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Subsidiary Body for Implementation
Sixty-third session
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Item 11 of the provisional agenda
Sharm el-Sheikh joint work on implementation of climate action on agriculture and food security

Systemic and holistic approaches to implementation of climate action on agriculture, food systems[1] and food security, understanding, cooperation and integration into plans

Workshop report by the secretariat*

Summary

The first in-session workshop as part of the Sharm el-Sheikh joint work on implementation of climate action on agriculture and food security, on the topic of systemic and holistic approaches to implementing climate action on agriculture, food systems[1] and food security, understanding, cooperation and integration into plans, was held during the sixty-second sessions of the subsidiary bodies in hybrid format to facilitate in-person and virtual participation. Representatives of Parties, constituted bodies under the Convention, the operating entities of the Financial Mechanism and other financing entities, and observer organizations presented experience relevant to the topic of the workshop, and views were shared on how such approaches can contribute to achieving the objectives of the joint work. In addition, time was dedicated during the workshop to allowing participants to coordinate in relation to the joint work.

[1] This does not preclude other approaches.

* This document was submitted to the conference services for processing after the deadline owing to the need for internal consultations.

Abbreviations and acronyms

COP	Conference of the Parties
CTCN	Climate Technology Centre and Network
EU	European Union
GCF	Green Climate Fund
GEF	Global Environment Facility
GHG	greenhouse gas
NAP	national adaptation plan
NDC	nationally determined contribution
SB	sessions of the subsidiary bodies
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SDG	Sustainable Development Goal
TEC	Technology Executive Committee

I. Introduction

A. Mandate

1. COP 27 requested the SBSTA and the SBI to establish the four-year Sharm el-Sheikh joint work on implementation of climate action on agriculture and food security, including implementation of the outcomes of the Koronivia joint work on agriculture and previous activities addressing issues related to agriculture,[2] as well as future topics, recognizing that solutions are context-specific and take into account national circumstances, with the joint work having a range of objectives.[3]

2. The road map for the Sharm el-Sheikh joint work[4] includes two in-session workshops, to be held sequentially, at SB 62 and 64, in hybrid format to facilitate in-person and virtual participation by representatives of the constituted bodies under the Convention, the operating entities of the Financial Mechanism, the Adaptation Fund, the Least Developed Countries Fund, the Special Climate Change Fund and observers.[5] SB 60 requested the secretariat to dedicate time during the workshops to coordination in relation to the joint work.[6]

3. In addition, SB 60 invited Parties and observers to submit views on the topic of each workshop,[7] which for the first workshop, as per the road map, is systemic and holistic approaches to implementing climate action on agriculture, food systems[8] and food security, understanding, cooperation and integration into plans. Further, SB 60 requested the secretariat to prepare a report on each workshop for consideration by the subsidiary bodies at their sessions following the respective workshop.[9]

B. Possible action by the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation

4. The subsidiary bodies may wish to consider this report with a view to preparing a report to COP 31 on the progress and outcomes of the joint work.

II. Proceedings

5. The first in-session workshop as part of the Sharm el-Sheikh joint work was organized by the secretariat and held on 17 June 2025, during SB 62, in hybrid format to facilitate in-person and virtual participation. It was open to all Parties and observers attending the sessions.

6. The SBI Rapporteur, Ayşin Turpanci, delivered opening remarks on behalf of the SBI Chair and detailed the mandate of the workshop. She invited Claudia Heidecke (Germany) and Tekini Nakidakida (Fiji) to co-facilitate the workshop. The SBSTA Vice-Chair, Carol Franco, provided closing remarks.

7. The workshop included six sessions:

(a) Presentations by Parties;

(b) Perspectives of observer organizations;

[2] See documents FCCC/SBSTA/2014/INF.2, FCCC/SBSTA/2015/INF.6, FCCC/SBSTA/2015/INF.7, FCCC/SBSTA/2016/INF.5 and FCCC/SBSTA/2016/INF.6.

[3] Decision 3/CP.27, para. 14.

[4] Contained in annex II to documents FCCC/SBSTA/2024/7 and FCCC/SBI/2024/13.

[5] As per decision 3/CP.27, para. 15(b).

[6] FCCC/SBSTA/2024/7, para. 109, and FCCC/SBI/2024/13, para. 56.

[7] The submissions for the first workshop are available at https://www4.unfccc.int/sites/submissionsstaging/Pages/Home.aspx (in the search field, type "agriculture, food").

[8] This does not preclude other approaches.

[9] FCCC/SBSTA/2024/7, paras. 113–114, and FCCC/SBI/2024/13, paras. 60–61.

(c) Presentations by financing entities;

(d) Updates from constituted bodies;

(e) Plenary discussion: an interactive exchange of views among workshop participants, guided by the workshop co-facilitators;

(f) Time for coordination in relation to the Sharm el-Sheikh joint work.

8. In their presentations, Parties, observer organization constituencies and financing entities were invited to respond to the following guiding questions:

(a) What is your experience with/your approach to systemic and holistic approaches to implementing climate action on agriculture, food systems and food security, understanding, cooperation and integration into plans?

(b) How can systemic and holistic approaches to implementing climate action on agriculture, food systems and food security contribute to achieving the objectives of the Sharm el-Sheikh joint work?

9. In addition, there were two keynote presentations. The first was made by Martial Bernoux, an expert from the Food and Agriculture Organization of the United Nations. The second was delivered by Nosipho Nausca-Jean Jezile, Ambassador for South Africa in Rome, Permanent Representative to the United Nations agencies in Rome for South Africa and Chair of the Committee on World Food Security.

