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Director-General's Foreword

The 2022-23 biennium challenged the world with an unprecedented food crisis, soaring inflation, climate extremes and global conflicts. As we approach 2030, many of the Sustainable Development Goals (SDGs) targets are off track, with over 700 million people suffering from chronic hunger, billions lacking adequate access to food, global average temperatures rising, and those in greatest vulnerability seeing their livelihoods threatened.

Amidst these daunting conditions, FAO has worked hand-in-hand with its Members towards achievement of the SDGs, addressing challenges holistically. Guided by the FAO Strategic Framework 2022-31 in its first biennium of implementation, we sought to support the transformation to MORE efficient, inclusive, resilient and sustainable agrifood systems, for better production, better nutrition, a better environment and a better life, leaving no one behind.

Called upon at key governance fora as a trusted source of information, FAO successfully drew attention to the centrality of agrifood systems to food security, the climate crisis and inequalities, advised on global agricultural commodities markets, and provided assessments of food security and nutrition. FAO convened a diverse array of partners around critical technical issues within the agrifood sector, facilitating dialogue and collaboration that is essential for innovative and sustainable solutions. The World Food Forum showed its potential for championing innovation, stimulating investment, and engaging global youth.

FAO leveraged scientific and traditional knowledge to provide Members with expertise tailored to their contexts and needs, spearheading transformative actions that are reshaping the way food is grown, marketed, and consumed. The strategies on science and innovation and climate change provided a framework for prioritization and ensuring synergy, coherence and coordination.

In this document we describe how, with FAO's support, Members enhanced food availability, accessibility and affordability, and improved food safety, prevented and responded to pests and diseases, protected and restored ecosystems and biodiversity, prepared for and responded to crises, fostered social and economic inclusion, and embraced the potential of innovation and digitalization within their agrifood systems.

Our efforts were underpinned by our commitment to data-driven decision-making and innovation. The suite of FAO's data products, including the Hand-in-Hand Geospatial Platform and flagship initiatives such as the One Country One Priority Product, guided action.

We know we cannot achieve our vision alone. Transformative partnerships with a broad range of public and private partnerships allowed leveraging our respective strengths, while resource mobilization levels reached new heights soaring beyond the USD 4 billion mark and breaking records for the second biennium in a row, as partners reaffirmed their trust in the Organization.

A profoundly transformed FAO made these achievements possible. Since taking office in 2019, I have continuously focused on reinvigorating the Organization to ensure it is fit-for-purpose and future-ready. Restructuring headquarters, Regional and Subregional Offices, and now with a focus on Country Offices, has ensured more flexible and modular approaches, moving away from rigid hierarchies and strengthening the accountability of heads of units. A strong Core Leadership team, with A and B reporting lines, facilitates coordinated action and decision-making. Our global workforce is motivated and committed, with the principles of respect, inclusiveness, and integrity underpinning our internal culture. Corporate events bringing our workforce together and solid arrangements for implementing the FAO Strategic Framework, improved our ability to act as One FAO with a unified vision across all levels of our operations.

This biennium brings to conclusion the "Four Es" at the heart of the mission of my first term: Efficiency, Effectiveness, Extraordinary and Excellence. For the years ahead, I am committed to building on good practices and lessons learnt to achieve the "Four Rs": Recover, Reform, Rebuild, and Renaissance.

I look forward to our continued collective journey towards 2030.

QU Dongyu
Director-General

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About this report

1. FAO was established on 16 October, 1945 with the purpose of "*…raising levels of nutrition and standards of living of the peoples under (Members') jurisdictions; securing improvements in the efficiency of the production and distribution of all food and agricultural products; bettering the condition of rural populations; and thus contributing towards an expanding world economy and ensuring humanity's freedom from hunger*".[1]

2. The Organization's functions relating to nutrition, food and agriculture[2] are further described in its Constitution, including to: 1) collect, analyse, interpret, and disseminate information; 2) promote and recommend national and international action with respect to: scientific, technological, social, and economic research, the improvement of education and administration relating to nutrition, food and agriculture, the spread of public knowledge, the conservation of natural resources and adoption of improved methods of production, the improvement of processing, marketing and distribution of food and agricultural products, the adoption of policies for provision of adequate agricultural credit, and the adoption of international policies for agricultural commodity arrangements; and 3) to provide technical assistance as governments may request.

3. Hence, FAO was conceived, and plays an indispensable role, as a global knowledge organization in the fields of food and agriculture and agrifood systems. With its wide-ranging multidisciplinary expertise, FAO is in a singular position among multilateral actors to be able to address holistically, and at the highest of standards, these interlinked systems, and their complex dynamics, supporting countries in channeling that knowledge into context-specific policies, programmes and investments. Moreover, the UN Rome-based Agencies and a wide range of UN and other partners, rely on FAO's technical knowledge and expertise in order to most effectively carry out their mandates. The Organization, therefore, plays an essential "upstream" role that has a multiplier effect on results, as it catalyses and enables a multitude of other actors to contribute collectively to positive change on the ground, towards the transformational outcomes of the 2030 Agenda.

4. This Programme Implementation Report (PIR) informs the membership about the Organization's initiatives, areas of work and results achieved during the 2022-23 biennium as planned in the Programme of Work and Budget 2022-23 (PWB) and subsequent adjustments. It is an accountability document required by the FAO Basic Texts whereby Conference Resolution 10/2009 in Section II.F, introduces "*a revised system of monitoring of performance based on achievement of planned results, including a revised biennial Programme Implementation Report. Each report will cover the previous biennium and provide information on delivery, targets and indicators of results, as well as efficiency indicators for functional objectives*." As such, the PIR 2022-23 builds on the Mid-Term Review Synthesis Report 2022, to report on key achievements under the established results framework, as well as expenditures, resource mobilization and lessons learned with regards to both FAO's technical work in support of Members at global, regional and country levels, and the internal enabling environment.

5. This PIR 2022-23 informs of technical achievements of the Organization in support to the implementation of the Agenda 2030 through the transformation to MORE efficient, inclusive, resilient, and sustainable agrifood systems for *better production*, *better nutrition*, *better environment* and a *better life*, leaving no one behind – while at the same time ensuring accountability for reporting on output, outcome and impact indicators within the results framework laid out in the Medium Term Plan (Reviewed) 2022-25. The main text of the PIR provides a focused narrative around key selected initiatives and achievements, with the full corporate accountability information included in the Annexes.

6. Chapter I – *Transforming agrifood systems* provides a high-level overview of the work undertaken by the Organization during the biennium.

7. Chapter II – *Supporting the 2030 Agenda* describes selected highlights of technical work and key related achievements in contributing to each of the Programme Priority Area outcomes, with a clear line of sight towards specific targets of the Sustainable Development Goals. The full breadth of the Organization's results are captured and communicated through the corporate results framework in *Annex 1*, complemented by the reports on the implementation of the corporate thematic strategies in *Annexes 4* and *5*.

[1] FAO Basic Texts, Section A, *Constitution*

[2] Including fisheries, marine products, forestry, and primary forestry products.

8. Chapter III – *Calibrating the response: Strategic focus on agrifood systems transformation* presents highlights in tools and mechanisms steering the Organization towards critical priorities that catalyse impact, promoting coordination and coherence and leveraging its comparative advantages, while adapting to the needs and priorities of specific contexts.

9. Chapter IV – *Delivering with excellence* provides an overview of key improvements to internal management processes and structures, transforming FAO into an inclusive Organization that is fit-for-purpose and cultivates a transparent and ethical work environment that rewards excellence. It also informs on focus placed on achieving efficiencies in FAO's operations.

10. Chapter V – *Financial performance* provides highlights on expenditures and mobilization of resources. *Annex 2* provides more detailed reporting on the evolution of total resources, the performance of the Programme of Work, use of the unspent balance of the 2020-21 biennium, special budgetary chapters and the Multidisciplinary Fund, resource mobilization and cost of the field programme.

11. Other Annexes provide information on, the monitoring methodology (*Annex 3*), progress in implementation of the strategies on science and innovation (*Annex 4*) and climate change (*Annex 5*), an overview of the Value-Added Impact Areas (*Annex 6),* the FAO Policy on Gender Equality and the UN System-wide Action Plan on Gender Equality and the Empowerment of Women (*Annex 7*) gender and geographical distribution (*Annex 8*), and the policy framework on multilingualism (*Annex 9*).

I. Transforming agrifood systems: A biennium in review

12. At the midpoint of the 2030 Agenda for Sustainable Development (2030 Agenda) timeline, the latest data indicate that, despite progress in certain areas, critical Sustainable Development Goal (SDG) targets related to agrifood systems are still lagging, and concerted and intensified efforts are required for their achievement by 2030. Progress made in the past two decades has stagnated, and in some cases even reversed, and while certain SDGs have indeed advanced, other Goals remain off-track in the face of daunting challenges in eradicating poverty and hunger, reducing inequalities, improving health and nutrition, and combating climate change.

13. In 2022, about 735 million people faced hunger, nearly 2.4 billion lacked regular access to adequate food, and over 3.1 billion (over 40 percent of the world population) could not afford a healthy diet. By the end of the 2022-23 biennium, global food security continued to be strained by a broad range of natural and man-made crises, underpinned by multiple structural factors, and almost 600 million people are projected to be chronically undernourished in 2030. Global greenhouse gas emissions also continued to increase, and the global average near-surface temperature surpassed 1.4°C above pre-industrial (1850-1900) levels. The agrifood systems approach of the FAO Strategic Framework 2022-31 provides a holistic strategy for improving food security, nutrition and livelihoods, enhancing production while mitigating and adapting to climate change and its impacts, and maintaining and restoring biodiversity and ecosystems.

Leveraging the FAO Strategic Framework 2022-31

14. In its first biennium of implementation, the FAO Strategic Framework 2022-31 provided a robust roadmap for FAO's support to achieving the SDGs, with its *four betters* reflecting the interconnected economic, social and environmental dimensions of agrifood systems.

15. The systems approach embedded in the Strategic Framework ensured that the challenges posed by food insecurity, climate change, poverty and inequality were not addressed in isolation, and that holistic solutions were translated into concrete actions, policies and investments. Amidst the lingering effects of the COVID-19 pandemic, an unprecedented food crisis, soaring inflation, a slowdown in the global economic growth, increasing inequality, intensified pressures of climate change and global conflicts, FAO spearheaded transformative action towards MORE efficient, inclusive, resilient and sustainable agrifood systems, for *better production*, *better nutrition*, a *better environment* and a *better life*, leaving no one behind.

16. The 20 interdisciplinary Programme Priority Areas (PPA) guided FAO in filling key SDG gaps and putting in place the conditions needed to drive the changes that will contribute to the achievement of the prioritized SDGs. Value-Added Impact Areas prioritized key actions and initiatives for accelerating progress across the *betters*, and the corporate strategies on science and innovation and climate change guided and bolstered FAO's contributions in these critically important areas, contributing to the *four betters* and the 2030 Agenda. Country Programming Frameworks, derived from priorities agreed with governments through the common UN country programming processes, defined country results that were fully integrated in the FAO strategic results framework, ensuring FAO's contributions were context-relevant, and provide the basis for FAO's "bottom-up" programming. In addition, implementing strategic priorities and action plans on mainstreaming biodiversity, food safety, private sector engagement, as well as a focus on gender equality, Indigenous Peoples and rural youth, ensured coherence across FAO in these important areas.

Global leadership rooted in technical expertise

17. The Organization emerged as a strong leader on the global stage and proved itself as a trusted source of real-time information on global markets and assessments of the impact on food security and nutrition. FAO's wide-ranging suite of related data products include its award-winning Hand-in-Hand Geospatial Platform, Data in Emergencies information system, Data Lab for Statistical Innovation, soil nutrients mapping, Water Productivity Open-access Portal (WaPOR), Agricultural Market Information System (AMIS), fertilizer tracker and Global Forest Monitoring tools.

18. FAO has cemented its status as a reliable and respected partner in shaping the global agenda and is recognized as an honest broker and provider of science-based technical expertise responding to regional and country needs. The Organization is regularly called upon to inform and advise at key global governance fora such as the UN Security Council, UN General Assembly, G77+China and the G20.

19. Leveraging its authoritative role and neutral status as a UN specialized agency, FAO convened government representatives, experts and policymakers around specific issues at the core of agricultural production, such as the first

Global Conferences on Sustainable Livestock, Agricultural Mechanization, and Sustainable Plant Production. The Secretariat of the International Plant Protection Convention hosted by FAO co-organized the first International Plant Health Conference and FAO brought together experts, policymakers and stakeholders from around the world to address issues such as soils and water, oceans, forest monitoring and animal feed. The World Food Forum continued to grow, with over 65 000 participants from over 180 countries.

20. Media coverage increased by 7 percent, exceeding the target, social media followers surpassed 8.2 million, FAO messages received over 2.6 billion mentions in a year, and visitors to the FAO website continued to increase by 30 percent in 2023 alone.

Informing the global agenda

21. FAO successfully drew attention to the centrality of agrifood systems transformation as a solution to the immediate food security concerns, while managing perceived tradeoffs to protect people's livelihoods and wellbeing, and ensuring the sustainability of our planet. This was agreed by the international community, and agrifood systems are now prominent in the global response to the food crisis, climate agenda, reversing nature loss and achieving the SDGs.

22. Countries responded to the call of the UN Food Systems Summit +2 Stocktaking Moment and came together to review progress and priorities for food systems transformation. At the 2023 SDG Summit, FAO carried the message that efficient, inclusive, resilient and sustainable agrifood systems are core for achieving the 2030 Agenda and critical to world food security and nutrition. Agrifood systems transformation is a High Impact Initiative for accelerating the SDGs and one of the designated "six transitions" of the United Nations Development System repositioning.

23. With the urgency to take climate action and address an unprecedented food security crisis, FAO advocated for scaling up investment in agriculture and championed efficient production and trade, accelerated innovation and adoption of technology. At the 28th Conference of the Parties (COP28) of the United Nations Framework Convention on Climate Change (UNFCCC), 159 countries stressed that agrifood systems are critical on the path to fully achieving the long-term goals of the Paris Agreement.[3]

24. At the 15th meeting of the Conference of the Parties (COP15) to the Convention on Biological Diversity, FAO fostered dialogue between the environmental sector, often focused on conservation, and the agricultural sectors. FAO highlighted that protected areas were critical for the food security and cultural integrity of the world's peoples. The 196 countries that adopted the Kunming-Montreal Global Biodiversity Framework (GBF) recognized the centrality of agrifood sectors. Crop and livestock production, forestry, fisheries and aquaculture are directly related to over half the GBF targets and the monitoring framework includes many indicators under FAO custodianship.

Supporting Members in achieving the SDGs

25. FAO delivered tailored, evidence-based solutions to support countries in accelerating the achievement of the SDGs by producing more with less use of resources, ensuring availability of sufficient safe, nutritious food today and in the future while protecting and restoring the environment, and securing livelihoods for agrifood systems actors.

26. Implementation of the 2022-23 Programme of Work was context-specific, in consideration of the diversity of challenges, needs and capacities and mindful of how interventions impact different population groups in different ways. FAO provided targeted people-centred policy proposals to address the soaring costs of healthy diets and assist countries in realizing the right to food, stepped up its emergency and humanitarian response actions, and brought an agrifood systems perspective to the prevention and control of high-impact diseases, establishment of early warning systems, and distribution of essential supplies and emergency management, applying the One Health approach. The Organization leveraged data, science, technology and evidence, including traditional knowledge; shared innovative, sustainable and climate-resilient production and post-harvest management practices; provided expert policy and legislative assistance; facilitated inclusive policy dialogue; supported agrifood standard-setting; catalysed public and private investments; facilitated the establishment of food governance mechanisms at national, subnational and local levels; and promoted technological, social, policy, institutional, and financial innovations.

27. The Small Island Developing States (SIDS) Solutions Dialogue Series provided Members with a forum for discussing the severe and specific challenges faced by SIDS in areas such as the impact of climate change and food prices,

[3] https://www.cop28.com/en/food-and-agriculture

and disaster risk reduction and sustainability of fisheries and aquaculture. The Status of Women in Agrifood Systems Report provided action-oriented policy messages on closing gender gaps.

28. FAO's expertise was also put at the service of improved food safety, in application of Codex Alimentarius guidelines; assessments of the costs associated with healthy diets; support for the mitigation of the impact of price shocks on the cost of agricultural inputs, including fertilizers; and the protection and restoration of ecosystems and biodiversity.

Mobilizing partners and leveraging resources

29. Transforming agrifood systems so that they produce more food with greater socio-economic benefits and less impact on the environment and natural resources can only succeed through building broad collaboration with public and private stakeholders, and the inclusion and engagement of farmers, women, youth, small-scale producers and Indigenous Peoples. Overall, FAO worked closely with a broad range of partners and stakeholders at country level, and 97 percent of them, when surveyed, confirmed they would collaborate again with FAO.

30. The Organization also boosted transformative partnerships, including with the Rome-based Agencies and through South–South and Triangular Cooperation, and enhanced its engagement with the private sector, while further safeguarding neutrality and impartiality.

31. Funds mobilized increased by over 50 percent compared to 2020–21, an already record-breaking biennium. The historic level of resources mobilization, USD 4.2 billion, evidences the confidence and trust placed in FAO as the UN leader in agrifood systems, including unprecedented amounts mobilized from International Financial Institutions and climate financing mechanisms such as the Green Climate Fund and the Global Environment Facility. Working under a unified vision, FAO also sought sources to further complement and diversify its funding modalities by leveraging public and private investments in agrifood systems.

One FAO, strategic, efficient, responsive and fit for purpose

32. At the root of these extraordinary achievements is a renewed Organization, implementing efficient, streamlined processes and effectively working as One FAO, with a highly skilled and motivated workforce expressing increased job satisfaction and that they feel respected, valued and proud to work at FAO, as measured through the 2022 Employee Satisfaction Survey.

33. In 2022-23, the Organization spent a total of USD 4.2 billion, with USD 1.0 billion under net appropriation resources and USD 3.2 billion under extrabudgetary resources. Clear implementation arrangements promoted widespread ownership of the FAO Strategic Framework in support of a programmatic approach. Revised regional and subregional office structures align to headquarters and highlight the common high-level functions across regions, while adapting to specific needs and priorities. Increased consistency in corporate communication policies, visual identity and guidance allowed speaking with one voice across the workforce. Employees around the world were brought together virtually through town halls and corporate events such as the Employee Recognition Awards and, for the first time in decades, FAO Representatives came together at headquarters in 2023 at a to-be-annual Global Working Conference to develop an action plan for improving country office management and ensuring a coherent network.

34. Impactful and service-oriented, FAO operations are now transparent, efficient and effective. The Organization shifted from a risk-averse to a risk-aware paradigm, also to help unlock innovation. Information system dashboards and other digital tools facilitate monitoring and help flag issues requiring attention by managers. An inclusive and participatory review of the Technical Cooperation Programme improved the predictability and governance of the funds, as well as the transparency, efficiency and effectiveness of the expertise made available to Members.

35. The FAO Roadmap for Implementing the United Nations Efficiency Agenda establishes clear governance mechanisms and encapsulates the Organization's commitment to business transformation and achieving efficiencies. Throughout the biennium, the Organization embraced automation and focused on collaborating with the UN system on joint procurement and in UN Business Operations Strategies in 119 countries.

36. Environmental concerns are now fully considered in FAO's facilities and operations. The new safeguards policy, FAO's Framework for Environmental and Social Management, requires assessing the climate risks and greenhouse gas emissions of FAO interventions. Building and lighting renovations, food waste reduction, water conservation measures, and a strong focus on becoming a fully digital FAO reduced FAO's carbon dioxide footprint and maintained emissions far below pre-pandemic levels.

37. Promoting a people-centered culture based on the principles of respect, understanding, inclusiveness, appreciation and integrity created a safe work environment. Implementation of the Code of Ethics and the work of the Inspector General, the Ethics and Ombuds Offices, as well as the Oversight Advisory Committee, combined with increased capacity for investigations and focus on fraud prevention and awareness, strengthened transparency and accountability. FAO also firmly implemented its policy of zero tolerance for sexual abuse and harassment.

38. The Women and Youth Committees, the young talent programmes and the FAO Mentorship Programme contributed to a diverse and dynamic workforce, fostered sharing of experiences and promoted innovative ideas. The Organization launched a strengthened framework for learning and career development and the number of highly qualified internal candidates being selected for vacancies, including promotions, has steadily increased.

Risks and opportunities

39. As FAO moves into the second biennium of the Medium Term Plan, the Organization will continue supporting its Members in addressing agrifood systems challenges with a holistic approach that carefully assesses and balances trade-offs, viewed through the lens of the SDGs 1, 2 and 10 guiding the FAO Strategic Framework, and strengthening the focus on addressing the needs and realizing the potential of all people, especially those at risk of being left behind.

40. A key strategy will be harnessing innovative technology and digital solutions, to further upscale and replicate successful experiences in digitalization, including through the implementation of the FAO Science and Innovation Strategy. FAO will also work to scale-up sustainable practices, through transfer of knowledge and capacity development, and to leverage the complements accelerator by providing targeted support for human capital and institutional strengthening and the development of policies and legislation essential on the pathway towards long-lasting impact.

41. Government spending on agriculture, one of main sources of investment in the sector, has increased in nominal terms, but the agricultural orientation index has declined. With an estimated annual financing gap of USD 3.9-4.3 trillion to achieve the Sustainable Development Goals, securing adequate and timely funding remains a challenge. FAO will continue exploring innovative financing mechanisms and assessing its current funding situation in view of external trends, challenges, needs and opportunities. The Organization will seek to more effectively capitalize on its unique potential for catalysing and enabling investments by other actors and consider improvements to its funding model for increased sustainability and impact.

42. Prioritizing efficiency and value-for-money and streamlining the administrative function, while maintaining and enhancing the Organization's technical capacity and oversight, has enabled FAO to continue supporting its Members despite a flat nominal budget over six biennia. As it moves forward, FAO will continue to enhance the efficiency of its support services and strengthen its engagement in the UN efficiency agenda to gain further efficiencies, reporting to Members on progress at regular intervals.

43. Guided by the FAO Strategic Framework 2022-31 and the call to realize the *four betters*, FAO will continue the journey towards the promise of the 2030 Agenda.

II. Supporting the 2030 Agenda

Leading the way in agrifood systems transformation

44. In 2022-23, as the world was beginning to recover from the effects of the COVID-19 pandemic, the global economy experienced a renewed slowdown fueled by a series of overlapping crises. The global fallout from the war in Ukraine and other conflicts, soaring food prices and inflationary pressures challenged the quantity and quality of the food that people could access. Compounding the food access problem, future availability was threatened by soaring fertilizer prices, climate extremes, increased frequency of disaster events, and risks to food quality and safety posed by crop contamination and outbreaks of pests and diseases.

45. As a result, both the number of people affected by chronic hunger and the prevalence of undernourishment increased, as did the number of people moderately or severely food insecure, and those unable to afford a healthy diet. In addition, there was a marked increase in acute food insecurity, with a significant number of people severely malnourished, at risk of death or already facing starvation and death. Global markets remained vulnerable in the face of these heightened risks and uncertainties, with many countries constrained in their response due to tightening financial conditions, mounting debt levels and sudden changes in trade policies.

46. In the face of these daunting and unprecedented challenges, FAO's strategic contributions were crucial for boosting food security, ensuring continuity in agricultural productivity, mitigating crises and building resilient livelihoods, and tackling global issues like climate change and biodiversity loss.

Shaping the response to the food crisis

47. As a respected source of information on food and agriculture, FAO was instrumental in framing the global response to the food crisis. The Organization advocated for putting investments in agriculture at the core of the response, providing neutral and timely information on markets, food security and nutrition, and targeted policy proposals. Its advice was sought by global governance mechanisms such as the **UN Security Council**, **G7** and **G20**. With the International Monetary Fund, World Bank, World Food Programme and the World Trade Organization, FAO issued **Joint Statements on the Global Food Security and Nutrition Crisis**. FAO's proposal for a Global Food Import Financing Facility led to the establishment by the International Monetary Fund of the Food Shock Window, providing USD 1.8 billion in support to countries facing acute shortages.

48. FAO reaffirmed its leadership role in global food security governance, co-leading the work stream on food of the **UN Global Crisis Response Group on Food, Energy and Finance** and leading other major coordination and convening bodies such as the **Global Network Against Food Crises** and the **Global Food Security Cluster**.

49. FAO has positioned agriculture solidly at the core of the humanitarian-development-peace nexus, gaining a significant voice in important global dialogues, including at the **UN Security Council**, by highlighting the critical intersection of climate change, conflicts, and food insecurity. The Organization supported UN entities' analysis and reporting on climate risks, improving strategic coordination through existing mechanisms like the **UN Climate Security Mechanism**, appointing specialized advisors at regional climate, peace, and security hubs, as seen in the Horn of Africa initiative.

Agrifood systems at the heart of the 2030 Agenda

50. The **2023 UN Food Systems Summit +2 Stocktaking Moment**, hosted by Italy in collaboration with the Rome-Based Agencies, convened over 2000 participants from 180 countries, including over 20 Heads of State and Government and 125 Ministers, to review progress on their commitments to action to transform food systems and identify successes, bottlenecks, and opportunities. FAO advocated for efficient, inclusive, resilient and sustainable agrifood systems as entry points for achieving the 2030 Agenda. The UN Secretary-General's Call to Action for accelerated Food Systems Transformation highlighted the centrality of agrifood systems in SDG achievement, and the importance of aligning national food systems transformation pathways with National Determined Contributions and national adaptation plans for climate action. The transformative potential of food systems was also highlighted by the 2023 Global Sustainable Development Report and the six key transitions of the United Nations Sustainable Development Group.

51. The **SDG Summit** and discussions during the 78th UN General Assembly witnessed a significant and increasing focus on agrifood systems transformation. FAO played a pivotal role providing crucial insights, expertise, and recommendations on how to address the multifaceted challenges facing agrifood systems worldwide. Participants affirmed

that agrifood solutions should play a more central role in the implementation of the **Paris Agreement** and the **Kunming-Montreal Global Biodiversity Framework** commitments. The Organization also emerged as a key UN player, leading and co-leading three of the High Impact Initiatives for bringing SDG Solutions to scale.

52. At country level, FAO boosted **UN Country Teams'** (UNCTs) capacity through geospatial modelling and data analytics and successfully integrated agrifood systems into United Nations Sustainable Development Cooperation Frameworks. The Organization was involved in about 130 UNCTs, leading in two-thirds of UNCT Results Groups and contributing to all the 120 signed United Nations Sustainable Development Cooperation Frameworks (UNSDCFs).

World Food Forum

The World Food Forum (WFF), launched in 2021 by the Youth Committee as an independent network of partners hosted by FAO, serves as the premier global platform to reshape agrifood systems for a better food future, accelerating the achievement of the SDGs. Through youth action, science and innovation, and investment, it forges new paths of action and multi-sector partnerships for agrifood impact at the local, regional and global levels to achieve a more sustainable, resilient, inclusive and hunger-free food future for all.

