Framework Convention on
Climate Change

04 September 2025

Report on the fifth global dialogue and investment-focused event under the Sharm el-Sheikh mitigation ambition and implementation work programme

Report by the secretariat

Abbreviations and acronyms

CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
COP	Conference of the Parties
GHG	greenhouse gas
MRV	measurement, reporting and verification
NDC	nationally determined contribution
REDD+	reducing emissions from deforestation; reducing emissions from forest degradation; conservation of forest carbon stocks; sustainable management of forests; and enhancement of forest carbon stocks (decision 1/CP.16, para. 70)
SB	sessions of the subsidiary bodies

I. Introduction

A. Mandate

1. CMA 4 requested the secretariat to prepare, under the guidance of the co-chairs of the work programme, a report on each of the dialogues under the under the Sharm el-Sheikh mitigation ambition and implementation work programme, reflecting in a comprehensive and balanced manner the discussions held and including a summary, key findings, opportunities and barriers relevant to the topic, and to prepare an annual report comprising a compilation of the individual dialogue reports for consideration by the CMA and the subsidiary bodies.[1] CMA 5 requested the secretariat to include, under the guidance of the co-chairs of the work programme, information on the investment-focused events in the report on each of the global dialogues.[2]

B. Approach

2. This report has been prepared reflecting in a comprehensive and balanced manner the discussions held at the fifth global dialogue and investment-focused event under the under the Sharm el-Sheikh mitigation ambition and implementation work programme. It includes a summary, key findings, opportunities and barriers relevant to the topic.

3. The recordings of the fifth global dialogue and investment-focused event as well as presentations given during the events form the basis of this report. The report highlights the relevance of all aspects that have been raised and discussed during the fifth global dialogue and investment-focused event. The recordings are available here; the presentations are available here.

C. Appointment of co-chairs of the work programme

4. The Chairs of the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation have appointed Angela Churie Kallhauge from Sweden and Gao Xiang from China as the co-chairs for the work programme for 2025–2026[3] pursuant to the request from CMA 4.[4]

D. Topics for the global dialogues under the work programme in 2025

5. The CMA, by decision 4/CMA.4, decided that the scope of the work programme should be based on broad thematic areas relevant to urgently scaling up mitigation ambition and implementation in this critical decade and include all sectors covered in the *2006 IPCC Guidelines for National Greenhouse Gas Inventories* of the Intergovernmental Panel on Climate Change, thematic areas in the contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on climate Change, and relevant enabling conditions, technologies, just transitions and cross-cutting issues.[5]

6. CMA 4 invited Parties, observers and other non-Party stakeholders to submit via the submission portal[6] suggested topics in line with the scope of the work programme to be discussed under the dialogues every year. Considering these submissions, the co-chairs of

1 Decision 4/CMA.4, para. 15.
2 Decision 4/CMA.5, para. 12.
3 Information on the co-chairs is available at https://unfccc.int/topics/mitigation/workstreams/sharm-el-sheikh-mitigation-ambition-and-implementation-work-programme-mwp/co-chairs-of-the-mitigation-work-programme-2025-2026.
4 Decision 4/CMA.4, para. 7.
5 Decision 4/CMA.4, para. 4.
6 https://www4.unfccc.int/sites/submissionsstaging/Pages/Home.aspx.

the work programme are to decide on the topics to be discussed at the dialogues in a given year.[7]

7. As per decision 4/CMA.4, paragraph 13, and considering the submissions received, the co-chairs decided on and communicated that the dialogues taking place under the work programme in 2025 and 2026 will focus on enabling mitigation solutions in the industry, AFOLU and waste sectors, drawing on national and regional experience, with the fifth global dialogue to focus on enabling mitigation solutions in the forest sector, drawing on national and regional experience, and the sixth global dialogue to focus on enabling mitigation solutions in the waste sector, including through circular economy approaches.[8]

II. Summary of discussions, key findings, opportunities and barriers at the fifth global dialogue

A. Best practices and solutions to address challenges and barriers to mitigation action in the forest sector, particularly to implement Article 5 of the Paris Agreement

1. Enhancing forest carbon, including through afforestation/reforestation and restoration

(a) Key observations from national and regional experiences

8. Many participants shared best practices, such as in relation to national plans, programmes, initiatives and campaigns to promote afforestation, reforestation and restoration, including national quantitative targets on tree planting and mangrove area, national day on tree planting, and integration with NDCs.

9. Several participants highlighted that afforestation, reforestation and restoration involves a long-term process to restore ecosystems, particularly high-integrity forests, which contribute to reducing greenhouse gas emissions, preserving biodiversity and increasing socioecological resilience.

10. Inclusive and participatory approaches were raised by many participants as important, particularly in the context of engagement with local communities and stakeholders, including Indigenous Peoples. Such approaches to strengthen local ownership and ensure that local priorities, community benefits and traditional knowledge such as locally appropriate tree species, are fully incorporated.

11. Participants introduced a range of policy, fiscal, and capacity development efforts as actionable solutions, including regulations, certifications on carbon removals, carbon credit schemes including emissions trading system for creating financial incentives, development of methodologies for accounting for carbon storage in forests, payment for ecosystem services, blended finance, greening urban areas, training to build capacities across the entire tree planting value chain, education activities at schools, establishment of forest centre networks, promotion of wood use products to improve the economic benefit of forestry, and standards for ensuring social and environmental safeguards.

12. Many participants emphasized that accurate and timely monitoring is essential for effective policy design and implementation. While emerging technologies, such as satellites, drones, geographic information system, and artificial intelligence contribute to enhancing data quality and availability, barriers to effective MRV systems remain owing to limited technical capacities to downscale data and make it useable by decision makers and stakeholders.

13. Participants also highlighted that the benefit of afforestation extends beyond carbon removal – to job creation, biodiversity enhancement, prevention of desertification, increased

[7] Decision 4/CMA.4, paras. 12–13.
[8] https://unfccc.int/documents/645941.

resilience to climate change, increased water retention, reduced heat stress and natural hazard mitigation.

14. Some participants noted a range of challenges associated with afforestation and reforestation efforts, including restoration after natural disturbance events such as forest fire, illegal logging, water scarcity, lack of technical capacities, resource constraints such as limited funding, possible trade-offs between ecological integrity, social acceptability, cost-effectiveness, initial investment cost, and the speed of biomass accumulation.

15. Several participants observed that enhancing the economic benefits of forestry relative to other land-use activities requires effective support mechanisms, many of which are increasingly available at the global level. These include REDD+ initiatives, cooperative approaches under Article 6 of the Paris Agreement and growing opportunities for private sector engagement through emerging finance instruments such as biodiversity credits, nature bonds and voluntary carbon markets, among other mechanism.

16. Many participants emphasized that regulatory measures to promote transparency in deforestation-free supply chains require substantial capacity-building efforts, particularly in developing countries. This includes technical training for monitoring and data analysis, integration of smallholders into sustainable value chains through simplified traceability tools, and the creation of green jobs.