10. Further information on the workshop, including the concept note, agenda, webcasts and presentations and statements delivered, is available on the UNFCCC website.[10]

III. Summary of presentations

A. Keynote presentations

11. The first keynote presentation provided an overview of the workshop topic, including clarification of terminology. Systemic approaches involve understanding the interdependencies and connections between individual components within and across systems, while holistic approaches involve analysis of systems as a whole and understanding how components interrelate to perform functions that go beyond the sum of those that their components could perform separately. Food systems include all elements that relate to the production, processing, distribution, preparation and consumption of food, and agrifood systems additionally include the production of non-food agricultural products.[11]

12. According to the expert, transformation of food systems is key to accelerating progress in achieving the SDGs, yet agrifood systems were allocated only a fraction of total global climate finance in 2021–2022. A finance gap, a planning gap and a data gap are critical gaps hindering the transformation of food systems. After highlighting existing opportunities for agriculture, agrifood systems and food security under the UNFCCC, the expert concluded by stressing that making agriculture and food systems sustainable as part of addressing climate change presents an urgent challenge but a great opportunity. Through coordinated action, grounded in science, and inclusive governance and with adequate finance, food systems can deliver better production, better nutrition, cleaner environments and better life.

13. In the second keynote presentation, the presenter shared her perspective on the benefits of systemic and holistic approaches to implementing climate action on agriculture, food systems and food security. She highlighted the primacy of safeguarding food systems as a priority for advancing the universal right to adequate food and achieving SDGs 1 (no poverty) and 2 (zero hunger), and she stressed the interlinkages between the objectives of the Rio Conventions and the right to adequate food. Effective transformation depends on aligning incentives, responsibilities and actions across many stakeholders. Robust monitoring and

[10] https://unfccc.int/event/workshop-on-systemic-and-holistic-approaches-to-implementation-of-climate-action-on-agriculture-food.

[11] See https://unfccc.int/documents/647804 for full definitions and references.

evaluation frameworks are essential for tracking progress in the implementation of climate action, strengthening accountability and ensuring that investments yield tangible results for communities most in need. Strong political support for systemic and holistic approaches is crucial for driving innovation and meaningful collaboration and for inspiring broader societal engagement, including of youth, women and Indigenous Peoples.

14. The presenter stressed the importance of institutional collaboration at all levels, explaining that the Committee on World Food Security stands ready to leverage its multi-stakeholder platform to support such collaboration. She emphasized the value of sharing Indigenous, local and scientific knowledge. Furthermore, she highlighted that an additional USD 350 billion annually is needed to transform agrifood systems so they can adapt to climate change while achieving climate mitigation targets and that redirecting public investment from environmentally harmful practices could facilitate the transformation. She also suggested building on the COP 28 United Arab Emirates declaration on sustainable agriculture, resilient food systems and climate action,[12] the Comprehensive African Agricultural Development Programme strategy and action plan for 2026–2035[13] and the work of the Global Alliance against Hunger and Poverty,[14] and concluded with a call for collective action, grounded in equity, inclusivity and innovation, to transform agrifood systems towards achieving prosperity and the protection of the planet.

B. Presentations by Parties

15. A representative of Argentina illustrated the evolution of the use of no-till practices in the country, which had increased to cover about 90 per cent of its agricultural land by 2019 (from 0 per cent in 1989). The no-till system involves intensification and diversification of agricultural production, integrated management of nutrition and biotic stress, and leveraging technology to optimize system efficiency. The benefits of transitioning to such a system include reduced use of fossil fuels, increased soil carbon sequestration, bigger crop yields and improved soil biodiversity.

16. A representative of Australia provided an overview of agriculture in the country and detailed government policies in place (e.g. the National Soil Action Plan) and being developed (e.g. the Net Zero Plan, which will include a sectoral plan for agriculture and land) to support a climate-smart agriculture sector. Australia is building the resilience and sustainability of its agricultural system by integrating climate considerations into its development policies and plans through legislation. The representative highlighted the Australian Government's Climate-Smart Agriculture Program, which provides grants via various investment streams to support farmers in adopting best practices, funded by the Natural Heritage Trust, and talked about the development of the Australian Agricultural Sustainability Framework, an industry-led initiative supported by the Government.

17. A representative of Brazil explained that adopting systemic and holistic approaches to climate action related to agriculture in the country means taking into consideration people's income, resilience, adaptation and co-benefits. The representative emphasized the importance of Governments providing knowledge, technology and finance to farmers in an approach centred on their needs, which would enable their development while contributing to food security and the production of biomass, bioenergy and bioproducts in a changing climate. Brazil applies an integrated approach to developing agriculture in a sustainable and resilient manner, which takes into account climate risks; as such, the NAP and Low-Carbon Agriculture plan are implemented together with farmers at the centre. The representative concluded by underlining the facilitative role that the Sharm el-Sheikh online portal[15] can play in delivering technology and capacity-building support.

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

[13] African Union. 2025. *Comprehensive Africa Agriculture Development Programme Strategy and Action Plan 2026-2035*. Available at https://au.int/en/documents/20241230/caadp-strategy-and-action-plan-2026-2035.

[14] See https://globalallianceagainsthungerandpoverty.org/.

[15] https://unfccc.int/topics/land-use/workstreams/agriculture/sharm-el-sheikh-online-portal.

18. A representative of the EU presented climate- and agriculture-related policies and strategies in place in the EU, including the European Green Deal, the Common Agricultural Policy, the EU Adaptation Strategy, the EU biodiversity strategy for 2030 and the European Water Resilience Strategy. 'Future-proofing' the agrifood sector is one of four priorities in the vision for agriculture and food[16] presented by the European Commission in 2025. Examples of systemic and holistic approaches to climate action in agriculture being implemented in the EU include a network of farms in Germany investigating the climate impact and economic efficiency of measures for increasing soil organic carbon, the demonstration of agroecological practices in pilot farms in the Walloon region of Belgium and the development of carbon farming in Central Europe.