Within this framework, the WFF Global Youth Action harnesses the passion and power of youth and incites positive action. It catalyses and drives youth engagement in food governance, and serves as a knowledge center and innovation lab, fostering and inspiring youth-led solutions, thus contributing to the UN Youth 2030 Strategy and enhancing youth engagement in the follow-up to the 2021 UN Food Systems Summit.

Since its inception, the WFF has seen exponential growth. The 2022 hybrid event introduced the FAO Science and Innovation Forum and the FAO Hand-in-Hand Initiative Investment Forum, facilitating intergenerational and cross-sectoral problem-solving to establish new pathways for action, impact and acceleration. It attracted 2 000 attendees in Rome and 40 000 online from 180 countries. The 2023 event doubled in scale with over 400 events, and 6 000 participants in Rome and 65 000 online visits from 186 countries. The events were also an opportunity to host the UN Global Indigenous Youth Forum, acknowledging the critical role of Indigenous Peoples and small-scale farmers in agrifood systems.

Impact in advocacy, awareness-raising and media outreach expanded significantly in 2023, with over 2 400 press clippings, 2.8 billion social media accounts reached during the flagship week, and 56 000 social media followers and newsletter subscribers.

The WFF global youth consultations reached 1 500 young people in 2023, up from 300 in 2022. Throughout the biennium, 23 national chapters were launched and, in collaboration with partners, 73.7 million meals were shared with those in need, saving over 20 million kg of food waste from landfills.

The WFF has become a truly global movement that reaches across generations, sectors and cultures growing initiatives that strive to create a more sustainable, resilient, inclusive and hunger-free future. With a vision that intertwines youth empowerment, innovation, investments, inclusivity, science-backed evidence and partnerships, the WFF is gearing up for a series of ambitious endeavours to scale-up youth leadership for agrifood systems transformation in the years to come.

Agrifood systems as the climate solution

53. Guided by the FAO Strategy on Climate Change 2022-2031 and its Action Plan, FAO worked with governments, academia, and communities worldwide to put sustainable agrifood systems at the heart of climate solutions, contributing to sustainable livelihoods and ecosystems.

54. FAO continued supporting Members in aligning agrifood systems with multilateral commitments such as Nationally Determined Contributions, National Biodiversity Strategies and Action Plans and Land Degradation Neutrality targets. In 2023 alone, 81 percent of FAO country offices assisted national governments in developing and implementing Nationally Determined Contributions, and 64 percent supported National Adaptation Plans.

55. FAO contributed to bringing the discussions on agrifood systems transformation and food security to the forefront during the two last sessions of the Conference of the Parties (COP) of the **United Nations Framework Convention on Climate Change**. The Organization highlighted the unique potential of agrifood systems as the linchpin for sustainable solutions, proposing a holistic roadmap to achieve SDG 2 without breaching the 1.5°C threshold. Key outcomes of COP27 were a decision on the implementation of climate action on agriculture and food security, and the launch of four global initiatives.

At COP28, 161 countries and territories endorsed the United Arab Emirates declaration stressing that agrifood systems are critical for achieving the goals of the Paris Agreement.

56. FAO also engaged in the preparation of the **Kunming-Montreal Global Biodiversity Framework**, adopted at the 15th meeting of COP15 to the Convention on Biological Diversity. FAO's voice was instrumental to recognizing the role of agrifood sectors in the biodiversity agenda. The links between biodiversity and food security are reflected in the Global Biodiversity Framework, with more than half of the 23 targets directly related to agrifood sectors.

Facilitating high-level technical dialogue

57. Leveraging its authoritative role and recognized expertise as a UN specialized agency, FAO convened a wide range of stakeholders including governments, civil society, producers, private sector and scientists, to a series of first Global Conferences, providing neutral and inclusive fora for sharing information on technical topics at the core of agricultural production.

58. The first **International Plant Health Conference**, co-organized by FAO, the International Plant Protection Convention and the United Kingdom, drew over 500 participants from more than 74 countries to tackle global plant health challenges, including food security, climate change, environmental protection, safe trade, and pest and disease threats.

59. The **First Global Conference on Sustainable Plant Production** was attended by 4 500 participants and agreed on 20 actionable recommendations on adaptation to local contexts, needs of small-scale farmers, and issues guiding innovation for global sustainable plant production systems.

60. At the first **Global Forum for Animal Feed and Feed Regulators**, regulators, trade executives, researchers and other stakeholders shared cutting-edge innovations for producing high quality, safe, and accessible animal feed with reduced environmental footprint and need for antimicrobials, as well as supportive legislative and normative frameworks.

61. Over 700 participants from 97 countries, including high-level government representatives and youth, came together in person at the first **Global Conference on Sustainable Livestock Transformation**. FAO advocated for prioritizing efficiency in livestock production to reduce pressure on biodiversity and land and water resources, decrease greenhouse gas emissions and mitigate environmental degradation. Participants shared solutions for producing more nutritious, safe and accessible animal-sourced foods with reduced environmental impact and contributing to diversified and resilient livestock systems.

62. The first **Global Conference on Sustainable Agricultural Mechanization** engaged over 8 500 participants in highlighting the importance of farmer-owned solutions and enabling policies, and the essential role of the private sector in developing new and emerging technologies for establishing strategic partnerships to mobilize knowledge, resources and innovations.

63. At the **First Plenary Assembly of the Antimicrobial Resistance Multi-Stakeholder Partnership Platform**, led by FAO on behalf of the Quadripartite, over 150 stakeholders identified more than 10 action tracks that will bring tangible results in the short term.

64. As a contribution to the SIDS Solutions Platform, the **Small Island Developing States (SIDS) Solutions Dialogue Series** provided Members with a forum for discussing the severe and specific challenges faced by SIDS in areas such as the impact of climate change and food prices, or disaster risk reduction and sustainability of fisheries and aquaculture.

65. In June 2023, Ministers and high-level representatives gathered at the High-Level Ministerial event for Small Island Developing States (SIDS), Least Developed Countries (LDCs) and Landlocked Developing Countries (LLDCs) — convened by FAO — issued a Call for Action to boost the transformation of agrifood systems and proposed the establishment of a Ministerial network technically supported by FAO.

Better production

66. *Better production* aims to *ensure sustainable consumption and production patterns, through inclusive food and agriculture supply chains at local, regional and global level, ensuring resilient and sustainable agrifood systems in a changing climate and environment*. During 2022–23, and in the face of unprecedented challenges due to the ongoing food crisis, FAO together with global and local partners made significant strides towards supporting countries in producing more with less for improved availability of healthy foods for domestic consumption, commercial export, food assistance or emergency food reserves on a consistent basis. To do so, the Organization facilitated the use of innovative technologies, science-based management practices and evidence-based policies that enhanced the efficiency, sustainability and resilience of plant, livestock, aquatic and forest production systems and their value chains. The support provided improved economic opportunities for those depending on these value chains for their livelihoods, while progressively improving land and soil quality and water use efficiency and safeguarding biodiversity and ecosystem services, contributing to the 2030 Agenda for Sustainable Development with particular focus on SDGs 1 (No poverty), 2 (Zero hunger), 6 (Clean water and sanitation), 14 (Life below water) and 15 (Life on land), leveraging on FAO's role as trusted, neutral broker, convener and provider of reliable data and statistics.

67. As detailed in *Annex 1*, FAO supported 109 countries to promote innovative and sustainable agriculture production, including crops, livestock and forests, and 59 countries to transform their aquatic production systems.

68. FAO also assisted 55 countries to put in place critical pest and disease prevention measures and early warning systems to manage health risks through integrated One-Heath systems spanning the crop, livestock and aquaculture sectors. These systems are instrumental in ensuring that ever-increasing biological threats – including zoonotic infections of pandemic potential, antimicrobial resistance and invasive alien species – will not counter the innovation efforts and productivity gains reaped through improved technologies, practices and policy environments.

69. Paying particular attention to the inclusion of women, youth, Indigenous Peoples and other groups in situation of vulnerability, FAO supported 90 countries in enhancing small-scale producers' equitable access to land, water and other natural resources, rural services, markets and information, not only ensuring a solid foundation for their food security and economic livelihoods, but also that they are able to effectively manage the natural resources and biodiversity over which they are custodians. Leveraging its technical excellence, FAO also made significant strides to scale up the shift to digital agriculture, supporting 54 countries to improve access to digital information and communication technologies.

70. While drawing conclusions on the full impact of this work is premature, evidence collected through FAO's integrated monitoring framework provides useful insights into how effectively FAO's contribution has been taken up as intended to positively influence the countries' enabling environments. As further detailed in *Annex 1*, 88 percent of respondents to the country stakeholder survey provided positive feedback on FAO's contributions to improving the sustainability and resilience of crop, livestock and forestry production systems and their value chains, and 80 percent also providing favorable feedback on FAO's efforts in unlocking the potential of aquatic production systems.

71. Similarly, 88 percent of stakeholders viewed positively FAO's efforts in ensuring robust prevention, early warning and management of pest and disease prevention through integrated One-Health systems. FAO's efforts to reach out to small-scale producers were appreciated by 87 percent of respondents, while 83 percent welcomed FAO's support in improving digital access.

72. These survey assessments are substantiated by positive trends for several relevant SDG indicators, including those that measure changes at the policy level where FAO has the greatest influence. This demonstrates that, despite the extreme and continuing challenges in the external environment, some positive progress is being made which, if backed by sustained political will and economic investment, can move countries in the direction of the 2030 Agenda goals.

73. SDG indicators 14.b.1 and 14.6.1 demonstrate positive progress in protecting access rights to small-scale fisheries, and increased implementation of international instruments aiming to combat illegal, unreported and unregulated fishing, respectively. While data are somewhat limited and significant challenges remain, some encouraging signs are beginning to emerge in countries using ecosystem-based approaches to managing marine areas (14.2.1). While progress is being made towards sustainable forest management (15.2.1), forest loss remains high and requires attention. SDG indicator 1.4.1 indicates some progress in increasing access to basic services. More countries have put in place national disaster risk reduction and early warning systems (1.5.3) and are better prepared with improved capacities to deal with health emergencies (3.d.1) and invasive alien species (15.8.1).

74. Water use efficiency (6.4.1) demonstrates improvement, while water stress (6.4.2) – largely dependent on agriculture withdrawals – shows dramatic regional variations requiring urgent attention. Finally, an increasing proportion of individuals have access to digital technologies as evidenced by a positive trend for 5.b.1 (mobile telephone ownership), 9.c.1 (mobile network coverage) and 17.8.1 (internet usage). Nonetheless, geographic disparities persist, in particular regarding internet usage, and concerted efforts are required to ensure that equitable access is achieved, particularly in least developed countries, landlocked developing countries and Small Island Developing States (SIDS).

75. In general, lack of progress in a number of key indicators demonstrates that key challenges remain, requiring further focus and commitment to overcome. For example, SDG target 2.3 which measures incomes and productivity of small-scale food producers, demonstrates that these producers continue to lag behind their larger-scale counterparts in both measures. Indicator 14.4.1 on the proportion of fish stocks within biologically sustainable levels continues to decline, albeit more slowly. Sustainable fisheries as a proportion of gross domestic product are declining worldwide, with the largest drops noted in least developed countries and SIDS (14.7.1) where sustainable development of the sector is of primary importance. Moreover, the proportion of small-scale industries with access to a loan or line of credit (9.3.2) remains low globally, with significant regional variations.

76. The SDG indicator SDG 1.4.2 does not have sufficient data to draw solid conclusions on the proportion of people living in households with tenure rights to land, including women, although gender disparities are pronounced in the available data. Similarly, a low number of countries reporting on indicator 14.c.1 makes it difficult to track progress on implementing legal and policy frameworks for sustainable use of oceans and their resources. This calls for Members to prioritize regular reporting on these indicators to inform and strengthen policies.

77. The following section presents, for each Programme Priority Area contributing to *better production*, selected programmatic highlights which illustrate achievements in support of the 2030 Agenda, as well as lightboxes which showcase specific, tangible, results. Full reporting on the results framework is found in *Annex 1*.

BP1: Innovation for Sustainable Agriculture Production

Innovating for sustainable crop, livestock and forestry production systems that create business opportunities and produce more with less

Quality Seeds and Planting Materials for Sustainable Cropping Systems

78. From now to 2050, food production should increase by 25 percent in a business-as-usual scenario to feed the world's growing population, and *better production* starts from better seeds to produce quality crops. FAO supports countries in raising the quality of seeds, to enhance the conservation and sustainable use of plant genetic resources for food and agriculture and ensure the production of nutritious and climate-resilient crops to feed the world's growing population. This contributes to SDG targets 2.3 on doubling the productivity and incomes of small-scale food producers, 2.4 on sustainable food production and resilient agricultural practices, and 9.5 on enhancing research and industrial technologies.

79. In 2022-23, FAO enhanced farmers' access to quality seeds and planting materials of crop varieties adapted to their specific production systems. Seeds and planting materials that are productive, nutritious, resistant to pests and diseases and tolerant to abiotic stresses, such as drought, flooding, and high temperatures are critical for sustainable crop production systems that generate more yields with less natural resources and external inputs. The Organization supported a network of partner entities in 24 countries, and the enabling regulatory frameworks for strengthening the production, quality assurance, marketing and distribution of seeds. Farmers in 70 countries received quality seeds and planting materials to re-start crop production in the aftermath of disasters and crises.

80. FAO also strengthened institutional and human capacities for *in situ* conservation in six countries, safeguarding wild relatives of crops and wild food plants in nature and enhancing onfarm crop diversity. It also strengthened *ex situ* conservation in 14 countries, preserving samples of crops and their relatives in genebanks. The Practical Guides for the Application of the Genebank Standards for plant genetic resources for food and agriculture (PGRFA) underscored these efforts, and provided a basis for developing standard operating procedures and quality management systems. In addition, FAO convened Members and partners to discuss and agree on common norms, policies and practices relevant to the conservation of PGRFA, plant breeding and seed systems. The Commission on Genetic Resources for Food and Agriculture, at its 40th anniversary in 2023, explored synergies between policies on the conservation and sustainable use of genetic resources for food and agriculture, the Framework for Action on Biodiversity for Food and Agriculture, the Kunming-Montreal Global Biodiversity Framework, and FAO's work on biodiversity mainstreaming. The International Treaty on Plant Genetic Resources for Food and Agriculture considered the global conservation and sustainable use of PGRFA, sharing of benefits arising from their use, the enhancement of its worldwide gene pool, a decentralized Global Information System, and farmers' rights.

Innovating for improved crops: Seeds in Space

81. Mutation breeding, with efficiency enhanced by biotechnologies, offers innovative solutions for generating heritable variations that are used in crop improvement. In 2022-23, FAO supported over 100 countries in developing improved crop varieties with superior agronomic, quality and stress tolerance traits. The productivity of crops improves when farmers transition to the cultivation of improved varieties. Exploring innovative solutions allowed understanding and leveraging induced genetic variations to breed better crop varieties, in particular drought-resilient, to address the challenges posed by climate change while enhancing production, food security and nutritional outcomes.

82. FAO and the International Atomic Energy Agency (IAEA) initiated a pioneering feasibility study on exposing seeds to cosmic radiation and microgravity to induce genetic variations and thereby expedite plant mutation breeding. Model plants were sent to space for approximately five months. The seeds, back from space, are currently in the FAO/IAEA Plant Breeding and Genetics Laboratory, undergoing rigorous evaluations to detect induced changes to plant growth parameters and DNA structural variation by whole-genome sequencing. These endeavours represent a crucial step towards enhancing agricultural sustainability and ensuring food security and nutrition in regions facing challenges exacerbated by climate change.

One Country, One Priority Product Initiative

Through the One Country One Priority Product (OCOP) Initiative, FAO assists countries in strengthening value chains of special agricultural products. The aim is to optimize agricultural production systems through integration, diversification and innovation; minimize food loss and waste and reduce the application of agricultural chemicals; and maximize profits for farmers and other value chain actors.

In 2022-23, the OCOP was rolled out in five demonstration countries: Bangladesh, Egypt, Malawi, Trinidad and Tobago, and Uzbekistan which promoted jackfruit, date palm, banana, cocoa, and sweet cherry, respectively. The Organization applied the Sustainable Food Value Chain methodology to develop value chain reports, and began developing national capacities for the sustainable production, storage, processing and marketing of special agricultural products, in synergy with other FAO initiatives, such as the Hand-in-Hand, 1000 Digital Villages, and Globally Important Agricultural Heritage Systems. Upgraded national strategies for promoting special agricultural products are currently being finalized.

Four Regional Organizing Groups – co-led by FAO and key stakeholders and partners, including producer organizations, international financing institutions and research centres, and five National Task Forces organized regional launch events and workshops to support country project implementation.

By the end of 2023, FAO had invested USD 7.3 million in Regular Programme resources and TCP funds and intensified communication and resource mobilization efforts at national, regional and global levels. As a result, the OCOP initiative catalysed a total of approximately USD 5 million in support of over 50 countries, of which USD 5 million through the South-South and Triangular Cooperation programme.

In total, 85 countries from all regions have expressed interest in joining the OCOP and promoting 54 special agricultural products. Going forward, FAO will select additional demonstration countries to serve as a model and upscale activities.

BP2: Blue Transformation

Making aquatic food systems more efficient, inclusive, resilient and sustainable through science and innovation

BLUEWaves: accelerating the Blue Transformation

83. Aquatic food systems are key to feeding a growing global population. They deliver highly nutritious food, provide economic growth, and contribute to sustainable solutions that may lower the environmental footprint. The Blue Transformation Roadmap 2022-2030 reflects FAO's call for action and vision for achieving sustainable aquatic systems. It centres on the core components of sustainable aquaculture, sustainable fisheries and sustainable value chains.

84. In 2022-23, FAO spearheaded the *Blue transformation* through the BLUEWaves initiative, paying particular attention to small-scale producers and to preventing food loss and waste, in support of accelerating the achievement of SDG targets 14.4 on sustainable fisheries, 14.7 on benefits from marine resources to Small Island Developing States (SIDS) and least developed countries (LDCs), and 14.b on access for small-scale fishers to resources and market, in addition to 12.3 on food waste and loss.

85. FAO and its partners built global platforms for knowledge exchange, provided proof of concept and expansion of innovative, inclusive data collection and analysis methodologies, and supported direct investment in improved aquatic food value chains. These tools and measures supported scalable solutions and achievements for *Blue transformation* by identifying key challenges and catalysing financial and human resources and investments. FAO combined value chain assessment methodologies with practical interventions and capacity building on improved handling, traceability, food loss and waste, value adding, business development and inclusivity in more than 20 countries leading to more sustainable and impactful aquatic food value chains. For example, Mauritania developed a national action plan for traceability to verify the integrity of supply chains, the quality and safety of products, as well as their legality or origin from sustainably managed fisheries. In Barbados, the potential for women's involvement and the problems in the global feed and fertilizer market, contributed to building a multisectoral public and private partnership that will lead to the establishment of a national silage training facility and curriculum to better utilize fish and plant waste for feed production.

86. FAO facilitated the creation of the Global Sustainable Aquaculture Advancement Partnership (GSAAP), a novel global platform to share lessons learned and encourage South-South Cooperation for aquaculture development. The GSAAP leverages FAO's convening power to link expertise on aquaculture technologies from top-tier research institutions in 20 countries with sustainable aquaculture initiatives, targeting technology requirements and efficiency demands of small-scale producers in countries that are developing the aquaculture sector. The GSAAP first interventions piloted new

production facilities and trials for alternative aquaculture feeds based on locally available agricultural waste products, in cooperation with national and regional stakeholders. FAO and its partners will continue to strengthen and expand global exchange networks such as GSAAP to identify further areas of collaboration and promote South-South Cooperation.

87. FAO leveraged the 2022 International Year of Artisanal Fisheries and Aquaculture to develop an approach for collecting and analysing small-scale fisheries data that informs and transforms management and policymaking. FAO supported proof-of-concept interventions for the Illuminating Hidden Harvest (IHH) global initiative to generate and disseminate new evidence on small-scale fisheries to inform policy and practice. In pilot countries, government and stakeholder organizations have taken ownership of the IHH approach and agreed to specific follow-up work on selected fisheries and on reassessing the contributions of small-scale fishers to national gross domestic product. The successful outcomes of pilots have stimulated requests for support in application of the IHH approach by national governments and regional organizations.

Managing water resources: Water accounting and governance

Today over 733 million people face high water stress, and global water demand is expected to increase by 30 percent by 2050. A strengthened focus on water accounting and governance is crucial to address water scarcity, strengthen food security and ensure universal water access in a changing climate.

FAO's efforts on water accounting unfold at regional, country and river basin levels. AQUASTAT, FAO's Global Information System on Water and Agriculture, disseminates the SDG indicators 6.4.1 and 6.4.2, while the remote sensing data of the Water Productivity Open-access portal (WaPOR) tool in the Nile, Jordan or Awash provides decision-makers insights into the state of water resources in the basin. Existing field data for rapid water accounting inform local governance such as in Palestine.

FAO strengthened water governance processes at country level by building capacity in water accounting and testing a water tenure assessment methodology, contributing to SDG targets 2.3 and 6.4. For example, in Rwanda, FAO improved water management skills, facilitated better access to water through solar pumps, and diversified income with aquaculture. In Senegal, FAO advanced the use of remote sensing technologies, and revealed the customary and social arrangements of water tenure. In Sri Lanka, water tenure assessment information was used to prepare actors for implementing the irrigation Act.

The responsible governance of water tenure is a key enabling factor to address the challenges of all countries facing increased water demand and changing water availability, and the agriculture sector plays a key role in addressing these challenges. The Committee on Agriculture at its 28th session acknowledging FAO's work on water tenure, requested the initiation of the Global Dialogue on Water Tenure which aims to establish guiding principles for responsible water tenure governance.

BP3: One Health

Strengthening national and international integrated One Health systems for human, animal, plant and environmental health

Managing sustainable production under a One Health approach, including antimicrobial resistance (AMR)

88. FAO fosters a One Health approach to preventing, containing and addressing the losses to production and adverse health effects caused by the spread of animal, plant and aquaculture biological threats, including zoonotic infections and AMR, with the aim of enhancing productivity and reducing risks from biological threats in the food chain.

89. In 2022-23, the Organization supported 55 countries in applying a holistic approach to managing animal and plant pests and diseases. The Organization built capacity for improved agricultural practices to minimize losses, improve agricultural productivity and minimize pesticide and antimicrobial use, reducing the losses to production and adverse effects on human health. To anticipate, prevent, detect and respond to plant, animal and zoonotic disease outbreaks and AMR, FAO also encouraged the collection, collation and sharing of epidemiological data and laboratory information across sectors and borders, which can result in more effective early warning, coordinated planning and response.

90. Under the FAO Action Plan on Antimicrobial Resistance 2021-2025, the Organization plays a leading role in minimizing and controlling the impacts of antimicrobial resistance (AMR) in agrifood systems. In 2022-23, through Farmer Field Schools, FAO has promoted innovative interventions integrating behavioural insights in four countries in Africa. FAO

expanded its support for strengthening surveillance and research, to provide countries with mechanisms to catalyse the formation of AMR surveillance networks, and to report and use their AMR data in alignment with international standards. FAO has also developed and piloted the International FAO AMR Monitoring (InFARM) System and deployed the Assessment Tool for Laboratories and AMR Surveillance Systems (FAO-ATLASS) in more than 55 countries. In addition, FAO supported the annual World AMR Awareness Week global campaign, fostering events to underscore the importance of addressing AMR in food and agriculture sectors.

91. The 2022-23 biennium saw the development of the RENOFARM initiative to reduce the need for antimicrobials on farms for sustainable agrifood system transformation, following three pilots in Indonesia, Nigeria and Uganda, aiming to target participation of 100 countries in the next decade. Through farmers' capacity building, FAO is empowering stakeholders to adopt more sustainable production practices.

92. FAO launched various initiatives to strengthen governance and allocate resources sustainably including AMR-LEX and has led efforts to launch the Quadripartite One Health Legislative Assessment Tool for AMR, designed to help countries identify legal aspects of AMR. Additionally, the FAO Progressive Management Pathway for AMR tool has assisted 40 countries in integrating food and agriculture elements into their AMR national action plans. The Progressive Management Pathway approach was also applied to Terrestrial Animal Biosecurity (PMP-TAB). The Organization developed a toolkit for biosecurity and rolled out a pilot in three countries, providing a framework for a stepwise approach to adapting the policy, legislative and institutional environment in line with national priorities.

93. FAO's collaboration within the Quadripartite Joint Secretariat on AMR[4], has been instrumental in facilitating robust international coordination and cooperation in addressing the complex challenges of AMR. In 2023, FAO played a leading role in establishing the AMR Multi-Stakeholder Partnership Platform which fosters broader stakeholder engagement and coordination in addressing AMR. Additionally, the AMR Multipartner Trust Fund funded 16 country programmes and supported four technical areas at the global level including AMR in the environment, monitoring and evaluation of the Global Action Plan on AMR, AMR-related legislation, and integrated surveillance.

Reducing the impact of chemical pesticides for *better production*

Pesticides have been used to protect crops and control pests and diseases for more than a hundred years. However, uninformed pesticide use poses risks to human health and the environment, including biodiversity loss and related soil degradation. Despite these hazards, global pesticide use has increased rapidly in recent decades, from 1.79 million tonnes of active ingredients in 1990 to 2.7 million tonnes in 2020. The use of highly hazardous pesticides (HHPs) is of global concern, especially in low- and middle-income countries. In 2022-23, FAO undertook a range of actions to address their impacts, contributing to SDG targets 2.4 on sustainable food production and resilient agricultural practices, and 12.4 on responsiblemanagement of chemicals and waste.

FAO drafted an action plan on HHPs and developed subregional strategies and mitigation plans in several African countries through the Multilateral Environmental Agreements in African, Caribbean and Pacific countries programme. FAO also conducted eight regional and national training workshops on pesticide management, and provided support to 10 Caribbean and 3 African countries on HHP risk reduction and the use of non-chemicals alternatives. FAO is supporting environmentally-sound safeguarding and disposal of obsolete stocks and management of empty containers in several countries in Africa and Central Asia.

FAO actively promotes biopesticides as alternatives to chemical pesticides. Particularly for locust and grasshoppers' control, *Metarhizium acridum*, a microbial pesticide, has been endorsed for its effectiveness in large-scale control programmes without adverse impact on health or the environment. This biopesticide was used to treat small outbreaks of the Desert Locust in 2022-23 in West African countries, and demonstrated in the Caucasus and Central Asia region, showing satisfactory results. FAO also facilitated the registration, production, and application of biocontrol agents for Fall Armyworm in Africa.