(b) Opportunities (including actionable solutions) and barriers

17. Noting that not all of the following opportunities are applicable to every national or regional context, that there is no single solution that fits all contexts, and that the prioritization of opportunities will vary in accordance with national circumstances, some opportunities mentioned by participants include, inter alia:

(a) Clearly defined emission reduction and biodiversity objectives in the government programs on reforestation, afforestation and other nature-based solutions;

(b) Improvement of policy integration across ministries and jurisdictions to enhance forest governance, and alignment between biodiversity, nature restoration and emission reduction targets;

(c) Encouragement of multi-stakeholder coalitions involving governments, private sectors, civil society and Indigenous Peoples and local communities to facilitate locally led forest restoration;

(d) Recognition of traditional stewardship supported by securing land tenure, governance and participatory approaches for Indigenous Peoples and local communities;

(e) Utilization of technologies for early forest fire detection, deforestation tracking, law enforcement and data verification, including remote sensing such as satellite imagery, unmanned aerial vehicles, artificial intelligence, DNA and chemical markers for tracking the origin of timber;

(f) Mobilization of climate finance through carbon markets, carbon pricing, results-based funding, performance-based payments to communities, simplified funding windows for Indigenous Peoples and local communities, and public–private partnerships;

(g) Promotion of high-integrity financial tools to de-risk investment such as regulated carbon markets, payments for environmental services, public and blended finance models and market-based funding;

(h) International cooperation on combatting illegal logging through harmonized monitoring systems, policy exchange and establishment of accessible and accountable forest governance;

(i) Capacity-building through global training curricula, technical education, South–South cooperation, and platforms for peer learning including the integration of Indigenous and traditional knowledge with scientific methods for context-specific and effective restoration;

(j) Regulatory measures such as bans on land clearing, illegal logging prohibition, and logging quotas approval systems;

(k) Adoption of sustainable forest management, including species diversification and disturbance management;

18. Noting that not all of the following barriers or challenges are present in every national or regional context, and that the prioritisation of actions to be considered to overcome relevant barriers and challenges will vary in accordance with national circumstances, some barriers and challenges mentioned by participants include, inter alia:

(a) Increasing climate-related risks, including wildfires, drought and higher temperature, which weaken the resilience and carbon sequestration potential of ecosystems;

(b) Financial constraints, including high restoration costs and limited access to private finance, on scaling up restoration activities, especially natural regeneration and agroforestry;

(c) Insufficient financial support for developing countries and unfavourable governance systems, including land rights, to enable effective participation of Indigenous Peoples and local communities in the decision-making process;

(d) Fragmented governance, limited enforcement capacity and weak legislative incentives for forest restoration;

(e) Complicated policy implementation due to land-use conflicts driven by expansion of agricultural land to forested land, illegal logging and lack of regulation;

(f) Limited technical and institutional capacities to monitor illegal land clearance logging activities across borders due to weak governance frameworks and cross-border coordination such as data sharing, harmonizing regulations and joint enforcement;

(g) Technical complexity of restoring full ecosystem functionality.

2. Efforts to halt and reverse deforestation and forest degradation by addressing underlying drivers of forest loss

(a) Key observations from national and regional experiences

19. Many participants noted that the drivers of deforestation are diverse and context-specific, and may be ranging from agricultural land expansion, unsustainable timber production, wood fuel use, wildfires, diseases, natural resource extraction, urban development, construction of infrastructure such as roads, and climate change related impacts. It was also noted that these drivers are often linked to the pursuit of sustainable development objectives, including food security. Some participants mentioned that forest degradation has increased owing to climate change despite a reduction in deforestation rates.

20. Some participants emphasized that a robust legal framework, combined with strong enforcement mechanisms, is key to halting and reversing deforestation and forest degradation. Elements identified as important include civil and criminal penalties, compliance audits, logging permission quota systems, multi-year forest protection plans, certification schemes for deforestation-free production, regulations on land-use change, constitutional recognition of the rights of nature, and the establishment of preservation areas such as national parks.

21. Several participants highlighted the importance of integrated planning across multiple levels of governance to strengthen forest protection given the key role of subnational governments in spatial planning, zoning regulations, landscapes monitoring, ecosystem mapping, stakeholder coordination and public procurement.

22. Participants underscored the vital role played by Indigenous Peoples and local communities as stewards of forests, contributing significantly to sustainable management and conservation of forest ecosystems.

23. Some participants pointed to a range of strategies for strengthening wildfire management and prevention. These include early wildfire detection systems using artificial intelligence, satellite technologies and unmanned aerial vehicles; investments in fire

suppression equipment; workforce training; legislative measures; and planting of tree species that are more resilient to wildfire in fire-affected areas.

24. Several participants noted that international cooperation continues to play an important role in efforts to halt and reverse deforestation and forest degradation including through REDD+, multilateral financial institutions, voluntary initiatives and bilateral cooperation such as on satellite monitoring of forests and interactive maps, scaling up finance from all sources such as high-integrity carbon markets, providing direct finance access to Indigenous Peoples and local communities, sharing information on good practices, supporting capacity-building and ensuring forest product trade based on sustainable forest management.

(b) Opportunities (including actionable solutions) and barriers

25. Noting that not all of the following opportunities are applicable to every national or regional context, that there is no single solution that fits all contexts, and that the prioritization of opportunities will vary in accordance with national circumstances, some opportunities mentioned by participants include, inter alia:

(a) Development of national forest strategies that integrate monitoring, enforcement, and socioeconomic development including the rights and participation of Indigenous Peoples and local communities;

(b) Strengthened enforcement of forest policy, including through ecological patrol units, digital tracing systems, timber origin tracking through DNA tests to combat illegal logging, forest fire detection with satellite monitoring and artificial intelligence, and prohibition of farmland cultivation on high-erosion, high-desertification and low grain production areas;

(c) Empowerment of subnational authorities through land-use planning tools, procurement policies, local-level policy enforcement mechanisms and collaboration with national governments;

(d) Promotion of international cooperation including knowledge-sharing platforms for forest monitoring, restoration standards, governance frameworks, data systems and voluntary market standards;

(e) Advancement of results-based finance mechanisms such as REDD+ and flexible funding models that reflect co-benefits;

(f) Expansion of community-led programs such as tree planting campaigns and participatory forest management;

(g) Engagement with agriculture stakeholders to integrate forest management into their practices;

(h) Implementation of gender-responsive forestry strategies to empower women’s leadership in forest restoration and sustainable livelihoods;

(i) Utilization of innovative restoration technologies such as seedball technology to enhance dryland ecosystem recovery, reduce deforestation and support job creation;

26. Noting that not all of the following barriers or challenges are present in every national or regional context, and that the prioritisation of actions to be considered to overcome relevant barriers and challenges will vary in accordance with national circumstances, some barriers and challenges mentioned by participants include, inter alia:

(a) The lack of recognition of multiple value of forests in current systems, including economic value of forests in resilience to climate change, water provision to agriculture, protection against soil erosion, health and local livelihoods;

(b) Insufficient restoration efforts relative to the scale of forest degradation due to high costs of fire management expansion and advanced surveillance technology adoption;

(c) Declining carbon sink capacity in aging forests lowering the mitigation potential of forest stocks;

(d) Limited territorial control of Indigenous Peoples led forest protection due to legal ambiguity of land rights and the role of Indigenous Peoples in forest governance;

(e) Lack of direct access to international funding mechanisms by Indigenous Peoples;

(f) Lack of international consensus on definition and measurement of forest degradation;

3. Sustainable management of forests, including implementation of sustainable agroforestry approaches and utilization of sustainable forest products

(a) Key observations from national and regional experiences

27. Participants highlighted that sustainable forest management requires economic incentives and alignment with societal needs such as income generation through agroforestry, sustainable timber supply and climate-resilient food systems, recognizing the role of forests not only as carbon sinks but as sources of livelihood, biodiversity and food system stability.

28. Several participants emphasized that agroforestry systems applied by farmers around the world offer a promising model for sustainable land use, including through water flow regulation by trees, on-farm temperature reduction, pest control, soil quality improvement, pollinator support and integration of perennial tree crops like cocoa and açaí with existing forests, demonstrating how agriculture and forest conservation can go hand in hand.

29. Several participants suggested that local community participation is vital to sustainable forest management, with successful restoration often led by Indigenous Peoples and local communities. Strengthening local institutions, including through land tenure recognition, supporting community forests with public funding and integrating traditional and Indigenous knowledge can enhance forest governance and long-term stewardship.