19. A representative of Fiji on behalf of Pacific small island developing States provided examples of systemic and holistic approaches to climate action in agriculture being implemented at the government, farmer, organization and community level in the region. She mentioned the recently launched Pacific Vision for Adapted Crops and Soils, as well as the conservation of genetic resources through crop breeding for climate resilience (such as in Vanuatu), the use of 'ridge to reef' approaches for protecting coastal resources and the achievements of a climate-resilient farming framework, which offers farmers access to financial support for adaptation measures. Suitability and timeliness of access to climate finance is critical given that projects for implementing systemic and holistic approaches are implemented over several years.

20. A representative of India noted that agriculture provides a livelihood to more than 40 per cent of the Indian population, but the majority of farms are small and farmers are under pressure to adapt in the face of more frequent extreme weather events. The representative presented the work under the National Innovations in Climate Resilient Agriculture network research programme. As an example of a systemic and holistic approach to climate action in agriculture, the Climate Resilient Villages programme for enhancing resilience to and the capacity of farmers to adapt to climate variability was shared, including the plan to scale up the programme over the next five years by mobilizing finance from international funding agencies and the Government of India.

21. A representative of Lebanon on behalf of the Arab States explained that the region is increasingly responding to climate change impacts on agriculture through approaches that address the interlinkages between land, water, food security and rural livelihoods. Many Arab countries have incorporated adaptation measures for building the climate resilience of agriculture into their NDCs and NAPs, and are promoting mitigation co-benefits of climate action in agriculture. Some countries are focusing on the water–energy–food nexus for enhancing the climate resilience of food systems. Work on improving early warning systems for drought, pest outbreaks and dust storms is being undertaken under regional initiatives. The representative mentioned promoting agricultural practices that serve adaptation and mitigation objectives, including agriculture in national climate plans, ensuring that climate policies do not compromise food security, enabling inclusive governance, and regional cooperation on knowledge-sharing and capacity-building as holistic approaches that can contribute to achieving the objectives of the Sharm el-Sheikh joint work.

22. A representative of the Philippines noted that it is consistently ranked as the country most at risk of natural disaster, with events resulting in significant and increasing losses and damages in the agriculture sector. To address this vulnerability, the national Government launched the Adaptation and Mitigation Initiative in Agriculture for building resilient agricultural communities by providing the country's most vulnerable farmers and fishing communities with digital and information tools that translate complex climate data into practical guidance to support their decision-making. After sharing examples of climate finance received through bilateral and multilateral channels, including GCF-funded projects, the representative stressed the urgent need to scale up the provision of climate finance and technology transfer to developing countries in order to complement and support domestic investment in climate action.

23. A representative of South Sudan on behalf of the least developed countries highlighted that, in those countries, agriculture is critically important for food security, economic growth

[16] See https://agriculture.ec.europa.eu/overview-vision-agriculture-food/vision-agriculture-and-food_en.

and livelihoods, but dominated by smallholder farms with limited capacity for adaptation. As examples of systemic and holistic approaches to climate action in agriculture that have been adopted in the least developed countries, the representative shared that integrated grassland management systems have helped to reduce deforestation and overgrazing in Senegal; sustainable land and integrated watershed management has helped to reduce soil erosion in Bhutan; and agroecology strategies are being developed in Uganda. The representative made a general call for strengthened coordination, enhanced cooperation and more effective policy implementation between Parties, constituted bodies, financial entities and other organizations and for the establishment of a dedicated fund to support implementation of the outcomes of the Sharm el-Sheikh joint work.

24. A representative of Switzerland explained that the country applies a food systems approach to ensuring food security, which involves addressing challenges by considering the entire value chain from agriculture to consumption and addressing the six dimensions of food security: access, agency, availability, stability, sustainability and utilization. Switzerland's Agriculture and Food Climate Strategy 2050 reflects its food systems approach. The accompanying 2030 action plan outlines measures for achieving eight sub-goals, covering typical climate measures in the agriculture sector as well as action areas at the food system level, such as the commitment to halving food loss and waste by 2030 and linking health and sustainability, with dietary guidelines now explicitly integrating environmental considerations.

25. A representative of Uganda on behalf of the African Group highlighted that holistic and systemic approaches to climate action in agriculture are diverse, country-driven and context-specific in Africa and shared examples of such approaches, including value-chain integration (e.g. macadamia in Malawi, sugar cane in South Africa and honey in Zimbabwe), supporting sustainable production (e.g. the Great Green Wall in the Sahel region), the prioritization of vulnerable groups (e.g. seed banks for them), enhancing coordination and partnerships (one-stop shops in Nigeria linking ministries, farmers and funds) or South–South collaboration (e.g. on growing flood-tolerant rice across West Africa). The representative called for simplified but enhanced access to means of implementation for applying such approaches, the establishment of a coordination platform under the UNFCCC, the launch of an agriculture–food climate fund for Africa, better coordination of action on climate change, biodiversity conservation and land restoration under the three Rio Conventions, and the delivery of climate finance to Africa without increasing its debt burden.

C. Presentations by observer organization constituencies

26. A representative of business and industry non-governmental organizations emphasized the need for robust, systems-based climate science to ensure increased understanding of the benefits and consequences of changes and knowledge- and experience-sharing on climate action and climate policies that prioritize achieving food security and agricultural productivity. The representative stressed the importance of rewarding farmers and agribusinesses for climate action, aligning corporate climate reporting requirements and structuring climate policies around measurable outcomes rather than prescriptive approaches. Systemic and holistic implementation requires science and technology positive approaches that empower farmers and agribusinesses to scale adaptation and mitigation practices while improving productivity. Public–private partnerships and impactful investment delivered by the business community enable stakeholders to scale up climate adaptation and mitigation practices.