FAO promotes ecosystem-based Integrated Pest Management (IPM) to reduce reliance on chemical pesticides for pest control. Three regional workshops and a global seminar on strengthening regulations and a policy brief on protecting pollinators from pesticides emphasized pollinator-friendly IPM practices for sustainable pest management and pesticide risk reduction. The FAO Secretariat of the Rotterdam Convention carried out webinars, side events and 25 workshops on alternatives to highly hazardous pesticides, facilitating information exchange and capacity building regarding safer alternatives to chemical pesticides and encouraging the application of IPM.

FAO's collaboration with the Joint FAO/WHO Meeting on Pesticide Residues in 2022-23 resulted in the development of over 600 Maximum Residue Limits for pesticides. These standards provide guidance for sustainable farming, food safety, and trade.

[4] A joint effort by FAO, United Nations Environment Programme (UNEP), World Health Organization (WHO), and the World Organisation for Animal Health (WOAH).

BP4: Small-Scale Producers' Equitable Access to Resources

Empowering small-scale producers to access economic and natural resources, markets, services, information, education and technologies

Empowering small-scale livestock producers and family farmers

94. Family farmers, Indigenous Peoples, pastoralists, foresters and fishers, represent over 2 billion small-scale producers globally, and are responsible for a large share of food production, as well as being custodians of natural resource and biodiversity management. Yet they remain marginalized as adaptation gaps and social inequities increase. Contributing to SDG targets 2.3 on doubling the productivity and incomes of small-scale food producers, 9.3 on increasing acces to financial services and markets and 14.b on supporting small-scale fishers, FAO is working to secure inclusive and equitable opportunity, access and ownership to natural and productive resources, markets, services, information, education and technologies for all small-scale producers, especially women and youth.

95. Responding to the First Session of the COAG Sub-Committee on Livestock, FAO organized multistakeholder consultations on the development of a voluntary guidance tool for the sustainable enhancement of small-scale livestock productivity, which attracted widespread support to developing the tool.

96. Pastoralism is an extensive form of livestock production that is prevalent worldwide, but pastoralists are often left out from decision-making fora. Through the Pastoralist Knowledge Hub, FAO is bringing pastoralists into the global dialogue, and at country level, FAO is supporting countries to implement the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security and the related guide on pastoral land. In 2022-23, FAO supported the operationalization of nine multistakeholder platforms at different levels, which resulted in two transboundary agreements between Niger and Nigeria, and a framework agreement between Mali, Senegal, and Mauritania. These platforms also proved to be supportive of women's empowerment in the livestock value chain and decision-making.

97. To fill the data gap on pastoralism and its contributions to the SDGs, FAO conducted an extensive participatory data collection on the economics of pastoral households and main coping strategies in Niger and Mauritania, including innovative self-reporting on subsistence. The results revealed significant contributions of pastoralism to national and primary sector gross domestic product (up to 9.4 percent and 50.5 percent respectively in Mauritania, and up to 13.6 percent and 37.5 percent in Niger), despite limited public investment. FAO has also published guidelines on securing pastoral mobility, which is key to improving resilience.

98. FAO provided support to Members and non-state actors on a wide range of rural advisory services, enabling smallholder producers to increase productivity and link to markets and act collectively to improve livelihoods. For instance, in Europe and Central Asia, smallholders and small family farms are supported through accessible extension and farm advisory services, efforts to reduce land fragmentation, and land market development. In Latin America and the Caribbean, the Regional Technical Platform of Family Farming focused on modernizing land administration systems, emphasizing land rights for vulnerable groups like women, Indigenous Peoples and youth. New initiatives, including Family Farming Registries, aim to enhance sector visibility and encourage continued investment. In the Near East and North Africa, FAO has conducted a regional study on advancing rural advisory services for inclusive rural transformation and organized regional stakeholder consultations on the topic which, in collaboration with IFAD, led to the launch of the Arab Forum for Rural Advisory Services.

Building on farmers' local knowledge to solve global agrifood system challenges

Through FAO's renown Farmer Field Schools (FFS) and the Global Soil Doctors Programme initiatives, millions of small-scale farmers worldwide are enabled to lead sustainable agrifood systems transformation.

The FFS bring together groups of farmers to experiment and engage in hands-on learning and adapting sustainable production and marketing practices to their local contexts. Governments, research institutes, and non-governmental organizations have used FFS to empower small-scale farmers in transforming agrifood systems. In 2022-23 alone, FAO implemented FFS in 76 countries.

In Malawi, by 2023, FAO and the Government set up 13 500 FFS, reaching 325 000 farmers. These FFS focused on applying innovative practices and technologies, including digital climate services, local model beehives, and community hotbed banana nurseries. Farmers increased yields by 25 percent and food-secure households increased by 42 percent. FFS have similar impacts worldwide, in terms of advancing food security and nutrition, farmers' empowerment, improving soil health, building climate resilience, and increasing gender equality. In particular, women farmers, find in FFS a safe space to build the skills they need to become confident decision-makers in their households, farms, and communities.

Working with the Global Soil Doctors Programme, farmers are tackling soil degradation and training other farmers for sustainable agriculture. Together, they are contributing to developing national networks and are supporting soil doctors – champions trained by the Global Soil Doctors Programme — to scale up locally-adapted management practices. Since its launch in 2021, the Global Soil Doctors Programme has involved more than 11 000 farmers in 21 countries. In Mexico, farmers cultivating small urban plots near Mexico City have joined the Global Soil Doctors Programme to address soil salinity. Working with the Government and the National University of Mexico, they identified the best organic and mineral fertilizers to use and the best crops to grow, improving their soil productivity significantly and starting to produce vegetables for their own consumption and for local markets. By sharing their knowledge with other farmers, the soil doctors helped to restore degraded land and improve the livelihoods of their communities.

FAO also supports traditional agricultural systems around the world through the Globally Important Agricultural Heritage Systems (GIAHS) initiative, an approach centered on human management and knowledge systems launched two decades ago. In 2022-23, 24 new sites across 10 countries – 4 of which newcomers – were designated as GIAHS, marking a 38 percent increase from the 2005-2021 period. Through GIAHS, FAO builds capacities, promotes regulations and advocates for incentives to support farming communities in safeguarding unique agricultural practices that not only contribute to biodiversity and sustainable land management but also support livelihoods and cultures, helping to maintain genetic diversity, ensure food security, and preserve cultural heritage.

BP5: Digital Agriculture

Ensuring affordable and equitable access of digital information and communication technologies to rural communities

Promoting digital transformation

99. The FAO Strategic Framework 2022-31 calls on FAO to support Members in integrating digital information and communication technologies into agrifood systems policies and programmes, empowering rural communities and reaping the dividends of the digital economy. By enhancing access to these technologies, the Organization enables farmers, producers, governments and entrepreneurs to harness agrifood systems innovation, contributing to SDG targets 1.4 on equal rights to ownership, basic services, technology and economic resources, 5.b on promoting the empowerment of women through technology and 9.c on universal access to information and communications technology.

100. In this regard, FAO promotes a portfolio approach that clearly maps out and identifies key entry points for the Organization to support the digital ecosystem in agrifood systems. FAO joined the Digital Public Goods Alliance in 2022 and championed certified Digital Public Goods (DPGs) and Digital Public Infrastructure throughout the biennium. The Organization became a leader in the development and utilization of DPGs as tools and knowledge products, making them more accessible and transforming agricultural practices to empower rural households. With five certified Digital Public Goods and a growing number of nominees, FAO is the largest UN system contributor to the process, providing tangible support to the Digital Cooperation Roadmap and leaving no one behind.

101. The Organization's initial strategy is to assist members of the Digital Public Goods Alliance by providing essential digital resources. These include basic components, practical examples, and products that can be accessed and used by anyone. Furthermore, leveraging its role as knowledge broker, FAO shares supportive resources such as free software, accessible data, collections of content, Artificial Intelligence systems open to all, and universal standards, along with methods and manuals that aid in the digital transformation process.

102. FAO continued promoting the digital transformation of rural communities, enabling small farmers to apply, deploy or harness digital innovations and technologies, services and solutions, to improve their economic livelihoods, individual wellbeing, and create social cohesion through better connectivity. Through the Digital Villages Initiative, FAO facilitates the development, acceleration and deployment of digital technologies in rural villages and communities. In 2022-23, new Digital Villages Initiative pilots were launched in six Near East countries, where FAO enhanced capacities to adopt digital innovations related to trade and markets. FAO established strategic partnerships with the Digital Public Goods Alliance members, such as the Digital Impact Alliance and, leveraging synergies with the Digital Villages Initiative, obtained a firm overview of the digital ecosystem in agrifood systems.

Better nutrition

103. *Better nutrition* aims to *end hunger, achieve food security and improved nutrition in all its forms (including promoting nutritious food and increasing access to healthy diets)*. *Better nutrition* cannot be realized without sustainable gains in productivity of *better production*, nor the foundation provided by sound and sustainable terrestrial and marine environments (*better environment*). Likewise, a *better life* is not possible without *better nutrition*. During 2022-23, FAO leveraged *better nutrition*, together with its interlinkages with the other *betters*, to lay the foundations for stronger and more resilient agrifood systems towards the achievement of SDG 2 Zero hunger, SDG 3 Good health and well-being and SDG 12 Responsible consumption and production. This, despite a confluence of formidable macroeconomic, environmental and geopolitical forces that resulted in continued and intensified upward pressure on the number of hungry and undernourished people observed since the years leading up to the COVID-19 pandemic.

104. In the face of these strong headwinds, FAO worked with the Rome-based Agencies and other global and local partners to support countries in establishing the right to safe and adequate food, more effectively combat food insecurity and malnutrition, and transition towards healthy diets and contribute to reducing the incidence of non-communicable diseases caused by unhealthy dietary practices in national populations. FAO also worked to support countries to improve food availability through the reduction of food loss and waste and ensure open and transparent markets and minimize trade distortions. The Organization leveraged its expertise and evidence-base, including real time market data, to inform global and national policy and governance to promote the continued access, availability and affordability of food to national populations, including those in situations of acute vulnerability, as well as on the synergy, with work under the other *betters*, to produce more with less using innovative and science-based approaches, including digitalization, while safeguarding the natural environment and building resilience of actors deriving all or part of their livelihoods from agrifood systems and the related value chains.

105. As detailed in *Annex 1*, FAO supported 73 countries to establish the right to adequate food and transition towards healthy diets through improved policy and legislative environments and engagement of consumers and the private sector. The Organization additionally supported 65 countries to improve their capacities to identify and focus on combatting hunger and food insecurity for their populations in situations of greatest vulnerability. FAO also assisted 45 countries in putting in place integrated, multisectoral food safety policies and legislation while enhancing capacities and awareness of value chain operators and consumers. FAO further supported 29 countries in formulating policies and programmes to prompt and enable all actors in the food supply chain to reduce food loss and waste, and 29 countries in promoting improved market transparency and equitable participation in markets, global value chains and international trade – particularly critical in the current climate of market uncertainty and price volatility.

106. As in the case of *better production*, it is premature to draw conclusions on the full impact of this work, and in particular whether the current trend of increasing hunger and food insecurity may be reaching its apex. Nonetheless, the information collected through FAO's performance monitoring framework provides useful insights into how effectively FAO's contribution has been taken up as intended to positively influence the countries' enabling environments.

107. As further detailed in *Annex 1*, 86 percent of respondents to the country stakeholder survey provided positive feedback on FAO's contributions to improving national policies aimed at ensuring the right to adequate food and transition to healthy diets, with 85 percent also providing favourable feedback on FAO's efforts to assist countries to better identify, target and address populations in situations of acute food insecurity and malnutrition. A similarly high percentage of stakeholders, 87 percent, viewed positively FAO's efforts in assisting countries to improve food safety, and 85 percent in putting in place clear roadmaps to reduce food loss and waste. Finally 76 percent also gave positive feedback on FAO's contribution to ensuring improved transparency and more equitable participation in national and global value chains and international trade.

108. As noted, the statistics on SDG targets 2.1 and 2.2 on the incidence of hunger and malnutrition speak for themselves, evidencing the need for a dramatically increased and sustained push by national governments and the international community at large, including development cooperation agencies, international financing institutions and the private sector, to prioritize funding and investments to end hunger and malnutrition and promote safe food and healthy diets. This is further borne out by the stagnating progress in reducing maternal mortality rates (SDG indicator 3.1.1), while figures for under-five and neonatal mortality rates (3.2.1 and 3.2.2) are more encouraging, notwithstanding that they still face major challenges in particular in sub-Saharan Africa. Mortality rates related to non-communicable diseases (3.4.1) have shown incremental improvements only.

109. Regarding food loss and waste, the food loss index indicates that progress has stalled. And while food waste data are not available to track changes over time, absolute amounts of food waste are massive. Therefore, the need for a much stronger focus on reducing these losses and wastes is clear, including through the adoption of the Voluntary Code of Conduct for Food Loss and Waste Reduction, for improved food security and more sustainable production and environment. Further, despite dropping in 2021, high food prices (SDG indicator 2.c.1) continue to plague many countries, further exacerbated by current economic and geopolitical circumstances. The latest data indicate only a marginal improvement in the participation of developing and least developed countries in global exports (17.11.1), underlining the need for redoubling commitments in this area.

110. Nonetheless, the feedback received from the broad spectrum of FAO stakeholders at country level is substantiated by some potentially positive signs in a number of the relevant SDG indicators, including those measuring changes at the policy level where FAO has the ability to influence. For instance, SDG indicator 1.3.1 measuring the proportion of population covered by social protection systems has shown a slight increase while still insufficient to ensure that basic safety nets are in place for those in situations of vulnerability.

111. Recent measures taken to strengthen social protection in response to the cost-of-living crisis are welcome, although the majority are short-term in nature and would need to be established on a more durable basis. Additionally, based on country reporting, SDG indicator 12.8.1 shows a positive picture in mainstreaming education for global citizenship and sustainable development, while other analyses present a mixed picture, particularly regarding climate change education. Positive progress on this front would be expected to influence the behaviour of our next generation of leaders. Further, information from the Codex Alimentarius Survey 2022 indicates that a majority of countries are using or have used Codex texts as a baseline to inform their food legislation, policies, regulations, programmes and practices. While progress on SDG indicator 12.3.1 on food loss and waste has stalled, this would be expected to improve in the medium-term, with more countries becoming aware of its importance and working towards more supportive policy environments including as part of their Food Systems Summit National Pathways. Agricultural export subsidies (SDG indicator 2.b.1), a source of market distortions, have declined consistently in the past two decades down to negligible levels in 2021.

112. The following section presents, for each Programme Priority Area contributing to *better nutrition*, selected programmatic highlights which illustrate achievements in support of the 2030 Agenda, as well as lightboxes which showcase specific, tangible, results. Full reporting on the results framework is found in *Annex 1*.

BN1: Healthy Diets for All

Establishing the right to adequate food and promoting the shift towards healthy diets

Data and evidence to inform actions that enable consumption of healthy diets for all

113. Unhealthy diets are a common cause of all forms of malnutrition and are undermining health and development across all regions of the world. Sustainable Development Goal 2 and several World Health Organization (WHO) Assembly targets cannot be achieved without accelerating progress to enabling the consumption of healthy diets for everyone, everywhere. FAO plays a central role in addressing this through the generation and consolidation of more and better data and evidence to inform a transformation of agrifood systems that has the consumption of healthy diets for *better nutrition* at its core. Several FAO initiatives have prioritized action to enhance the sharing and utilization of data, generation of evidence and strengthening of capacities to scale up impactful policies and actions across agrifood systems that enable consumption of healthy diets for all.

114. The 'cost and affordability of healthy diets' (CoAHD) data has highlighted that healthy diets are currently unaffordable for millions of people all across the world. While the common approach used provides data to track progress over time and across contexts, more detailed analyses taking into consideration the diversity of dietary patterns and food access within countries are required to inform policy and programmatic actions towards transforming agrifood systems that improve access to healthy diets. Moving from monitoring to informing action, FAO is developing an approach to inform agrifood policy repurposing to enhance access to healthy diets simultaneously with other agricultural endpoints (for instance, the gross domestic product or rural livelihoods). The approach builds on the methods developed by CoAHD but uses local food-based dietary guidelines to contextualize what constitutes a healthy dietary pattern in subregional context within a country. This is now being tested in Ethiopia. FAO is also working with the World Bank on estimating the economic cost of unhealthy diets, which will be an important input to advocate for agriculture policy repurposing that places access to healthy diets at the core of agrifood systems transformation.

115. The availability of dietary data for population subgroups is a key input for the success of this approach. The FAO/WHO GIFT (Global Individual Food Consumption Data Tool) platform enables access to available data on dietary consumption at individual level. As can be seen in *Figure 1*, there is a large gap in data on what people eat across all world regions. FAO developed the "Food and Diet Domain" hosted on FAOSTAT which partially address this critical gap by advancing the availability and access to various types of dietary data in the form of statistics and infographics. FAO also led efforts in supporting countries to develop or implement national food-based dietary guidelines with explicit considerations of food systems sustainability. By the end of the biennium, 56 countries had been supported to develop or implement their dietary guidelines integrating a food systems lens (when feasible). In 2023, FAO also leveraged its expertise in food composition to ensure that new efforts to expand access to nutritious foods are based on accurate and up-to-date evidence (for instance, the International Year of Millets 2023, Vision for Adapted Crops and Soils, and global and country-specific composition tables).

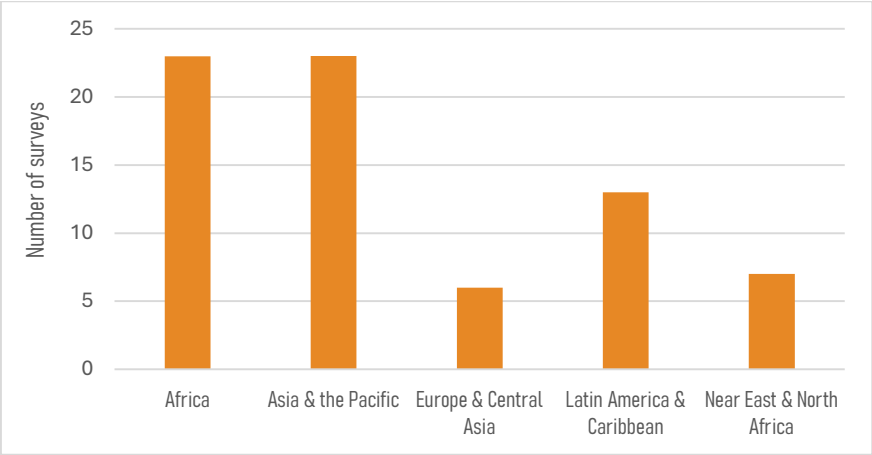


Figure 1: Number of lower-middle-income countries with dietary surveys conducted during 1980–2019 by geographical region according to the FAO/WHO GIFT inventory of surveys. Data shown reflects the situation as of May 2022. Geographic regions are defined according to the FAO operational classification. Only lower-middle-income countries are included for all regions, including Europe and Central Asia (source FAO and Intake. 2022. Global report on the state of dietary data. *Rome).*

116. In recent years, FAO and partners have been concerned about the mixed messaging around healthy diets in popular media and the lack of indicators to assess progress towards the consumption of healthy diets in global mechanisms (such as the SDGs). During the biennium, FAO raised awareness of this issue,[5] advanced a joint statement with WHO on what constitutes a healthy diet, and formed the Healthy Diet Monitoring Initiative with United Nations and other partners. These efforts aimed to elevate the importance of, and accelerate progress towards the validation and use of healthy diet metrics to inform food systems transformation and to track progress towards the achievement of healthy diets and *better nutrition* for all. The activities will culminate in 2024 with the submission of a proposal to include an indicator of healthy diet consumption (dietary diversity) as an SDG indicator for the next indicator review in 2025.

Food and diet domain: facilitated data access for decision-making

The insufficiency of robust dietary data to guide effective evidence-based policies and programmes that promote healthy diets, the elimination of food insecurity and all forms of malnutrition is one of the main obstacles to achieving healthy diets for all.

To help close data gaps and contribute to better guidance for nutrition-sensitive agrifood systems policies, FAO created on FAOSTAT the first centralized platform 'Food and Diet domain' for food and diet-related data. The domain provides user-friendly statistics on four different types of dietary data, visually accessible through maps, charts and tables with a downloadable feature.

Statistics on availability, based on FAO supply utilization accounts, offer information from 2010 onwards on food, energy and nutrient supply for 186 countries. A major development has been the availability of figures, not only for energy, protein and fat, but also for carbohydrates, fibre and a wide range of important nutrients, including from aquatic foods. The platform also provides, for some countries, statistics on apparent intake based on Household Consumption and Expenditure Surveys, on nutrient intake for population subgroups based on individual quantitative dietary intake surveys, and statistics based on the minimum dietary diversity for women indicator.

An analytical brief, and a new global nutrient conversion table for the FAO Supply Utilization Accounts and other knowledge products accompany the new domain. This new domain will help inform agrifood system priorities and motivate countries to invest in collecting and making data from complementary sources more readily available, to facilitate understanding and promote availability, accessibility and intake of nutritious food.

[5] FAO. 2023. Tracking progress on food and agriculture-related SDG indicators 2023. Rome.

BN2: Nutrition for the Most Vulnerable

Focusing on ending food insecurity and malnutrition for individuals with greatest vulnerability

Agrifood interventions for the prevention of child malnutrition

117. FAO has a leadership role in supporting countries to accelerate policies and actions to enable healthy diets for all and is strategically positioned to support a rapid scale-up of emergency and resilience assistance to assist the most vulnerable in the immediate term while helping them to sustainably exit acute food insecurity.

118. In this context, FAO, along with the United Nations Refugees Agency (UNHCR), the United Nations Children's Fund (UNICEF), the World Food Programme (WFP) and the World Health Organization (WHO), plays a crucial role in global efforts to prevent child malnutrition, particularly through its commitment to the United Nations Joint Global Action Plan on Child Wasting (GAP) launched in 2021. This commitment aims to address acute malnutrition through a multisystem approach, contributing to SDG targets 2.2 on ending all forms of malnutrition and 3.2 on ending all preventable deaths under 5 years of age. FAO's child wasting prevention action plan (2023-2024) for rapid acceleration in 15 of the most affected countries captures the Organization's contribution to the GAP.

119. In 2022-23, FAO effectively integrated prevention strategies that prioritize targeted actions and resource allocation into existing national operational roadmaps endorsed by Governments as part of the GAP. FAO will continue to strengthen multisectoral partnerships, operational evidence generation and rigorous impact evaluation to inform the scale-up of preventive actions across all countries in the GAP. This necessitates joint multidisciplinary and multilevel efforts on behalf of FAO and enhanced collaboration with agrifood actors.

120. FAO reached producer households in situation of vulnerability with tailored 'resilience packages', encompassing support for small-scale farming, cash and voucher assistance, and food and nutrition education. By 2023, the resilience packages were integrated into FAO's emergency and resilience agrifood system responses in 55 percent of GAP countries. FAO's innovative approach involves joint targeting and co-location of interventions with other UN agencies and implementing partners, ensuring that vulnerable producer households with individuals at high risk of malnutrition can access healthy diets alongside health services, water, sanitation, and social protection. Gender-empowering mechanisms such as Dimitra Clubs enhance participatory decision-making and capacity development on food-related practices including food storage, minimal processing, preparation and cooking.

121. In Nigeria, FAO supported women cooperatives in upgrading local agro- and fish-processing centres to produce a fortified porridge, made of cereals and fish powder, specifically designed to prevent relapse among children that have recovered from acute malnutrition. This pilot has gathered significant interest for replication within Nigeria and in the wider region.

122. FAO's focus on malnutrition prevention ensures that agrifood interventions prioritize providing young children with access to healthy diets tailored to their needs, crucial for their health, growth and development. Preventing child malnutrition has economic and social benefits, including in terms of reduced child mortality and treatment costs, as well as long-term benefits such as enhanced productivity through physical and cognitive development and reduced risks of overweight, obesity, and related non-communicable diseases. Context-appropriate preventive actions against child acute malnutrition require multidisciplinary teams that effectively leverage FAO's diverse expertise. For example, livestock projects, when purposefully designed, can yield multiple benefits for livelihoods, food security and nutrition especially when integrating consumer education, 'One Health' and climate adaptation.

Innovative livestock sector solutions for improving child nutrition

Preventing acute malnutrition is paramount to avoiding long-term consequences for child growth, development and, ultimately, communities. In the African drylands, the prevalence of global acute malnutrition often exceeds the emergency threshold of 15 percent. Food and medical treatments for acute malnutrition are lifesaving, but without preventive actions countries will struggle to achieve SDG target 2.2 on ending all forms of malnutrition. FAO developed a cost-effective, replicable strategy to protect against seasonal spikes in acute malnutrition rates during times of drought among children under five years of age and pregnant and lactating women.

The Kenyan arid and semi-arid lands, where livestock are the primary livelihood activity, have been experiencing recurring climate shocks, affecting animal production and the availability of animal source foods, an essential component of the diet for pastoralist households, particularly critical for meeting the nutrient needs of young children.

In collaboration with the United Nations Children's Fund (UNICEF) and Washington State University, FAO developed an innovative approach to preventing child acute malnutrition through agricultural livelihoods programming which is being adapted and replicated in other contexts within Kenya and the region.

The Organization assessed the impact of providing livestock feed with nutrition counselling on the risk of acute malnutrition among children under five years of age. All households receiving livestock feeds experienced a significant increase in milk production compared to control groups, with a rise of 25 percent, and reported higher intakes of milk among children less than five years of age, with a decrease in the risk of acute malnutrition. However, milk intake had increased by 78 percent for children whose families had received nutrition counselling (240 ml more milk per day), compared to 58 percent (200 ml more milk per day) for those whose families did not. The risk of acute malnutrition risk was 26 percent lower when livestock feed provision was combined with nutrition counseling, compared to 11 percent among those who did not receive counselling.

BN3: Safe Food for Everyone

Putting in place integrated, multi-sectoral food safety policies and legislation across national agrifood systems

Increasing food safety at country level

123. Food safety is an essential precondition of food security, nutrition and healthy diets, and a requirement for market access and food trade. FAO focuses on integrating food safety into sustainable agrifood systems, nutrition policies, and agriculture development, driving investments, enhancing participation, and providing guidance for policymakers. In 2022-23, FAO's scientific advice programme contributed to implementing Codex standards and integrating food safety into sustainable agrifood systems, nutrition policies, and agriculture development. These supported policymakers, strengthened national food safety capacities, drove investments, and enhanced participation, contributing to SDG targets 2.1 on universal access to safe and nutritious food, 2.2 on ending all forms of malnutrition, and 3.2 on ending all preventable deaths under 5 years of age.

124. In 2023, the 171st Session of the Council endorsed the FAO Strategic Priorities for Food Safety, aligned to the 2030 Agenda and charting the path for FAO to encourage a more consistent integration of food safety in sustainable and inclusive agrifood systems, food security and nutrition policies, and agriculture development strategies.