30. A range of institutional approaches to sustainable forest governance were highlighted by participants, such as ecosystem-based planning models supported by a dedicated fund for life and biodiversity, geographic information system based ecosystem restoration, long-term national strategy and programmes, and national trust programmes involving land holders, environmental groups and regional support services.

31. International cooperation was cited by many participants as important for scaling up sustainable forest management so as to strengthen forest governance systems such as ecological corridor planning, cross-regional learning and the harmonization of forest conservation policies.

(b) Opportunities (including actionable solutions) and barriers

32. Noting that not all of the following opportunities are applicable to every national or regional context, that there is no single solution that fits all contexts, and that the prioritization of opportunities will vary in accordance with national circumstances, some opportunities mentioned by participants include, inter alia:

(a) Sustainable forest management strategies with focus on forest-based livelihoods, including income generation through agroforestry and selective logging to allow time for the forest recovery, helping protect native forests;

(b) Expansion of harvested forest product markets through public financing, regulations and the use of wood material in buildings;

(c) Indigenous Peoples led forest governance through land tenure recognition, dedicated funding mechanisms and participation in land-use planning;

(d) Long-term forest governance strategies with legislative mandates, including forest zoning, logging bans, ecosystem restoration and conversion of farmland to forest through afforestation;

(e) Adaptive silviculture practices, including shorter rotation cycles and native species selection;

(f) Integration of forest and agriculture into national food and climate policy to enhance ecosystem services and rural resilience (combining tree cover with farming systems increases productivity and reduces climate risk while supporting biodiversity);

(g) Integration of local governments into national forest planning frameworks, including through zoning and public procurement;

(h) Use of supply chain tools, forest monitoring systems and geographic information systems;

(i) Scaling up restoration through programs that integrate community training and biodiversity protection.

33. Noting that not all of the following barriers or challenges are present in every national or regional context, and that the prioritisation of actions to be considered to overcome relevant barriers and challenges will vary in accordance with national circumstances, some barriers and challenges mentioned by participants include, inter alia:

(a) Insufficient recognition and institutional support for Indigenous Peoples and locally led forest governance, including lack of formal land rights, legal protections and direct access to climate finance;

(b) Uncertainty surrounding ownership of carbon credits on public lands and underdeveloped carbon market infrastructure needed to scale up results-based forest finance;

(c) The decline of forest carbon sinks despite forest cover expansion;

(d) Accelerated forest degradation and ecological stress due to climate-related impacts, including drought, disease and increased exposure to pest and disease risks;

(e) Limited technical capacity and lack of a comprehensive national forest inventory data, preventing robust international reporting and access to international finance mechanisms such as REDD+;

(f) Insufficient funding in developing countries, particularly at subnational levels;

(g) Limited social capital, lack of harmonization and coordination, and weak forest management planning and undervalued customary forest products;

(h) Low uptake of forest-based models in dryland and semi-arid regions, where water scarcity, degraded soils and limited incentives create challenges.

4. Benefits of synergies between forest-related climate action, biodiversity conservation and efforts to combat desertification

(a) Key observations from national and regional experiences

34. Many participants emphasized that forest restoration, as a nature-based solution, provides multiple benefits beyond carbon sequestration, including biodiversity, ecosystem services, water management, food security, climate resilience and support for local communities. Achieving these benefits between multiple objectives requires increasing synergies and addressing trade-offs such as balancing forest conservation and food production.

35. Participants suggested that an increasing number of countries are moving toward cross-sectoral policy frameworks that integrate climate, biodiversity and land management goals such as national forest fire prevention programmes in vulnerable ecosystems, integrated governance models encompassing forests, farmland, rivers, wetlands, grassland and deserts, native species planting and solar energy integration. However, participants highlighted that progress is often impeded by fragmented governance and misaligned finance due to weak incentives for landowners to engage in restoration efforts and inconsistent government support.

36. Participants shared examples of successful community-based programs across various countries, highlighting the importance of secure land tenure, financial support, technical capacity and inclusive governance in generating co-benefits across sustainable forest management, biodiversity conservation and resilient livelihoods. Several participants

highlighted that while local governments function as key implementation partners in supporting such initiatives, stronger political signals and better resource allocation are essential to maintaining progress.

37. Many participants emphasized the important role Indigenous Peoples and local communities play through traditional knowledge and practices in achieving environmental outcomes across three Rio Conventions.

38. Community-based initiatives by local institutions were consistently highlighted by participants as central to sustainable outcomes. Locally adapted approaches can yield globally relevant best practices such as reforestation efforts in mangrove and savanna ecosystems to provide co-benefits on biodiversity, shoreline protection and fisheries.

39. Participants stressed that worsening climate impacts, such as wildfires, droughts, floods and pest outbreaks are undermining forest resilience, increasing emissions and complicating restoration efforts. They underscored that these overlapping pressures highlight the need for greater and better forest finance, which currently remains insufficient and is often misaligned, with significant funding still directed toward activities that drive deforestation.

(b) Opportunities (including actionable solutions) and barriers

40. Noting that not all of the following opportunities are applicable to every national or regional context, that there is no single solution that fits all contexts, and that the prioritization of opportunities will vary in accordance with national circumstances, some opportunities mentioned by participants include, inter alia:

(a) Enhancement of policy coherence through intersectoral coordination, legislation, stakeholder empowerment and integration of forest-related policies with broader environmental and socioeconomic frameworks;

(b) Adaptive forest management by integrating climate projections with natural disturbance risk anticipation and socioeconomic factors such as co-benefits for local communities;

(c) Protection of old-growth forests and ecologically sensitive areas contributes to maintaining carbon storage and wildlife habitats;

(d) Technical tools for supporting local institutions such as forest restoration models tailored to local ecosystems;

(e) Innovative financial instruments, including blended finance and carbon market mechanisms, for mobilizing private sector capital and redirecting subsidies towards forest conservation and restoration;

(f) High-integrity carbon markets, including REDD+, and private biodiversity investment aligned with national carbon credit frameworks, which can generate large-scale finance for forest conservation, biodiversity protection and efforts to combat desertification;

(g) Certified forest management and woody biomass bioenergy for economic and environmental co-benefits;

(h) Forestry in urban system through afforestation and expansion of urban green spaces to mitigate heat stress and improve biodiversity, climate resilience, and local well-being;

(i) Participatory forest monitoring frameworks that integrate Indigenous Peoples and local community knowledge with advanced geospatial tools such as artificial intelligence enabled platforms to improve data quality, interoperability and traceability, particularly for smallholders;

(j) Community-based management models linking traditional land use with sustainable enterprise and tourism.

41. Noting that not all of the following barriers or challenges are present in every national or regional context, and that the prioritisation of actions to be considered to overcome

relevant barriers and challenges will vary in accordance with national circumstances, some barriers and challenges mentioned by participants include, inter alia:

(a) Competing land-use interests and limited economic incentives for landowners to protect forests;

(b) Fragmentation of efforts with limited coordination in addressing climate change, biodiversity and land restoration goals at the international and national level;

(c) Lack of inclusive partnerships and public participation in the decision-making process such as limited participation of Indigenous Peoples as well as insecure land tenure frameworks;

(d) Increasing climate-related risks, including ecosystem tipping points, wildfires, pest outbreaks, droughts, floods and desertification, which threaten forest health and resilience, are often not fully accounted for in carbon credits;

(e) Complexity of taking into account diverse regional contexts and social, political and ecological factors in policy design;

(f) Capacity constraints at the national and subnational level such as poor monitoring and evaluation systems for accurately measuring impacts and effectiveness, lack of understanding of forest degradation from industrial agriculture activities, and limited expertise of practitioners who were trained mainly in commercial forestry rather than restoration.