27. A representative of environmental non-governmental organizations asserted that agroecology is the foremost holistic solution in agriculture, stressing that agroecology supports adaptation while reducing emissions because it does not rely on fossil fuels or drive deforestation, and highlighted numerous success stories. The representative explained the need to phase out industrial agriculture and initiate just transitions to agroecology and that systemic approaches to food-related climate action should consider opportunities across the supply chain, as food security can only be achieved in the context of the climate crisis through both supply-side and demand-side interventions. However, transformation of the governance of the food system towards democratic and equitable models with a strong accountability

framework is required for implementing such approaches. She concluded by stating that agroecological approaches should be prioritized for receiving scaled-up grant-based climate finance.

28. A representative of farmers and agricultural non-governmental organizations highlighted that systemic and holistic approaches entail economically viable, ecologically sustainable and socially inclusive practices that safeguard vital natural resources and livelihoods. With regard to achieving the objectives of the joint work, the representative stressed that farmers must be considered co-creators of solutions and innovators, fully integrated into all stages of climate action from planning to financing, stating the critical need for strategic public–private partnerships with farmers' organizations as trusted intermediaries for investments in agriculture. She called for predictable finance to be made available and accessible to farmers, and a permanent seat on the Board of the Fund for responding to Loss and Damage for the observer constituency. Furthermore, she underlined the need for stable enabling policy environments over the long term to foster farmers' confidence in responding to an increasingly volatile and uncertain climate and ensure decent livelihoods.

29. A representative of Indigenous Peoples organizations stressed that the deep relationship of Indigenous Peoples with nature can be leveraged to enhance mitigation efforts, improve adaptation strategies and increase resilience to climate change, particularly in relation to Indigenous food systems. Examples of best practices in systemic and holistic approaches to implementation of climate action on agriculture, food systems and food security include preserving biocultural heritage in Mesoamerica, focusing on the production of moderated quantities of food using a wide range of crops; integrating traditional and western knowledge to balance environmental preservation with food and economic needs, as practised by the Council of the Haida Nation in Canada; cultivating native varieties of corn, beans and other species, as undertaken by the Maya Kaqchikel people and crop rotation, which is implemented by several Indigenous Peoples.

30. A representative of research and independent non-governmental organizations stressed the need to address multiple challenges at the same time, including climate change and biodiversity conservation, animal health, human health, soil health, livelihoods and food security, which are deeply interconnected. To address those challenges, the Intergovernmental Panel on Climate Change has already established the need to look for solutions across the food system, from production (e.g. agroforestry, silvopastoral systems, crop diversification and crop rotation) to consumption (e.g. context-specific solutions, including a dietary shift to more sustainable and plant-rich diets, and efforts to reduce food loss and waste). The representative also stressed that holistic approaches place greater emphasis on building resilience, which is important for small-scale farmers, and the importance of putting farmers at the forefront of solutions. The constituency is working on establishing a platform for knowledge-sharing and collaboration on topics related to agriculture, including agroforestry and sustainable nutrient management.

31. A representative of the women and gender constituency shared the example of seed banks, maintained by rural women farmers in India, that preserve Indigenous varieties of seeds. The representative stressed the paramount importance of recognizing the human right to adequate food and nutrition. Given the growing interest in using agriculture, especially soil and livestock management, to offset carbon emissions, the representative expressed concern at the commodification of agricultural practices and land-use rights, given the risk of greenwashing and excluding Indigenous knowledge. Agriculture is a priority sector for adaptation and mitigation action, yet only a fraction of climate finance is allocated to it. Most funds allocated to farming are disbursed to middle-income countries and designated for large-scale projects, often bypassing small-scale farmers. The representative concluded by recommending that the joint work raise awareness of and promote strategies for ensuring gender-responsiveness and equity of climate action.

32. A representative of children and youth non-governmental organizations pointed out that over half of the world's population is under 30 and that 30 per cent of youth are employed in agriculture. Furthermore, children and youth face disproportionate risks from climate change, especially undernutrition because of crop failure and land degradation. The representative stressed that holistic and systemic approaches to climate action in agriculture must acknowledge people's experiences, which might depend on their gender or age, and the

need to connect these realities with the social, economic, environmental and health dimensions of holistic and systemic approaches. The representative concluded by recommending that children and youth participation be institutionalized from the beginning of every project and policy cycle, consideration of food systems be mainstreamed in mitigation and adaptation action on national climate-resilient pathways and agroecology be recognized as a systemic and holistic climate solution.

D. Work undertaken by financing entities

1. Presentations

33. A representative of the Adaptation Fund summarized its activities since its operationalization in 2007 and provided an overview of the Fund's cumulative portfolio as at June 2025, with some USD 1.18 billion in grants allocated to 199 approved adaptation projects, more than 40 per cent of which in the least developed countries and small island developing States. Food security and agriculture account for 16.7 and 13.5 per cent respectively of the Fund's overall investments. The representative concluded by explaining the opportunities for accessing funding from the Adaptation Fund that are relevant for agriculture and food security.

34. A representative of the GEF, the Least Developed Countries Fund and the Special Climate Change Fund provided an overview of the GEF fund portfolio and described how the food security agenda has developed over successive GEF replenishment cycles, culminating in the Food Systems Integrated Program as part of GEF-8, which is designed to drive systemic transformation and targets 32 countries with funding of USD 252 million. The representative also provided an overview of the contributions of the GEF Trust Fund and the Least Developed Countries Fund to the Great Green Wall initiative for restoring degraded land in the Sahel region and of the GEF Trust Fund and the Special Climate Change Fund to the Caribbean small island developing States multi-country soil management initiative for integrated landscape restoration and climate-resilient food systems. The representative explained that, by adopting holistic strategies to address sustainability issues across agrifood systems, creating learning and knowledge-sharing opportunities that can facilitate systems transformation and creating platforms for sharing lessons learned and fostering South–South cooperation, the cross-sectoral interventions of the GEF deliver multiple benefits. The GEF also fosters the development of innovative technologies and financial solutions to unlock private sector investments. It also promotes policy coherence to ensure that there is an enabling environment for a sustainable and resilient agrifood system.