125. FAO, in collaboration with the World Health Organization (WHO), has provided neutral and independent scientific advice as the basis for the Codex Alimentarius Commission (CAC) standards, guidelines, and codes of practice in a wide range of topics, including chemical and microbiological safety, food production practices, and human nutrition. In 2022-23, FAO's advice to Members on the types of water suitable for different areas of food production and processing and the use of whole genome sequencing for food and water safety management, had important results at national level, including for improved intersectoral collaboration to reduce the health impact of food safety incidents. In 2023, advice provided by FAO and WHO facilitated the adoption by CAC of the Guidelines for the Safe Use and Reuse of Water in Food Production and Processing, providing a risk-based approach to safe water sourcing for food producers, processors and handlers.

126. FAO provided a tool to support the regulation of sales and access to antimicrobials and assess antimicrobial resistance (AMR) status and surveillance systems, in application of the Codex texts relevant to AMR. FAO also continued to assist Members in evaluating the capacity of national food control systems, supporting eight countries, and developed strategies for comprehensive and integrated capacity development programmes, directly supporting the African Union

Commission Sanitary and Phytosanitary (SPS) for Africa programme and serving as a basis for planning activities funded by the African Development Bank.

127. Additionally, on World Food Safety Day 2023, FAO issued a comprehensive toolbox that supports small food business operators, especially in low- and middle-income countries, translate CAC's Good Hygiene Practices (GHP) and Hazard Analysis and Critical Control Point (HACCP) guidelines into practical guidance, in accordance with the Codex Principles of Food Hygiene and engage with local food safety authorities.

Transitioning safely to the food of tomorrow

As the global population continues to grow, agrifood systems transformation must be paired with innovation to reimagine food production while still maintaining and improving the ability to produce safe and nutritious food for all. Many in the food sector are looking into opportunities to expand the scope of diverse sources of proteins that can be both environmentally sustainable and nutritionally sound. Novel food production systems include cell-based food production, which is gaining attention as "food without agriculture" and involves culturing animal cells to produce food that is comparable to the animal versions, and precision fermentation, which uses microorganisms to produce specific target products in a controlled environment. These production systems are developing a wide range of food products, such as meat, poultry, fish, seafood, dairy products, eggs, proteins, enzymes and vitamins.

All new food production systems, especially those using cutting-edge technologies, need to demonstrably result in a product that is safe for the consumer, and FAO has been sharing science to ensure food is safe, in contribution to SDG target 2.1 on universal access to safe and nutritious food. Throughout 2022-23, the Organization advanced collective knowledge in the field and assisted Members who are currently working to identify and address the potential implications of cell-based food production and precision fermentation. Stakeholder roundtables facilitated by FAO convening representatives from over 20 countries and multiple studies conducted by the Organization enabled information and facilitated knowledge sharing on issues such as nomenclature, the state of current development status of cell-based food around the world, the importance of food safety assurance and relevant considerations for sustainability, as well as tips for competent authorities to engage with the public.

Comprehensive background information and relevant food safety considerations, equipped food safety competent authorities with the necessary information and guidance, particularly in low and middle countries, thus improving their regulatory preparedness and protecting consumers.

FAO has also provided technical reports to the Codex Alimentarius Commission, contributing to ensure its processes are sufficient to develop food safety standards for the new and novel food production techniques and that it is prepared for the challenges of tomorrow.

BN4: Reducing Food Loss and Waste

Prompting and enabling all actors in the food supply chain, the food environment and at consumer level to reduce food loss and waste

Building back better on food loss and waste (FLW)

128. Globally, 14 percent of food valued at an estimated USD 400 billion is lost from harvest up to, but not including retail. Another 17 percent is wasted at the retail and consumer levels. Reducing FLW contributes to enhanced food security and nutrition, and reduced environmental degradation, climate change impacts and unsustainable exploitation of natural resources, while increasing economic returns for food supply chain actors and countries. FAO contributes to strengthening tailored FLW policy, institutional frameworks and strategies to enable agrifood systems actors to reduce FLW, and to raising awareness and capacities of public and private sector actors in FLW.

129. In 2022-23, FAO developed clearer, harmonized definitions of FLW, and developed methodologies and guidelines to assess the magnitude of FLW and monitor progress in addressing it, contributing to SDG targets 2.2 on ending all forms of malnutrition and 12.3 on halving global per capita food waste. FAO continued to serve as custodian for the Food Loss Index (SDG 12.3.1a) providing updated global, regional and subregional estimates and narratives for the indicator. The Organization assisted 28 countries in measuring and compiling the Index, increasing capacity and ownership on measurement and reporting at national level.

130. FAO conducted numerous studies assessing the levels and causes of losses in specific value chains, and leveraged breakthroughs in innovative software technologies to collect data hosted in the FLW database, the largest online collection of data on food loss and food waste. Among strategic achievements, evidence informed advocacy, public

policymaking and strategy development, and public and private investments in FLW reduction, including the Turkmenistan Strategy on FLW Reduction, the publication of the Voluntary Code of Conduct for Food Loss and Waste Reduction, and the Near East and North Africa (NENA) FLW reduction framework, aligned to the Code.

131. In terms of awareness-raising, FAO observed the 3rd and 4th International Day of Awareness of Food Loss and Waste, organized high-profile global events at COP28 and UNFSS+2, and convened numerous regional and national events. FAO strengthened national, regional and global multistakeholder platforms and networks, fostering awareness-raising, information exchange, knowledge transfer, and increased investments to reduce FLW. The Organization used the technical resources available on the FAO Technical Platform on Measuring and Reduction of FLW to train thousands of food supply chain actors across all five regions, building their capacities in applying technological, organizational, and institutional innovations for reducing FLW in a sustainable way, with special attention to the needs of youth and women. At global level, the Organization facilitated support for the Food is Never Waste Coalition.

Promoting post-harvest technologies to combat food loss and waste

Grains (cereals, pulses, and oil crops) constitute the major source of food in Ethiopia, accounting for up to 82 percent of total calorie intake and 70 percent of food expenditure. Significant levels of post-harvest losses of grains occur in the country, with some reports providing estimates ranging from 11 to 20 percent. Reducing these losses is a key part of strategies to improve food security, farm incomes and the general nutritional status of the country.

FAO provided support to the Government to identify and promote improved technologies for grain post-harvest storage and handling, including metallic and plastic silos, hermetic bags, and simple threshers. In addition, capacities were strengthened at different levels to facilitate adoption of improved post-harvest management practices and technologies for household grain storage and marketing.

Sixty-three Farmer Field School groups were established to create a learning platform on the application of post-harvest handling technologies. The experience was further shared through field days and exchange visits in the project target areas. Training experts at district level and development agents at community level were trained and their capacities to support farmers strengthened. FAO supported the Ministry of Agriculture in incorporating post-harvest management into the Agricultural Technical and Vocational Education and Training curriculum, in colleges which have begun teaching post-harvest management to their students.

With demand for improved post-harvest technologies stimulated by the training and sensitization of smallholder farmers, youth artisans were trained in producing and selling metal silos to local farmers and other community members. This has generated employment and income for youth in the rural areas and stimulated the development of markets for supplying the inputs required by the artisans.

The improved post-harvest technologies are helping to lower the levels of losses and reduce the time and labor women spend on daily management of the grains stored.

BN5: Transparent Markets and Trade

Achieving improved market transparency and equitable participation in markets, global value chains and international trade

Enhancing market transparency

132. FAO's work on commodities enhances market transparency to reduce trade distortions and price volatility and to contribute to a fairer distribution of trade benefits. FAO also provides early warning for impending food security crises to allow timely interventions to minimize adverse impacts, especially on the most vulnerable, thus supporting the achievement of SDG target 2.c on ensuring stable food commodity markets and timely access to information and target 10.a on the special and differential treatment for developing countries.

133. With more than 100 yearly reports covering major food and agricultural commodities, FAO continued to provide governments and international and national actors with timely and objective data, information and market outlooks, supporting informed decision-making processes and the formulation of appropriate policies and strategies.

134. FAO advanced and expanded the Agricultural Market Information System (AMIS) by providing regular and timely updates on crop conditions, global supply and demand situations, and price and policy developments, as well as promoting coordinated responses among countries. In 2022-23, in view of escalating conflicts and geopolitical tentsions and ensuing

market concentrations in the grain industry, economic slowdowns increased price volatility and the growing climate crisis, AMIS played a crucial role in enhancing transparency and policy coordination in international food markets, by providing comprehensive information on supply and demand dynamics and reducing information asymmetry.

135. FAO also strengthened national capacities in food price monitoring and analysis through the Food Price Monitoring and Analysis Tool, an advanced technical solution for collecting, processing, analysing and disseminating price data. An upgraded version of the Tool was released in 2022 and in 2023, a component for primary price data collection was included in a mobile app. By the end of the biennium, the Tool tracked over 1 300 domestic and international food price series and provided key analysis features, including for calculating SDG indicator 2.c.1 which measures price anomalies that occur on a given food commodity price series over a given period of time. FAO also collected and analysed data on territorial markets in several countries to showcase their importance in promoting healthy food environments and ensuring access to healthy diets and nutritious and diversified foods.

136. The Global Information and Early Warning System on Food and Agriculture proved instrumental in guiding governments and the international community toward timely and targeted interventions. During 2022-23, in partnership with NASA Harvest, FAO supported the integration of digital tools in agricultural monitoring systems for early warning Malawi and Namibia. Multiple agriculture and food security assessments in those countries used the digital tools and new methodologies based on Earth Observation data to improve yield estimations. In collaboration with the World Food Programme, FAO assessed agriculture, market and food security conditions in the Lao People's Democratic Republic, Moldova, South Sudan, Sri Lanka, Sudan and Tajikistan to provide accurate capturing of crisis-induced food insecurity, promoting early action to the benefit of the most vulnerable populations.

Better environment

137. *Better environment* aspires to *protect, restore and promote sustainable use of terrestrial and marine ecosystems and combat climate change (reduce, reuse, recycle, residual management) through more efficient, inclusive, resilient and sustainable agrifood systems*. It provides the solid foundation that enables Members to achieve more sustainable and resilient *better production*, and therefore *better nutrition* and a *better life*. In safeguarding the natural resources on which agrifood systems depend, *better environment* supports food security and livelihoods of rural and urban populations.

138. During 2022-23, in the face of ever-increasing extreme weather events exacerbated by climate change, FAO leveraged *better environment* and its interlinkages with the other *betters* toward the achievement of the 2030 Agenda, with particular focus on SDGs 2 (Zero hunger) 6 (Clean water and sanitation), 12 (Sustainable consumption and production), 13 (Climate action), 14 (Life below water) and 15 (Life on land). *Better environment* efforts are critical to conserving biodiversity, adapting to, and mitigating the effects of climate change, safeguarding vital ecosystem services and restoring degraded landscapes, moving towards a bioeconomy for agrifood systems that embeds more sustainable natural resource management practices.

139. In 2022-23, FAO, in its unique position as specialized agency to support and influence international climate processes, supported the works of the United Nations Climate Change Conferences of the Parties (COP27 and COP28), facilitating synergies, linkages and opportunities for collaboration between the Commission on Genetic Resources for Food and Agriculture, the International Treaty on Plant Genetic Resources for Food and Agriculture and the Convention on Biological Diversity (CBD), and other key stakeholders. The Secretariat of the International Plant Protection Convention, hosted by FAO, co-organized the first International Plant Health Conference.

140. During the biennium, FAO supported countries in their ambitions and actions towards achieving more efficient and sustainable agrifood systems through innovative solutions that address climate adaptation, mitigation, and resilience. FAO also supported countries to identify and put in place technological, organizational and social innovations towards a sustainable bioeconomy, preserve biodiversity and ensure sustainable use, conservation and restoration of marine, terrestrial and freshwater ecosystems.

141. In addition, FAO supported national and local stakeholders to put in place more efficient, inclusive, resilient and sustainable urban and peri-urban agrifood systems transformation to address urban poverty, food insecurity and malnutrition, enabling healthy diets and catalysing rural transformation that safeguards the underlying natural resource base.

142. As detailed in *Annex 1*, FAO supported 119 countries to establish and implement agricultural practices, policies and programmes in support of climate resilience, adaptation and mitigation. The Organization additionally supported 50 countries in the formulation and implementation of integrated evidence-based policies and practices in micro and macro environments towards a sustainable bioeconomy. FAO applied its technical and policy expertise to adopt targeted policies and practices in 89 countries to maintain biodiversity and ensure sustainable natural resource use, conservation, restoration and availability of ecosystem services, and worked in 26 countries at national and local levels to support the adoption of supportive policies and programmes, and the initiation and scaling-up of actions and investments by national and local stakeholders for sustainable urban food systems.

143. Information collected through FAO's performance monitoring framework provides an encouraging picture of how this work was taken up, used for its intended purpose and appreciated by FAO stakeholders. As further detailed in *Annex 1*, 85 percent of respondents to the country stakeholder survey provided positive feedback on FAO's contributions to improving policies and programmes in support of climate resilience, adaptation and mitigation. Some 84 percent of stakeholders also provided favourable feedback on FAO's work to assist countries in putting into place integrated evidence-based policies and practices for a sustainable bioeconomy. A high percentage of stakeholders, 89 percent, also appreciated FAO's efforts in assisting countries to adopt targeted policies and practices for healthy ecosystems and biodiversity, while 85 percent valued the Organization's work at national and local levels to support policies and programmes supportive of efficient, inclusive, resilient and sustainable urban food systems, reflecting the need for FAO to continue to position itself in this vital, but relatively new area of work.

144. Worrying trends in global levels of greenhouse gas emissions (SDG indicator 13.2.2), biodiversity loss (15.5.1), land degradation (15.3.1), forest loss (15.1.1/15.4.2) and marine acidity (14.3.1) continue, and require a significant increase in the collective efforts, and investments, of governments, the private sector, and all development actors to redress and reverse. This is borne out by negative movement or stagnation in related SDG indicators around water related ecosystems (6.6.1), fish stocks within biologically sustainable levels (14.4.1), species at risk of extinction (15.5.1), forest area as a proportion of total land area and mountain green cover (15.1.1/15.4.2) and proportion of degraded landscapes (15.3.1).

145. National recycling rates (12.5.1) appear to be increasing, however, waste generated per capita (12.4.2) continues to increase. Finally, as noted under *better production*, water use efficiency (6.4.1) demonstrates improvement, while water stress (6.4.2), although at a safe level globally, shows dramatic regional variations requiring urgent attention.

146. The survey feedback received from the broad spectrum of FAO stakeholders at country level is substantiated by some positive trends in a number of the relevant SDG indicators, including those that measure changes at the medium-term outcome level, where FAO has the greatest influence. For instance, SDG indicator 2.5.1, which measures the number of plant (2.5.1a) and animal (2.5.1b) genetic resources for food and agriculture secured in either medium or long-term conservation facilities has shown a positive trend for plants. For animals, there is insufficient data, but available evidence points to the need for countries to strengthen efforts to store genetic material in sufficient quantities.

147. Additionally, indicator 12.1.1. indicates an increasing number of countries developing, adopting or implementing policies to encourage the shift to sustainable consumption and production, as well as positive progress in countries adopting and implementing national disaster risk reduction strategies (13.1.2) and putting in place Nationally Determined Contributions, long-term strategies, and national adaptation plans and strategies (13.2.1). An increasing number of least developed countries and Small Island Developing States have put in place Nationally Determined Contributions and National Adaptation Plans (indicator 13.b.1) Finally, indicator 15.6.1 shows an increasing number of countries adopting legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits, which will ensure a better inclusion of women, the poor, indigenous and other marginalized groups.

148. The following section presents, for each Programme Priority Area contributing to *better environment*, selected programmatic highlights which illustrate achievements in support of the 2030 Agenda, as well as lightboxes which showcase specific, tangible, results. Full reporting on the results framework is found in *Annex 1*.

BE1: Climate Change Mitigating and Adapted Agrifood Systems

Enabling climate resilience, adaptation and mitigation in agrifood systems to achieve sustainability and Paris Agreement goals

Tackling water scarcity for enhanced climate resilience in agriculture

149. There are currently 2.3 billion people who live in water-stressed countries, of which more than 700 million – approximately 10 percent of the global population – live in countries with high and critical water stress. Accounting for approximately 70 percent of global freshwater withdrawals, agriculture is expected to suffer the greatest impact of water scarcity. In consequence of climate change, water scarcity will worsen over time, affecting agriculture, food security and the environment.

150. In 2022-23, FAO placed particular emphasis on addressing water scarcity in agriculture and the environment through the Value Added Impact Area Addressing Water Scarcity for Agriculture and environment (AWASAMe), establishing a framework for leveraging synergies across existing interventions to address water scarcity through an integrated, multidisciplinary approach, and contributing to SDG targets 2.4 on sustainable food production and resilient agricultural practices, 6.4 on increasing water-use sufficiency and ensuring freshwater supplies, and 13.1 on strengthening resilience and adaptive capacity to climate-related disasters.

151. Through AWSAMe, the Organization prepared a farmers' guide on soil and water management in salt affected areas, which was used for piloting farmers' training in Cabo Verde and Uzbekistan in collaboration with the Ministries of Agriculture. FAO also disseminated the knowledge generated by the communities of practice fostered by the Global Framework on Water Scarcity in Agriculture (WASAG) and used it to assist countries dealing with saline agriculture while focusing on promoting indigenous drought resilient crops.

152. Coordinating work on addressing water scarcity with the One Country One Priority Product initiative, the Vision for Adapted Crops and Soils, the International Year of Millets, and the work related to the compendium on forgotten nutrition crops in Africa, FAO identified indigenous crops that are nutritious, drought-resilient and with potential for biodiversity. Furthermore, they provide benefits through agronomic practices and a food systems approach to achieve crop diversification, better yields and income for farmers. A comprehensive compendium of such crops is being prepared for all five regions and already being piloted in Cabo Verde, Malawi, Morocco and South Sudan. Additional synergies sought at country level include a resilience-building initiative in Malawi, expanding an initiative in South Sudan to include drought resilient crops, and exploring the opportunity of addressing saline agriculture within a North-South-South Cooperation initiative in Morocco.

153. At global level, FAO collaborated with partners to advocate on saline agriculture at the Conference of the Parties to the United Nations Framework Convention on Climate Change. The resulting call for action on sustainable saline agriculture for climate is set to create greater momentum and commitments to promote saline agriculture. In 2023, WASAG adopted the Praia Call for Action to tackle water scarcity for enhanced climate resilience in agriculture, inviting Members to join the partnership and collaborate towards solutions to address water scarcity in agriculture and the environment in the context of climate change. Calling for attention to dryland agriculture, unconventional sources of water, farmer-led irrigation management involving women and youth, as well as well the water-food-energy-environment nexus and nature-based solutions, paved the way for greater ownership and commitment on behalf of Members ahead of two key WASAG events in 2024.

Supporting developing countries to match climate ambition with action in agrifood systems

Major challenges hampering adaptation and mitigation efforts in agriculture include knowledge and capacity gaps, weak collaboration between key stakeholders and chronic lack of climate finance. Since 2021, FAO and the United Nations Development Programme have been tackling these through tailored support to more than 12 countries in sub-Saharan Africa, Asia and the Pacific, and Latin America and the Caribbean. The pioneering programme aimed at Scaling up Climate Ambition on Agriculture and Land Use through Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs) (SCALA), funded by the Federal Government of Germany through the International Climate Initiative, addresses the urgent need acknowledged by more than 150 countries in the Emirates Declaration on Sustainable Agriculture, Resilient Food Systems, and Climate Action (COP28) strengthening country-led implementation of environmentally-sustainable and socially-equitable climate action in agrifood systems to achieve the Paris Agreement goals.

Through the SCALA programme, FAO identifies pathways for implementing climate actions with the potential to trigger transformative systems change, emphasizing private sector engagement and gender-responsive and inclusive approaches that benefit natural resource-dependent communities in situations of vulnerability. Examples of SCALA impact include: designing a monitoring and evaluation system in Egypt to track progress on adaptation as part of the country's NAP; strengthening monitoring, reporting and verification systems in Côte d'Ivoire and Ethiopia to track emissions from agrifood systems as part of the Enhanced Transparency Framework; bolstering agricultural value chains through system-level assessments in Mongolia and Uganda informing the 2025 NDC update; enhancing the skills of men and women livestock producers in Costa Rica to achieve certification for their sustainable practices; leveraging and scaling up climate-resilient indigenous and traditional knowledge and practices in Colombia, particularly among women, youth and other marginalized groups; and increasing the agrifood dimension of the new climate action priority plan in Cambodia.

SCALA has also enhanced and developed critical tools to spur agrifood transformation within and beyond target countries, such as the Technical guidance for the Nationally Determined Contribution Expert Tool and the Climate Action Review tool for transitioning from planning to implementation in the agriculture and land-use sectors.

BE2: Bioeconomy for Sustainable Food and Agriculture

Moving towards a bioeconomy that balances economic value and social welfare with environmental sustainability

Agrifood systems that benefit from or contribute to improved energy access and efficiency, sustainability and decarbonization

154. Energy is needed at every stage of agrifood systems, and about 25 percent of the emissions from agrifood systems stem from the use of energy. A radical transformation in how energy is used to produce, process, trade and market food is required, and agrifood systems that contribute to improved energy can be key solutions in the face of food and climate crises. Agrifood systems also produce energy, as in the case of bioenergy, which when produced from wastes, residues and by-products, contributes to increasing demands of food, feed and bio-based materials and plays an important role in the bioeconomy context.

155. Bioenergy provides solutions to tackle climate change and is instrumental in developing a sustainable and circular bioeconomy, in line with the Paris Agreement and the 2030 Agenda. FAO helps to increase access to sustainable energy in agrifood systems through innovative energy contributing to achieving SDG targets 12.2 on sustainable management and use of natural resources, 12.4 on responsible management of chemicals and waste, and 12.5 on substantially reducing waste generation.

156. In 2022-23, FAO assisted policymakers and stakeholders in assessing improved energy opportunities to foster holistic policies and stimulate investments in support of climate and development actions. The Organization provided open labs and training (including for youth), as well as tools and guides on cold chains technologies to reduce food loss and waste, the small-scale fisheries-energy and water-energy-food nexuses, waste-to-energy technologies, integrated food and energy systems, sustainable bioenergy monitoring and potentials, bioenergy in the context of the wider bioeconomy, including assessments to guide investments. In addition, FAO also contributed to designing national and regional renewable energy-based systems and supported their installation.

157. As founding partner, FAO continued to play a leadership role in Global Bioenergy Partnership (GBEP), fostering its increased focus on the role of sustainable bioenergy in the context of the wider bioeconomy. In addition to environmental

concerns, bioenergy solutions also contribute to tackling inequalities. In Africa and Asia clean cooking solutions promoted by FAO through the GBEP are contributing to reducing the pressure on local forests, the emissions of GHG, and indoor air pollutants to which women and children are otherwise exposed, as well as the time spent by women and girls in collecting woody biomass.

158. FAO also drew the attention of the international community to the importance of agrifood systems that contribute to improved energy and to the revision of SDG 7 in prominently featuring the role of energy in agrifood systems.

From waste to sustainable value chains

FAO harnesses bioeconomy innovations to optimize biological resource use, reduce waste, promote eco-friendly production and consumption, and establish circular value chains. FAO's bioeconomy initiatives provide environmental, social and economic benefits, contributing to SDG targets 12.4 on responsible management of chemicals and waste and 12.5 on substantially reducing waste generation.

As part of its Green Cities Initiative, FAO is supporting the city of Abidjan in addressing the challenges of managing more than 4 000 tonnes of organic waste daily, the lack of affordable local agricultural inputs, and the need for urban job creation. In collaboration with the Institute of Circular Economy of Abidjan and a local startup, FAO launched a 1 000-m^2 production facility to rear black soldier fly larvae on waste, thereby converting 1 000 kg of organic waste daily into 120 kg of animal feed and 200 kg of organic fertilizer. This "waste to fork" business model provides a waste management solution that generates sustainable agricultural inputs for both crop and livestock production, while creating green employment. It has demonstrated a sustainable bioeconomy model and its cost-effectiveness and replicability have attracted attention from other UN agencies, international organizations, civil society organizations and local stakeholders.

With FAO's support, Pakistani farmers from the Sindh Province have launched a project pioneering the transformation of banana crop residues, that would otherwise be burned, into bio-based fibres as an eco-friendly alternative to cotton. FAO, in partnership with the Global Environment Facility, academia, producers, private sector actors and regulatory bodies, is contributing to embed sustainable bioeconomy practices, reducing environmental impact and creating income opportunities for local communities.

Fish is a precious wasted commodity and a vital source of protein that can enhance agricultural production. Yet, in a Small Island Developing State like Barbados, around 3 000 tonnes of fish waste are dumped annually. Following its support for mainstreaming the development of value chains from fish waste into the 2023-2033 Fisheries Policy, FAO worked with local women fish processors, youth farmers and partners to convert fish waste into sustainable fish silage-based feed, leveraging flexible voluntary contributions. The silage-based feed led to weight gains, costs and feed acceptance levels comparable to those of commercial feed. It reduced the cost of imported feed, lowered the level of fish waste in the country's landfills, and supported entrepreneurship among youth and women. The achievements will be upscaled with support from private investments and South-South Cooperation.

Through innovative bioeconomy solutions such as these, FAO addresses waste management challenges while creating sustainable value chains, generating employment opportunities, reducing environmental impact, and fostering economic growth and driving positive change towards a more sustainable future.

BE3: Biodiversity and Ecosystem Services for Food and Agriculture

Maintaining biodiversity for food and agriculture and promoting sustainable use, conservation and restoration of marine, terrestrial and freshwater ecosystems, and their services

Restoring environments for productive agriculture, investment and resilience

159. Healthy ecosystems and their biodiversity are essential for food production and rural livelihoods, yet agricultural sectors continue to cause biodiversity loss and ecosystem degradation. FAO fosters the adoption of policies and practices that promote maintaining biodiversity for food and agriculture and sustainable use, and conservation and restoration of marine, terrestrial and freshwater ecosystems, while balancing the need to improve food security and nutrition and protect livelihoods.

160. In 2022-23, special focus for accelerated impact was placed on the risk of exacerbating ecosystem degradation posed by the need for increased production to feed a growing population. Reversing the trend and restoring and sustaining key ecosystem functions underpinning productivity and resilience requires large scale investments. FAO launched the Restoring Environment for Productive Agriculture, Investment and Resilience (REPAIR), a 10-year programme that leverages FAO's interventions and mechanisms to assist small-scale farmers and agropastoralist communities in large-scale land

restoration. Through the programme, FAO supports building sustainable value chains, increasing climate change resilience, and creating decent jobs and incomes, particularly for youth and women, in contribution to SDG targets 15.1 on conserving and restoring terrestrial and aquatic freshwater ecosystems, 15.3 on ending desertification and restoring degraded land, 15.5 on protecting biodiversity and natural habitats, and 2.4 on sustainable food production and agricultural practices.

