusive breastfeeding for the first 6 months of life and reducing stunting among children under 5 years of age, but the world is still not on track to achieve the targets of Sustainable Development Goal 2. Child overweight has changed little, and the prevalence of wasting is more than double the target for 2030. Globally, there has been no significant change in low birth weight over the past two decades – the prevalence was 16.6 per cent in 2000, compared with 14.7 per cent in 2020 – and no region is on track to attain the target for 2030. Data gaps present a challenge to the global monitoring of low birth weight, as nearly one in three newborns were not weighed at birth in 2020.

10. In 2021, more than 3.1 billion people, or 42 per cent of the world population, were unable to afford a healthy diet due to the increased cost of such a diet and a decline in disposable income. This represents an increase of 134 million people compared with 2019, although the number of people unable to afford a healthy diet actually fell by 52 million people from 2020 to 2021.⁵ In 2022, approximately 258 million people, in 58 countries or territories for which consensus-based evidence exists, faced acute food insecurity at crisis or worse levels (Integrated Food Security Phase Classification phases 3–5).⁶

11. Nearly 670 million people are estimated to be living in extreme poverty around the world, about 8 per cent of the global population.⁷ Over 80 per cent of the world's extreme poor live in rural areas, where about 45 per cent of residents are either severely or moderately poor, compared with 16 per cent of urban residents. That amounts to over 1.3 billion people who, despite their key role in global food production, cannot afford the cost of food and other necessities.⁸ The large majority are family farmers, subsistence producers and agricultural workers, including fishers, pastoralists and forest-dependent people. Nearly two thirds are engaged in small-scale

² See FAO and others, *The State of Food Security and Nutrition in the World 2023. Urbanization, agrifood systems transformation and healthy diets across the rural-urban continuum* (Rome, 2023).

³ Ibid.

⁴ Ibid.

⁵ Ibid.

⁶ See Food Security Information Network and Global Network Against Food Crises, *Global Report on Food Crises 2023* (Rome, 2023).

⁷ See United Nations, *Sustainable Development Goals Progress Report 2023* (New York, 2023).

⁸ Andrés Castañeda and others, "A new profile of the global poor", *World Development*, vol. 101 (January 2018).

agriculture, where poverty rates are more than four times higher than among non-agricultural workers.⁹ Environmental and climate hazards expose the rural poor to greater vulnerability to livelihood shocks, cycles of asset depletion, indebtedness and deprivation.

12. Rural areas host a disproportionate share of people living in multidimensional poverty, further increased by the outbreak of COVID-19,¹⁰ which exacerbated the conditions of the vulnerable rural poor, many of whom depend on mobility, seasonal and migrant work, and remittances.¹¹ Multiple crises have stymied progress in poverty reduction, in particular in low-income countries where agricultural employment represents more than half of the labour force.¹² Worldwide, more than one in four workers are engaged in agriculture, many of them women and mostly as self-employed and contributing family workers. Rural populations are twice as likely to be in informal employment as those in urban areas; in the agriculture sector, 93.6 per cent of workers are in informal employment.¹³

13. The global youth population (15–24 years old) has reached 1.2 billion, 16 per cent of the world's population, and is projected to grow by 7 per cent by 2030.¹⁴ Globally, young people are three times more likely than adults to be unemployed, a situation that was exacerbated by the pandemic. Child labour in agriculture has increased globally since 2016, reaching 70 per cent of all child labour or 112 million boys and girls.

14. While employment in primary agricultural production has progressively declined for both men and women, in 2019, over 1.2 billion people were employed in agrifood systems and 3.8 billion lived in households whose livelihoods were linked to agrifood systems.¹⁵ Globally, 36 per cent of working women and 38 per cent of working men worked in agrifood systems. In sub-Saharan Africa, those rates were 66 per cent for women and 60 per cent for men, while in Southern Asia, the rates were 71 per cent for women and 47 per cent for men. Agrifood systems are a key source of employment for young women aged 15–24.¹⁶

15. The share of men who own land is at least twice that of women in almost half of the countries for which data are available, and just one third of countries have high or very high levels of legal protection of women's land rights. Inequalities and discrimination create a 24 per cent gender gap in productivity and an almost 20 per cent wage gap between women and men in agrifood system-related employment.¹⁷

16. Agricultural productivity growth is slowing. The past 10 years have seen slower growth in yields for most crops, with global agricultural productivity growth falling to 1.2 per cent annually. The average hides variations, with middle-income economies

⁹ Based on a poverty line of less than \$2.15 per day in 2017 purchasing power parity. Another 15 per cent of the global population live below the \$3.65 poverty line, which is more typical of poverty lines among lower-middle-income countries. See Marta Schoch and others, "Half of the global population lives on less than US\$6.85 per person per day", World Bank blog, 8 December 2022.

¹⁰ See World Bank, *Poverty and Shared Prosperity 2020: Reversals of Fortune* (Washington, D.C., 2020).

¹¹ See Carolina Sánchez-Páramo, "The new poor are different: Who they are and why it matters", World Bank blog, 13 August 2020.

¹² See International Labour Organization (ILO), *Advancing social justice and decent work in rural economies* (Geneva, 2022).

¹³ See ILO, *Women and men in the informal economy: A statistical picture* (Geneva, 2018).

¹⁴ See Department of Economic and Social Affairs, "International Youth Day: ten key messages", 12 August 2019.

¹⁵ B. Davis and others, *Estimating global and country-level employment in agrifood systems*, FAO Statistics Working Paper Series, No. 23-34 (Rome, 2023).

¹⁶ See FAO, *The status of women in agrifood systems* (Rome, 2023).

¹⁷ Ibid.

that invested in their agricultural sectors and research and innovation systems maintaining productivity growth; advanced economies experiencing a slowdown due to limited opportunities, reduced investment in public research and development in recent decades, climate change and the reorientation of policies towards non-productivity goals; and low-income countries with insufficient investments and capacity and that have faced repeated climate shocks experiencing slow to no growth. In many cases, the poor have reduced access to innovation investments. Agricultural productivity needs to increase sustainably, addressing international and domestic productivity imbalances while minimizing pressure on nature.