35. A representative of the GCF gave an overview of the Fund's portfolio and indicated that, out of 297 projects funded so far, 131 are agriculture and food security projects, for which GCF funding represents USD 6.24 billion, which has in turn helped to secure USD 11.85 billion of co-financing. The majority of those agriculture and food security projects were focused in the result areas of health, well-being, livelihoods and ecosystems, with 104 projects being related to value chains, supporting climate-resilient agricultural practices, climate-smart technology in agriculture, improving processing equipment, recycling agricultural biomass and waste, supporting the uptake of sustainable packages and materials, efficient transport, supporting eco-certification and eco-labelling or knowledge-sharing platforms to enhance the traceability and thus profitability of sustainable alternatives such as regenerative agriculture. Highlighting that sectoral projects can deliver both adaptation and mitigation benefits, the representative provided examples of indicators for each, such as achieved and expected GHG emission reductions by ongoing projects and the number of people provided with climate-resilient water security. The representative concluded by highlighting that early results of the GCF agriculture and food security projects are promising.

36. A representative of the World Bank explained that the agrifood system is a valuable tool for achieving the World Bank's mission to end extreme poverty and boost shared prosperity on a liveable planet. The representative highlighted that, with climate change threatening global food security and one third of global GHG emissions coming from the agrifood system, that system is caught in a vicious climate circle, given also the impact of

increased agrifood activities on GHG emissions, and that adaptation alone is not sufficient to ensure global food security. Furthermore, pre- and post-production processes and land-use change account for more than half of the GHG emissions from the agrifood system and, without significant climate mitigation action in the agrifood system, the goal of limiting global temperature increase to 1.5 or even 2 °C is out of reach. The World Bank is aiming to allocate 65 per cent of its agrifood investments to climate-smart agriculture (62 per cent in 2024). Between 2022 and 2024, USD 7 billion in agrifood climate financing was approved, supporting 4.7 million farmers in adopting climate-smart agricultural technologies. Projects approved during that period are expected to deliver cumulative reductions in GHG emissions of 175 million tonnes of carbon dioxide equivalent. The World Bank is also generating knowledge and tools for the agrifood system transformation, such as through a road map on achieving net zero emissions in the agrifood system.[17]

2. Answers to questions

37. The representative of the Adaptation Fund clarified its country-driven approach to identifying investments in agriculture and food security but also that projects are supposed to align with the Fund's resource framework, which is being updated to report according to the themes under the framework for the global goal on adaptation. The Fund conducts ex post evaluations of projects but it is challenging to evaluate their social impacts. The Fund provides only grants that cover the full cost of adaptation, without the requirement for co-financing. Although the GEF usually support projects through accredited implementing agencies, cooperative banks can also be accredited, and the Fund created a locally led adaptation window for farmers to access funding directly without accreditation.

38. The representative of the GCF explained that it uses stringent environmental and social standards to assess every funding proposal it receives, does not fund large agribusinesses, and 80 per cent of its public sector portfolio consists of grants, noting that the private sector uses more loans and equity than grants. The GCF is working to simplify its accreditation process for organizations seeking to access its funding to implement climate change projects and programmes and aims to complete its project review cycle within nine months, while maintaining an annual evenly split balance between its grants for mitigation and adaptation projects. The representative acknowledged the challenge of measuring the extent to which GCF projects are reaching the most vulnerable within countries. He noted that the GCF is facilitating access for countries that have not previously received climate finance and developing a direct access mechanism for Indigenous Peoples. The representative explained that an approach based on value chains is not a requirement for projects and programmes submitted to the GCF but rather an option adopted by many Parties that submit proposals.

39. The representative of the GEF highlighted policies in place to ensure that GEF projects meet the needs of the most vulnerable groups. For instance, the GEF seeks to ensure that farmers' organizations are involved in the design of projects, while gender action plans at the project and programme level aim to ensure that projects and programmes are designed to meet the needs of women. The GEF also has a small-grants programme for civil society organizations and non-governmental organizations, and the GEF Assembly Challenge Program has created opportunities (e.g. grants and access to a knowledge and partnership platform) for young people and Indigenous Peoples.

40. Although only 0.1 per cent of climate finance is directed to livestock, the representative of the World Bank emphasized the importance of livestock for livelihoods and nutrition, particularly in developing countries, and that livestock is a major source of GHGs, which indicates the importance of including it in comprehensive climate-smart agriculture strategies. Finally, the representative argued that it is not possible to focus only on adaptation in the agriculture sector, as GHG emissions from agrifood systems are continuing to increase.

[17] Sutton WR, Lotsch A and Prasann A. *Recipe for a Livable Planet: Achieving Net Zero Emissions in the Agrifood System*. Agriculture and Food Series. World Bank. Available at http://hdl.handle.net/10986/41468.

E. Work undertaken by constituted bodies

1. Presentations

41. The secretariat gave an introductory presentation on its annual synthesis report on activities related to the Sharm el-Sheikh joint work undertaken by constituted bodies and financial and other entities under the Convention,[18] including explaining the scope of the report.[19] The tables in annex I to the report set out the mandates and contributions of constituted bodies and other entities under the Convention relevant to the joint work, while annex II contains a mapping of activities related to the objectives of the joint work.