161. FAO prioritized youth and women's capacities for restoration-linked business development, including through expanding the capacity of forest and farm producer organizations to provide support at farm level with focus on inclusive opportunities and gender-responsive solutions. At country level, FAO contributed to strengthening national capacities to scale up ecosystems restoration and mobilize additional resources, supporting Burkina Faso, Guatemala, Haiti, Honduras, Mexico, Nicaragua, the Niger and Panama with a total of USD 62 million and co-financing of around USD 220 million.

162. The Organization also worked with countries in Africa and the Central American Dry Corridor to unlock funding and provide technical support for restoration interventions that can transform landscapes and improve livelihoods. In Africa, where as much as 65 percent of arable land is degraded, FAO supported the African Forest Landscape Restoration Initiative to accelerate restoration and value-added innovation. The Organization also assisted eight countries in developing Scaling-Up Resilience in Africa's Great Green Wall projects leveraging USD 200 million in support of countries and sectors working together to address land restoration in line with local development needs.

163. In the Central American Dry Corridor, land degradation, droughts and floods put food security and livelihoods at risk. FAO supported the development of investment plans to bring innovation and build resilience, aiming to restore over 456 000 ha of land and sustainably manage 444 000 ha, including over 1.8 million ha in conservation areas. Interventions ranged from agricultural climate risk zoning and digital soil mapping to strengthening agricultural research and development systems, providing market access through entrepreneurship digital ecosystems, and supporting construction of comprehensive and efficient irrigation water supply systems.

164. Effective communication and partnerships with governments, international organizations, the private sector and small-scale producers ensured rapid progress in this initial phase. A USD 100 million Umbrella Programme will build on the successful and innovative approach to mobilize restoration action on the ground, encouraging innovation and investment by smallholders and enhancing their livelihoods and resilience. In the context of the UN Decade on Ecosystem Restoration, co-led by FAO, the Organization will continue to scale up resource mobilization in other regions, to support countries in achieving their forest and landscape restoration commitments while improving food security and resilience, and safeguarding the natural capital that sustain agroecosystems.




Green Cities Initiative

Through the Green Cities Initiative, FAO supports cities in identifying and developing tailored strategies that contribute to green urban regeneration, increase the health and well-being of urban and peri-urban populations, support mitigation and adaptation to climate shocks, minimize carbon footprint and strengthen urban-rural linkages.

In 2022-23, the Green Cities Initiative made significant advances in promoting sustainable urban development globally. Over 100 cities received support in agriculture, forestry, and food systems. FAO integrated approaches that address both urban and rural priorities, such as transitioning to a circular economy, achieving food security, creating urban green spaces and, more generally, building resilience against shocks, such as those caused by climate change, in contribution to SDG targets 1.1 on eradicating extreme poverty, 2.1 on universal access to safe and nutritious food, 11.a on strong national and regional development planning, and 12.1 on implementing the 10-year sustainable production and consumption framework.

In Yaoundé, Cameroon, FAO contributed to transforming waste management by training households in composting and urban gardening. A solar-powered borehole was implemented in Ndjamena and Massakory in Chad to provide irrigation for an urban forestry nursery, in support of climate-resilient agriculture. In Senegal, a central kitchen in Bambilor sourced agroecological products for school meals, improving nutrition. Rwanda and Uganda targeted food waste reduction and agroforestry in Musanze and Kampala, respectively, to bolster local food sustainability. Bangladesh and Sri Lanka focused on urban agriculture education, engaging over 1 000 students in Colombo, Sri Lanka. Dominica and Honduras emphasized urban greening and green technologies for local food production, involving communities in environmental projects. FAO also launched training programmes on integrating agrifood systems into urban planning, with the additional objective of supporting the expansion of the Green Cities Initiative network.

The high interest of urban and national stakeholders shows a growing commitment towards sustainable urban development and agrifood system transformation. Thirty-six African cities have Green Cities Initiative plans, in the context of the Green Cities Regional Action Programme, which aims to include 300 cities by 2030. Along with other regional strategies developed during the biennium, FAO is on track to reach the target of 1 000 cities by 2030.

BE4: Achieving Sustainable Urban Food Systems

Enabling national and local stakeholders to move towards more efficient, inclusive, resilient and sustainable urban and peri-urban agrifood systems

Multistakeholder and multilevel urban agrifood systems governance

165. As urbanization expands, subnational governments have the potential to foster an enabling context conducive to transforming urban and peri-urban food systems. This, in turn, can help bridge the gap between SDG2 on zero hunger and SDG 11 on sustainable cities and communities. Urban agrifood systems governance mechanisms established at city level in collaboration with national governments are long-term and dynamic processes requiring continuous support, but they can play a catalytic role in terms of strengthening multilevel agrifood systems linkages. Facilitating connections across government levels for sustainable agrifood systems transformation can be achieved through the establishment of local food governance mechanisms, development of local food strategies connected to national policies and strategies (including national food systems pathways) and fostering networks among cities within the same country.

166. In many countries, particularly low- and middle-income, sub-national governments need to be adequately recognized and supported in this effort. Establishing multilevel and multistakeholder governance mechanisms for agrifood systems tailored to specific contexts can play a pivotal role. These mechanisms empower stakeholders, including women, youth, informal food actors, and others in situation of vulnerability to voice their need and interests and coordinate with governmental institutions. Importantly, FAO co-leads the Local2030 Coalition, along with UN-Habitat and the United Nations Development Programme to push key transitions and achieve the SDGs by 2030 through 12 high-impact initiatives at local level.

167. In 2022-23, FAO supported several countries in integrating urban agrifood systems into policy, planning and action, with a focus on multistakeholder and multilevel governance. As a significant initial step, FAO assisted various cities in establishing food governance mechanisms and developing local food strategies. For instance, in Kenya (Kisumu and Nairobi City Counties), a Food Liaison Advisory Group, established under county leadership and comprising representatives from national Government, academia, civil society organizations, the private sector and farmer organizations serves as a platform for dialogue among diverse stakeholders, identifying priority actions to enhance local food production, processing, employment and business opportunities, especially for women and youth. As a result, the Kisumu County Food Strategy (2023-27) and Nairobi City County Food Systems Strategy (2022-27) have been officially endorsed at the county level, delineating key intervention areas to foster rural-urban linkages.

168. In Madagascar, the Municipality of Antananarivo (Analamanga region), in collaboration with the Ministry of Agriculture and other stakeholders, established a stakeholder advisory group to develop and validate the Agrifood Systems Resilience Strategy 2023-28 for Antananarivo and its surrounding region. This strategy advocates for multisectoral, multilevel, and multistakeholder collaboration, recommending coherent implementation of policies and programmes, such as integrated water resource management, national agriculture and livestock investments, and regional land-use planning.

169. In Bangladesh, the Dhaka Food Agenda 2041 was initiated and launched in 2023 by the Ministry of Local Government, Rural Development and Cooperatives. The urban food agenda was the result of the establishment of food systems multistakeholder governance mechanisms in the four Dhaka City Corporations.




FAO Biodiversity Knowledge Hub: enhancing capacity for mainstreaming biodiversity across the agricultural sector

Following on the adoption of the Kunming-Montreal Global Biodiversity Framework in 2022 that supports the achievement of the Sustainable Development Goals (SDGs) and sets out an ambitious pathway to reach the global vision of a world living in harmony with nature by 2050, the FAO Biodiversity Knowledge Hub was launched in December 2023. FAO is the custodian agency for a range of indicators used to measure progress towards the Sustainable Development Goals and the implementation of the Kunming-Montreal Global Biodiversity Framework.

Access to high-quality data is crucial to the conservation, restoration and sustainable use of biodiversity for food and agriculture. The Hub brings together hundreds of tools, guidance, policy and technical resources developed by the Organization, to enhance users' capacity to mainstream biodiversity and assist policymakers and other actors in implementing and monitoring the Global Biodiversity Framework. It groups FAO knowledge and resources and provides a range of learning opportunities and access to high-quality data aiming to strengthen engagement and interaction among relevant stakeholders to share experiences and inspiring examples on the ground.

The Hub also facilitates engagement in online communities of practice to support interaction among relevant stakeholders, promoting innovation and technological support, and providing space to share experiences and inspiring examples on the ground. With the short remaining timeframe to achieve the goals of the Global Biodiversity Framework and transform agrifood systems, the FAO Biodiversity Knowledge Hub will help to scale up and accelerate action for the conservation, restoration and sustainable use of biodiversity for food and agriculture.

Better life

170. *Better life* is the beating heart of the four betters, bringing a strong, people focus, with its success very much intertwined with and dependent on positive progress across better production, better nutrition, and better environment. *Better life promotes inclusive economic growth by reducing inequalities (urban/rural areas, rich/poor countries, men/women). Better life* brings in a strong people focus, with its success intertwined with and dependent on positive progress across *better production*, *better nutrition*, and *better environment*. *Better life* aims to improve social and economic inclusion, and hence incomes and food security for those who derive their livelihoods from agrifood systems and related value chains. In doing so, it ensures to explicitly target women, youth, poor, Indigenous Peoples, ethnic minorities and other groups in situations of vulnerability to enhance their resilience and incomes, thereby reducing inequalities, leaving no one behind. During 2022-23, FAO leveraged *better life* and its synergy with other *betters* towards the achievements of the 2030 Agenda, with particular focus on Sustainable Development Goals (SDGs) 1 (No poverty), 2 (Zero hunger), 5 (Gender equality), 8 (Decent work and economic growth) and 10 (Reduced inequalities). Current macroeconomic trends, including the post-pandemic context, increasing weather volatility and disruptions to agrifood systems due to conflict – which remains the single greatest driver of hunger – made this particularly challenging.

171. In 2022-23, FAO's global leadership in responding to the food crisis to promote food security and a *better life* was demonstrated at various high-level events, including interaction of the FAO Director-General at the UN Security Council; in G7 ministerial meetings; at the G20 Joint Finance and Agriculture Ministers' Meeting; and FAO's participation at a session convened jointly by the President of the UN General Assembly and the Chair of the Committee on World Food Security on coordinated policy responses. FAO also joined forces with the heads of the International Monetary Fund, the World Bank, the World Food Programme and the World Trade Organization to highlight, *inter alia*, the importance of investments in agrifood systems transformation.

172. At national level, FAO supported countries to accelerate inclusive transformation and revitalization of rural areas, ensuring equal participation and benefits to the poor, youth and other marginalized groups; with special focus on promoting gender equality and rural women's empowerment, including through access to and control over resources, services, technologies, institutions, economic opportunities and decision-making. A critical element of FAO's work under *better life* was, in active collaboration with WFP and other partners, to provide urgent livelihood assistance, help countries respond to socio-economic and environmental shocks and stresses, and improve the resilience of their agrifood systems to better withstand and manage future shocks and risks. FAO also supported countries to accelerate progress towards eradicating poverty and hunger and reducing inequalities through support to scaling up investment in agrifood systems, including through its flagship Hand-in-Hand initiative. Given the SDG financing gap estimated at USD 4 trillion annually, FAO's contribution in bringing together coalitions of partners across the public and private sectors for substantial, responsible and sustained investment in agrifood systems is of paramount importance.

173. As detailed in *Annex 1*, FAO supported 38 countries to put in place gender-responsive policies, strategies, programmes and legal frameworks. It assisted 84 countries accelerate their rural transformation efforts through implementation of policies, strategies and programmes that ensure targeting of women, youth, Indigenous Peoples, poor and other groups at risk of being left behind. To help alleviate critical situations of acute food insecurity and livelihood stress, FAO supported 60 countries in responding to emergencies and shocks, with a total reach to 55 million people in 2023, up from 30 million in 2022; and assisted 91 countries in improving their risk and vulnerability reduction measures.

174. FAO worked through the Hand-in-Hand initiative to support 35 countries accelerate agricultural transformation and rural development through evidence-based, context-specific investment plans and strategies tailored to the agroclimactic and socio-economic characteristics; and directly supported increased public and private investment in 21 countries.

175. Work under *better life* was well received by FAO stakeholders. Also shown in *Annex 1,* 84 percent of respondents to the country stakeholder survey provided positive feedback on FAO's contributions to gender equality and rural women's empowerment. Some 88 percent of stakeholders provided favourable feedback on FAO's work to assist countries put in place targeted policies and programmes for inclusive rural transformation. A similarly high percentage of stakeholders, 83 percent, appreciated FAO's efforts in providing direct assistance to countries facing agriculture emergencies, with 89 percent highly valuing the Organization's leadership in supporting increased resilience to withstand future crises and shocks. The Hand-in-Hand initiative received favourable ratings by 84 percent of respondents, while the Organization's support to scaling up investment was valued by 90 percent.

176. As noted under *better nutrition*, the statistics regarding SDG targets 2.1 and 2.2 on the incidence of hunger and malnutrition describe a critical picture, while poverty figures published by the World Bank Group indicate that, after several decades of continuous global poverty reduction, a period of significant crises and shocks, including COVID-19 resulted in around three years of lost progress between 2020 and 2022. Low-income countries, which saw poverty increase (SDG target indicators 1.1.1 and 1.2.1) during this period, have not yet recovered and are not closing the gap. Data on inequalities (10.1.1 and 10.2.1) indicate some progress, but with levels remaining worryingly high in many countries. Additionally, while gaps exist, the available data on indicators 1.5.1 and 1.5.2 point to the clear need for increased efforts to improve preparedness and resilience to both natural and man-made shocks, while 16.1.2 reflects an increase in conflict-related deaths after several years of declines, emphasizing the importance, from an agrifood systems perspective, of a pro-active approach in addressing situations where there is a risk of conflict over natural resources, and the embedding of conflict sensitivity across emergency responses.

177. The survey feedback received from FAO stakeholders at country level is also substantiated by some positive trends in a number of the relevant SDG indicators, including those that measure changes at the medium-term outcome level, where FAO's contribution has the greatest and most immediate influence. For instance, SDG indicator 1.3.1 indicates a slightly higher, but still insufficient proportion of populations covered by social protection systems, which highlights the need to regularize the temporary measures put in place in response to the current food crisis for more durable solutions. It is important that governments maintain and continue to finetune these policies, ensuring that small-scale producers, women, youth and other agrifood systems actors in situations of vulnerability – in particular in the rural space – are appropriately covered. In addition, progress is being made in national and local governments' adoption of disaster risk reduction strategies (1.5.3 and 1.5.4). Regarding investment, while government spending on agriculture (2.a.1) has deteriorated in recent years, total official flows (that is to say, official development assistance and other official flows) to agriculture increased in response to the COVID-19 pandemic, although appears to have adjusted slightly downwards since, while remaining at higher than previous levels. Overall investment flows for development (10.b.1) have shown a marked increase, with more countries adopting and implementing investment promotion regimes for least developed countries (17.5.1). Nevertheless, increases in orders of magnitude *versus* current levels are required if we are to live up to the promise of the SDGs.

178. The following section presents, for each Programme Priority Area contributing to *better life*, selected programmatic highlights which illustrate achievements in support of the 2030 Agenda, as well as lightboxes which showcase specific, tangible, results. Full reporting on the results framework is found in *Annex 1.*

BL1: Gender Equality and Rural Women's Empowerment

Ensuring women's equal rights, access to, and control over resources, services, technologies, institutions, economic opportunities and decision-making in agrifood systems

Women's empowerment in agrifood systems

179. FAO is committed to gender equality and women's empowerment in agrifood systems, aiming for women's equal rights, access to and control over resources, economic opportunities and decision-making and to accelerate the achievement of eliminating gender-discriminatory laws and practices in contribution to SDG targets 2.3 on doubling the productivity and incomes of small-scale food producers, 5.4 on valuing unpaid care and promoting shared domestic responsibilities, 5.a on equal rights to economic resources, property ownership and financial services, and 5.c on adopting and strengthening policies and enforceable legislation for gender equality.

180. Throughout 2022-23, the Organization provided evidence and policy assistance in support of advancing women's empowerment. The Status of women in agrifood systems report, published in 2023, presented new evidence on gender inequalities, and a comprehensive picture of women's participation, opportunities and challenges in agrifood systems. This first comprehensive report in ten years, provided action-oriented policy messages, and catalogued lessons learned over the past decade in closing gender gaps and enhancing women's empowerment. It showed that closing gender gaps in farm productivity and wages could boost global gross domestic product by one percent and decrease global food insecurity by at least two percent, leading to a reduction by 45 million food-insecure people; empowering women in small-scale production would raise the income of an additional 58 million people and the resilience of 235 million more people.

181. The report also emphasized the need for gender transformative approaches; collection and analysis of gender and sex-disaggregated data; targeted policies that strengthen women's rights to ownership and control over land; and agricultural extension, financial and care services. FAO disseminated the report at events in 15 countries attended by governments, international institutions, civil society, academics and the private sector, urging joint action to advance gender equality and women's empowerment in agrifood systems. Outreach was comparable to FAO flagship reports, reaching over 26 million followers on social media, and leading to news stories from 54 outlets and 19 policy documents.

182. The report opened avenues for meaningful strategic dialogues, meetings and consultations with key resource and strategic partners globally, prompting interest in Latin America, the Near East and North Africa, and sub-Saharan Africa to generate additional region- and country-specific data for evidence-based programming, policymaking and financing. It also built momentum for a global commitment and pledging process to be launched with the United States Agency for International Development at the 68th Commission on the Status of Women, to attract resource partners and enhance investment in gender equality and women's empowerment in agrifood systems.

183. In 2023, the 51st Session of the Committee on World Food Security endorsed the Voluntary Guidelines on Gender Equality and Women's and Girls' Empowerment in the Context of Food Security and Nutrition, a key global policy framework in support of country-led efforts towards achieving food security and nutrition. FAO played a central advisory role in the formulation and negotiation process since 2020, including advocating for gender transformative policies and initiatives. A landmark achievement, the Guidelines provide concrete guidance to governments, development agents and resource partners for implementing gender-responsive policies, programming and investments for food security and nutrition, paving the way to ensuring an equal right to nutritious food for all, leaving no one behind.

Extending social protection policies to the fisheries sector

Across regions, evidence shows clear positive impacts of social protection programmes in terms of food security, nutrition and human capital development. FAO has been facilitating the extension of social protection to the fisheries and aquaculture sector. The Social Protection for Fisheries and Aquaculture initiative has been implemented in Colombia, Paraguay and Tunisia, and has supported global activities, including knowledge exchange among countries such as Brazil and Small Island Developing States. In addition to generating evidence to expand coverage, adequacy, and comprehensiveness, through the initiative, FAO actively supports the development of policies and operational solutions to institutionalize social protection for fishers, fish-farmers, and fish-workers. These efforts contribute to Sustainable Development Goals (SDG) target 1.3 on implementing social protection systems and SDG target 14.b on supporting small-scale fishers, extending social protection coverage to all, guiding government expenditures towards the fisheries sector, and ensuring social protection schemes support livelihoods of women and men in the sector in coastal and inland fisheries-dependent communities.

Through this initiative, FAO has raised awareness, provided training and facilitated exchanges on best practices on systems of registry and information interoperability, targeting and design. In Paraguay, FAO evaluated the Assistance to Fishers in the National Territory Programme and analysed existing registry systems, informing a guidance document on enabling interoperability. FAO facilitated exchanges among fisher community and Government representatives from Brazil, Cabo Verde, Chile, Colombia, Paraguay, Peru and Tunisia on Brazil's experience in designing and implementing the fishers' unemployment benefit scheme and other social protection programmes for the sector.

The 2022-23 biennium saw the initiative's catalytic effect, supporting countries in identifying barriers to access, and filling critical gaps through new national-level arrangements. The inter-institutional working groups created by FAO consolidated enabling structures for articulating stakeholder priorities, providing technical inputs, and developing coherent fisheries and social protection policies and programmes. In Colombia, the working group assumed responsibility for regulating the fishers' closed season unemployment benefit. In Tunisia, the interministerial working group became a platform for dialogue on access to social protection in the sector and a pathway for translating research into operational solutions and improved system performance.

Moving forward, FAO will continue to foster exchange, innovation and locally adapted solutions through the development of global knowledge products and continued country-level activities.

BL2: Inclusive Rural Transformation

Targeting inclusive rural transformation and revitalization of rural areas with equal participation of and benefits to poor, vulnerable and marginalized groups

Pathways towards a resilient and inclusive transformation of rural livelihoods

184. FAO's Resilient and Inclusive Transformation Initiative is a knowledge development initiative, aimed at strengthening resilience and inclusion in selected developing countries. By identifying the most-at-risk populations and those in situations of greatest vulnerability, the Initiative improves understanding of the drivers of vulnerabilities and risks and ensures that no one is left behind in the process of rural transformation, contributing to SDG targets 1.1 on eradicating extreme poverty, 8.3 on promoting policies to support job creation and growing enterprises, 8.5 on full employment and decent work with equal pay and 10.2 on empowerment and inclusion of all people.

185. The Initiative was designed to be catalytic, securing buy-in from outside actors early on to lead to stronger policies and institutions that include the rural poor and build their resilience; enable the empowerment of poor rural women and men; and scale national and international investments. In 2022-23, the Initiative allowed FAO to better identify the key factors that influence potential pathways towards achieving resilient and inclusive transformation of rural livelihoods. It also provided a platform for discussion, knowledge and evidence sharing on resilient and inclusive rural transformation, generated policy guidance and provided a roadmap for investments. Follow-up activities are set to lead to stronger policies and institutions that include the rural poor and build their resilience; to enable the empowerment of poor rural women and men; and to scale national and international investments.

186. More specifically, the Initiative redefined the nature of resilient and inclusive rural transformation and its focus on agricultural productivity, with a stronger emphasis on inclusion, climate change and nutrition in the transformation of agrifood systems, covering the dimensions of land use, small and medium sized enterprises, climate justice, nutrition, gender equality and governance, among others. A particular focus has been placed on the future viability of small-scale production, particularly in sub-Saharan Africa and Asia to assist ongoing local rural transformations on issues such as

land consolidation and productivity gains, including for effective policies to support small-scale producers and implications for investments.

Gender transformative approaches

During the 2022-23 biennium, FAO intensified global efforts in piloting gender transformative approaches (GTAs), enhancing inclusive and resilient agrifood systems by tackling the root causes of gender inequality and contributing to SDGs 2 and 5. GTAs trigger critical reflection, challenge structural causes of gender inequality, and build equitable relations between genders.

Through the Joint Programme on Gender Transformative Approaches for Food Security and Nutrition, FAO, in collaboration with Rome-Based Agencies, embedded GTAs into policy dialogue, programming, and institutional culture through knowledge generation, capacity development, and policy engagement. For example, in Ecuador, group-led initiatives organized through Dimitra Clubs contributed to reforestation, mitigating summer heat waves and boosting agribusiness skills of their members.

Dimitra Clubs, implemented in 12 African countries since 2009, benefit over six-million rural people, expanding to Asia and Near East, with Cambodia and the Syrian Arab Republic leading the way. They are groups of women, men and youth voluntarily organizing to discuss the challenges they face and take collective action to bring about changes in their communities, resolving problems with their own resources, facilitating increased women's leadership, improved nutrition and more equal distribution of unpaid care work.

The Joint Programme on GTA launched the 2023 Guidelines for measuring gender transformative change in the context of food security, nutrition and sustainable agriculture, a tool allowing FAO and partners to assess and upscale GTAs globally.

The Joint Programme on Accelerating Progress Towards Rural Women's Economic Empowerment was implemented in Ethiopia, Guatemala, Kyrgyzstan, Liberia, Nepal, Niger and Rwanda, generating significant increases in production for women. In Nepal, boosting communities' access to health services and knowledge on diet and food safety improved food security and nutrition. Furthermore, rural women increased their financial and business literacy skills, enabling them to develop comprehensive action plans at household and community levels. The programme will expand to Niger, Nigeria, the Pacific Islands, Rwanda, Tunisia and the United Republic of Tanzania.

187. The initiative successfully revisited the conceptual debate on inclusive and resilient rural transformation, considering key changes in the context and the observation of key current features of rural transformation in developing countries. This will enable FAO to generate cutting-edge policy guidance and to better focus investments to reduce rural poverty. As a result of FAO's advocacy work undertaken under the Initiative, the first High-Level Expert Seminar on Indigenous Peoples' Food and Knowledge Systems in Africa will take place in 2024, which is expected to advance SDGs 2, 15 and 13, as well as foster discussions on the role Indigenous Peoples play in the Kunming-Montreal Global Biodiversity Framework, the United Nations Decade on Ecosystem Restoration, the United Nations Decade of Action on Nutrition, and the International Decade of Indigenous Languages.

BL3: Agriculture and Food Emergencies

Providing countries facing food crises with urgent livelihood and nutrition assistance and strengthening their capacities to better withstand and manage future shocks and risks

Emergency and resilience programming in food crisis countries

188. As global acute food insecurity has risen, FAO stepped up its humanitarian and resilience programme, reaching over 55 million people in 2023, up from 30 million in 2022, helping them anticipate and ease the impact of shocks by facilitating rapid local food production during and after shocks and supporting communities towards the path of resilience and growth.

189. FAO's emergency programming is key to both meeting and reducing humanitarian needs. The Organization's time-critical cereal and vegetable distribution in 2022 enabled about 4 million families (23 million people) hit by crises to produce urgently needed nutritious food. Families' production met an estimated 11 months of cereal needs, with a value of USD 870/household, and an average return on investment of USD 6 for each USD 1 invested. The assistance provided allowed producing crop and vegetables for a total value of USD 2.75 billion.

190. FAO distributed over 2 million tonnes of seeds and 173 000 tonnes of fertilizer to more than 27.5 million rural people in 2023 to meet their food needs and provide livelihood options. The Organization also vaccinated over 33 million livestock, reaching over 23 million people, and distributed 1.2 million head of livestock in efforts to maintain households' productive assets and offer a critical source of dietary diversity. In 2023, through the cash and voucher programme, FAO distributed over USD 108 million, or an average of USD 230 per household. The greater part of cash assistance was unconditionally delivered – a modality that supports meeting the immediate needs of households in situation of vulnerability, based on their own priorities. These efforts were followed by cash for work, supporting communities with critical infrastructure; cash plus, coupling cash with in-kind agricultural assistance; and voucher programmes.

191. A cornerstone of FAO's emergency and resilience programming, FAO assisted about 600 000 people in 2022, and more than 1 million people in 2023 with anticipatory actions aimed at reducing the impact of predicted hazards such as drought, floods, storms, cold waves and animal diseases. Early warning information triggered the actions, and FAO implemented them in over 30 countries in coordination with governments and partners. For example, in 2023, FAO developed an Anticipatory Action and Response Plan supporting the most at-risk countries based on an analysis of historical trends, latest seasonal forecasts, agricultural seasonality and the vulnerability of populations at risk. The plan has three main objectives to mitigate El Niño impacts through anticipatory actions capitalize on the positive spillover effects of El Niño and offset losses, such as by supplying seeds to flood-affected farmers; and deliver early response where El Niño causes devastation. By the end of 2023, FAO anticipatory actions operations directly supporting vulnerable populations were ongoing in 19 countries at risk of El Niño impacts, with an investment of over USD 20 million.