17. Lack of progress on environmental sustainability also raises concern for food and nutrition security. For example, although the contribution of biodiversity to sustainable food systems and the impact of agrifood systems on biodiversity are well-recognized in the Kunming-Montreal Global Biodiversity Framework,¹⁸ biodiversity, at the genetic, species and ecosystem level, is declining at an unprecedented rate. Data on animal genetic resources conservation and the risk of extinction of livestock breeds show that the genetic diversity of farmed and domesticated animals is far from being maintained and that the genetic diversity of agricultural crops has greatly diminished.

18. Environmental sustainability of marine resources is also under threat, including from illegal fishing. Over one third (35.4 per cent) of global stocks were overfished in 2019, but the rate of decline has slowed recently and there are an increased number of biologically sustainable fish stocks.¹⁹

19. The world's forest area continues to decrease, although at a slightly slower rate. Agricultural expansion is driving almost 90 per cent of global deforestation: 49.6 per cent of deforested land is used for cropland and 38.5 per cent for livestock grazing.²⁰ Sustainable forest management has improved, with increases in certified forest areas, including the proportion of forests under management plans and within protected areas.

20. Over 3 billion people live in agricultural areas with high or very high levels of water shortages or scarcity, with severe implications on health and sanitation. Some 1.81 billion people are directly exposed to floods, which pose a significant risk to lives and livelihoods. Agriculture accounted for 72 per cent of total freshwater withdrawals in 2020. Climate change will likely increase water stress levels, with direct repercussions for agrifood systems, the planet and human health and well-being.²¹

21. Agrifood systems account for one third of total greenhouse gas emissions from land-use change and in pre- and post-production processes.²² At the same time, agriculture is highly vulnerable to the impact of disasters and climate change.

B. Drivers and challenges for the future of food and agriculture

22. The worsening trends of hunger, acute food insecurity and malnutrition are a result of the compounding effects of conflicts, climate variability and extreme weather, resource constraints, economic difficulties and social and political instability.²³ Underlying conditions, such as poverty and inequality, sometimes

¹⁸ See www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf.

¹⁹ See United Nations, *Sustainable Development Goals Report 2022* (New York, 2022).

²⁰ Ibid.

²¹ See FAO, *The State of the World's Land and Water Resources for Food and Agriculture 2021: Systems at breaking point* (Rome, 2022).

²² See FAO, *Greenhouse gas emissions from agrifood systems: Global, regional and country trends, 2000–2020* (Rome, 2022).

²³ See FAO Council, "Global food security challenges and its drivers: conflicts and wars in Ukraine and other countries, slowdowns and downturns, and climate change" (Rome, 2023).

underpinned by unfavourable policies, hamper the achievement of food security and nutritional goals.

23. Socioeconomic and environmental drivers strongly influence the functioning and outcomes of agrifood systems.²⁴ On the macroeconomic front, hopes for a steady economic recovery in 2022 were hampered by disruptions linked to the war in Ukraine, anti-inflation monetary policy and a deterioration of financial markets. Global growth is expected to fall from 3.1 per cent in 2022 to 2.3 per cent in 2023.²⁵

24. Debt limits the capacity of middle- and low-income countries to deliver safety nets for future shocks and to invest in agrifood system transformation. High debt exposure linked to the external account crisis and currency depreciation increases the cost of food imports for many countries.

25. The war in Ukraine has triggered a severe cost-of-living crisis with ripple effects in a highly concentrated market for fuel, fertilizers and essential food commodities.²⁶ In 2020, 15 African countries imported over 50 per cent of their wheat products from the Russian Federation or Ukraine, and 6 imported over 70 per cent of their wheat. International commodity prices have declined but are still above pre-pandemic levels.²⁷ Countries experiencing food crises are especially exposed to commodity market volatility, as many of them are low-income net food-importing countries.

26. In 2022, food crises continued to be driven primarily by conflict, insecurity, weather extremes and economic shocks, including the lingering socioeconomic impacts of the COVID-19 pandemic. The structural fragility of food systems and the protracted nature of shocks slowed down recovery. The number of conflicts (including State-based violence, non-State violence and one-sided violence) increased to 170 in 2021, from 121 in 2000.²⁸ Conflict and insecurity were critical drivers of acute food insecurity in the 10 largest food crisis areas: Afghanistan, the Democratic Republic of the Congo, Ethiopia, Myanmar, Nigeria, Pakistan, the Sudan, the Syrian Arab Republic, Ukraine and Yemen. Conflict accounted for around 117.1 million people experiencing crisis or worse food insecurity (Integrated Food Security Phase Classification phase 3 or above) in 19 countries. Four of those countries had populations facing catastrophe levels of food insecurity (phase 5).²⁹

27. Displacement is a driver and an outcome of food insecurity. People flee conflict and disaster, losing their livelihoods and access to safe food, water and other basic needs, and face barriers to income generation, health care and services, further aggravating food insecurity. The number of forcibly displaced people reached 108.4 million at the end of 2022, 14 million more than at the end of 2021.³⁰ Almost 53.2 million people were internally displaced in 25 food-crisis countries and territories at the end of 2022.³¹ In 2022, approximately 19.7 million refugees and asylum seekers were hosted in 55 food-crisis countries and territories, where conflict and insecurity, the pandemic, poverty, food insecurity and weather extremes compounded their humanitarian needs.³²

²⁴ See FAO, *The future of food and agriculture: Drivers and triggers for transformation* (Rome, 2022).

²⁵ See United Nations, *World Economic Situation and Prospects as of mid-2023* (New York, 2023).

²⁶ See United Nations, *Brief No. 1: Global impact of war in Ukraine on food, energy and finance systems* (New York, 2022).

²⁷ See www.fao.org/worldfoodsituation/foodpricesindex/en/.

²⁸ See <https://ucdp.uu.se/>.

²⁹ Yemen, Haiti, Nigeria and Burkina Faso.

³⁰ See www.unhcr.org/about-unhcr/who-we-are/figures-glance.