42. The presentation was followed by short reflections from constituted body representatives on how the respective constituted body is taking into consideration systemic and holistic approaches to implementing climate action on agriculture, food systems and food security, understanding, cooperation and integration into plans.

43. The Chair of the TEC explained that it collaborated with the Food and Agriculture Organization of the United Nations on promoting uptake of climate technology in agrifood systems. A report on how climate technology can help to transform agrifood systems and agrifood value chains[20] was launched at a high-level dialogue at COP 29 on moving forward with NDC acceleration in agrifood systems. The Chair stressed that effective implementation of climate technologies is essential for accelerating progress in transforming agrifood systems, and the importance of considering the entire value chain in assessing climate technology needs. The Chair explained that capacity-building is needed to realize the benefits of climate technologies and that scaling up climate technologies and facilitating their effective implementation requires targeted financing informed by technology needs assessments.

44. A representative of the Consultative Group of Experts explained that it supports developing country Parties in fulfilling their climate reporting obligations under the Convention and the Paris Agreement, including for the agriculture sector, and identified key challenges that Parties face in this regard. The Group supports Parties in shifting to using the more precise tier 2 emission estimation methodologies for their reporting, building their capacity for quantifying the impacts of their agricultural mitigation policies, improving agricultural emission projections and improving their reporting on adaptation action. The representative emphasized that developing country Parties require sustained, long-term support for improving information on emissions and climate action on agriculture in their national communications and biennial transparency reports.

45. A representative of the Adaptation Committee explained that it consistently integrates systemic and holistic approaches into its work, including in relation to agriculture and food security. It has also collaborated with other constituted bodies and financial entities on priority adaptation technologies and facilitated a workshop on engaging the agrifood sector in climate change resilience. The Committee also provides guidance materials for monitoring implementation of NAPs, including agriculture-specific approaches, and is offering insights into country-level efforts by Parties on the new State of Adaptation Action by Parties interactive portal.[21]

46. A representative of the CTCN Advisory Board explained that the CTCN has co-organized a capacity-building programme on using digital technologies to boost agricultural resilience and resource efficiency. As the executive entity of the Adaptation Fund Climate Innovation Accelerator,[22] the CTCN helps to strengthen national systems of innovation and

[18] FCCC/SB/2025/4.

[19] As per decision 3/CP.27, para. 15, and documents FCCC/SBSTA/2024/7, para. 111, and FCCC/SBI/2024/13, para. 58.

[20] FAO and UNFCCC. 2024. *Climate technologies for agrifood systems transformation – Placing food security, climate change and poverty reduction at the forefront*. Rome: Available at https://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/TEC_WEF/4ba082ff54714373ae717ca999b44ef3/a04e2613d1ff4e00908adea0848ef244.pdf.

[21] https://unfccc.int/adaptation_country_portal.

[22] See https://www.ctc-n.org/technical-assistance/afcia-ii-programme-continues-collaboration-between-unep-ctcn-and-adaptation-fund-boost-innovation.

attracts private investment in technologies, such as climate information services, early warning systems for natural disaster management, remote sensing and geographic information systems for monitoring environmental changes such as deforestation and land degradation, and drones for data-driven farming. The CTCN also provides technical assistance on agriculture and shared examples of work in the Sudan and Zimbabwe.

47. A representative of the Facilitative Working Group of the Local Communities and Indigenous Peoples Platform explained that the Group provides an inclusive space for sharing holistic and integrated mitigation and adaptation practices. Examples relevant to agriculture include the Reefs of Hope programme for curbing coral bleaching and sustaining vital ecosystems supporting fishing and food security in the Pacific, the use of traditional water management practices to address water scarcity in the Philippines and the deployment of a traditional soil classification system in Thailand that helps to identify areas at risk of erosion. These efforts demonstrate the transformative potential of local knowledge and community-led action.

48. A representative of the Least Developed Countries Expert Group explained that the Group helps the least developed countries to develop holistic, cross-cutting adaptation and resilience-building strategies for agriculture and food systems. The Group's work, which includes disseminating lessons learned, helps to ensure that climate action on agriculture and food security is integrated into broader climate-resilient national development plans.

2. Answers to questions

49. In answer to a question about the use in the TEC presentation of the terms agrifood systems and agrifood value chains, which do not feature in the title of the workshop or in the decision establishing the Sharm el-Sheikh joint work, the Chair of the TEC explained that he considered the workshop to be a good opportunity to reinforce interactions between the joint work and the work of constituted bodies.

50. Responding to a question about what it does to attract youth to work in the agriculture sector despite climate uncertainties, the representative of the CTCN Advisory Board stated that the CTCN engages with all stakeholders, including representatives of young farmers, and helps them to improve and use climate technology in their farming activities.

IV. Summary of discussions

A. Plenary discussion

51. The plenary discussion was guided by the following questions:

(a) What is required to make systemic and holistic approaches to implementing climate action on agriculture, food systems and food security successful?

(b) How can cooperation on and integration into plans of systemic and holistic approaches to implementing climate action on agriculture, food systems and food security be strengthened?

1. Systemic and holistic approaches

52. Participants highlighted the fundamental priority of safeguarding food security and achieving zero hunger globally (SDG 2), while simultaneously tackling malnutrition, climate change and biodiversity loss. One participant suggested that these issues could be tackled by producing food at the local and regional level through climate and environmentally friendly small-scale agriculture. Another participant stressed the urgency of fostering adaptation and resilience in agricultural systems according to national circumstances.

53. Some participants underlined the importance of food availability in the context of global food and nutrition challenges, including the need to address issues of access, utilization and stability in relation to food. The African Union's Comprehensive Africa Agriculture Development Programme Strategy and Action Plan for 2026–2035, adopted in

January 2025, contains several commitments related to food security, including the aim to increase agrifood output by 45 per cent in Africa.