192. Programming of this scale cannot be done alone. To deliver this assistance, FAO partnered with more than 300 national and local organizations to implement activities in 2023 – reflecting FAO's strong commitment to the system-wide localization transformation.

BL4: Resilient Agrifood Systems

Reducing risk and vulnerability to shocks and stresses for more resilient agrifood systems and livelihoods

Building resilience in forced displacement contexts

193. According to the *Global Report on Food Crises 2023*, nearly 20 million refugees and asylum seekers were hosted in 2022 in 55 countries experiencing food crises, constituting over 60 percent of the global refugee population. Forced displacement is both a driver and a consequence of food insecurity. In 2022-23, FAO worked across the humanitarian-development-peace nexus in 35 countries across all regions to meet the immediate needs of forcibly displaced people and their hosts, providing comprehensive agricultural support to address food insecurity and malnutrition and achieve durable solutions.

194. The Organization supports building and strengthening inclusive agrifood systems, to ensure long-term food security and enhance the resilience and self-reliance of refugees, internally displaced people (IDPs) and returnees, and to limit their dependency on humanitarian aid. At the same time, FAO aims through its contribution to peace approach to promote overall rural development. In doing so, the Organization contributes to SDG targets 1.5 on resilience to environmental, social and economic disasters and 2.4 on sustainable food production and resilient agricultural practices.

195. FAO made significant strides in addressing forced displacement globally, regionally, and locally. At the Global Refugee Forum 2023, FAO advocated for leveraging the skills of those living in situations of displacement, a significant proportion of whom have been reliant on agriculture as their primary source of income, or have become more reliant on agriculture after being displaced. With FAO's leadership, agriculture was positioned as a crucial pathway for refugee inclusion, prompting commitments from governments worldwide to foster an enabling environment for this transformative potential, including through commitments of access to agricultural land by refugee-hosting governments. The Organization spearheaded the development and coordination of a Multi-Stakeholder Pledge on Agriculture, Food Systems, and Food Security alongside the United Nations High Commissioner for Refugees, the World Food Programme and the Government of Norway which promotes an enabling policy environment for refugees to engage in food systems, agriculture and agricultural livelihoods to achieve economic inclusion, strengthen food security and nutrition, resilience to shocks, self-reliance and improve social cohesion.

196. At regional and local levels, FAO empowered refugees to support themselves, face climate challenges and rebuild their lives through innovative interventions. FAO's approach in forced displacement settings leveraged the potential of inclusive, market-oriented agricultural livelihoods for displacement-affected populations to rebuild their lives, while contributing to socioeconomic development of the areas that host them. In Uganda and Kenya, FAO supported the development of agricultural value chains in refugee-hosting areas, connecting refugees – especially youth and women – to private-sector partners and market opportunities. This facilitated their economic integration and enhanced long-term food security. In Kenya, the Organization implemented a Government-led initiative to transform camps into integrated settlements and make refugees drivers of local development, improving market access, promoting sustainable livelihoods, and boosting household production of nutritious food.

Integrated disaster and climate risk management at farm and landscape level

Agriculture bears a disproportionate share of disaster and climate impacts – absorbing 23 percent of the total economic losses from disaster impacts across all sectors. When considering drought alone, this goes up to 65 percent. The increasing, interconnected risks and crises and their cascading impacts call for an integrated approach to risk management and adaptation. Bolder actions are needed to better understand, reduce and manage multiple risks, including in food crisis contexts, to boost the resilience capacities of local communities, countries and agricultural livelihoods and contribute to SDG targets 1.5 on building resilience to environmental, economic and social disasters and 2.4 on sustainable food production and resilient agricultural practices.

FAO's flagship publication *The Impact of Disasters on Agriculture and Food Security 2023: Avoiding and reducing losses through investment in resilience* presented the first-ever global estimation of disaster impacts on agriculture and provided an analysis of cascading risks and impacts of interconnected hazards affecting agrifood systems and revealed that farm-level disaster risk reduction good practices perform on average 2.2 times better than previously used practices.

Throughout the biennium, FAO adopted agroforestry-based strategies to reduce climate-related risks and improve adaptation at farm and landscape level. Through the Grazing with Trees initiative, the Organization integrated forest and agricultural practices to restore drylands, boost productivity and increase local resilience against climate-related shocks and stresses. FAO provided technical and policy advice on agroforestry approaches that increase productivity and resilience from the multifunctionality and diversity of silvopastoral systems. In Brazil, for example, *sempre-vivas* flower gatherers in diverse semi-arid locations implemented high-biodiversity-based tools to manage 94 cultivated species, 16 livestock species, 350 native flowers and 135 other non-timber forest products sustainably. In South Sudan's "cattle corridor", FAO worked to enhance local resilience to climate and conflict-related risks by combining key indigenous silvopastoral practices, such as understory grazing, enclosures, and night kraals (a type of enclosure) with small agropark lands. These actions drew attention of additional countries, institutions and resource partners, who have committed to mobilizing resources and promoting new entry points for silvopastoral initiatives.

BL5: Hand-in-Hand Initiative

Accelerating partnerships and investment for agricultural transformation and sustainable rural development through the Hand in Hand initiative

Hand-in-Hand Initiative

197. The Hand-in-Hand (HIH) Initiative, launched in 2019, supports the implementation of nationally-led programmes to accelerate agrifood systems transformations. The Initiative prioritizes countries in special situations, including Least Developed Countries (LDCs), LDC Small Island Developing States, LDC Landlocked Developing Countries, food crisis countries, and countries with large poor populations.

198. HIH uses advanced geospatial modelling and analytics, as well as a partnership-building approach to accelerate the market-based transformation of agrifood systems to raise incomes, improve nutrition and well-being of poor and vulnerable populations, and resilience to climate change, contributing to SDG targets 1.1 and 2.1 on eradicating extreme poverty and hunger, 2.a on investing in rural infrastructure, agricultural research, technology and gene banks, and 10.1 on reducing income inequalities, among others. National counterparts are supported by FAO technical task teams to prepare country investment notes using innovative analytical methods that help identify territories and populations where programmes and strategic investments can unlock market-oriented opportunities.

199. Participation surged in the 2022-23 biennium, with 68 countries currently enrolled in the HIH. By the end of the biennium, 51 country and 5 regional investment notes had been developed. In addition, a growing number of countries, including Bangladesh, Dominican Republic, Ecuador, Guatemala, Nicaragua, and Zimbabwe started to use the HIH approach at subnational level for improved investment planning. FAO also supported consultations with governments and regional organizations using HIH tools and approaches to guide and inform strategic priority areas and opportunities for investments.

200. A first HIH Investment Forum was held at FAO in 2022 at which 20 member governments and the Sahel, Panama Food Hub and The Dry Corridor regional initiatives presented their prioritized agrifood investments for a total value of USD 3.4 billion and 23.8 million planned beneficiaries across 56 investment areas. During the second HIH Investment Forum in 2023, 31 countries and the Sahel and The Dry Corridors regional initiatives presented Investment Cases to a global audience for a total value of USD 16.5 billion, with 155 million planned beneficiaries and 112 investment cases.

201. The Investment Fora introduced unique and innovative HIH Matchmaking sessions, connecting governments with investors. In 2022, 110 Matchmaking sessions took place, increasing to 412 in 2023 and expected to increase further in 2024-25. Partnerships and opportunities were harnessed with International Financial Institutions, private sector, and investors, leading to reported investments amounting to USD 1.4 billion leveraged through the HIH Investment Forum in 2022. Additionally, new commitments and ongoing negotiations have yielded USD 1.9 billion in investments leveraged through HIH Investment Forum 2023. Responding to strong demand from member countries, the Investment Forum will continue to be held annually.

202. Efforts are underway to enhance the climate resilience of countries' agrifood investments, leveraging tools like the widely accepted EX-Ante Carbon-balance (EX-ACT) carbon accounting tool. In 2024-25, emphasis will be placed on supporting governments to host national and regional HIH Investment Fora, and on engaging a wider array of investors including regional banks, foundations, and the private sector. Additionally, new subregional and regional HIH initiatives will be launched, tailored to country and subregional interests. In Southern Africa, for example, the subregional HIH initiative will aim to enhance regional market integration for agricultural commodities under the African Continental Free Trade Area Agreement. Other subregional HIH initiatives will be launched in Amazonia and the Caribbean Small Island Developing States.

Leveraging investments through the Hand-in-Hand (HIH) Initiative

Bangladesh joined the HIH in 2021 and participated in the FAO HIH Investment Fora in 2022 and 2023. Through the Initiative, and in alignment with the national investment plan, FAO supports Bangladesh's programmes on agroprocessing, marketing and commercialization, climate-resilient agriculture, cold storage and post-harvest management, supply chain management, and irrigation and water management. Through HIH, the World Bank and the International Fund for Agricultural Development developed and delivered a Program-for-Results on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience (PARTNER), which supports Bangladesh's priority Agriculture Transformation Programme (total value USD 2.9 billion) with USD 543 million in financing. An additional component added in November 2023 will fund capacity development for reducing fertilizer subsidies through e-vouchers to farmers and Government expenditures.

Ecuador joined the HIH in 2022. Through the Initiative, FAO supports the country's development of the National Agro-Livestock Policy and Plan 2020-2030, the Government's plan of fostering economic growth through strategic investments at territorial level, and the Strategic Production and Diversification Plan for Agricultural Value Chains to diversify the supply of agricultural exports and reducing poverty and territorial inequality.

Ecuador participated in the FAO HIH Investment Fora in 2022 and 2023, highlighting investments in cocoa, avocado, and yellow dragon fruit targeting over 253 000 beneficiaries, including women and youth, to enhance production quality, yields, value addition, and marketing opportunities, for an average per capita monthly increase of USD 830/ha. The Government earmarked approximately USD 245 million in 2022-25 to support the implementation of four national projects focusing on agriculture, livestock, forestry, and technical assistance, of which USD 57 million were utilized in 2022-23, directly benefiting 200 000 producers in prioritized areas.

Zimbabwe joined the HIH in January 2021 and participated in the FAO HIH Investment Fora in 2022 and 2023. Through HIH, FAO contributes to developing investments in smallholder irrigation systems, tomato value chains, and banana packhouses. FAO facilitated provincial consultations resulting in 9 provincial investment plans.

As a result, Zimbabwe received significant support for prioritized investments, including a USD 20 million programme with the African Development Bank and a large agriculture company on agricultural machinery. Successful Matchmaking secured commitments from the United Arab Emirates for scalable inclusive models. Two Government-led Investment Fora led to a partnership platform to support investment mobilization through HIH.

BL6: Scaling up Investment

Increasing public and private investment and improving capacities to leverage future investments to accelerate agrifood systems transformation

Food systems assessments and solutions for sustainable investment and finance

203. Within FAO's efforts to scale up investments FAO collaborated with the European Union and International Cooperation Centre of Agricultural Research for Development to conduct food systems assessments in over 50 countries, in partnership with governments and national stakeholders.

204. The assessments provide evidence-based analysis to support sustainability considerations and strategic leverage points that complement the national pathways emerging from the 2021 United Nations Food Systems Summit. They also provided an analytical foundation for policy and decision-making, supporting national policies and investments to accelerate the transition to more efficient, inclusive, resilient, and sustainable agrifood systems, and contributing to SDG targets 2.a on investing in rural infrastructure, agricultural research, technology and gene banks, 10.1 on reducing income inequalities, and 10.b on encouraging development assistance and investment in least developed countries.

205. The importance of the tool for policy dialogue on food systems was showcased during the 2023 UN Food Systems Summit +2 Stocktaking Moment, in which Ministers from Bhutan and Sierra Leone shared their countries' experiences in leveraging political will, mobilizing stakeholders and financial partners, fostering private sector innovations, and implementing investment and policy agendas to support agrifood system transformation.

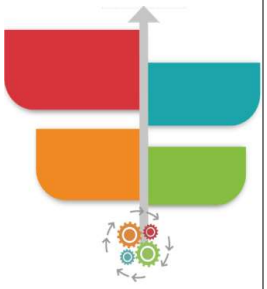
206. The 2022-23 biennium, saw the publication of 39 country food systems profiles and a food systems assessment methodology, as well as the launch of in-depth analyses of issues raised in the Assessments, including a territorial analysis of food systems and five regional synthesis reports. In addition, FAO partnered with the European Union and Agrinatura, an Association of European Universities and Research centres to build on the food systems assessments and further accelerate the transition to sustainable agrifood systems through the Sustainable Agrifood Systems Intelligence (SASI).

207. The SASI improves the availability of knowledge and guidance at global and country level on institutions, policies and investment. The support is built around two pillars: the institutional architecture to steer and monitor the long-term transformation and the technical support backed by research and evidence to address specific food system challenges, opportunities, and trade-offs in the transition process. It also helps public, private, and civil society actors collaborate and orient activities and investments to support the transition.

208. The SASI approach started implementation in Sierra Leone in 2022, showcasing how to involve multiple actors, civil society, development partners, and other stakeholders in a process to operationalize food systems transformation, including finance mobilization. It also provides an example of how food systems can apprehend multi-dimensional agrifood systems challenges, unite diverse actors, collect evidence and finance, and steer cross-sectoral transition towards sustainable food systems.

Accelerating transformation while leaving no one behind

Operationalizing the principle of leaving no one behind



209. Throughout the biennium, FAO made significant strides in operationalizing the principle of leaving no one behind and mainstreaming the three cross-cutting themes of gender, youth and inclusion across its mandate. Guidance notes, training and technical support strengthened coherence in the Organization's work on gender, youth and inclusion, with special focus on Indigenous women, ensuring they were addressed appropriately within Country Programming Frameworks and individual projects.

210. Changes to operational procedures ensured alignment with UN policies and international legal frameworks related to Indigenous Peoples. New or revised methodologies allowed tracking resources dedicated to youth, inclusion and gender equality and monitoring FAO's gender- and youth-related outputs, including by tying them to relevant SDGs. A survey on capacity gaps in inclusion aspects was conducted in house to identify needs and define a capacity development plan. In addition, FAO disseminated good practices and provided tools targeted to programme managers, practitioners and stakeholders. FAO's Standards of Practice to Guide Ecosystem Restoration, for example, recommend that practitioners and stakeholders engage Indigenous Peoples and ensure their collective right to free, prior and informed consent.

211. A newly-established inclusion team in FAO coordinated efforts and, under its leadership, FAO developed a shared vision, identified inclusion champions, and launched an inclusion webpage. By the end of 2023, nearly 24 percent of projects operationally active had inclusion as one of the principal objectives.

212. The Organization promoted youth engagement and empowerment, with 77 percent of FAO units contributing to the Rural Youth Action Plan, and an increasing number of Country Programming Frameworks prioritizing youth. FAO achieved 81 percent of the UN Youth 2030 targets, making it one of six UN entities to have already met the 2024 milestone. A newly developed toolkit on youth issues is expected to further enhance these efforts.

213. Throughout the biennium, FAO supported gender mainstreaming, enriching the knowledge base on gender equality and women's empowerment in agrifood systems. The Organization trained government officials from over 95 countries, supported 64 national-level agricultural censuses and surveys, and assisted countries in all five regions to report on the status of women's access to land ownership (SDG indicator 5.a.2) and produce sex-disaggregated data on the Food Insecurity Experience Scale (SDG indicator 2.1.2). In addition, the newly launched Gender-Lex provides a comprehensive view of gender-responsive national approaches embedded in sectoral legislation. Country gender assessments and sex-disaggregated data and information expanded the evidence base, informing gender-responsive policies and country programming processes, including the UN Country Common Analyses. Overall, the Organization implemented all 17 standards of the updated FAO Policy on Gender Equality 2020–2030 and met or exceeded 14 of the 16 UN-Swap indicators, as described in *Annex 7*.

Leveraging technology

214. FAO emphasized the importance of technology for achieving the *four betters* throughout the biennium, providing Organization-wide guidance through the FAO Science and Innovation Strategy and embedding technology across the Programme of Work. The second Science and Innovation Forum in 2023 underscored the importance of science, technology, and innovation for agrifood systems transformation with focus on climate action, and the central theme of the State of Food and Agriculture 2022 report was *Leveraging agricultural automation for transforming agrifood systems*.

215. FAO introduced Digital Public Goods that strengthened the Organization's digital capabilities in support of its programmes, especially at regional and country levels. Examples include the Hand-in-Hand Geospatial Platform, technical guides on combining geospatial technologies and participatory methods for securing tenure rights, and new tools such as the Aquatic Genetic Resources Information System. Notably, the newly developed Digital Services Portfolio improves agricultural services and local content accessibility through mobile devices. Farmers and stakeholders in ten countries received information and advisory services on their devices, promoting inclusive digital transformation. New features, such as generative artificial intelligence, are being explored for the next version.

Embedding Indigenous Peoples' food and knowledge systems in the Global Agenda

Indigenous Peoples are key allies and powerful agents of change for Sustainable Development Goals and providing a space for their voices to be heard in policy and decision-making processes, particularly those of Indigenous women and youth, is a core principle guiding FAO's work.

FAO hosts the Coalition on Indigenous Peoples' Food Systems. Officially launched in 2022, it is now comprised of 14 FAO Members, six UN agencies, and Indigenous representatives from the seven socio-cultural regions. The Coalition played a prominent role during the Stocktaking Moment of the UN Food Systems Summit +2 and supported the inclusion of Indigenous Peoples' food and knowledge systems and traditional practices within the Committee on World Food Security's programme of work.

The Global-Hub on Indigenous Peoples' Food Systems, also hosted by FAO, continued to bridge the gap between scientific and Indigenous Peoples' knowledge systems. In 2022-23, it contributed to drafting the FAO Standards of Practice on Ecosystem Restoration to support the implementation of the UN Decade on Ecosystem Restoration and the Kunming-Montreal Global Biodiversity Framework.

In 2023, at the request of the UN Permanent Forum on Indigenous Issues, FAO hosted the Biennial UN Global Indigenous Youth Forum, which convened Indigenous youth representing 98 Indigenous Peoples' groups from 54 countries. It is the only high-level forum in the UN dedicated to Indigenous youth and is playing a pivotal role in shaping global policies concerning Indigenous youth and their rights.

The resulting *Rome Declaration on Safeguarding Future Generations in times of Food, Social, and Ecological Crisis* was presented at the Conference of the Parties (COP28) and was pre-shared at the Committee on World Food Security, calling attention to the future of Indigenous Peoples' food and knowledge systems in the context of climate and biodiversity action, and addressing themes such as the impact of pesticides, extractive industries and ultra-processed foods on Indigenous Peoples, the protection of Indigenous plant genetic resources, and the importance of Indigenous-led education.

216. Teams in West and North-West Africa improved their capacity for collecting and transmitting real-time information for use by the FAO Commission for Controlling the Desert Locust. In Europe and Central Asia, FAO supported Members through its regional Land Degradation Neutrality decision support system. In Latin America and the Caribbean, the digital initiative of the +Cotton project and the cotton sector (Lazos) strengthened sustainable cotton production and supported Members in using geospatial analytics for rural poverty alleviation.

217. At policy level, the FAO Agrifood Systems Technologies and Innovations Outlook launched in 2022, provides guidance to policymakers for improving agrifood systems policies and investments, including building digital ecosystems (such as regulatory and incentive frameworks, data governance and open data policies, farmer registries, and digital literacy). It also serves as knowledge database featuring uptake of mature technologies, and grassroots technologies and practices.

218. To address opportunities and risks associated with technology more systematically, FAO began work to strengthen connections across regions and the Programme Priority Areas, as well as providing training and guidance materials on leveraging the technology accelerator. To ensure lasting impact, FAO is also supporting policy assistance on digitalization in agrifood systems and leveraging the global network of digital agriculture innovation hubs and Value-Added Impact Areas and initiatives, such as Farmer Field School innovations, and local agripreneurs.

Harnessing innovation

219. In 2022, FAO further integrated innovation into the 20 Programme Priority Areas, and regional and country programmes through guidance notes and consultations. An analysis of FAO's corporate work plans showed that 10 percent of the Outputs included innovations, primarily technological, followed by policy, social, institutional, and financial. Several initiatives on digitalization for agrifood systems transformation were supported, including the Hand-In-Hand Initiative and 1000 Digital Villages Initiative. FAO also promoted innovation through the established Farmer Field Schools platform.

220. FAO's first ever Science and Innovation Strategy was endorsed by Members in 2022, leading to the organization of the FAO Science and Innovation Forum 2022 and 2023 with extensive participation. In 2022, FAO initiated an award for innovation and organized several workshops and webinars for knowledge exchange and to explore innovation opportunities within FAO and through partnerships.

221. Technological innovations such as small-scale machinery, biotech applications, solar-powered irrigation, protected agriculture, remote sensing, blockchain, and bio-degradable plastics were supported. Efforts were also made to better incorporate behavioural science into selected programmes for durable outcomes. Institutional innovations and policy processes were fostered through an integrated agricultural innovation system to strengthen national agricultural research and extension systems. Support was provided to bolster agricultural innovation systems, including national agricultural research systems and extension and advisory services in over 15 countries. Other initiatives were the establishment of research and innovation platforms, regional and national hubs, multi-stakeholder facilitation for research and extension, innovation support services, social and business incubators for entrepreneurship, and digitalization of extension and advisory services.

222. In 2022-23, FAO launched the first edition of the FAO Innovation Fund and Incubator. Eight teams were involved in an initial piloting phase, representing diverse solutions contributing to agrifood systems transformation from various FAO regions. The pilot exercise provided a useful proof-of-concept, successfully supporting innovative projects through ongoing support for the teams, including individualized coaching followed by an intensive workshop at FAO headquarters to develop further their innovative solutions. The Organization also laid the foundation for putting in place "Acceleration Zones" to promote innovative approaches, identify key enablers and remove bottlenecks to accelerate progress towards SDG achievement.

223. FAO mitigates the risks of improper application and inadequate contextualization of innovation, including issues of inequality and sustainability, through an in-depth analysis of outputs and identifying appropriate entry points for innovation promotion. It has also become clear through this first biennium of implementation of the FAO Strategic Framework 2022-31, that secure funding and institutional coherence are crucial to build and sustain a culture that nurtures and promotes innovation.

Strengthening data availability

224. FAO continued to deepen and expand its normative work on data and statistics – including FAO flagship publications, FAOSTAT (FAO Corporate Database for Substantive Statistical Data), the Geospatial Platform, the FAO Food Price Index and the Agricultural Market Information System – in support of targeted interventions and policy responses, as well as guidance for managing trade-offs. FAO also worked to improve the quality and use of its data, increasing reporting on the 21 SDG indicators from 54 percent to close to 63 percent. In addition, the rollout of a comprehensive capacity development programme contributed to an increase in the quality of statistics, with 97 percent of statistical activities and data outputs produced by the FAO considered as being of good quality according to the FAO Quality Assessment and Planning Survey.

225. The Organization continued to strive to fill data gaps in agrifood systems, to make existing data and information more accessible, and to improve response rates for the collection of quality data on a regular basis. Upscaling the 50x2030 Initiative to Close the Agricultural Data Gap, in partnership with the International Fund for Agricultural Development and the World Bank, addressed data gaps in low- and lower-middle income countries. Other critical data gaps were addressed through initiatives such as the Global Strategy to improve agricultural and rural statistics (Phase 2), which focuses on the application and use of existing methodologies and approaches, and the expansion of FAO data on dietary intake.

226. FAO provided technical assistance in statistics to over 150 countries. Almost 70 received support to report on the SDG indicators under FAO's custodianship; 36 were supported in collecting and reporting on fisheries statistics; and 58 countries were trained in using the Agricultural Integrated Survey Programme (AGRISurvey), and in planning and implementing agricultural censuses. FAO also enhanced country capacities on the use of Strategic Plans for Agricultural and Rural Statistics and food security indicators and resilience measurement and analysis, among others. Furthermore, FAO increased the language versions of e-learning courses on SDG indicators under the Organization's custodianship, thus expanding their accessibility.

227. FAO databases and statistical products and publications were updated regularly, and new ones produced. Two new FAOSTAT domains, for example, informed on greenhouse gas emissions and the optimal use of fertilizers. In 2023 alone, 102 global datasets were updated, three global ones were created in FAOSTAT, and the SDG indicators Data Portal was launched.

228. FAO continued to demonstrate its global leadership role in the data and statistics domain. The Organization acted as the Secretariat of the UN Committee of Experts on Food Security, Agriculture and Rural Statistics and participated in international governance fora, such as the 53rd Session of the United Nations Statistical Commission.

Supporting effective and equitable governance, institutions and human capital (Complements)

229. Governance, institutions and human capital (complements) are a condition for sustainable policy and technical support, as well as for the other three accelerators, in particular technologies and innovation. Scaling up their application improves FAO's ability to strengthen national policy implementation capacities, enhance the science-policy interface and reinforce national ownership of the agrifood systems transformation process. During the biennium, FAO provided advice, support and analyses contributing to more effective and equitable governance, institutions and human capital and to strengthen tools, platforms and partnerships to accelerate agrifood systems transformation.

230. At global level, FAO co-led thematic reviews of Sustainable Development Goals (SDGs) for the High-Level Political Forum on Sustainable Development (HLPF), including a number of SDGs measured by indicators under FAO's custodianship (SDGs 5, 6, 14 and 15). Collaboration with the Department of Economic and Social Affairs of the United Nations Secretariat aimed to better embed reference to food and agriculture in the HLPF Ministerial Declaration.

231. FAO championed innovation in *governance* at country level through, among others, the Hand-in-Hand Initiative, emphasizing institutional development, water governance and market-oriented rural advisory services. The Organization fostered inclusive decision-making and supported data-driven modelling and political economy analysis for transformative changes in agrifood systems. FAO also strengthened capacities for collective action and worked towards improving farmers' access to services and markets – both key to reducing poverty and improving productivity of smallholders.

232. The Policy and Governance Gateway served as FAO's central online platform for sharing knowledge on governance and policy support, witnessing increased user engagement. The FAO e-learning Academy – which promotes capacity development of national and local government institutions– reached over one million learners worldwide, offering over 180 multilingual e-learning courses and disseminating communication products through the media. Demand for FAO's capacity development support remains high among external stakeholders, building on the improved reputation following FAO's response to the COVID-19 pandemic.

233. In 2023, FAO launched the framework paper *Focus on governance for more effective policy and technical support*, bringing together FAO insights and external expertise. The framework provides a stepwise approach to operationalizing the integration of governance analysis and action into the formulation and implementation of interventions at country, regional and global levels. It complements technical solutions with approaches based on a solid understanding of practical and political realities on the ground and is an important tool to promote the effective mainstreaming of *governance* across the Organization.