B. Approaches to enable means of implementation for actions and solutions in the forest sector, particularly to implement Article 5 of the Paris Agreement

1. Expanding Access to Forest Finance: Public and Private Options, including market and non-market approaches

(a) Key observations from national and regional experiences

42. Participants emphasized the importance of leveraging a diverse range of forest finance mechanisms tailored to national contexts and stakeholder needs while mobilizing resources from all sources, given that no one financial solution can fit all contexts or needs. Many participants further highlighted the importance of employing a "basket of solutions", including grants, concessional loans, blended finance, equity participation, results-based payments, biodiversity and forest resilience bonds, and payments for ecosystem services, among others.

43. Mobilizing both public and private finance was identified as an enabler of action in the forest sector. Participants discussed the importance of public policy signals, national investment platforms, multilateral funding mechanisms, and public-private partnerships in directing capital toward sustainable forest investment. Nonetheless, there was a shared view that the private sector continues to perceive forest-related investments as high-risk and low-return, underscoring the need for improved risk-sharing mechanisms, de-risking facilities and scaling blended finance, among other solutions.

44. Results-based finance approaches, particularly through REDD+ and Article 6 carbon markets, were widely recognized as a key tool for mobilizing predictable, performance-based funding for forest conservation and emissions reduction. However, several participants cautioned that forest-based carbon removals should complement – not replace – urgent mitigation actions in other sectors. Several participants underlined the need for mechanisms that also support high forest cover, low-deforestation countries, which face unique barriers in demonstrating additionality.

45. Several participants highlighted constraints, especially in developing countries, including high MRV costs, limited readiness, low financial literacy in rural areas and insufficient technical capacity to design, manage and report on forest-related projects. Participants also raised the complexity and fragmentation of climate finance architecture and

called for simplified procedures and enhanced direct access mechanisms. Multiple interventions underscored the need for capacity-building at the local and institutional levels, particularly for small-scale actors, national entities and project developers, and for the provision of technical assistance for project design as key tools for helping to enhance absorptive capacity and ensure long-term sustainability.

46. Participants discussed the role of enabling environments in forest finance, including regulatory clarity, cross-sectoral coordination, and alignment with broader sustainable development goals. Public sector leadership was seen as key to de-risking investments and crowding in private finance through blended finance structures and concessional lending. Participants further stressed the importance of transparency, standardization, community-benefit sharing and environmental and social safeguards in ensuring the credibility and impact of financing flows.

47. Participants also noted the importance of direct access finance models for Indigenous Peoples and local communities, including funds led by them and flexible, long-term support. It was stressed that enhancing their access to finance should be accompanied by secure land tenure, participatory safeguards and recognition of their rights and governance systems.

48. International cooperation—through multilateral funds, bilateral partnerships, and institutional platforms, global initiatives, among others —was acknowledged as vital for knowledge exchange, capacity-building, supporting project aggregation, aligning financing efforts across the conventions, technical assistance, enhancing access to finance and scaling successful models across regions, especially for developing countries.

(b) Opportunities (including actionable solutions) and barriers

49. Noting that not all of the following opportunities are applicable to every national or regional context, that there is no single solution that fits all contexts, and that the prioritization of opportunities will vary in accordance with national circumstances, some opportunities mentioned by participants include, inter alia:

(a) Expanding the use of and identifying new innovative financial instruments, such as carbon markets, results-based payments, biodiversity bonds, green and blue bonds and debt-for-nature swaps to scale up forest investment and leverage synergies;

(b) Expanding opportunities for payments for environmental and ecosystem services, including through frameworks like REDD+ and national conservation funds and funds focused on biodiversity and forests;

(c) Enhancing the effectiveness of financial instruments through de-risking tools such as risk sharing mechanisms, concessional finance, blended finance facilities and guarantee schemes to crowd in private capital and reduce perceived investment risks in forest landscapes, including through public–private partnerships and scaling sustainable land-use model projects;

(d) Enhancing institutional platforms to support project aggregation so as to enable finance access and technical assistance for even smaller projects;

(e) Advancing high-integrity carbon markets with credible standards and MRV systems, improved price formation mechanisms, and ensuring environmental and social safeguards aligned with Articles 5 and 6 of the Paris Agreement, and integrating REDD+ and nature-based solutions;

(f) Supporting high forest cover, low-deforestation countries through tailored instruments, such as dedicated funding windows or revised additionality criteria to address their unique challenges;

(g) Improved tracking and transparency of forest finance;

(h) Increasing public sector leadership through national and international funding tools, forest investment platforms and integrated approaches to land use and food systems while engaging all levels of government;

(i) Strengthening enabling environments through supportive policy frameworks, regulatory reforms, institutional coordination and harmonized safeguards that facilitate transparent, inclusive and accountable financial governance across stakeholders;

(j) Integrating forest finance into national planning at all levels through country packages, climate impact tools and alignment with broader development agendas and mitigation and biodiversity goals;

(k) Investing in capacity-building, technical assistance, and institutional support for subnational governments, Indigenous Peoples and local communities, local project developers and national entities to improve project pipelines, readiness, fiduciary standards, MRV systems and benefit-sharing protocols.

50. Noting that not all of the following barriers or challenges are present in every national or regional context, and that the prioritisation of actions to be considered to overcome relevant barriers and challenges will vary in accordance with national circumstances, some barriers and challenges mentioned by participants include, inter alia:

(a) Regulatory and policy fragmentation, including insufficient harmonization between forest, land use and finance policies; complex approval processes; and limited enabling frameworks for attracting long-term investment in forest conservation;

(b) Financial access constraints, including lack of financial support from developed countries to developing countries for forest-related projects, limited availability of concessional or patient capital, inadequate funding flows to Indigenous Peoples and local communities, challenges high forest cover, low-deforestation countries face in accessing finance, underfunding of forest-related institutions, projects and technologies, and a mismatch between available financial products and the long-term investment needs of forest producers;

(c) Perceived or real risks deterring private investment, including insufficient de-risking mechanisms, low profitability of forest projects, uncertainty in carbon markets, and absence of clear benefit-sharing frameworks that ensure equity and trust;

(d) Technical and capacity-related challenges, such as lack of MRV infrastructure, weak data infrastructure for carbon accounting and emissions verification, and inadequate technical expertise at national and local levels;

(e) Limitations in the design and reach of current financial mechanisms, including rigid eligibility criteria, lack of flexibility for small-scale projects, and inadequate tailoring of finance to local contexts;

(f) Structural barriers to access for Indigenous Peoples and local communities, including legal and administrative constraints, limited recognition of land rights, and banking and regulatory systems that are not adapted to community-based access models;

(g) Governance and transparency issues in existing financing instruments, including inconsistent application of safeguards, lack of free, prior and informed consent from Indigenous Peoples and local communities, weak oversight of benefit sharing, and limited clarity on performance metrics for results-based payments;

(h) Imperfect trading mechanisms, low carbon prices and fragmented carbon credit markets, which reduce incentives for forest protection in low-emission countries and hinder viability of sustainable forest finance models.

2. Enabling Policy Environments for Implementation

(a) Key observations from national and regional experiences

51. Several participants emphasized the importance of governance and coherent, stable, and well-defined legal, regulatory and institutional frameworks as a foundation for implementing forest commitments and ensuring regulatory predictability, transparency and inclusiveness.

52. Clear and stable legal, regulatory and institutional frameworks were also described as contributing to reducing investment risk and sending market signals that can attract private

and international finance. Examples include comprehensive forestry standards combining legal obligations with best practice guidelines across multiple areas, including biodiversity and climate. Others noted the value of involving multiple ministries and sectors to ensure policy coherence across the sector and establishing multilevel governance mandates

53. National climate strategies and plans were recognized by many as important for guiding public and private sector action in the forest sector, including facilitating the integration of forest initiatives with broader climate action. Several participants highlighted that forest-related components in their countries' respective NDCs can be regulatory anchors linked to national priorities and provide long-term direction for mitigation and adaptation planning.