³¹ See Food Security Information Network and Global Network Against Food Crises, *Global Report on Food Crises 2023* (Rome, 2023).

³² Ibid.

28. Few drivers are as crucial as population dynamics. By 2050, the world population is projected to be 9.7 billion, with the proportion of people living in urban areas expected to shift from 56 to close to 70 per cent.³³ The increased population of Africa will place demands on food markets at all levels. Borders between rural and urban territories and populations are increasingly blurred and populations are becoming more interdependent. The global population is ageing, which is mitigating food demand increases but also affecting the labour market and the average age of farmers.

29. Widespread data generation, control, use and ownership enable real-time innovative technologies and decision-making in agriculture, but also raise concerns that a few players have come to dominate large shares of the market and that big data platforms are able to amass extraordinary amounts of information on consumer behaviour and preferences.³⁴ Input and output market concentration also affects the resilience and equitability of agrifood systems as market concentration increases, mark-ups become more widespread across many sectors and economies, and rent-seeking behaviour dominates at the top of the corporate food chain.³⁵

30. Unsustainable land use changes for agriculture encroaches on forests, leading to degraded ecosystems, lowered antimicrobial resistance and the rise of unsafe handling of animal products, which increases the risk of epidemics and zoonosis. Links have been mapped between the transmission of zoonotic diseases and unsustainable choices and practices and degraded ecosystems.³⁶

31. Recurrent and protracted weather extremes weakened resilience in 2022, with a severe drought in the Horn of Africa, devastating flooding in Pakistan, and cyclones and drought in Southern Africa. The disastrous earthquake in Türkiye and the Syrian Arab Republic in February 2023 caused estimated damages and losses of \$6.4 billion to agriculture, reducing food production in the region and triggering internal displacement and inflation.³⁷

32. The increase in weather and climate-related extreme events has exposed millions of people to acute food insecurity and reduced water security.³⁸ In 2021, weather-related disasters were responsible for the displacement of 22.3 million people worldwide, making such disasters a leading cause of displacement.³⁹ The effects of climate change on agricultural production and food security will have implications for human mobility, with 216 million people possibly migrating by 2050 as a result of climate change.⁴⁰

33. Huge inequalities persist in income levels, job opportunities, access to finance, assets and basic services, penalizing family farmers, vulnerable people, women and

³³ See United Nations, Department of Economic and Social Affairs, *World Population Prospects*, 2022 and 2018 revisions.

³⁴ See [CEB/2019/1/Add.2](#).

³⁵ See United Nations Conference on Trade and Development, *Trade and Development Report 2018* (New York, 2018).

³⁶ See United Nations Environment Programme and International Livestock Research Institute, *Preventing the next pandemic – Zoonotic diseases and how to break the chain of transmission* (Nairobi, 2020).

³⁷ See Food Security Information Network and Global Network against Food Crises, *Global Report on Food Crises 2023* (Rome, 2023).

³⁸ See Intergovernmental Panel on Climate Change, “*Climate Change 2022: Impacts, Adaptation and Vulnerability*”. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.

³⁹ See Internal Displacement Monitoring Centre, *Global Report on Internal Displacement 2022: Children and youth in internal displacement* (Geneva, 2022).

⁴⁰ See Viviane Clement and others, *Groundswell Part 2: Acting on Internal Climate Migration* (Washington, D.C., World Bank, 2021).

young people. Increased inequality can erode social cohesion, leading to political polarization and lower economic growth.⁴¹ Unequal food systems disproportionately affect women and girls, making them more vulnerable to food insecurity and malnutrition, which is exacerbated by climate change, environmental degradation and disasters.⁴²

34. The pandemic has exposed the dependency of agrifood systems on migrant agricultural workers, particularly in high-income countries. Many work under informal or irregular arrangements and face poor housing and working conditions and occupational safety and health hazards, sometimes with no access to health care or social protection. Measures reducing the movement of people result in labour shortages, which affects agricultural value chains and food availability and market prices globally.

C. Governance for agricultural development, food security and nutrition to leave no one behind

35. Concurring socioeconomic drivers generate multiple future threats to agrifood system transformation, requiring multilevel and multi-stakeholder system-based approaches to action. This makes governance for food security and nutrition one of the most pressing priorities of the day.

36. Continuing with conventional agricultural practices that have already eroded the natural resource bases and with quick fixes in reaction to crises risks not being enough to satisfy increased food demand and could lead to further erosion of the natural resource base and to increased poverty.⁴³

37. The interactions of key stakeholders and other relevant actors at all levels, shaped by the characteristics of the unique settings in which they operate, determine the extent to which agrifood systems can deliver accessible, affordable, safe and nutritious food, generate and equitably share wealth, and sustainably manage natural resources, increasing resilience and adaptability to climate change and shocks.

38. Governments tend to deal with development issues by sector, with often limited capacity for integrated planning for transformation. In most countries, cross-sectoral coordination mechanisms exist but with limited effectiveness. Multi-stakeholder initiatives supporting the transformation of agrifood systems require a well-functioning governance system, with inclusive decision-making processes across multiple levels.

39. Appropriate data, monitoring indicators and information systems are key for addressing trade-offs between economic, environmental and social objectives and building common understanding for informed decision-making. However, information often lacks an appropriate level of data disaggregation and criteria for more precise targeting and sharing of results.

40. Estimates of financing needs for making food systems sustainable and inclusive vary. An estimate produced in the context of the 2021 United Nations Food Systems Summit brings the necessary amount to \$300–\$400 billion of additional investment per year, which is less than 0.5 per cent of global GDP.⁴⁴

⁴¹ See International Monetary Fund, *IMF Fiscal Monitor: Tackling Inequality* (Washington, D.C., 2017).

⁴² See [E/CN.6/2022/3](#) and [E/CN.6/2022/L.7](#).

⁴³ See FAO, *The future of food and agriculture: Drivers and triggers for transformation* (Rome, 2022).

⁴⁴ See World Bank, *Food Finance Architecture: Financing a Healthy, Equitable and Sustainable Food System* (2021).