234. Efforts towards further mainstreaming and scaling-up *complements* within FAO's programmes can enhance national policy implementation, strengthen the science-policy interface, and reinforce national ownership of agrifood transformation, including through strengthening staff capacities, enhancing in-house expertise, and ensuring coherence of this important area of work.

Driving sustainable agrifood systems transformation through law

Legislation is a potent accelerator of sustainable agrifood systems transformation. It translates national policy and international goals into binding commitments, shores up individual and institutional accountability and is pivotal on the impact pathway towards meeting the Sustainable Development Goals. FAO is at the forefront of the provision of expert advice on legislation for food and agriculture. The Organization supports Members in developing and strengthening national and international legal frameworks through capacity building projects and activities, development of guidance tools, the provision of legal information through FAOLEX, and knowledge-sharing.

In 2022-23, the Organization collaborated with the Quadripartite to formulate and implement a pioneering One Health Legislative Assessment Tool for antimicrobial resistance (AMR) building on FAO innovative methodology to analyse relevant legislation on antimicrobial resistance in the agrifood sectors, and provide insight into international reference standards and guidance, coupled with assessment questions aimed at guiding countries in fortifying their legal frameworks against the threat of AMR.

Through the Legal Hub for the Sustainable Wildlife Management Programme, the Organization conducted assessments of national legislation and customary laws relevant to the sustainable management of wildlife across 15 countries using a One Health approach. Nearly 20 000 visits in 2023 suggest that the Legal Hub is playing an important role in raising awareness amongst decision-makers. The sourcebook for Implementing the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) developed in collaboration with the CITES Secretariat, has been deployed in different countries to support the revision of their fisheries legislation. Furthermore, by building capacity of parliamentarians in Latin America and Africa, FAO contributed to the adoption of key legal instruments, such as the Latin American and Caribbean Parliament Model Law for the Strengthening of Agri-Food Cooperatives, the Model Law for the prevention and reduction of Food Loss and Waste, and the Pan African Parliament Model Law on Food Security and Nutrition, paving the way for countries to establish or revise their national legal frameworks on these topics.

Lessons learned

Summary of main lessons learned in contributing to the achievement of the *four betters*

235. FAO requires managers at all levels to systematically identify and capture factors that affected implementation and influenced results, as an integral component of the Organization's reporting and learning process. The most common issues and insights summarized below emerged in 2022-23 across regions, reflecting both challenges and successes during the biennium, emphasizing the complexity of issues faced in advancing agrifood systems transformation and indicating critical areas of risk and opportunity for enhancing future performance.

Addressing climate change and environmental sustainability

236. The imperative to integrate climate resilience, sustainable environmental management and biodiversity conservation into projects underscores the critical importance of FAO´s continued focus on global and localized actions in support of climate mitigation and adaption, protecting natural resources, and contributing to long-term food security and sustainable, climate-resilient agricultural and rural development. In addition, the need to carefully assess and balance trade-offs, viewed through the lens of the Strategic Framework's guiding SDGs 1, 2 and 10, was underscored.

Inclusion of gender, youth, and groups in situation of vulnerability

237. Ensuring the inclusivity of FAO's interventions by addressing the needs and realizing the potential of women, youth, Indigenous Peoples and marginalized communities is vital for achieving equitable and sustainable development outcomes and fostering inclusive growth in the context of rural and agrifood systems transformation. Oftentimes, data and analytical gaps, and other obstacles including resource constraints limit the Organization's ability to target these populations most effectively. FAO will need to further strengthen its capacity to support the identification of groups at risk of being left behind, including in the Common Country Analysis undertaken jointly at country level under the UN Development System Reform.

Technology and digital transformation

238. Harnessing innovative technology and digital solutions is recognized across regions as a key strategy for enhancing project effectiveness and impact, data management and access to information including for decision-making, necessitating continued investment in digital transformation. In a number of countries, the adoption and integration of digital technologies and platforms for instance for agricultural education, e-extension systems, and market linkages has proven effective. This highlights the opportunity, and need, for the Organization to further scale-up and replicate successful experiences in digitalization, including through the implementation of the FAO Science and Innovation Strategy, work done through the Digital Villages Initiative and, more broadly, the PPA BP5 on Digital Agriculture.

Policy support, advocacy and strategic planning

239. Offering robust, evidence-based policy support and engaging in advocacy, are key for influencing national and international agendas, public policies and regulatory frameworks that create enabling environments for agricultural development and food security. FAO has a wealth of evidence to bring to bear on critical issues facing agrifood systems but is not always in a position to leverage this knowledge to promote positive change at scale, and at the pace required to best meet the needs of Members. Further, analysis of the effectiveness of policy options is sometimes lacking, pointing to the need for further strengthening of monitoring and evaluation systems and support for data collection and analysis. Enhanced, proactive dialogue with Members and increased resource mobilization efforts, including for flexible funding mechanisms, are also needed to be able to move towards improved action at scale.

Capacity development and institutional strengthening

240. Capacity development at national, institutional and community levels through targeted technical support, training and knowledge-sharing was underscored as a critical factor for effective project implementation and monitoring, as well as achieving sustainable outcomes, such as resilience building against crises. This highlights the importance of the complements accelerator in furthering the Organization's contribution to the 2030 Agenda.

III. Focusing on extraordinary results

Calibrating the response: Strategic focus on agrifood systems transformation

The FAO Strategic Results Framework 2022-31

241. As called for in the Basic Texts, since 2010 all of FAO's work is guided by a Strategic Framework prepared for a period of ten to fifteen years, reviewed every four years. The FAO Strategic Framework 2022-31 is guided by FAO's vision and the three Global Goals of Members and is firmly anchored in the Sustainable Development Goals (SDGs). It calls for reinforcing the role of agrifood systems beyond production and macro-economic considerations, to ensure food security and nutrition and resilient livelihoods, promote innovations, and better catalyse investment and leverage partnerships.

242. The results architecture comprises a set of elements to establish a clear causal results hierarchy, complemented by elements to focus, accelerate and enable the Organization's work.

243. The *four betters* describe the aspirational long-term development impacts, derived from SDGs, to be achieved by Members and the international community with support from FAO. They represent an organizing principle for how FAO intends to support 2030 Agenda and encourage a strategic and systems-oriented approach.

244. Programme Priority Areas (PPAs) articulate FAO's comparative advantage as a UN specialized agency in contributing to medium-term outcomes and associated SDG targets. They bring together the breadth and depth of FAO's technical expertise and knowledge to contribute to medium-term Outcomes and associated SDG targets, identified for specific attention by FAO, in order to meet the *four betters*. In doing so, FAO is guided by the lens of SDG 1 No poverty, SDG 2 Zero hunger, and SDG 10 Reduced inequalities, while acknowledging the indivisibility and interconnectivity of the SDGs and thus the importance of all of them in achieving FAO's overall vision.

245. A series of flagship initiatives and supportive internal mechanisms anchored in the *four betters* and Programme Priority Areas promote multidisciplinary collaboration across the Organization and ensure strategic and high-impact work areas receive appropriate focus, priority, and funding, bringing FAO's strengths to bear for increased efficiency and effectiveness in support of the SDGs.

246. The Strategic Framework also highlights the importance of FAO being efficient and an agile enabler of change, outlining areas of FAO's focus for building an optimal enabling environment. Functional Objectives ensure a robust, supportive enabling internal environment and efficient, effective business processes to support all of FAO's work, providing key performance indicators related to efficiency and effectiveness in critical business process areas.

247. FAO's results-based approach provides an integrated Programme of Work, with a unified view of how resources from all sources of funds are directed towards the achievement of the results framework.

Implementation arrangements for the FAO Strategic Framework 2022-31

Throughout the first biennium of its implementation, FAO undertook actions to ensure the Strategic Framework was operationalized at all levels of the Organization, emphasizing a programmatic approach with improved ways of working. Implementation arrangements were introduced to leverage FAO's multidisciplinary technical, policy, and investment capacities more effectively. These arrangements define roles and responsibilities and leadership provisions for the *four betters*; Programme Priority Areas, accelerators, cross-cutting themes and Functional Objectives.

The arrangements also foster flexible and context-specific responses by FAO, working together with a wide array of UN and other partners, in particular with Rome-based Agencies, including through regional knowledge hubs and joint programmes. Internal governance mechanisms foster shared leadership, provide for robust accountability, and promote a culture of innovation and integration for addressing dynamic and complex development challenges. Teams around each of the *four betters* and Programme Priority Areas coordinate implementation, while a Global Think Lab provides a forum for addressing cross-cutting issues. Business units lead efforts to ensuring an internal enabling environment for delivering the Programme of Work. The strategic results framework provides an accountability framework with key performance indicators that promote continuous improvements in efficiency and effectiveness.

Value-Added Impact Areas (VAIAs)

248. FAO has highlighted a limited number of particularly promising high-impact work areas. under the *four betters* for increased attention and investment, to facilitate interlinkages of PPAs and catalyze results and impact. The Value-Added Impact Areas represent innovative or otherwise particularly critical work areas that nest within a single Programme Priority Area or cut across multiple PPAs (and *betters*). They promote multidisciplinary collaboration across the Organization and ensure that areas of work of particular strategic relevance receive appropriate focus and priority, bringing FAO's strengths to bear in support of the SDGs.

249. The VAIAs tackle issues related to ecosystem degradation, climate change, water scarcity, food insecurity and inclusive rural transformations through holistic solutions, leveraging the *four betters*. In 2022-23, they intensified FAO's efforts towards impact, emphasizing innovation, collaboration, and investment for resilient agrifood systems. A full list of the 12 VAIAs is provided in *Annex 6*.

Coherence and coordination around strategic priorities

250. Thematic strategies, policies and action plans in key cross-cutting areas of work, developed through extensive and inclusive consultation processes, guide the Organization in actively informing priorities and programmatic decisions. They ensure that, in implementing the Strategic Framework 2022-31, FAO leverages its comparative advantage in responding to challenges in agrifood systems and focusing efforts to maximize impacts.

251. The **FAO Science and Innovation Strategy** provides FAO with a framework for supporting countries in harnessing science and innovation. It provides Organization-wide guidance, coherence and alignment on science and innovation for the transformation of agrifood systems, strengthening FAO's work and commitment to a leadership role. A reporting on the Strategy's in 2022-23 is presented in *Annex 4*.

252. The **FAO Strategy on Climate Change** emphasizes the relevance of efficient, inclusive, resilient and sustainable agrifood systems as part of the solutions to climate change and guides FAO in providing strengthened support to Members in their ambitions to address climate change in agrifood systems, and in the implementation of the Paris Agreement. A reporting on the Strategy's accomplishments in 2022-23 is presented in *Annex 5*.

253. The **FAO Strategy for Private Sector Engagement** outlines a vision for the proactive development of partnerships with the private sector. The Strategy targets the diverse types of private sector entities, from large national and multinational corporations to financial institutions, micro, small and medium enterprises (MSMEs), industry and trade organizations and consortia, farmers and farmers' organizations, producers' organizations and cooperatives and

philanthropic foundations. Achievements under the Strategy have been reported at regular intervals to the FAO Programme Committee, most recently at its Session in March 2023.[6]

254. The **FAO Strategy on Mainstreaming Biodiversity across Agricultural Sectors** aims to reduce the negative impacts of agriculture on biodiversity and promote sustainable agricultural practices and the conservation, enhancement, preservation, and restoration of biodiversity as a whole. Achievements under the Strategy were reported in November 2023 to the 10th Session of the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture.[7]

255. The **Strategy for FAO's work in Nutrition** aims at achieving the corporate goal of reducing malnutrition through efficient, inclusive, resilient, and sustainable agrifood systems. The Strategy seeks to tackle malnutrition in all its forms by accelerating policies and actions across agriculture and food systems to enable healthy diets for everyone, through a people-centered approach. A report on achievements under the Strategy was submitted to the Committee on Agriculture (COAG) in 2022.[8]

256. The **FAO Action Plan on Anti-Microbial Resistance** (AMR) serves as a roadmap for focusing global efforts to address AMR in the food and agriculture sectors. The aim of this Plan is to help accelerate progress in developing and implementing multi-sectoral National Action Plans to tackle AMR by calling attention to strategic priorities and areas of expertise for FAO's support. The Action Plan takes a multidisciplinary approach to ensure that all relevant dimensions and sectors are considered in protecting agrifood systems, livelihoods, and economies from the destabilizing forces of untreatable illness. Achievements under the Action Plan are reported to the FAO Committee on Agriculture, with the latest reporting provided to COAG's 28th Session in 2022.[9] An updated report on progress will be provided to the forthcoming 29th Session of COAG in September 2024. As requested by Members, a performance indicator on AMR is found in *Annex 1* under the Programme Priority Area BP3, One Health.

257. The **FAO Policy on Gender Equality** provides the Organization with a corporate framework to orient its technical and normative work towards clear gender equality objectives relevant to its mandate. The Policy recognizes that a gender-responsive environment is necessary to achieve progress towards FAO's objectives and includes a set of minimum standards for gender mainstreaming across all organizational functions. A reporting on the Policy's 2022-23 accomplishments is found in *Annex 7*.

258. The **FAO Strategic policy framework for multilingualism** recognizes multilingualism as a defining characteristic of FAO as an international, intergovernmental agency. The policy framework aims to provide a practical approach to meet the demand for improved performance and optimized resource mobilization on multilingualism in the Organization. A reporting on the Policy's 2022-23 accomplishments is found in *Annex 9*.

Country programming: Context-specific implementation of the FAO Strategic Framework

259. Embracing the variety of national contexts, FAO fostered national ownership, and strengthened the relationship with the United Nations Sustainable Development Cooperation Framework (UNSDCF), to promote full engagement with coordinated UN work at country level.

260. Since 2019, the UNSDCF articulates the collective commitments of the UN Development System in support of national Sustainable Development Goals (SDGs) and targets, based on the Common Country Analysis (CCA). It guides the entire programme cycle at country level, driving planning, implementation, monitoring, reporting and evaluation of collective UN support for achieving the 2030 Agenda.

261. FAO enhanced its mechanisms to bring its wealth of technical, policy and investment capacity to bear in support of engagement at the critical stages of the CCA and UNSDCF processes, and firmly positioning the Organization as the leading UN Agency in agrifood systems transformation. Under the coordination of FAO's Regional Offices, technical streams provided integrated analytical support to United Nations country teams and improved their access to FAO's data and analytics. During the 2022-23 biennium, FAO designed a corporate mechanism, to be piloted in 2024-25, expected to significantly boost its capacity for engaging in the integrated, evidence-based CCA.

[6] PC 135/INF/2
[7] IT/GB-10/23/15/Inf.1
[8] COAG/2022/INF/5
[9] COAG/2022/8

262. The formulation of FAO Country Programming Frameworks (CPF) starts when the UNSDCF steps have been completed and endorsed by the governments. In 2022-23, guidance on CPF formulation was enhanced, communicating the technical offering and Theory of Change of FAO's 20 Programme Priority Areas clearly and succinctly. By expressing FAO's comparative advantage and articulating key technical capacities, knowledge and normative products, the Programme Priority Areas served to assist FAO country offices to position agrifood systems within the country dialogue and bring the wealth of FAO's expertise to address national priorities.

263. By the end of 2023, FAO country offices participated in the negotiation and formulation of 128 UNSDCFs, followed by the endorsement of 98 CPFs. FAO also engaged in the development of a common Output Indicator Framework led by the UN Development Coordination Office to improve reporting at regional and global level on the UN system's contribution to the 2030 Agenda, including to Economic and Social Council. FAO led the methodology development for five indicators, contributed to that of 29 additional indicators, and participated in all 11 country pilots.

264. In addition to deriving the CPFs from the UNSDCF, FAO's corporate programming and reporting processes now fully embed the country programme. FAO's operational programming processes were adjusted to ensure results are defined at the appropriate national, regional and global levels, in dialogue with the relevant counterparts, and with a clear line of sight towards the SDGs. The FAO Strategic Framework 2022-31, anchored in the SDGs, made it possible to fully integrate country-level outputs, defined as part of the UN joint programming arrangements, within the FAO corporate results hierarchy, ensuring that contributions to SDGs at country level are based on national priorities.

Leveraging partner strengths to transform agrifood systems

265. The scale and complexity of agrifood system transformation necessitates strategic alliances to maximize efforts to realize the *four betters* and achieve the Sustainable Development Goals. In 2022-23, FAO put in place renewed mechanisms, including a streamlined partnership development process, and institutionalized an approach that emphasizes transformative partnerships, in line with the challenge of the 2030 Agenda. The Strategy for Private Sector Engagement put in motion new ways of thinking and working, building staff capacities at headquarters and decentralized offices through webinars, Mapping Tools and the CONNECT portal. A new Framework for Due Diligence and Risk Assessment/Management for Engagements with Private Sector and other Non-State Actors was also rolled out, along with a pilot on decentralizing decisions for low-risk partnerships. A review of the due diligence and risk assessment methodology based on behavioral science will further strengthen FAO's capacity moving forward. Progress on activities has been regularly provided to the Programme Committee, including in 2022 and 2023.

266. FAO entered into and sustained 38 strategic partnerships with civil society organizations, academia, research institutions and UN agencies in this biennium, including working on enhancing capacities and promoting opportunities for smallholder farmers; collaborating on innovative tools for monitoring and early warning of agricultural pests and diseases; developing policy, advocacy and communication for rural development, as well as data and research support. Cooperation also included technical support to food security and nutrition, sustainable forest and water management, and landscape restoration and small-scale fisheries.

267. A structured institutional approach with the UN increased coherence for joint resource mobilization, strategic engagement in high level global fora, and advocacy and communications for the flagship *State of Food Security and Nutrition in the World* report, among others. FAO supported and shaped the implementation of the UN "Our Common Agenda" set of proposals for reinvigorating multilateralism, addressing current and future challenges while accelerating progress towards achieving the SDGs. The Organization also developed an institutional approach for UN partnerships at country level which leverages the instruments for joint planning, programming and resource mobilization offered by the UN Development System reform.

268. The Rome-based Agencies signed a new global tripartite Memorandum of Understanding, underscoring the need for systemic agrifood systems approaches and for collaboration on issues ranging from humanitarian to development activities. Combined efforts and shared leadership continued to invigorate multistakeholder mechanisms, including the global Food Security Cluster, the Committee on World Food Security, the Global Network Against Food Crises, the UN Decade of Family Farming and the UN Food Systems Coordination Hub hosted jointly at FAO.

Strengthening risk management and oversight

269. FAO operates in a diverse, complex and rapidly changing context, where expectations evolve and require FAO adapt to the challenges in delivering its work. Enterprise Risk Management (ERM) strengthens the Organization's foresight and preparedness, ensures that decisions and plans are risk-informed and, thereby, increases the likelihood of achieving agreed goals. FAO is committed to managing risks efficiently and responsibly, ensuring that significant risks are identified, assessed, mitigated and reported in a way that enhances FAO's ability to meet its objectives and deliver the benefits and purpose expected by its stakeholders.

270. In 2022-23, FAO intensified efforts to strengthen risk management practices adopting a multifaceted approach that covered, among others, updating risk logs, providing training and building capacity, and strengthening internal processes and mechanisms. With the rollout of risk management to all offices throughout the Organization – at all levels and in all locations – completed by the end of 2023, the entirety of FAO units had a regularly updated risk log, with a risk mitigation plan. Ad hoc support, training and e-learning built capacity on risk management principles and provided practical tools. Along with strengthening the process and capabilities, risk governance arrangements were improved, including the creation of a Core Leadership risk management function, with accountability for oversight throughout FAO and management of key organizational risks.

271. The Organization embedded risk considerations in the corporate planning and monitoring process, a significant progress towards greater risk management maturity. Analysing possible risks connected with planned activities and preparation of relevant mitigation plans is now a key step of work planning and the mid-term review of results, enabling an agile and forward-looking approach to planning and management.

272. An external review of the process for issuing and managing internal audit recommendations, made several suggestions for a more effective process with clear connections with risk management and controls. As a result, the Organization undertook a full review of all outstanding agreed actions resulting from internal audit findings, to identify issues which had been superseded, reassess risks and risk levels associated with the open agreed actions, reformulate action plans and define realistic implementation timelines. The result of this exercise was a set of agreed management action plans, clearly prioritized based on risk and with full ownership of managers concerned. In view of this important review and reformed system, key performance indicators (KPIs) 9.3.B and 9.3.C which measure timeliness of implementation of audit agreed actions, cannot be meaningfully reported at this time.

273. In 2022-23, the Office of the Inspector General conducted audit advisory assignments to build the capacity of those performing the second-line management functions of risk management and monitoring and to provide insights into areas with control assurance gaps or overlaps. These assignments and the thorough review of audit agreed actions will lay a foundation for improved risk management, but the resources invested led to a lower than expected number of completed high risk audit assignments (KPI 9.2.B).

274. The increase in resources granted to the Office of the Inspector General resulted in a higher number of investigation reports and memoranda. However, the ability to complete investigations within the target of nine months (KPI.9.2.C) was affected by the 26 percent surge in volume, especially for complaints related to Sexual Harassment, Sexual Exploitation, and Abuse.

Strengthening operations and project performance

275. FAO continued to strengthen project performance through its programmatic approach for delivery of results, updating project roles and responsibilities with a view to further empower decentralized offices, and streamlining operations.

276. FAO formulated and began implementation of an enhanced policy for operating programmes. More robust legal, operational and resource mobilization processes at the time of programme design and appraisal, allowed streamlining at project level, focusing efforts for greater impact without compromising due diligence. In addition, the Organization finalized a comprehensive assessment of the challenges and opportunities related to small contributions, paving the way for a review in the coming biennium.

277. A new Framework for Environmental and Social Management consolidates the Organization's commitment to doing no harm and ensures adherence to best industry standards such as the UN Environmental Management Group Model Approach. Guided by a human rights approach, the principle of free, prior and informed consent, sustainability, and resilience, the Framework for Environmental and Social Management requires identifying, assessing and managing environmental and social risks and impacts associated with FAO's activities. Updated guidance also incorporates revised FAO policies on evaluation and the flexible voluntary contribution and multi-donor mechanisms.

278. New, flexible and modular arrangements for mobilizing technical capacity in support of project implementation increased the pool of technical experts and empowered regional and subregional offices to address bottlenecks in delivering timely technical support.

279. Enhanced project monitoring dashboards provided stronger analytics for risk-based management of project conditions requiring attention. Across the overall portfolio, a monthly average of 7.8 percent of projects were identified in need of management action, which slightly exceeds the target of 7 percent, with the most common condition reflecting delays in project closure.

280. Leveraging up-to-date technology, FAO s being better equipped to support investments and new ways of project delivery. As the volume of operating partner agreements grew exponentially throughout 2022-23, the Organization rolled out a new support model, establishing capacity in regional offices. A revised submission process based on a behavioral science review will be supported by a Country Office Capacity Assessment tool being developed, which is expected to further enhance capacity in the future. FAO also revised its policy and procedures for cash assistance, which reached over 9 million people over the biennium, and released entirely new policy frameworks for voucher assistance and the provision of grants to beneficiaries. The revisions addressed audit recommendations and issues raised by decentralized offices and were accompanied by staff training.

Technical Cooperation Programme

281. The Technical Cooperation Programme (TCP) continued to facilitate access by countries to FAO's knowledge and technical expertise in all areas covered by the FAO Strategic Framework, with priorities defined in the Country Programming Frameworks guiding the use of TCP resources for demand-driven technical assistance.

282. During 2022-23, an inclusive consultation process set the TCP on a new course of transparency, efficiency and effectiveness in making FAO's knowhow and technical expertise available to Member countries upon request. Regional TCP resource shares follow new criteria and methodology agreed by the FAO Conference. Harmonized within-region allocations increase predictability and strengthen governance, while maintaining flexibility to respond to emerging needs at country level.

283. Improvements to project monitoring allow tracking the Programme Priority Areas and SDG targets, ensuring strategic alignment and bolstering catalytic results. Additionally, updated gender markers align to the corporate policy on gender equality with procedures that ensure gender-sensitive approaches within TCP activities are better captured, and showing that 85 percent of approved projects are gender-sensitive or contribute to gender equality, exceeding the target of 60 percent.

284. As shown in *Annexes 1* and *2*, in 2022-23 FAO fulfilled its commitments to approve and deliver the Technical Cooperation Programme. By the end of 2023, 100 percent of the 2022-23 TCP appropriation was approved, and 100 percent of the 2020-21 TCP appropriation was delivered. In addition, by the end of 2023, TCP projects with operations concluded during the biennium (for a total of USD 138.8 million) had contributed to mobilizing USD 940 million, of which USD 155 million implemented directly through FAO projects.

FAO catalytic impact

285. As a UN specialized agency, FAO has a fundamental 'upstream' role in catalysing and enabling a wide range of stakeholders and actors in the collective efforts for successful change on the ground toward the achievement of the transformational ambition of the 2030 Agenda. In line with this, FAO leverages the significant potential of a narrative of impact that includes how FAO's upstream work can facilitate larger investments.

286. The Organization's interventions have a catalytic impact when they mobilize larger investments, leverage additional resources through co-financing, and enable actions of other stakeholders at scale including policy adoption and upscaling of sustainable practices through transfer of knowledge and capacity development.

287. In this document, FAO reports on key catalytic achievements made possible through its work with the Green Climate Fund (GCF), the Technical Cooperation Programme (TCP), and catalysing public investment. In future corporate reporting documents, FAO will build on this approach to progressively integrate additional elements that demonstrate the catalytic effect of its work.

FAO's collaboration with the Green Climate Fund

288. As an Accredited Entity of the GCF, FAO assists countries in crafting funding proposals and executing transformative GCF projects.

289. GCF projects necessitate co-financing with additional private or public financial resources that complement GCF funds to support countries raise and realize their Nationally Determined Contributions ambitions towards low emissions and climate-resilient pathways. In addition to maximizing the impact of GCF resources, co-financing ensures stakeholders coordinate allocations towards impactful climate change actions. As an Accredited Entity, FAO is accountable for reporting on the implementation and financing status of all co-financing. In addition to comprehensive projects, the GCF Readiness Programme strengthens national institutions' capacity to engage with the GCF.

290. Since its accreditation in 2018, FAO has helped countries access a broad range of GCF resources. By the end of 2023, the budget of FAO's GCF portfolio totalled USD 1.2 billion, of which USD 427 million in cofinancing is pivotal in supporting 20 transformative projects across the five regions.

Technical Cooperation Programme

291. Through the Technical Cooperation Programme, FAO catalyses change, enabling countries to attract additional funding from resource partners, or engage in co-financing arrangements. The 2020 Evaluation of the FAO Technical Cooperation Programme estimated an impressive investment ratio of 1:15.6 from TCP appropriations across four biennia in 43 sample countries.