54. Strategic long-term planning was cited by many as a key component of enabling environments. Some participants described national strategies – such as REDD+ and sectoral and economy-wide transition road maps – as instruments that can align sectoral investment with climate objectives.

55. The need for integrated planning and multi and cross-sectoral coordination was consistently highlighted as a key enabler of attracting investment in the forest sector and ensuring sustainability. Participants underscored the importance of aligning policies across sectors such as forestry, agriculture, water and coastal management, among others. The linking of forestry initiatives to resilience, biodiversity and rural development and socioeconomic objectives was also highlighted. References were made to interministerial planning structures, multilevel governance arrangements and the adoption of systems-based approaches considering climate, environmental and socioeconomic objectives. Some participants highlighted the need for improved institutional coordination among ministries and government agencies to facilitate the implementation of forest policies.

56. Reliable MRV systems were identified by many as key to supporting transparency, tracking forest carbon stock and ensuring accountability. Several participants highlighted the value of national inventories and MRV systems for informing policy making and action. At the same time, some noted persistent data and transparency challenges that could limit effective implementation and access to finance.

(a) Opportunities (including actionable solutions) and barriers

57. Noting that not all of the following opportunities are applicable to every national or regional context, that there is no single solution that fits all contexts, and that the prioritization of opportunities will vary in accordance with national circumstances, some opportunities mentioned by participants include, inter alia:

(a) Promoting whole-of-society approaches and inclusive governance models that can align the local, regional and national level and involve all stakeholders, Indigenous Peoples and local communities, through collaboration, engagement and empowerment, and can contribute to creating enabling policy environments for sustainable management of forests and for forest investments;

(b) Regional collaboration and hubs were noted as important vehicles for technical exchange, capacity-building, sharing of learnings and coordinating forest policies across regions;

(c) Secure land and forest tenure and clearly defined property rights, which are important for enabling conservation, sustainable land use and attracting investment;

(d) Protected areas as vital components of forest conservation strategies and the creation of enabling environments. Examples include national ecological zoning systems and protected area networks that preserve biodiversity, maintain ecosystem services and mitigate climate impacts. Protected areas could also contribute to creating legal and environmental safeguards, support ecosystem services, resource management and carbon sequestration projects, and create opportunities for sustainable, community-based enterprise;

(e) Various financial mechanisms that have proven effective in channelling investment towards sustainable forestry, including public trust funds governed at a country/federal level with technical support benefitting from multi-stakeholder expertise to ensure accountability, cost-sharing arrangements between national governments and local stakeholders, and international finance partnerships such as REDD+ and related programmes;

(f) Voluntary certification schemes for sustainable management and sustainable finance taxonomies, which are effective tools for promoting transparency and attracting environmentally aligned investment. Experiences were shared in developing taxonomies to define sustainable activities and direct finance to low-carbon sectors, including forestry;

(g) Adopting a systems approach to mitigation, by leveraging various co-benefits, such as by promoting wood construction to integrate carbon storage and material substitution benefits and supporting the use of long-lived wood products in place of more emission-intensive materials;

58. Noting that not all of the following barriers or challenges are present in every national or regional context, and that the prioritisation of actions to be considered to overcome relevant barriers and challenges will vary in accordance with national circumstances, some barriers and challenges mentioned by participants include, inter alia:

(a) The lack of predictability and long-term commitments in international climate finance, hindering the development of enabling environments and the implementation of NDCs. In particular, uncertainty in climate finance flows can hinder the ability of developing countries to design and implement long-term policy frameworks;

(b) Institutional silos between sectors and between mitigation and adaptation agendas obstructing effective cross-sectoral coordination and integrated land management, limiting the coherence of forest-sector interventions;

(c) Limited institutional capacity and data gaps, which are persistent obstacles to operationalizing forest policies and monitoring systems, especially in developing countries.

3. Role of Indigenous Peoples and local communities’ forest stewardship

(a) Key observations from national and regional experiences

59. Several participants underscored the profound and multidimensional value of forests for Indigenous Peoples and local communities, highlighting that forests represent not only an environmental asset but also a source of identity, culture, spirituality and survival.

60. Indigenous Peoples and local communities collectively manage large areas of titled land worldwide, steward key data on forest areas and play a critical role in the governance and protection of forests. Participants recognized their role as effective front-line stewards of forests and biodiversity. It was noted that - territories managed by Indigenous Peoples and local communities frequently coincide with areas of high carbon storage and ecological value, and that their contributions are essential to achieving global climate and biodiversity goals.

61. Several participants highlighted the importance of recognizing Indigenous Peoples as rights holders rather than simply as knowledge holders. It was suggested that the customary governance systems and community protocols of Indigenous Peoples and local communities be meaningfully reflected in forest planning and policy processes, including monitoring and implementation arrangements.

62. Participants emphasized the importance of moving from consultative to co-governance models in forest-related policy and decision-making and implementation. Effective forest governance frameworks were said to require the full embedding of customary laws, community protocols and traditional governance systems, with Indigenous Peoples and local communities shaping priorities, co-designing solutions and participating in implementation and monitoring processes.

63. Participants referred to existing institutional mechanisms designed to enhance participation of Indigenous Peoples and local communities, including national programmes, dedicated platforms and advisory bodies. These were seen as supporting more consistent engagement of Indigenous Peoples and local communities in decision-making processes related to climate governance.

64. Participants noted that Indigenous Peoples and local communities receive only a fraction of funding for climate and biodiversity protection, with most of it channelled through intermediaries. They highlighted the need for direct, flexible and long-term funding mechanisms that reinforce Indigenous self-determination and institutional capacity. Several participants stressed that forest protection initiatives must benefit local communities. Capacity-building at the local level was also described by many as very complementary to financial access.

(b) Opportunities (including actionable solutions) and barriers

65. Noting that not all of the following opportunities are applicable to every national or regional context, that there is no single solution that fits all contexts, and that the prioritization of opportunities will vary in accordance with national circumstances, some opportunities mentioned by participants include, inter alia:

(a) Application of the principle of free, prior and informed consent in the design and implementation of forest-related policies and initiatives;

(b) Improvement of land tenure security and legal recognition of the rights of Indigenous Peoples and local communities to enable meaningful participation in public programmes and investment opportunities;

(c) Adoption of participatory and co-designed approaches to forest policy development, which engage Indigenous Peoples and local communities from the outset and ensure Indigenous priorities and values are reflected across the planning, implementation and evaluation phases;

(d) Leveraging existing and creating structured platforms for engagement of Indigenous Peoples and local communities within and outside the UNFCCC process to provide a consistent space for dialogue and coordination;

(e) Designing inclusive strategies that promote the participation of women, youth, and marginalized groups in forest-related sectors;

(f) Establishing knowledge exchange platforms to connect knowledge holders with technical stakeholders and policymakers;

(g) Institutionalizing knowledge co-production through dedicated bodies, such as advisory councils or national knowledge platforms, to support integrating Indigenous and scientific knowledge and facilitate the reflection of Indigenous knowledge, data and observation in the development and implementation of national climate and forest-related policies and programmes;

(h) Integrating Indigenous knowledge into curricula to support long-term understanding and respect;

(i) Facilitating direct access to long-term, flexible and culturally appropriate financing for organizations of Indigenous Peoples and local communities and efforts to support locally led implementation of forest-related mitigation action and reduce reliance on intermediaries;

(j) Strengthening institutional and technical capacity of Indigenous Peoples and local communities to support their effective engagement in forest governance processes, including through training in forest monitoring, technical skills development and institutional participation;

(k) Promoting international cooperation and dialogue to support leadership of Indigenous Peoples and local communities and facilitate the replication and scaling of effective forest governance models.