41. While the private sector, in particular farmers and small- and medium-sized entrepreneurs, is the main investor in agrifood systems, public resources remain essential, in particular in low-income countries, as private financing is meagre and commercial credit systems are only accessible to larger players. Public investment in physical and digital infrastructure, extension, capacity development and technology adaptation is key to attract domestic and foreign private investments, including by small farmers and small- and medium-sized enterprises. Transformational change may also require stable funding over the long term, consolidating institutions and greater accountability among all stakeholders.

IV. Future of food and agriculture: levers, triggers and actions for transformation

42. The interplay between the above-mentioned drivers and challenges, risks and uncertainties, and the choices made in public strategies and policies could lead to radically divergent futures. Different pathways may offer transformational opportunities, if information and capacities are available to identify and act upon them, and if stakeholders are able to align with specific economic, environmental and social outcomes to address trade-offs among contrasting objectives and reconcile vested interests and different expectations. To inform decision-making, innovative multidimensional evidence is needed for the identification of accelerators, multipliers and enablers of desired results.

43. The consensus of a number of foresight exercises conducted by various organizations⁴⁵ is that current trends are threatening the sustainability and resilience of agrifood systems and could lead to an increase in food crises. These analyses point to several levers and triggers for change, including the economy and finance, science and innovative technologies, individual and collective action, consumer awareness, income and wealth distribution, institutions and governance, and capacity development.⁴⁶

A. Social and institutional innovation for integrated food and agricultural policy support

1. Repurposing and reforming agricultural producer support to drive transformation

44. Economy and finance are key levers for change. Government support for agriculture needs repurposing. Globally, support to agricultural producers accounts for almost \$540 billion a year, or 15 per cent of total agricultural production value. Support is often biased towards distortive measures, unequally distributed and harmful to environmental and human health.⁴⁷

⁴⁵ See FAO, *The future of food and agriculture: alternative pathways to 2050* (Rome, 2018); FAO, *The State of Food and Agriculture 2021: Making agrifood systems more resilient to shocks and stresses* (Rome, 2021); B. O'Neill and others, *The roads ahead: Narratives for shared socioeconomic pathways describing world futures in the 21st century*, *Global Environmental Change* (2015); European Commission, *2021 Strategic Foresight Report* (Brussels, 2021); Intergovernmental Panel on Climate Change Sixth Assessment Report; United States National Intelligence Council, *Global Trends 2040*; World Economic Forum, *Shaping the Future of Global Food Systems: A Scenarios Analysis* (2017).

⁴⁶ See FAO, *The future of food and agriculture: Drivers and triggers for transformation* (Rome, 2022); United Nations, *Global Sustainable Development Report 2023* (New York, 2023).

⁴⁷ See FAO, UNDP and UNEP, *A multi-billion-dollar opportunity: Repurposing agricultural support to transform food systems* (Rome, 2021).

45. Simply removing, rather than repurposing, agricultural support may have adverse trade-offs. In an extreme scenario, if all agricultural support were removed by 2030, greenhouse gas emissions would be projected to fall substantially, but crop and livestock production and farm employment would also decrease.⁴⁸ In emerging economies, employment could fall by 2.7 per cent.

46. Repurposing agricultural support could be a game-changer by optimizing the use of scarce public resources, with incentives for food systems to be more productive and conducive to healthy lives for all, while preserving natural resources and addressing climate change. At the same time, directing financial capital to more sustainable technologies, industries and practices, and reforming the financial system with sustainable standards could encourage investment in agrifood system transformation.⁴⁹

47. Remittances are also important. Taken together, migrants' remittances and investments are a financing for development opportunity that has proved resilient in the face of economic and social shocks such as the COVID-19 pandemic. Migrants' remittances and investments are larger and more stable than foreign direct investment and official development assistance received by low- and middle-income countries. In 2021, remittances rose to \$773 billion.⁵⁰ Around 40 per cent of remittances are sent to rural areas, where they account for approximately 60 per cent of total household income.⁵¹

2. Incentives for sustainable production and consumption: the critical role of consumers and education

48. Aware and educated consumers prioritize healthier diets and sustainably produced food, if available and affordable for consumers. A combination of coordinated policies, including education, and behavioural and lifestyle changes generated by consumers can contribute to a shift towards sustainable consumption and circularity patterns.

49. Public food procurement can promote sustainable consumption and production, enhance access to healthy diets for consumers of publicly procured food (such as schoolchildren) and generate demand for more sustainable agrifood systems. Public procurement of locally sourced food can also decrease rural poverty by developing markets and providing a reliable source of income for smallholder farmers, while supporting their access to markets, capacities and productivity.⁵²

3. Social commitment, responsibility and individual and collective action

50. Grass-roots mobilization has led to large-scale societal changes. Incentives for strengthening the collective action of small-scale and family farmers and improving their capacity and access to information and capital will enable them to contribute to and benefit from economies of scale, increase their market power and strengthen their voice in decision-making processes.

⁴⁸ Ibid.

⁴⁹ See UNEP, *Driving Finance for Sustainable Food Systems* (Nairobi, 2023); Carlota Perez, "Unleashing a golden age after the financial collapse: Drawing lessons from history", *Environmental Innovation and Societal Transitions*, vol. 6 (2013); Anna Geddes and Tobias S. Schmidt, "Integrating finance into the multi-level perspective: Technology niche-finance regime interactions and financial policy interventions", *Research Policy*, vol. 49, issue 6 (2020); Mariana Mazzucato, "Innovation, the State and Patient Capital", *The Political Quarterly*, vol. 86 (2015).

⁵⁰ See Migration Policy Institute, *Global Remittances Guide*.

⁵¹ See www.ifad.org/en/remittances.

⁵² See FAO and others, *Public food procurement for sustainable food systems and healthy diets*, volumes 1 and 2 (Rome, 2021).