54. Many participants mentioned that a food system approach that encompasses all components of the value chain, from food production, storage and processing to packaging, distribution and consumption, and addressing concerns such as food loss and waste is essential for ensuring food security and can help to reduce fossil fuel consumption. One participant added that a food system approach could contribute to solving many existing interconnected challenges from climate change and biodiversity loss to land degradation, food insecurity and poverty. Another participant, however, raised potential drawbacks of shifting the focus to food systems instead of agriculture specifically, such as reduced focus on the adaptation needs of farmers by donors and financing entities.

55. Some participants highlighted the potential benefits of a food–water–energy nexus approach. One participant highlighted the connection between basic demand for food and accessibility to water and energy and the need to set the right policy priorities to better manage the complex links between water, energy and food systems.

56. Participants emphasized that food systems must be economically, environmentally, socially and culturally sustainable. Climate action related to preventing soil degradation and increasing crop yield per unit of water used can contribute to enhancing the sustainability of agriculture and food production at the same time. Several participants stressed that achieving climate adaptation and mitigation outcomes in the agriculture sector requires predictable programmes with long-term commitments and accountability. Some participants highlighted the role of agroecology and traditional and Indigenous food systems in ensuring the sustainability of agriculture. One participant underscored that addressing issues related to land access and land rights is crucial in systemic and holistic approaches. Another participant noted that a just transition is central to systemic and holistic approaches to climate action, to ensure that climate policies are socially inclusive, fair and equitable.

57. Participants agreed that climate action needs to be science- and evidence-based, and that it is important to understand the impact of climate action in the agriculture sector. One participant mentioned a need to develop a monitoring, measurement, reporting and verification framework for quantifying the environmental outcomes of climate action.

58. Many participants agreed on the vital role of innovation in ensuring sustainable development in agriculture and food security, while emphasizing the need for knowledge-sharing aligned with the objectives of the Sharm el-Sheikh joint work and the capacity-building of farmers. Some participants highlighted the role of specific approaches or technologies, such as precision agriculture and artificial intelligence, in helping to address any trade-offs between climate change mitigation and agricultural productivity.

2. Cooperation and integration into plans

59. Participants broadly agreed on the importance of collaboration on co-creating and implementing climate solutions that involves all levels of government, academia and various actors including the private sector. Many participants called for better coordination between different interests across ministries, sectors and stakeholders, at the national and international level. One participant mentioned the importance of tackling political economy dynamics, such as power asymmetries and structural inequalities, and actively managing trade-offs and co-benefits. Several participants called for the establishment of a coordination mechanism to improve the implementation of climate action in agriculture and cooperation between different actors, while others called for leveraging existing international mechanisms and institutions while avoiding duplication in order to accelerate implementation.

60. Participants mentioned the need to align policies and address issues across various sectors and perspectives (e.g. climate, biodiversity and land degradation, or water, energy and food systems) and levels of governance, emphasizing the importance of breaking down silos and ensuring coherence across policies that relate to food security and nutrition. One participant explained that supporting land restoration efforts, implementing nature-positive farming practices such as agroforestry, and protecting and enhancing biodiverse habitats and agroecological practices can have multiple benefits, including on climate change and food security. Another participant noted that, beyond aligning climate and biodiversity efforts

across NDCs and national biodiversity strategy and action plans, an additional cooperation avenue is using the World Trade Organization as a means to ensure stable and predictable global agricultural trade underpinned by rules that can support the implementation of systemic and holistic approaches on a global scale. And another participant added that ensuring coherence between the Sharm el-Sheikh joint work and related work under other UNFCCC processes is crucial for achieving tangible and meaningful outcomes, particularly given that agriculture is a cross-cutting sector.

61. Many participants agreed that knowledge-sharing, addressing capacity gaps and supporting national agricultural research are vital for effective implementation of climate action on agriculture. One participant noted that research capacity needs to be increased to achieve a better understanding of the costs and benefits of implementing agriculture-oriented climate action, including the socioeconomic factors influencing farmers' decisions. Another participant highlighted the need for inclusive, science-based policy design to empower farmers, respecting indigenous knowledge and ensuring equitable outcomes in order for agriculture to contribute to meaningful climate action globally.

3. Means of implementation

62. Some participants emphasized the need to support developing countries in accessing finance, technology transfer and capacity-building to support adaptation and resilience in agriculture while offering practical solutions that respect the diversity of their national contexts. Several participants also raised that, despite its mitigation potential, climate mitigation in the agriculture and forestry sectors is underfunded. Participants explained that achieving a higher degree of food sovereignty requires substantial investment in rural development, including infrastructure, irrigation, flood control, energy, logistics, transportation, sanitation and other technical capabilities. Other participants noted concerns about lack of resources, support and access to solutions that support food security in the context of climate change, especially for vulnerable groups, such as small-scale and family farmers, women, youth and Indigenous Peoples.

63. Some participants highlighted the importance of increased climate finance for agriculture and food security, stressing the need to mobilize public and private finance. Participants underlined the need to redirect environmentally harmful agricultural subsidies towards for example investments in research and development of innovative technologies, infrastructure and sustainable farming practices. Other participants mentioned the potential for market-based approaches to reward farmers for outcomes of climate action.

64. Several participants highlighted that the transfer of innovative technologies for climate action in the agriculture sector is important for transforming the sector. One participant added that technology transfer to developing countries could be supported in the context of cooperative approaches referred to in Article 6, paragraph 2, of the Paris Agreement.