66. Noting that not all of the following barriers or challenges are present in every national or regional context, and that the prioritisation of actions to be considered to overcome relevant barriers and challenges will vary in accordance with national circumstances, some barriers and challenges mentioned by participants include, inter alia:

(a) Absence of secure land tenure and legal recognition continues to limit the participation of Indigenous Peoples and local communities in forest governance processes and their access to public support mechanisms and finance. This constraint disproportionately affects marginalized groups, including women and youth;

(b) Limited direct access to climate and forest-sector finance for organizations of Indigenous Peoples and local communities, with funding frequently channelled through intermediaries rather than directly to Indigenous-led initiatives, resulting in the underfunding of community-led actions;

(c) Institutional barriers to effective Indigenous participation in policymaking processes compounded by complex processes for engagement, as well as gaps in communication, infrastructure and administrative capacity between organizations and government institutions;

(d) Institutional and procedural misalignment, including eligibility and reporting requirements that may conflict with the governance systems of Indigenous Peoples and local communities;

(e) Consultative or symbolic models of engagement that do not result in structural inclusion of perspectives and knowledge of Indigenous Peoples and local communities in forest-related policy frameworks and decision-making processes;

(f) Limited inclusion of Indigenous Peoples and local community-defined indicators and the cultural and spiritual values of Indigenous communities within national and international forest monitoring systems, underscoring the need to incorporate metrics that reflect aspects such as cultural continuity, knowledge transmission and community well-being into these systems;

(g) Persistent challenges in preserving and transmitting traditional ecological knowledge as well as in coordination and exchange between traditional and scientific knowledge systems, which continues to impede the development of more inclusive and effective forest related policies.

4. Data, technology, or capacity-building efforts to unlock mitigation potential

(a) Key observations from national and regional experiences

67. Several participants highlighted the critical role of accurate, timely and granular forest data in supporting effective land-use management, climate policy and sustainable forest governance. It was emphasized that such data underpins decision-making and can enable national, regional and local authorities to plan and implement mitigation interventions with greater precision and confidence. Robust and sovereign data systems were also viewed as important for tracking emission reductions and enabling access to results-based finance.

68. The development and implementation of national MRV systems were seen as an important aspect for ensuring transparency, consistency and credibility in forest sector mitigation efforts. Participants underscored the use of a wide range of digital tools to support MRV, including real-time satellite tracking, drones, Artificial Intelligence-assisted land classification, and early warning systems. These technologies were reported to enhance enforcement, track illegal activities and improve the integrity of forest-based carbon accounting.

69. Many participants emphasized the integration of forest data and monitoring systems into national climate policy frameworks, including NDCs and REDD+ programmes. These systems were reported to inform sectoral targets and policies and measures, as applicable, support emissions inventories and serve as the basis for carbon crediting mechanisms. In some cases, forest sector data directly contributed to national reporting under international frameworks, reinforcing climate ambition and implementation.

70. Capacity-building was consistently emphasized as a foundational element for sustainable forest sector mitigation. Some participants described significant investments in training forest rangers, technical officers, geographic information system experts and young researchers, as well as the development of professional pathways in forest monitoring. Others

underscored persistent human resource constraints, particularly with respect to limited institutional staffing and technical coverage. Calls were made for long-term partnerships, engaging local stakeholders when building capacity, regional training hubs and the strengthening of knowledge systems.

71. The importance of open data and public engagement was highlighted by several participants, who shared examples of forest data systems that were accessible to various stakeholders, including transport, tourism and community actors. These systems were seen as enhancing transparency and facilitating targeted outreach. Community-accessible tools were also noted for their role in enabling participatory enforcement, benefit-sharing and rights-based governance.

72. Forests were recognized as providers of critical ecosystem services, including carbon sequestration, biodiversity conservation and climate regulation. Some participants highlighted the strategic value of forests in contributing to national and global climate stability, noting examples of countries acting as net carbon sinks. Restoration and protection efforts were also discussed as key strategies, enabled by strong data and technical capacity.

(b) Opportunities (including actionable solutions) and barriers

73. Noting that not all of the following opportunities are applicable to every national or regional context, that there is no single solution that fits all contexts, and that the prioritization of opportunities will vary in accordance with national circumstances, some opportunities mentioned by participants include, inter alia:

(a) Leveraging advanced technologies such as satellite monitoring, Artificial Intelligence-assisted analysis, real-time tracking and multispectral drones to improve forest cover monitoring, early warning systems, illegal logging detection and ecosystem restoration planning;

(b) Developing and using site-specific methodologies, robust MRV systems to improve accuracy and reliability of data and estimates, which can contribute to unlocking financing for the forest sector, including through REDD+ and Article 6 frameworks;

(c) Advancing inclusive and locally adapted tools and monitoring approaches that reflect Indigenous knowledge systems and provide meaningful avenues for community engagement and governance;

(d) Promoting open access to forest data and enabling digital platforms to enhance local engagement, institutional decision-making and coordination between levels of governments;

(e) Strengthening institutional and human capacity through targeted training programmes, integration into academic curricula, and development of regional training hubs to ensure long-term knowledge retention and system maintenance;

(f) Creating financial models and innovative financing mechanisms to incentivize forest-based mitigation efforts, including public trust funds, cost-sharing schemes and green or blue bonds that align with climate and conservation priorities.

74. Noting that not all of the following barriers or challenges are present in every national or regional context, and that the prioritisation of actions to be considered to overcome relevant barriers and challenges will vary in accordance with national circumstances, some barriers and challenges mentioned by participants include, inter alia:

(a) High cost associated with establishing and maintaining national forest monitoring systems, particularly for high-resolution technologies such as Light Detection and Ranging and satellite platforms;

(b) Lack of consistent, long-term finance support for developing countries for foundational aspects such as data collection, MRV technologies and capacity-building, which are often treated as overheads rather than core mitigation infrastructure;

(c) The accuracy and usability of freely available satellite data remain limited, especially for diverse geographic contexts and challenges in scaling or replicating such models owing to a lack of region-specific data models;

(d) Lack of interoperability between data systems and abundance of different MRV systems can create inefficiencies, complexity and cost burdens;

(e) Institutional capacity constraints, including shortages of trained technical personnel, fragmented mandates and limited human resources, on effectively generating, verifying and using data;

(f) Gaps in data coverage and outdated inventories, particularly in smaller countries, which prevent the setting of more ambitious goals or meaningful engagement in international mechanisms such as Article 6;

(g) Inadequate recognition of Indigenous knowledge systems, limited safeguards for data sovereignty and insufficient resourcing for community-driven monitoring efforts.

III. Summary of the fifth investment-focused event

A. Discussions

75. Participants emphasized forests' critical role as carbon sinks and the urgent need to close the large finance gap in the AFOLU sector. Despite growing interest in nature-based solutions and nature technology, barriers such as limited private investment, policy uncertainty, land tenure issues and market volatility persist.

76. The regional case study session identified investment opportunities and solutions for unlocking financing for mitigation in the forest sector, which is crucial for achieving the goals of the Paris Agreement. The experts highlighted the importance of multi-sectoral coordination, community engagement and the elimination of deforestation incentives. The discussions echoed the urgency of addressing the significant finance gap in the forest and land-use sector, where finance flows fall far short of what is required to meet climate goals. The declining carbon sink capacity of forests, due in part to commodity-driven deforestation, was noted as a major concern. Despite persistent challenges, such as the need to strengthen capacities for structuring bankable projects and the difficulty of directly transferring funds to local communities, these initiatives demonstrate pathways for effective and sustainable financing in the forest sector. The growing momentum for nature-based solutions, private sector engagement and 'nature tech' innovations such as Artificial Intelligence, blockchain and remote sensing were also highlighted as emerging enablers.