51. By providing services to their members, contributing to local economies and increasing engagement in policymaking, empowered producer organizations⁵³ can contribute to the sustainable management of natural resources and the resilience of agrifood systems. Support for strengthening technical, managerial and business capacities, the provision of services, and market access for small-scale farmers can be a game-changer for the transformation of food systems. The protection of human rights, in particular the rights of women, children, Indigenous Peoples and local communities, allows grass-roots and people-based organizations to advance sustainable development.

52. Universal social protection has important labour supply effects, including reducing child labour in agriculture, facilitating rural-urban linkages to develop alternative sources of income for agricultural workers and enabling the retirement of older persons working in agriculture. Gender-oriented social protection can reduce structural gender gaps, discriminatory gender roles and stereotypes.

4. Employment and rights of agrifood system workers: income and wealth distribution

53. Improving income and wealth distribution can help to address structural inequalities, reducing urban and rural poverty, improving food security and nutrition and achieving economic growth and macroeconomic stability.⁵⁴ Promoting decent employment in agrifood systems, diversifying activities and increasing opportunities in rural and peri-urban areas is likely to help the rural poor,⁵⁵ including rural youth. There is the potential for job creation in green economies, including green jobs and sustainable agriculture.⁵⁶ Young people can rejuvenate the agrifood sector with innovation and the uptake of new technologies while spearheading the digital transformation.⁵⁷

54. Public interventions and social protection measures during the COVID-19 pandemic were crucial for enabling people to cope, but deep-seated inequalities and significant gaps remain.⁵⁸ Increasing the amount and effectiveness of public expenditure on basic public goods such as education, health-care services, food security and justice, food safety and research would contribute to preventing poverty and containing inequality.⁵⁹

B. Ensuring a sustainable natural resource base and strengthening resilience to shocks, conflict and crises

55. Investing in and developing resource- and climate-friendly agriculture is key to safeguarding the natural resource base for future generations. Nature-based solutions

⁵³ According to the FAO terminology bank, producer organizations are membership-based organizations, with elected leaders, that provide various types of economic and social services for their members and represent them in policy discussions. They include formal and informal organizations of small farmers, pastoralists, fishers, foresters and small- and medium-scale entrepreneurs engaged in agroprocessing. These organizations may operate at the local level and can aggregate in unions, federations or apex organizations at the national, regional and international levels (see www.fao.org/faoterm/en/).

⁵⁴ See FAO, *The future of food and agriculture: Drivers and triggers for transformation* (Rome, 2022).

⁵⁵ See Luc Christiaensen and others, "The Future of Work in Agriculture", Policy Research Working Paper No. 9193.

⁵⁶ See International Labour Organization, *Global Employment Trends for Youth 2022* (Geneva, 2022).

⁵⁷ See FAO, *Mainstreaming Youth in FAO's Work Programme* (Rome, 2022).

⁵⁸ See ILO, *World Social Protection Report 2020-22* (Geneva, 2021).

⁵⁹ See ILO, *World Social Protection Report 2020-22* (Geneva, 2021); FAO, *The future of food and agriculture: Drivers and triggers for transformation* (Rome, 2022).

or ecosystem-based approaches could provide around 30 per cent of the cost-effective mitigation needed by 2030 to stabilize warming to below 2°C.⁶⁰ Most nature-based solutions are currently linked with emissions reductions in the agriculture, forestry and other land-use sectors.

56. Nature-based solutions can enhance resilience in agriculture and food production while also mitigating climate change and redirecting investments towards ecosystem service provisions, such as long-term and cost-effective interventions to address water management, soil restoration, biodiversity conservation and sustainable use.⁶¹ With engaged stakeholders, possible conflicting interests of resource users can be balanced against the quality and sustainability of the ecosystem. Such transdisciplinary processes seek to optimize information flows and tap the knowledge of resource users, thereby facilitating solutions and minimizing trade-offs.⁶²

57. Social protection has contributed to improving natural resource management, facilitating access to climate adaptation practices in agriculture and reducing food loss and waste. Public works programmes have helped to support soil conservation, develop irrigation infrastructure, reduce greenhouse gas emissions and encourage reforestation in some countries.⁶³ Social protection also plays a role in making healthier diets more affordable to vulnerable populations and protecting traditional and transitional food supply chains in the event of shocks by helping vulnerable households, especially women, when combined with productive support.⁶⁴

58. Migrants can play a key role in transforming agrifood systems. Adequate policy support, financial remittances, diaspora investment and the transfer of skills and knowledge related to climate-resilient livelihoods and climate-smart technologies can empower migrants to contribute to promoting green agribusinesses, improving access to healthy diets and building sustainable and resilient agrifood systems.⁶⁵

59. Intersectoral, interinstitutional and multi-stakeholder water governance is also critical. Integrated water resources management, combined with approaches that consider the water-food-energy-ecosystem nexus, helps to manage trade-offs and conflicts and reduces water demand, while preventing and managing risks. Better coordination between water governance and climate governance at all levels should address concerns about fresh water in all climate mitigation planning and action. Climate mitigation, particularly when setting coordination mechanisms for nationally determined contributions, should engage with the food and agriculture sector for coherent problem-solving measures across agrifood systems.

60. Water governance needs to be adequately implemented within local contexts to ensure the sustainable and inclusive usage of freshwater resources. This includes the recognition of customary water rights of local and Indigenous peoples, according to their traditional water tenure regimes. Such recognition was included in the Global Dialogue on Water Tenure of the Food and Agriculture Organization of the United Nations (FAO) and is one of the commitments contained in the Water Action Agenda of the United Nations 2023 Water Conference.

⁶⁰ See Nathalie Seddon and others, *Nature-based solutions in nationally determined contributions* (Oxford, 2019).

⁶¹ See F. Miralles-Wilhelm, *Nature-based solutions in agriculture: Sustainable management and conservation of land, water and biodiversity* (Virginia, 2021).

⁶² R. Brears, ed., *The Palgrave Handbook of Climate Resilient Societies* (2021).

⁶³ See www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_860571.pdf.

⁶⁴ See FAO, *The State of Food and Agriculture 2021: Making agrifood systems more resilient to shocks and stresses* (Rome, 2021).