292. TCP projects concluding operations and reporting results during the 2022-23 biennium (620 projects for a value of USD 138.8 million), mobilized an additional USD 940 million from governments and resource partners. FAO continues its efforts to systematically record resource mobilization information and enhance the harmonization of data on its TCP website.

Catalysing public investment

293. FAO provides specialized technical assistance to international financing institutions, such as the World Bank, International Fund for Agricultural Development, African Development Bank, Inter-American Development Bank and Green Climate Fund, to design investment projects, leverage resources and provide high-level technical support that responds to countries' needs. Good design is just the beginning, FAO's implementation support to ongoing public investments, with a combined investment value of almost USD 62 billion, helped 106 countries maintain a focus on results. Investment planning and policy support was also provided to 86 countries resulting in 89 agricultural strategies, 32 policy and 74 sector studies.

294. During the biennium, this work contributed to the design of 83 public investment projects in 50 countries across all five FAO regions approved by international financing institutions, totaling almost USD 15.5 billion in new investment to support agrifood systems transformation. By taking advantage of climate sensitive and innovative solutions, the projects will strengthen the full spectrum of agrifood system entry points, while increasing countries' response and resilience to face unpredictable shocks, crises, and pandemics.

Collaboration between FAO and the World Bank

In early 2023, the Food systems resilience-building for East and Southern Africa (FSRP) programme financed by the World Bank, received approval by the World Bank for additional phases. The FSRP, totaling USD 2.3 billion across multiple phases, offers diverse activities to participating countries, promoting agricultural productivity and sustainability. FAO provided technical assistance for the appraisal and design of Phase 2: a USD 300 million programme for Tanzania and Phase 3: a USD 621 million programme for Comoros, Kenya, Malawi, Somalia, and the African Union.

Phase 2 in Tanzania targets 300 000 farmers, half of whom are women, aiming to enhance productivity and profitability through innovative and sustainable practices. An additional 1.8 million farmers are expected to benefit from better access to assets and service delivery for research, extension, and seeds.

Phase 3 focuses on climate-resilient agrifood projects in Comoros, Kenya, Malawi, and Somalia, bolstering food insecurity preparedness and crisis response. While most funding for Phase 3 will support local investments, a regional emphasis will aim at strengthening the African Union and benefiting nearly one million people, including small-scale producers and agribusinesses.

Support to innovative finance

295. Innovative finance can help bridge the USD 2.5 trillion gap to reach SDG targets in developing countries. FAO, under the AgrIntel Initiative, works with the European Union on blended financing instruments to mobilize capital for underserved farmers and small and medium enterprises. In 2022-23, FAO advised on 50 blended finance projects totaling USD 277 million. Financing amounts vary from EUR 200 000 to EUR 25 million, depending on the investment vehicle. The initiative's second phase extends cooperation to 2027.

296. FAO has been collaborating with the European Union and the Uganda Development Bank since 2020 to expand the Bank's agrifood lending and bolster risk management. In 2023, the Initiative, worth EUR 2.2 million, enabled the Bank to pilot digital innovations, including through algorithm-based credit scoring and a wallet-based repayment system. The Bank also launched a fintech solution (AgriConnect) enabling village loans and savings groups, and supporting the integration of big data analytics in the Bank's operations.

IV. Delivering with excellence

Renewing FAO

297. Since 2020, FAO has been engaged in a process of transformational changes to ensure top-level internal governance and an Organization that is fit-for-purpose, efficient and impactful. The reforms included a revised headquarters organigramme that provided a more flexible and modular structure, moving away from rigid departmental structures and hierarchies and strengthening the accountability of heads of units. The revised structure includes: *Offices*, which have a cross-cutting function within the Organization; *Centres*, which have a strong collaboration function with other UN agencies, International Financing Institutions and other international partners; and *Divisions*, which house the specific technical and professional expertise of FAO. In addition, new offices were created for SDG coordination and to spearhead FAO's work with Small Island Developing States, Least Developed Countries and Land-locked Developing Countries along with the Women and Youth Committees. A Core Leadership team, along with the supervisory mechanism of A and B reporting lines, facilitates coordinated action and decision-making and supports the Director-General in all areas of the Organization's mandate. The new management structure also resulted in USD 2.3 million efficiency savings per biennium.

298. In 2022-23 FAO built on these efforts to create a modern and efficient Decentralized Offices Network. Following the recommendations of the Audit Report on Decentralized Offices' governance structure and capacity and the analysis of the country office business model, the regional and subregional offices were restructured in line with the reform of headquarters and with the view to improve relevance, timeliness, cost-efficiency, technical quality and effectiveness of the support provided to Members. The changes brought about strengthened leadership, integrated support teams, enhanced regional governance and partnerships, and furthered a move towards a fully digital FAO.

299. The transformation (budget- and post-neutral) followed the principles of One FAO, achieving an improved, interactive regional governance under a collegial leadership including the Subregional Coordinators, to provide integrated policy advice through technical and investment support teams using virtual networks. FAO's renewed business model increased integration between regions and subregions with a Global Common Functional Organigramme, designed with built-in flexibility to adapt its main features to the specificity of each region.

300. The new structures of subregional offices include capacities for strategic thinking and foresight, multidisciplinary technical support, leveraging partnerships and liaison functions, improving oversight and management functions, introducing more client-oriented services for administrative and operations support, and a more effective and efficient administration.

301. At country level, improved information system dashboards and related tools provide holistic views of ongoing activities, in support of a programmatic approach to planning, monitoring, and implementation, and strengthened capacities in country offices to monitor and flag issues requiring management attention.

A business model that prioritizes efficiencies

302. FAO prioritizes value for money and efficiency in its operations and has presented key measures in this area to FAO Members over the years, including more recently in the *Adjustments to the Programme of Work and Budget 2024-25*. During the 2022-23 biennium, FAO further consolidated its efficiency approach, in line with the United Nations Development System reform and the UN Efficiency Agenda.

303. FAO applies the UN efficiency methodology to pursue three forms of efficiencies, namely: cost savings, reducing the level of financial resources disbursed to achieve a given outcome; time savings, reducing the overall effort to achieve a given task, thereby freeing up time for other productive activities; and, effectiveness improvements, resulting in qualitative improvements, such as a reduced risk or higher quality of service.

304. By increasing efficiency in the use of resources and streamlining activities, FAO has been able to deliver its Programme of Work under a flat (nominal) budget for over a decade. Notably, between 2012 and 2015 cost savings of USD 108.2 million were generated in personnel and administrative costs, travel and procurement, involving the abolition of 235 posts. Between 2016 and 2019, FAO achieved an additional USD 48.7 million in savings, largely in these same areas, as well as by streamlining of internal services and reduced costs of consultants.

305. Since 2020, further efficiencies have been realized through improvements to the recovery of direct and indirect support costs associated with Trust Fund projects as shown in *Annex 2*. And progress in delivering efficient and effective administrative services and enabling functions under *Functional Objective 10* is shown in *Annex 1*.

306. The UN Efficiency Agenda highlights the need for the UN to implement changes to pursue "*more cost-efficient support services, by reducing the duplication of functions and administrative and transaction costs through the consolidation of support services at the country level; and the requirement for integrated support across the UN system.*"[10] FAO is fully engaged in these initiatives and its contributions are included in the consolidated UN efficiency reporting and interim reports on the Quadrennial Comprehensive Policy Review of Operational Activities for Development of the UN System.

Main achievements in 2022-23

307. The FAO Roadmap for the UN Efficiency Agenda was launched in June 2023, chaired by a Deputy Director-General. Implementation will be tracked with the new Key Performance Indicator 10.3.G *Percentage of outputs delivered under the FAO Efficiency Roadmap* (see *Annex 1*). An internal FAO community of practice, the Business Operations Network, is now in place to share best practices and provide support to country offices.

308. FAO continued to enhance the efficiency of its enabling support services, generating significant time savings in the range of USD 5.5 million for the biennium. Savings were mostly in financial management through the implementation of digital banking tools, improved efficiency of cash management while also reducing financial risks and improving segregation of duties. Time savings were also generated in human resources management through the decentralization of transactions to the Shared Services Centre and outsourcing upstream recruitment tasks. The establishment of long-term agreements, as well as the increase in delegated authority in the procurement area led to increased economies of scale, standardization, and reduced risks. Time saved was redirected to more value-added work. Additional time savings in the range of USD 3.5 million for the biennium resulted from streamlining TCP approval and administrative requirements freeing time of staff in decentralized offices.

309. Joint procurement or "piggybacking" on contracts or Long-Term Agreements of other UN entities results in saving time spent on procurement and volume discounts. Service Level Agreements with the Green Energy Team of the United Nations Development Programme have resulted in significant efficiencies in terms of cost avoidance and use of sustainable energy. Notable results include the installation of solar photovoltaic systems in ten FAO offices in Nepal, Djibouti, Uganda, Mauritania, Ghana, Jordan, Congo, Burundi, Sierra Leone, and Sao Tome. FAO is progressively adopting vehicle leasing via the UN Fleet, including acquisition of environmentally friendly electric and hybrid vehicles, in Azerbaijan, Gabon, Ghana, Mongolia, Seychelles, Zambia, and at headquarters. The Organization is also piloting the use of the automated Passenger Mobility Services via the UN Booking Hub in Egypt, Kenya, Namibia, Nigeria, South Sudan, Yemen, and Zimbabwe.

310. Other examples of sustainable savings include reducing the use of paper, in line with the shift to a digital FAO, the installation of energy efficient equipment such as LED lights or inverter technology air-conditioning systems at FAO facilities, and initiatives to reduce food waste such as food waste monitoring and sorting and food composting.

311. A 2023 feasibility study on the integration of administrative services among the Rome-based Agencies identified areas for increased collaborative efforts under the umbrella of the UN Efficiency Agenda. Implementation of the study's recommendations is expected to lead to further efficiency gains and potential savings in future.

312. Through enhanced coordination between headquarters and decentralized offices FAO is further improving its capacity for effective engagement in Business Operations Strategies, Common Premises, Common Back Office and Global Shared Services. At country level, FAO is engaged in the UN efficiency initiatives as part of Operations Management Teams and UN Country Teams and, by the end of 2023, 124 country-level Business Operations Strategies had been developed. Lessons learned from five Common Back Office pilot countries are informing follow-up action. FAO's engagement in the Common Premises initiative continues to focus on locations outside capital cities, especially for project offices and in emergency contexts.

313. FAO continues engagement in the UN Efficiency Agenda to refine its documentation of cost savings and efficiency gains and draw insights from emerging initiatives under the guidance of the UN Efficiency Board.

[10] UNSDG | 2030 Agenda - Business Operations

Communications

314. In 2022-23, FAO focused on expanding reach, enhancing visibility, and fostering engagement across various platforms, both internally and externally.

315. Following robust efforts in media outreach and coverage planning, along with a heightened interest in the agrifood sector fuelled by the food crisis, FAO's outputs received wide coverage, as reported by the Meltwater media monitoring tool. FAO issued timely news releases, organized press briefings, and facilitated media interviews to promote the Organization's work globally. By end-2023, over 470 000 online news articles cited FAO, of which almost 60 000 were in top-tier media outlets.

316. The Organization's web and social media presence increased awareness of FAO's initiatives and achievements. Web traffic rebounded significantly, exceeding forecasts, as a result of optimization of search engine and website migration. By the end of 2023, the number of users visiting key pages on the fao.org website had increased by 30 percent to 5.4 million, from 4.2 million in 2022. The week of World Food Day and the World Food Forum provided a massive surge in web traffic, with an increase of 2.5 million views on the FAO website.

317. The overall social media growth rate fell slightly short of the target of 8.5 billion followers, mainly as a result of the return to normalcy post-pandemic which affected user engagement patterns and reduced the level of connectivity on social media. Nevertheless, interactive stories enhanced user engagement and FAO's social media channels experienced substantial growth of 14 percent from 2022, gaining nearly 1 million additional followers in 2023. Collaborations with influencers, partner agencies, and technical experts contributed to this expansion.

318. Internal communication strategies were also enhanced, highlighting achievements and fostering staff engagement. The new intranet and global staff events contributed to unifying the workforce and community of FAO. New and updated guidelines ensure brand consistency and effective communication across all FAO offices, and the successful migration of decentralized office websites underscored FAO's commitment to a coherent One FAO online presence globally.

Corporate environmental responsibility

The **Strategy for Sustainability Management in the UN System 2020-2030** aims to integrate environmental and social sustainability dimensions in a systematic way by 2030. Through its Corporate Environmental Responsibility Strategy 2020-2030 the Organization is adopting best practices and innovative initiatives to reduce emissions, increase efficiency, and integrate sustainability into its daily operations.

FAO's total carbon emissions for 2022 were 38.2 percent lower than the 2018 baseline, despite having rebounded by 70 percent compared to 2021, as an expected result of the gradual return to in-presence working modalities in 2022 and the augmented volume of air travel.

Emissions from stationary combustion have notably increased, due to power outages and other factors, but this has been partly offset by a shift towards more sustainable and efficient technologies. FAO has been actively reducing the emissions and environmental footprint of its offices, including transitioning to the use of LED lights and motion sensors, upgrading air conditioning systems, and installing Solar PV systems.

Since 2019, FAO has installed 11 solar systems across regional and country offices in three continents. For the second year in a row, 2023 saw a doubling of the previous year's solar production, generating about 360 MWh and saving 141 tCO2. At headquarters, the transition to dimmable LED lights drastically reduced power demand in Conference Rooms, notably by 74 percent in the Plenary Hall and 50 percent in the Red Room.

In 2022-23, many offices focused on water and waste as well. Flow regulators in water taps in the Regional Office for Near East and North Africa reduced water flow by about 60 percent. The Regional Office for Asia and the Pacific reactivated its food composting campaign, involving all employees and producing compost for its garden. At headquarters, a new food waste monitoring system measures the type and quantity of food waste generated at kitchen and consumer levels in canteens.

Headquarters and decentralized office footprint in 2022

	Total water (m^3)	Water per capita (m^3)	Total waste (kg)	Waste per capita	Recycling rate (%)	Sustainable procurement practice prevalence (%)
Field	128 838	18	762 644	106	6%	62%
All FAO	158 778	16	1 064 647	108	23%	

A digital FAO

Corporate IT infrastructure

319. Throughout 2022-23, FAO continued the digital transformation that made it the first UN agency to operate in a fully digital manner. Improved digital capabilities enabled employees worldwide to perform their work on any device, at any time, from anywhere, through a consumer-like online experience.

320. Enhancements to cloud services and data centre developments significantly improved service performance. Infrastructure from multiple cloud providers optimized IT system hosting, platform migration for legacy applications enhanced service delivery, and software improvements for corporate systems supported recruitment and information management.

321. A new service management platform provides a better user experience and one-stop repository for reporting incidents and making requests for shared services. The platform supports global service management activities, and the move to fully digital workflows. The Organization also consolidated hardware, introduced proactive monitoring tools, and improved network and Wi-Fi performance.

322. Ongoing focus remains on improving detection, protection, and prevention and, during the biennium, FAO continuously monitored and reported on the security standing of all managed digital assets, meeting the cybersecurity target.

Enabling the use of digital innovation

323. The Organization continued to improve the functionality and data resources of various FAO initiatives, programmes and projects, promoting an environment that enables using digital innovation within programmes. FAO developed an approach which fosters agricultural digitalization through the creation and utilization of open, safe, and scalable digital public goods (DPG-FIRST). The approach spans from rearchitecting, reutilizing and redistributing FAO's digital public goods for maximum impact, to rebuilding local skills and capacities, so that no one is left behind.

324. FAO's Digital for Impact work leveraged advanced information technologies to support agro-informatics, using digital platforms, specialized systems, applications, and data to promote and scale up digital public goods in the agrifood system.

325. The Organization enhanced functionality and data resources across various initiatives, including the FAO Hand-in-Hand geospatial platform, which uses cutting-edge tools to catalogue geospatial and tabular data to promote open data access in agriculture. In 2023, over 154 000 users accessed the platform, marking an 81.2 percent increase over the previous year. The new FAO Agro-informatics builds on the FAO HIH geospatial platform offering expanded functions. It has been used for analysis in 41 countries**,** aiding targeted interventions. Additionally, agro-informatics technology enabled upgrading of the global animal disease information system (EMPRES-i+). **T**he Event Mobile Application provided timely and reliable disease information for early warning and response, further supporting veterinary services.

Human resources

326. FAO's efforts to pursue its mandate depend on its people. Hence, the Organization's capacity to fulfil its commitments to Members requires people-centred human resources (HR) strategies and policies that drive a culture of integrity, innovation, collaboration and excellence. Throughout 2022-23 the Organization continued putting in place the building blocks for long-term reforms in support of the FAO Strategic Framework 2022-31 and for making FAO a better place to work.

327. The 2022 Employee Satisfaction Survey showed satisfaction had increased an average of 10 percentage points, and that 78 percent of employees recommend FAO as a good place to work, 89 percent are proud to work at FAO, and 85 percent feel valued and respected. An Action Plan to pursue further improvements has been put in place, building on the recommendations and findings from the 2019 and 2022 surveys.

328. A unified and streamlined human resources management system supports strategic business goals and provides greater integration and efficiency in delivering HR services. The Organization improved its workforce planning guidance and is updating recruitment policies and contractual guidelines for its increasingly large affiliated workforce. Additionally, the re-instatement of the FAO Administrative Manual Section 119 on Delegations of Authority streamlined and decentralized specific HR administrative decisions.

329. Employees received support to accelerate their career development through varied and customized learning paths, new training courses, leadership coaching, and online resources. These efforts contributed to an increase in the number of internal candidates being selected for vacancies, including promotions. The new Learning Framework launched in 2023 streamlines the processes for staff development planning, access and use to support staff professional development. Leadership and career development training courses, as well as the FAO Mentorship Programme, provide important support, particularly to younger colleagues, and the Organization's young talent programmes will ensure a regeneration of the workforce.

330. In 2023, the Organization achieved gender parity (KPI 10.1.C) for staff in the P1 to P5 categories globally, with 47 percent of women in professional posts (parity is considered to be within the 47 to 53 percent range), and focused on successfully appointing FAO Representatives and senior managers, ensuring that key leadership positions were filled.

331. The time taken to recruit and the vacancy rate remain issues to be further addressed in 2024-25. The number of vacant professional staff positions has not decreased as planned and, along with the high demand for recruitment and related HR required support, progress on these indicators has been impacted by the implementation of more specialized and transparent recruitment processes, in particular by the discontinuation of rosters and batch recruitments. While these changes result in well documented and customized selection processes, they also increase time and capacity requirements. On the other hand, outsourcing and other efficiencies have led to an overall reduction in the number of days required to recruit, although still falling short of the target for KPI 10.1.A.

332. Annual reports on progress and achievements in FAO's Human Resources strategic plan are submitted to the Finance Committee. In this document, a reporting on FAO's efforts towards gender parity in the workforce and aligning its approach with the system-wide strategy, as well as ensuring an equitable geographic representation in the international professional workforce of the Organization is presented in *Annex 8*.

Ethical and safe work environment

333. Throughout 2022-23, FAO prioritized a safe and ethical work environment, promoting a people-centred culture that protects the health, security and wellbeing of its workforce, based on the principles of respect, understanding, inclusiveness, appreciation and integrity. Characterizing the culture change of an open and inclusive One FAO, employees were brought together physically and virtually, through corporate events such as town halls and the Employee Recognition Awards and other dedicated meetings, such as those for FAO Representatives or administrative focal points.

334. Inclusive employee practices promoted and celebrated diversity, fostering a dynamic workforce. Training initiatives raised awareness and sought to eliminate racism and unconscious bias in recruitment and selection processes. The FAO Youth Committee and FAO Women's Committee created safe spaces for sharing knowledge and experiences and promoting innovative ideas, and the Mentorship programme put a spotlight on women and young talent as a driving force.

A revitalized Young Professionals Programme was launched, and the young talent programmes were aligned to the needs and best practices of the Organization and the UN system.

335. The Women's Committee supported the UN Secretary-General's UNITE to End Violence against Women campaign, and addressed gender roles, ancestral knowledge and female leadership with Indigenous women; and shared experiences in economic empowerment of marginalized women. UN Women highlighted FAO's work in gender-responsive performance management, the Employee Recognition Awards, and the achievements of the Women's Committee.

336. Under the coordination of the Committee on Workplace Conduct and Protection of Sexual Exploitation and Abuse (PSEA), FAO continued to report annually on progress in creating and maintaining an environment of zero tolerance for inaction towards harassment, sexual harassment, discrimination, sexual exploitation and abuse of authority; where employees are empowered to speak up, processes are fair and victim-centred, and perpetrators are held to account. Important achievements include awareness-raising and training on prevention and outreach, a new reporting mechanism (FAO Hotline) and an institutionalized accountability measure on the Practice of the Organization in Disciplinary Matters. The Committee is assisted by two informal working groups, the Integrity Network covering workplace conduct and another group covering PSEA matters – which work together to ensure a collaborative and cohesive approach.

337. Enhanced compliance mechanisms enable staff to undertake their duties with integrity. The Offices of the Ombuds, Ethics and Inspector General jointly enhanced the integrity agenda, clarifying for the workforce their different roles and providing opportunities for coming forward. The FAO whistleblower protection policy was implemented effectively. Most prima facie reviews on the 17 complaints received for Protection Against Retaliation were conducted within the 45-day threshold, with protective measures enacted during the review of the two cases which extended beyond that time-frame due to their complexity and capacity constraints. Both were addressed within year-end.

Lessons learned

Summary of main lessons learned in implementing the Functional Objectives

338. FAO requires managers at all levels to systematically identify and capture factors that affected implementation and influenced results, as an integral component of the Organization's reporting process. The most common issues and insights summarized below emerged in 2022-23 across regions, reflecting both challenges and successes during the biennium, emphasizing the complexity of issues faced in advancing agrifood systems transformation and indicating critical areas of risk and opportunity for enhancing future performance.

Partnerships and collaboration

339. Across all regions, the need for stronger partnerships and coalitions is evident, underscoring the importance of working closely with governments, international entities and financial institutions, regional banks, non-governmental organizations, civil society, academia and the private sector to leverage expertise and resources for amplified effectiveness and impact. Opportunities for scaling up collaboration with regional and international partners, including through South-South and Triangular Cooperation and engagement with multilateral funds, were identified as vital for supporting agrifood system transformations. Successful interventions at country level were often marked by strong engagement with local communities, government counterparts and other stakeholders, highlighting the importance of collaborative partnerships for enhanced outcomes and sustainability.

Innovative financing and resource mobilization

340. Securing adequate and timely funding remains a common challenge, pointing to the necessity of exploring innovative financing mechanisms, diversified funding sources and more strategic approaches to resource mobilization to ensure the sustainability of agricultural development initiatives and enable greater scope and scale of project activities. This includes, for instance, developing joint projects with development partners to enhance eligibility for financing.

341. In particular, blended finance, while holding significant promise, continues to prove challenging to leverage at scale. While FAO has made great strides in its work with the private sector, the need for further work to better leverage the critical role of private sector investment in achieving the 2030 Agenda remains. Further, efforts to diversify the Organization's funding base need to be strengthened given the persistent high concentration of funding provided by a relatively limited number of resource partners.

Adaptability and operational flexibility

342. The need for operational adaptability and deeper embedding of risk management practices to more effectively respond to changing government priorities and policies, as well as political, economic, social and environmental conditions is crucial. This underscores the need for dynamic project designs, more agile, flexible and risk-aware implementation strategies and operational frameworks to navigate uncertainties and ensure continued effectiveness, relevance and alignment with national priorities and global development goals.

Communication and knowledge sharing

343. Improving communication strategies and facilitating the dissemination of knowledge and best practices are essential for maximizing the impact of FAO's work, necessitating enhanced efforts in knowledge management, including through enhanced information systems and harnessing the potential of emerging technologies such as Artificial Intelligence. In this context, the Organization needs to focus on improving the systematization and dissemination of lessons learned as essential elements for replicating successful experiences and continuously improving programmes and projects.

V. Financial performance

344. In 2022-23, the Organization spent 99.8 percent of the net appropriation of USD 1 005.6 million, which is similar to the previous biennium. Total expenditure reached USD 4.2 billion, 31 percent higher than in 2020-21, driven by extrabudgetary spending which, at USD 3.2 billion, accounted for 76 percent of the total, as shown in *Table 3* of *Annex 2*.

345. Technical Cooperation Programme expenditures amounted to USD 139.2 million, a slight increase compared to 2020-21. Along with the increase in extrabudgetary spending (46.2 percent higher than in 2020-21), FAO responded to a wide range of priorities in the context of emergencies (53 percent), other field and country-level work (31 percent), and global and inter-regional endeavours (16 percent).

346. The Organization's cost recovery policy, approved in 2015 and put into practice from 2018 provides full transparency, equitability and accountability in project charges. With the model now fully rolled out, USD 204 million were recovered in 2022-23. Simultaneously, there was no under-recovery under the legacy policy, thanks to efficiencies and economies of scale generated by the large volume of emergency projects, which increased by 146 percent.

347. Throughout the biennium, the Organization continued to empower managers for resource mobilization, with increased information on resource partners, a dedicated website and training. Strategic dialogue with resource partners led to framework agreements and an expanded partner base, with 20 newcomers in the 2022-23 biennium.

348. FAO mobilized USD 4.2 billion in voluntary contributions, over 50 percent more than in 2020-21, and exceeding the target of USD 2.25 billion. Resources mobilized surpassed USD 2 billion both in 2022 and 2023, a historic record that confirms Members' and resource partners' continued confidence in the Organization's ability to support progress towards the 2030 Agenda. Of note, contributions from non-OECD[11] Member countries and contributions channelled through Unilateral Trust Fund mechanisms more than doubled, and International Financial Institutions contributed an unprecedented 11 percent of total voluntary contributions. Twenty members provided 91 percent of the assessed and bilateral voluntary contributions, with60 percent coming from the top five (United States of America, Germany, Japan, Norway and United Kingdom). In addition, the Organization assisted 50 countries in designing public investment projects financed by International Financial Institutions for a total of almost USD 15.5 billion, and catalysed through the Technical Cooperation Programme USD 940 million in financing.

349. Flexible voluntary contributions decreased by 18 percent. These resources allow the Organization to flexibly deploy funds in support of areas of the Programme of Work where the resources were needed most. The importance of this flexibility for addressing complex issues related to food and agriculture has been stressed by Members and became particularly evident during the COVID-19 pandemic, as FAO sought to respond quickly and holistically to immediate and longer-term challenges. FAO organized a high-level field trip in Uganda to raise momentum around the flexible voluntary contributions, increasing awareness and visibility among resources partners and resulting in strengthened partnerships in the country. Further efforts will be undertaken to encourage support for flexible mechanisms.

350. A more detailed overview of resources management and financial performance is available in *Annex 2*.

[11] Organisation for Economic Co-operation and Development (OECD)