77. Participants shared various carbon pricing strategies and market instruments, including the implementation of carbon pricing under Paris Agreement Articles 6.2 and 6.4, bilateral mechanisms such as national crediting and offset schemes, including the Australian Carbon Credit Units scheme, Japan's domestic J-Credit scheme and Costa Rica's carbon tax and early engagement with emission reduction payments and market sales. While these mechanisms offer opportunities, market and price volatility in developing carbon markets was highlighted as a key revenue risk factor.

78. Participants further highlighted national approaches to mobilizing and managing climate finance through dedicated funding mechanisms with institutionalized governance structures. Emphasis was placed on aligning fund governance with safeguards to protect local communities and Indigenous Peoples, ensuring consensus-based decision-making, transparency and accountability.

79. Participants highlighted various governance models for forest-related investments, including centralized government-managed funds combining international and domestic revenue with institutional safeguards to protect Indigenous Peoples and local communities; multi-stakeholder consensus-based steering committees involving representatives from various government levels and civil society, including Indigenous Peoples; decentralized systems where responsibilities and financing are divided across national, regional and local authorities, including direct funding to Indigenous Peoples organizations managing

traditional lands; and community-focused payment-for-environmental-services programmes featuring inclusive governance schemes that actively involve Indigenous Peoples and rural communities, including those without formal land tenure, and requiring collective environmental planning to ensure equitable benefit sharing.

80. Attention to aligning climate finance with broader development goals is increasing. Many participants highlighted integrated strategies in land and forest management being used to address issues such as livelihoods, food and water security and resource sustainability. This reflects a shift towards viewing forests not only as environmental assets but also as part of a broader development framework.

1. Opportunities (including actionable solutions) and barriers

81. Noting that not all of the following opportunities are applicable to every national or regional context, that there is no single solution that fits all contexts, and that the prioritization of opportunities will vary in accordance with national circumstances, some opportunities mentioned by participants and showcased in the regional case studies include, inter alia:

(a) Leveraging blended finance through a variety of financial instruments including grants, loans, venture capital, guarantees and equity investments, which can de-risk investments in the forest sector;

(b) Combining diverse financing mechanisms such as taxes, results-based payments for verified emission reductions and carbon credit support, which helps to mobilize the significant resources needed for forest-related mitigation efforts;

(c) Investing in robust MRV systems and ensuring data transparency are foundational enablers for building trust and enabling access to finance and markets, including through developing national terrestrial carbon sink assessments, providing online monitoring tools and using nature tech for enhanced transparency and efficiency and impact measurement;

(d) Enabling inclusive community engagement by establishing governance structures that ensure the participation and leadership of Indigenous Peoples and local communities in designing and implementing actions, including by providing direct finance to local entities and supporting Indigenous land management initiatives, supports effective climate mitigation and generates valuable ecological, social and economic co-benefits;

(e) Expanding carbon market through high-integrity frameworks supported by enhanced readiness and mutual recognition, including through implementation of Article 6 and mutual recognition agreements with international standards, which can strengthen corporate engagement in forest management;

(f) Using national funds as key institutional mechanisms for overcoming funding gaps, managing diverse finance streams and implementing national strategies that can support local actions and scale up successful approaches.

82. Noting that not all of the following barriers or challenges are present in every national or regional context, and that the prioritisation of actions to be considered to overcome relevant barriers and challenges will vary in accordance with national circumstances, some barriers and challenges mentioned by participants and showcased in the regional case studies include, inter alia:

(a) Unpredictable and shifting policies or frequent changes in policies related to the forest sector, undermining investment confidence;

(b) Complex social and environmental safeguard requirements, which, while needed for equitable benefits and avoiding negative impacts on local communities, may burden projects with costs and complexity, which can deter certain investors;

(c) Limited technical and financial capacity to structure bankable forest projects or tailor them to the requirements of complex financial mechanisms;

(d) Structuring and standardizing blended finance;

(e) Market and price volatility in developing forest carbon markets creating revenue risk and thereby deterring investment;

(f) Difficulty in measuring mitigation co-benefits from adaptation projects due to a lack of accessible methodologies;

(g) Unclear land rights and tenure disputes and insecurity, which remain a project risk particularly where there is legal uncertainty in multiple contexts;

(h) Inadequate MRV systems and data transparency that reduce trust and credibility;

(i) High transaction costs and scale limitations for small-scale projects, which deter private sector interest, with models for aggregation and standardization still not sufficiently developed;

(j) Mobilizing sufficient international and domestic finance through traditional means;

(k) Difficulties delivering finance to communities without transferring risk;

(l) Environmental crime undermining land-use efforts.

Annex

Proceedings of the fifth global dialogue and investment-focused event under the Sharm el-Sheikh mitigation ambition and implementation work programme

1. The fifth global dialogue under the Sharm el-Sheikh mitigation ambition and implementation work programme took place in Panama City on 19–20 May 2025, in hybrid format, with 173 registered in-person and 180 registered virtual participants.

2. As per decision 4/CMA.4, paragraph 13, and considering the submissions received, the co-chairs decided and communicated that the fifth global dialogue was to focus on enabling mitigation solutions in the forest sector, drawing on national and regional experience.[9]

3. During the dialogue participants discussed two key areas within this focus:

(a) First area of discussion: best practices and solutions to address challenges and barriers to mitigation action in the forest sector, particularly to implement Article 5 of the Paris Agreement; and

(b) Second area of discussion: approaches to enable means of implementation for actions and solutions in the forest sector, particularly to implement Article 5 of the Paris Agreement.

4. The first area of discussion addressed four sub-topics:

(a) Efforts to halt and reverse deforestation and forest degradation by addressing underlying drivers of forest loss;

(b) Sustainable management of forests, including implementation of sustainable agroforestry approaches and utilization of sustainable forest products;

(c) Enhancing forest carbon, including through afforestation/reforestation and restoration;

(d) Benefits of synergies between forest-related climate action, biodiversity conservation, and efforts to combat desertification.

5. The second area of discussion included four sub-topics:

(a) Expanding access to forest finance: public and private options, including market and non-market approaches;

(b) Enabling policy environments for implementation;

(c) Role of Indigenous Peoples and local communities’ forest stewardship;

(d) Data, technology, or capacity-building efforts to unlock mitigation potential.

6. The dialogue was followed by an investment-focused event, on 20 May 2025, in hybrid format.

7. Welcome remarks were provided by Elchin Allahverdiyev, representing the COP 29 Presidency, and Ambassador Liliam Beatris Chagas de Moura, representing the incoming COP 30 Presidency, followed by an introduction to the fifth global dialogue and investment-focused event by the co-chairs of the Sharm el-Sheikh mitigation ambition and implementation work programme.

[9] https://unfccc.int/documents/645941.

8. The opening session was followed by a scene-setting session, consisting of presentations and panel discussions on the two areas of discussion. The scene-setting presentations on the first area of discussion were delivered by Jose Carlos Fernandez Ugalde of the Food and Agriculture Organization and Fabiola Ramirez Hernandez from Mexico's National Institute of Ecology and Climate Change, representing the Intergovernmental Panel on Climate Change. These presentations provided an overview of the state of global forests, highlighting both advances and ongoing challenges in conservation and restoration efforts as well as best practices in and solutions to overcoming barriers in forest sector mitigation.