⁶⁵ See International Labour Organization, *ILO global estimates on migrant workers: Results and methodology. Special focus on migrant domestic workers* (Geneva, 2015).

61. Proactive approaches and anticipatory action have proved effective to save lives and resources, as reflected by the optimal results obtained from resilience building ahead of the occurrence of disasters, compared with relief efforts.⁶⁶ To consolidate disaster prevention efforts, linking the humanitarian, development and peace nexus at all levels is critical.

62. Transformative patterns that may comparatively underperform by 2030 may in fact overperform in the long run due to their inbuilt sustainability and resilience. It will take time for necessary structural changes to materialize, such as adjusting policies to demographic changes, accumulating new physical and human capital, reshaping geostrategic influences to reduce the risk of conflict, mitigating climate change and restoring ecosystems. Interventions to strengthen food security need to address both short-term priorities and long-term objectives, to enable systemic changes.

C. Natural plant fibres and sustainable development

63. The natural fibre industry is one of the world's oldest industries, generating millions of jobs and connecting remote producers to world markets. Natural fibres are a good alternative to synthetic fibres and plastic-based products, and their use contributes to climate change mitigation and adaptation, reduced biodiversity loss and strengthened resilience to global market shocks.

64. The value of natural fibre production is estimated at \$80 billion. The industry supports the livelihoods of some 50 million households.⁶⁷ When seasonal employment is included, approximately 200 million people, or 2.5 per cent of the world's population, work in the agricultural segments of natural fibre value chains. Women play a key role in these value chains, and gender-sensitive policies and programmes are needed to ensure the equal distribution of benefits and incomes among women and men. Innovations such as bioplastic products offer market expansion opportunities for the natural fibre industry, while innovative technologies and equipment could boost the industry and increase productivity.

D. Maximizing interlinkages and synergies and minimizing trade-offs for sustainable food and agriculture systems

65. There is no ideal pathway that applies equally to all regions and circumstances, to reflect local conditions and priorities. For example, ambitious conservation measures focused on the protection of large areas of land exclusively for nature may have the greatest impact on the survival of terrestrial species, while equally ambitious approaches that prioritize greener landscapes within farmed and urban environments may result in greater improvements in some of nature's contributions to people.⁶⁸

66. Prioritizing some objectives over others will lead to different outcomes, for example if income distribution and social justice (equity) are prioritized over economic growth (efficiency). Given the multiple cross-linkages between systems, policy solutions may reconcile apparently contrasting objectives. For example, economic and environmental objectives can be balanced through measures to promote soil organic carbon sequestration and maintenance, water retention and reduced greenhouse gas emissions, allowing for adaptation to and mitigation of climate

⁶⁶ See www.fao.org/3/cb7145en/cb7145en.pdf.

⁶⁷ See dnfi.org/.

⁶⁸ See Secretariat of the Convention on Biological Diversity, *Global Biodiversity Outlook 5* (Montreal, 2020).

change and the provision of sufficient food. Incentives for farmers to adopt sustainable practices and support for research and development of new technologies could yield significant results.

67. Internalizing social and environmental externalities to reflect the true cost of food and making information about that cost available to stakeholders would incentivize sustainable agricultural practices and discourage unnecessary food demand and waste. However, the affordability of healthy diets must also be addressed, which would require appropriate government support and targeted subsidies.⁶⁹

68. To evaluate the potential impacts and trade-offs of alternative pathways, the science, knowledge and data relating to agrifood systems must become more transparent and accessible to all countries. Integrated geospatial, biophysical and socioeconomic data, combined with advanced systems-based analytics, can help to identify and evaluate trade-offs across objectives and enable more targeted investments and actions.⁷⁰ The FAO Hand-in-Hand Geospatial Platform provides free access to millions of data layers and tools to inform policy, innovation and investment.⁷¹

69. The 2030 Agenda for Sustainable Development recognizes the need to build peaceful, just and inclusive societies that provide equal access to justice and are based on respect for human rights, including the right to development and the right to adequate food, and on the effective rule of law.⁷² Just transitions that leave no one behind require stronger institutions, with transparent and accountable methods, for evidence-based and participatory decisions, supported by international cooperation and multilateralism.

V. Means of implementation and partnership initiatives to accelerate transformative action for Sustainable Development Goal 2 and related Goals

A. United Nations Food Systems Summit follow-up: delivering for people, planet and prosperity

70. The United Nations Food Systems Coordination Hub, hosted by FAO with support from the International Fund for Agricultural Development, the World Health Organization (WHO), the World Food Programme, the United Nations Environment Programme and the Development Coordination Office, was established to support the follow-up to the United Nations Food Systems Summit held in 2021, which led to over 100 countries developing national food system transformation pathways. The Hub is mobilizing support from a wide range of actors to help countries to implement their national food systems pathways. The Hub engages closely with the Stakeholder Engagement and Networking Advisory Group, which includes producers, women, the private sector, the scientific and technological community, young people and Indigenous Peoples. The Hub is supported by a scientific advisory committee, which includes eight members of the High-level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security.

71. The United Nations Food Systems Summit +2 Stocktaking Moment took place in Rome from 24 to 26 July 2023. The event brought together over 3,300 participants to review the progress made and decisive steps countries have taken since the United Nations Food Systems Summit held in 2021. During the event, the Secretary-General

⁶⁹ See FAO, *The future of food and agriculture: Alternative pathways to 2050* (Rome, 2018).

⁷⁰ See A/76/216.

⁷¹ Available at data.apps.fao.org/.

⁷² See United Nations, *Global Sustainable Development Report 2023* (New York, 2023).

issued his call to action for accelerated food systems transformation, which will inform the Sustainable Development Goals Summit, the twenty-eighth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, and the Summit of the Future. In his call to action, the Secretary-General outlined concrete objectives for the next two years, including embedding food systems strategies into national policies; establishing food systems governance with a whole-of-society approach; investing in research, data, innovation and technology capacities; promoting business engagement and accountability for sustainability; including women, farmers, youth and Indigenous Peoples; and ensuring long-term, concessional finance for food systems transformation.