65. A participant noted that the limited availability of agricultural extension services has led to a lack of capacity, education, training and workforce development in many countries, making it difficult to integrate agricultural climate action into plans and to implement it. Some participants also noted the importance of building the capacity of farmers for achieving adaptation and mitigation outcomes and of such capacity-building efforts reaching and benefiting small-scale farmers and local communities.

4. Stakeholder involvement

66. Many participants agreed that broad, active and consistent engagement of stakeholders, including farmers, Indigenous Peoples, local communities, civil society, women, youth, the private sector and consumers, is essential for successfully implementing climate action in agriculture. One participant specifically mentioned co-designing approaches for reducing emissions and increasing soil carbon with farmers. It was emphasized that rural women play an important role as drivers of food security and, consequently, need to be actively involved in climate action in agriculture.

67. Several participants highlighted the importance of prioritizing vulnerable groups and of including them in the design of systemic and holistic approaches. One participant

highlighted the need to adopt a human rights focused approach to food system transformation and advocated for equity-sensitive measures that can simultaneously tackle hunger and malnutrition, climate change and biodiversity losses, such as by providing access to land and finance and designing public policies such as sustainable food procurement or school-meal programmes.

B. Coordination in relation to the joint work

68. The following questions were suggested for guiding the discussion on coordination and building on the views already shared during the workshop:

(a) How are systemic and holistic approaches to implementing climate action on agriculture, food systems and food security contributing to the objectives of the joint work?

(b) How can systemic and holistic approaches to implementing of climate action on agriculture, food systems and food security be better coordinated in relation to the joint work?

69. Several participants suggested that the discussion on coordination should be broader than the specific workshop topic and encompass all elements of the joint work, suggesting that the proposed guiding questions were too restrictive, while other participants found them useful. Affirming that the guiding questions should not limit interventions, the co-facilitators invited workshop participants to make any points that they considered relevant.

70. Many Party representatives strongly emphasized the importance of coordination in relation to the joint work, with several raising a key concern that, on the basis of earlier discussions during the workshop, constituted bodies and financing entities appear to operate in 'silos' and could be more closely aligned with the implementation of the Sharm el-Sheikh joint work. To address this, those Party representatives identified a need to establish a format for clear guidance, a mechanism or even a body to coordinate work and ensure that constituted bodies and the operating entities of the Financial Mechanism contribute to the attainment of the objectives of the joint work. One participant added that such coordination could help Parties to agree on a definition of systemic approaches and what they involve.

71. Other participants suggested that existing coordination arrangements under the UNFCCC are sufficient and stressed that coordination of work is not a one-time task but an ongoing, shared responsibility for all stakeholders across the food system, from national Governments to farmers. They suggested that improving coordination requires continuous commitment across national ministries, sectors and levels of governance, as well as with farmers. The Global Research Alliance on Agricultural Greenhouse Gases[23] was mentioned as an example of a successful coordination mechanism for accelerating learning and empowering farmers to reduce GHG emissions from agriculture globally.

72. One participant highlighted that holistic and systemic approaches are important for improving coordination between policy frameworks at the national level; for example, a food systems approach could be used to integrate policies and actions across agriculture, climate, food security, nutrition and livelihoods, leading to enhanced coherence and coordination across ministries, sectors and stakeholders.

73. Financial support for implementing systemic and holistic approaches was a significant issue for discussion. One participant noted that many Parties have already incorporated systemic approaches to implementing the three Rio Conventions into their NDCs, national biodiversity strategy and action plans and land degradation neutrality submissions under the United Nations Convention to Combat Desertification and proposed the creation of a multi-donor trust fund to support their implementation.

74. The importance of information-sharing for coordination was highlighted, and one participant suggested that innovative learning opportunities could be useful, such as visits to learn more about successful examples of research on agriculture practices and the implementation of systemic approaches in different countries.

[23] See https://globalresearchalliance.org/.

75. Finally, several participants identified the Sharm el-Sheikh online portal as an important tool for coordination, knowledge-sharing and capacity-building, and the lack of funding for the full operationalization of the portal was noted as a concern. Participants expressed their hope to see the full operationalization of the portal soon, ensuring that it serves as a practical, accessible and dynamic instrument for learning, broadening access to information and connecting projects with opportunities for implementation in relation to climate action in agriculture.

V. Way forward

76. Many systemic and holistic approaches to implementing climate action on agriculture, food systems and food security can help to effectively safeguard food security while simultaneously delivering climate adaptation and mitigation benefits. Given the interconnectedness of current challenges, approaches can be found that help to address other issues at the same time, such as biodiversity loss, land degradation and poverty. Agriculture is a complex sector that involves many stakeholders, and food systems involve even more. Broad and consistent stakeholder engagement is essential for the successful implementation of climate action in the agriculture sector and across food systems. Systemic and holistic approaches can only be successful if they are farmer-centric and take into account the national circumstances and specificities of agricultural production systems.

77. Implementing climate action in agriculture and achieving food security at scale requires means of implementation. Participants highlighted that there is insufficient climate finance, especially for the agriculture sector, and mentioned several ideas that could help to address the situation. There is also a need for technology transfer and innovative agricultural practices, as well as capacity-building, which must reach and benefit small-scale farmers and local communities.

78. Participants suggested ways to improve understanding of, cooperation on and integration into plans of agricultural climate action and underlined the importance of science- and evidence-based approaches, highlighting the value of measuring the outcomes of climate action and knowledge-sharing. Policies must be aligned and efforts integrated across various sectors and dimensions, and cooperation ensured across all levels of government, academia and the private sector for successful climate action in the agriculture sector and across food systems. International collaboration and coordination and knowledge-sharing are also important ways to ensure the success of systemic and holistic approaches to implementing climate action on agriculture, food systems and food security. The Sharm el-Sheikh joint work can play an important role in facilitating collaboration on such climate action.