9. The scene-setting presentations were followed by a panel discussion on the first area of discussion. The panel discussion was moderated by Mark Moroge, Vice-President for Forests at the Environmental Defense Fund. Panellists included Ane Alencar, Science Director at the Amazon Environmental Research Institute, Valérie Merckx, Head of Unit, International Partnerships Facility at the European Forest Institute (virtual), Pablo Pacheco, Global Forest Lead Scientist at WWF (virtual), Muralee Thummarukudy, Director of the G20 Global Initiative on Land (virtual), and Jose Carlos Fernandez Ugalde, Senior Expert on REDD+ Policy and Economics at the Food and Agriculture Organization.

10. The scene-setting presentations on the second area of discussion were delivered by Joana Chiavari of the Climate Policy Initiative, who presented on approaches to enable means of implementation, and Juan Carlos Jintiach, Executive Secretary of the Global Alliance of Territorial Communities, who presented on the vital role Indigenous Peoples and local communities in forest stewardship and climate action.

11. The scene-setting presentations were followed by a panel discussion on the second area of discussion moderated by Erwin De Nys, Environment Manager of the Latin America and Caribbean Region for the World Bank. The panel included Roselyn Fosuah Adjei, Director of the Climate Change Directorate at the Forestry Commission of Ghana (virtual), Grace Balawag, member of the Facilitative Working Group representing the United Nations Indigenous sociocultural region of Asia, Hishmi Jamil Husain, Lead Strategy Market and Analyst at Saudi ARAMCO (virtual), Beria Leimona, Theme Leader for Climate Change, Energy, and Low Carbon Development at CIFOR-ICRAF (virtual), and Camila Rodriguez, Leader of Nature-based Solutions for Mitigation at TNC Colombia.

12. Following the scene-setting presentations and panel discussions on both areas of discussion, four breakout group sessions were held on the first area of discussion with the theme of each breakout group drawn from the sub-topics under the area of discussion. These sessions built upon the themes and issues highlighted in the scene-setting presentations and panel discussions, providing participants with the opportunity to share best practices and solutions with a view to exploring key aspects of mitigation action in the forest sector.

13. Each breakout session was facilitated by one of the co-chairs of the work programme. The breakout sessions were organized in two consecutive rounds, with two groups convening in parallel during each round, allowing participants to select the group they wished to join. Each breakout session concentrated on a distinct thematic area drawn from the preceding discussions.

14. The breakout session on efforts to halt deforestation and forest degradation by addressing underlying drivers of forest loss was facilitated by Angela Churie Kallhauge. Ronny Henry Tarira Alban (Ecuador) and Karine Hertzberg (Norway) provided an icebreaker intervention. The guiding question was: what are the best practices and actionable solutions in your country or region addressing the underlying drivers of forest loss?

15. The breakout session on sustainable management of forests, including implementation of sustainable agroforestry approaches and utilization of sustainable forest products, was facilitated by Xiang Gao and Rafaela Flach (SEI), and Marco Tulio Cabral (Brazil) provided

the icebreaker intervention. The guiding question was: what are the best practices and actionable solutions in your country or region for the sustainable management of forests?

16. The breakout session on enhancing forest carbon, including through afforestation/reforestation and restoration, was facilitated by Angela Churie Kallhauge. The guiding question was: what are the best practices and actionable solutions in your country or region driving afforestation/reforestation and forest restoration?

17. The breakout session on benefits of synergies between forest-related climate action, biodiversity conservation, and efforts to combat desertification was facilitated by Xiang Gao, and Judith Walcott (UNEP) provided the icebreaker intervention. The guiding question was: what are best practices and actionable solutions in your country or region related to forests that have successfully delivered multiple benefits for climate, biodiversity, and efforts to combat desertification?

18. The co-chairs of the work programme opened the second day with a report on the previous day's discussions in the breakout sessions under the first area of discussion and gave participants the opportunity to provide additional input.

19. Following the report, the breakout sessions on the second area of discussion took place with the theme of each breakout group drawn from the sub-topics under the area of discussion. These sessions built upon the themes and issues highlighted in the first day's scene-setting presentations and panel discussions on approaches to enabling means of implementation for actions and solutions in the forest sector, providing participants an opportunity to contribute to the discussion on that area.

20. Each breakout session was facilitated by one of the co-chairs of the work programme. The breakout sessions were organized in two consecutive rounds, with two groups convening in parallel during each round, allowing participants to select the group they wished to join. Each breakout session concentrated on a distinct thematic area drawn from the preceding discussions.

21. The breakout session on expanding access to forest finance: public and private options, including market and non-market approaches was facilitated by Angela Churie Kallhauge and Sandra Guzman (GFLAC). Rebeca Lima (GFANZ), and Sergio A. Bowles Chavez (Bolivia) provided the icebreaker interventions. The guiding questions were: what financing models or approaches have effectively supported forest-sector implementation in your context? And what challenges exist in accessing public and private finance for climate action in the forest sector?

22. The breakout session on enabling policy environments for implementation was facilitated by Xiang Gao, and Mandy Barnett (SANBI) provided the icebreaker intervention. The guiding question was: what policy or regulatory approaches have been helpful in your country or region to create enabling environments for forest-sector investment and action?

23. The breakout session on the role of Indigenous Peoples and local communities' forest stewardship was facilitated by Angela Churie Kallhauge. Taksey Dobon, member of the Facilitative Working Group of the Local Communities and Indigenous Peoples Platform, provided the icebreaker intervention. The guiding question was: from your experience, how can implementation frameworks reflect and incorporate diverse cultural values and knowledge systems into the collective stewardship of forests?

24. The breakout session on data, technology or capacity-building efforts to unlock mitigation potential was facilitated by Gao Xiang. Adrian Flores Aguilar (NDC Partnership), Aditya Perdana Putra (Indonesia) and Juliana Salles Almeida (IDB) provided the icebreaker interventions. The guiding question was: from your experience, what role have data, technology, or capacity-building efforts played—and what role can they play—in unlocking mitigation potential in the forest sector?

25. At the conclusion of the breakout sessions on the second day, the co-chairs of the work programme reported back on the discussions that took place in the breakout groups under the second area of discussion and gave participants the opportunity to provide additional input. Following this closing session, the co-chairs opened the investment-focused event.

26. The investment-focused event featured a scene-setting presentation by Cayetano Casado of the Green Climate Fund Secretariat, who provided institutional perspectives on the forest investment ecosystem. This was followed by a regional case studies session showcasing practical examples of mitigation actions in the forest sector implemented through collaborative efforts between financial institutions and countries. Each case study was jointly presented by representatives of financial institutions and their country partners, offering diverse regional perspectives. The presentations illustrated innovative investment approaches, enabling policy frameworks and key lessons learned in advancing mitigation action in the forest sector, particularly in the context of implementing Article 5 of the Paris Agreement. The following presenters presented the regional case studies from their regions:

(a) Joko Tri Haryanto, CEO of Indonesia Environment Fund (IEF) (virtual) and Clea Paz-Rivera, Global Advisor-Climate and Forests, United Nations Development Programme

(b) Itchell Guiney, Deputy Director, Department of Forestry, Fisheries and the Environment, South Africa, and Mandy Barnett, Chief Director, Adaptation Policy and Resourcing, SANBI

(c) Joan Frederick Baudet Ferreira França, Climate Finance Advisor, Ministry of Foreign Affairs of Brazil, and Fernanda Garavini, Head of the Amazon Fund Department, Brazilian Development Bank (BNDES)

(d) Giovanna Valverde-Stark, Minister Counselor, Special Climate Change Advisor, Ministry of Foreign Affairs of Costa Rica, and Erwin De Nys, Environment Manager of the Latin America and Caribbean Region for the World Bank

(e) Mia Ryan, Assistant Director and UNFCCC mitigation lead, Multilateral Negotiations and Strategy Section, Australian Department of Climate Change, Energy, the Environment and Water

(f) Toshimasa Masuyama, Team lead, Forest and Climate, Forestry Agency, Japan.