B. Global partnership initiatives, events and integrated approaches supporting transformative action

72. In 2022, the United Nations Environment Programme joined FAO, WHO and the World Organization for Animal Health to form the Quadripartite alliance on One Health to tackle challenges at the interface of interactions among humans, animals, plants and ecosystems.⁷³ This resulted in the One Health joint plan of action, which is intended to strengthen communication, capacity-building and coordination across relevant sectors.

73. As of June 2023, 61 countries have joined the FAO-led Hand-in-Hand Initiative aimed at unlocking the potential of agriculture for countries to advance their development objectives. An annual investment forum provides a platform for national authorities to present investment opportunities to a variety of potential investors.

74. The United Nations Decade on Ecosystem Restoration (2021–2030) is intended to transform food, fibre and feed production systems and eradicate poverty, hunger and malnutrition through the restoration and management of landscapes and seascapes. World restoration flagships, representing ambitious global restoration success stories, were launched at the fifteenth session of the Conference of the Parties to the Convention on Biological Diversity. Together, these initiatives aim to restore over 68 million hectares and create nearly 15 million jobs.

75. During the mid-term review of the United Nations Decade of Action on Nutrition (2016–2025), the following focus areas for prioritized action in 2021–2025 were identified: access to and affordability of healthy diets; healthy food environments, including regulating the reformulation and marketing of highly processed energy-dense foods high in fat, sugar or salt; and the interconnection of nutrition with the environment and climate change.⁷⁴ The concept of country-led action networks under the Decade of Action on Nutrition inspired the coalitions of action developed in the context of the United Nations Food Systems Summit,⁷⁵ such as the Coalition of Action on Healthy Diets from Sustainable Food Systems for Children and All,⁷⁶ the School Meals Coalition⁷⁷ and the Aquatic Blue Food Coalition.⁷⁸

76. In 2022, the Global Action Network on Sustainable Food from the Oceans and Inland Waters for Food Security and Nutrition, led by Norway, held two webinars on

⁷³ See [www.who.int/news/item/29-04-2022-quadripartite-memorandum-of-understanding-\(mou\)-signed-for-a-new-era-of-one-health-collaboration](https://www.who.int/news/item/29-04-2022-quadripartite-memorandum-of-understanding-(mou)-signed-for-a-new-era-of-one-health-collaboration).

⁷⁴ See www.fao.org/fsnforum/activities/consultations/decade-nutrition-priority-actions.

⁷⁵ See www.un.org/en/food-systems-summit/news/deputy-secretary-generals-closing-press-statement-pre-summit-un-food-systems.

⁷⁶ See www.fao.org/webcast/home/en/item/5840/icode/.

⁷⁷ See schoolmealscoalition.org.

⁷⁸ See www.edf.org/media/aquatic-blue-food-coalition-formally-launches-un-ocean-conference.

aquatic and terrestrial food systems and its sixth network meeting.⁷⁹ The Regional Action Network for the Americas on Sustainable School Feeding, led by Brazil, facilitated the organization of two webinars in 2022, a network meeting and a technical visit by 10 countries to Brazil.⁸⁰

77. The United Nations Decade of Family Farming (2019–2028) is intended to identify and scale up solutions and improve legislation, policies and programmes to unlock the potential of family farmers. Capacity development of rural youth for innovation has been implemented in 34 countries, mostly by family farmers' organizations. Twenty Member States have implemented strategies promoting innovative economic opportunities and market solutions based on family farming. A total of 70 intersectoral coordination mechanisms have been established or reinforced, involving more than 2,600 actors, of which 1,853 are family farmers' organizations.

78. The United Nations 2023 Water Conference, co-hosted by the Governments of Tajikistan and the Kingdom of the Netherlands, had generated over 830 commitments as of June 2023, for acceleration in meeting Sustainable Development Goal 6, and encouraged a whole-of-society response to the global water crisis. Agriculture sector constituencies, the largest sectoral water user (consuming on average 70–90 per cent of a country's freshwater resources), were highly visible at the Conference. Of the commitments made, some 200 contribute to Goal 2 and over 140 to Goal 1.

79. The landmark Kunming-Montreal Global Biodiversity Framework contains goals and targets to address the challenges of biodiversity loss, in the context of sustainable development. At its fifteenth session, the Conference of the Parties to the Convention on Biological Diversity also adopted the plan of action for the International Initiative for the Conservation and Sustainable Use of Soil Biodiversity. In December 2022, FAO and the Government of China launched the Global Soil Biodiversity Observatory, which provides forecasts on the status of soil biodiversity and soil health.⁸¹

80. The 2022 high-level segment of the Council of the International Organization for Migration (IOM) focused on the intersection between climate change, food security, migration and displacement.⁸² The dialogue enabled an exchange on how food insecurity and climate change affect migration and displacement.⁸³

81. To mark the third International Day of Awareness of Food Loss and Waste, held on 29 September 2022, discussions were convened on the climate benefits for people and the planet of reducing food loss and waste.⁸⁴

82. The Global Action Plan on Child Wasting,⁸⁵ developed by FAO, WHO, the Office of the United Nations High Commissioner for Refugees, the United Nations Children's Fund (UNICEF) and the World Food Programme, with inputs from other stakeholders, is a framework for intensifying efforts to prevent and manage child wasting and to meet internationally agreed targets for ending all forms of

⁷⁹ See nettsteder.regjeringen.no/foodfromtheocean.

⁸⁰ See redraes.org/en/events.

⁸¹ The Global Soil Biodiversity Observatory directly addresses several of the targets of the Kunming-Montreal Global Biodiversity Framework, including targets 7, 10, 11, 20 and 21.

⁸² See governingbodies.iom.int/system/files/en/council/113/C-113-9%20-%20DG%20Report%20113th%20Council.pdf.

⁸³ See publications.iom.int/books/international-dialogue-migration-no-34-overlapping-global-crises-impacts-food-insecurity-and.

⁸⁴ See www.fao.org/international-day-awareness-food-loss-waste/en.

⁸⁵ See www.childwasting.org.

malnutrition. Twenty-two of the 23 frontrunner countries have developed costed road maps to reach national wasting targets by 2030.⁸⁶

83. The issue of healthy diets from sustainable agrifood systems was addressed at the twenty-seventh session of the Conference of the Parties to the United Nations Framework Convention on Climate Change.⁸⁷ During the session, the global Initiative on Climate Action and Nutrition was launched, which is intended to find win-win solutions.⁸⁸ The Healthy Diets Monitoring Initiative, established in 2022 by FAO, UNICEF and WHO, supports national and global monitoring of diets to inform policies and programmes across many sectors.⁸⁹

84. Founded in 2002, the Mountain Partnership, hosted at FAO, is the only United Nations voluntary alliance of partners dedicated to mountain peoples and environments. As of May 2023, the Mountain Partnership had 502 members, including 63 governments, 13 subnational authorities, 20 intergovernmental organizations and 406 major group organizations, such as civil society, non-governmental and private sector organizations.

C. Regional food security initiatives contributing to the transformation of agrifood systems

85. At the thirty-fifth ordinary session of the African Union Assembly, the Assembly adopted the theme of the year for 2022: “Strengthening resilience in nutrition and food security on the African continent: strengthening agro-food systems, health and social protection systems for the acceleration of human, social and economic capital development”. Guided by a road map, the African Union Commission implemented a series of activities with stakeholders and partners that contributed to efforts in the areas of food and nutrition security, including strengthening governance and coordination mechanisms.

86. The Platform of Latin America and the Caribbean for Climate Action on Agriculture brings together representatives from 15 ministries of agriculture of the region⁹⁰ to support countries to implement climate change mitigation and adaptation measures.

87. The Inter-American Institute for Cooperation on Agriculture held four seminars on digital agriculture and 40 technical meetings. Together with the Economic Commission for Latin America and the Caribbean and FAO, the Institute co-organized seven seminars, in which over 4,000 professionals from the region participated, and prepared the biennial report on the outlook for agriculture and rural development in the Americas.

88. The examples above reflect the diversity of actors and commitments to the transformation of agrifood systems. The United Nations system has a critical role to play to facilitate further dialogue and participation in support of coordinated action across food, health, environment, economic, financial and governance systems and actors.

⁸⁶ See www.childwasting.org/the-gap-framework.

⁸⁷ See www.fao.org/events/detail/fao-at-cop27/en.

⁸⁸ See www.gainhealth.org/sites/default/files/publications/documents/Initiative-on-climate-action-and-nutrition-I-CAN.pdf.

⁸⁹ See www.who.int/groups/who-unicef-technical-expert-advisory-group-on-nutrition-monitoring/healthy-diets-monitoring-initiative.

⁹⁰ Argentina, Bahamas, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Haiti, Panama, Paraguay, Peru, Mexico and Uruguay.

VI. Conclusions and recommendations

89. Sustainably nourishing close to 10 billion people by 2050, while conserving natural ecosystems and their resources and increasing the resilience of agrifood systems to inevitable future shocks and “unknown unknowns”, is an unprecedented challenge. Incremental and fragmented change will not work. The only way forward is to transform how we produce, process, distribute, consume and dispose of food and agricultural products to balance economic development, resilience, security and well-being in harmony with nature.

90. Governments and their development partners may wish to consider the following:

(a) Taking a long-term, holistic approach to structural problems relevant to food insecurity and poverty, such as political and economic shocks, depleted and unsustainable management of natural resources and socioeconomic exclusion as a result of conflict and protracted crises;

(b) Taking early action to improve the food security and nutrition of poor population segments by making investments to improve productivity and environmental sustainability that increase resilience and stabilize long-term achievements;

(c) Increasing fiscal revenues by broadening the fiscal base, including by tracking and stopping illicit financial flows, and making the fiscal system more progressive, to support inclusive and sustainable development policies, without jeopardizing the macroeconomic stability of countries;

(d) Investing in research to inform repurposing strategies for agricultural support and phasing out the most distorting and damaging policies for nature, climate, nutrition, health and equity;

(e) Investing in and leveraging consumer awareness of and education on healthy diets, especially in high-income countries;

(f) Improving the quality of jobs in agrifood systems by increasing the stability of earnings and improving equitable opportunities and working conditions, in particular for women, young people and migrants, and investing in data collection on employment in agrifood systems and working conditions;

(g) Strengthening the collective action of small-scale and family farmers to realize economies of scale, develop market power comparable to their trading partners, access pluralistic and market-oriented rural advisory services and have a stronger voice in decision-making processes;

(h) Activating financial services that target rural women and their economic activities and facilitating smallholders' access to markets by addressing mobility constraints and transportation restrictions, access to the digital economy and damage from sudden market disruption, and by adopting measures to protect and support women's labour-market participation to reduce gender inequalities;

(i) Recognizing the role of biodiversity, including pollinators, pest and disease control organisms, soil biodiversity and genetic diversity, and moving to protect and restore ecosystems and landscape diversity for productive and resilient agriculture that efficiently uses land, water and other resources;

(j) Revising climate change adaptation and mitigation policies for food security and nutrition to include justice, a human rights-based approach and

sustainability, in the interests of building diversified, equitable and climate-resilient agrifood systems;

(k) Advancing the transformation of the natural fibres sector towards greater sustainability by boosting investment in every segment of the value chain, with a view to reducing per-unit production costs, merging productivity gains with long-term sustainability objectives, and improving fibre characteristics and quality to compete with synthetic fibres (e.g. +Cotton FAO project);

(l) Strengthening the science-policy-society interface, improving public-private transparency, information-sharing and cross-sectoral collaboration, and bringing together modern science and technology and Indigenous, local and community knowledge to find solutions that address trade-offs and balance the economic, environmental and social dimensions of agrifood system transformation;

(m) Increasing engagement with stakeholders to ensure horizontal and vertical policy coherence, including by creating innovative governance mechanisms whereby small-scale producers, women, young people, Indigenous Peoples and other vulnerable groups, including migrants and displaced persons, have an equal say in relevant decisions.
