

G20 Chair's Summary Joint Environment and Climate Ministers' Meeting August 31, 2022



The G20 Joint Environment and Climate Ministerial Meeting (JECMM) took place in Bali on 31 August 2022 and was chaired by the Minister of Environment and Forestry of Indonesia, Prof. Dr. Siti Nurbaya Bakar.

The meeting was convened in a hybrid manner where a number of Ministers were present physically and some virtually.

During the meeting, Ministers discussed and supported the priority issues of the Indonesian G20 Presidency at the Environment Deputies Meeting and Climate Sustainability Working Group, namely i) Supporting more sustainable recovery, (ii) Enhancing land and sea-based actions to support environment protection and climate objectives, and (iii) Enhancing resource mobilization to support environment protection and climate objectives. The Indonesia's presidency also uses the outcomes of several important studies it commissioned to inform the JECMM discussion.

PART I

We are meeting against the backdrop of a fragile and uncertain global socioeconomic outlook, amid the ongoing coronavirus disease (Covid-19) pandemic, the climate, environment, and biodiversity crises, as well as conflicts and rising geopolitical tensions with widespread effects on people, planet, prosperity and peace.

We are gravely concerned, in this regard, by the increased and ongoing conflicts in many parts of the world, including the one in Ukraine. Some members condemn Russia in this regard, while some members view that Environment Deputies Meeting and Climate Sustainability Working Group are not the proper forum to discuss geopolitical issues. Members have called for peace, cessation of hostilities and an end to war. We underline that the continuation of the on-going situation will have adverse impacts on food and energy security, climate change and environment degradation, as well as the attainment of sustainable development goals.

PART II

There is a broad agreement on the following issues:

Environment

1. We will continue and scale up our efforts to combat desertification, land degradation and drought, as well as restoring degraded land to achieve Land Degradation Neutrality by 2030, as per SDG 15.3, towards the G20's ambition to reduce land

degradation by 50 percent by 2040 on a voluntary basis and towards a number of related UN Agenda 2030 Sustainable Development Goals and Targets. We emphasize the importance of preparation and implementation of the voluntary land degradation reports by countries to achieve the UN Agenda 2030.

2. We will actively promote and increasingly mainstream ecosystem restoration, including land and forest restoration on all types of ecosystems by involving public private partnership, into recovery policies and plans, in line with the UN Decade on Ecosystem Restoration 2021-2030 which encompasses protection, conservation, restoration, and sustainable land management in pursuit of fighting climate change and halting biodiversity loss. G20 members that have endorsed the Glasgow Leaders' Declaration on Forests and Land Use, made at UNFCCC COP26, remain committed to working collectively to reduce and reverse forest loss and land degradation by 2030 while delivering sustainable development and promoting an inclusive rural transformation.
3. We continue to support the G20 Global Initiative on Reducing Land Degradation and Enhancing Conservation of Terrestrial Habitats adopted under Saudi Arabia's Presidency and to enhance land protection, conservation, and restoration, address common land tenure challenges in accordance with national legislation in line with the recent decision 27 at UNCCD COP15 and promote inclusive sustainable land management by actively contributing to the operational development of the Global Initiative. We are committed to further meaningful and inclusive engagement with the whole of society, including engaging private sector and civil society, Indigenous peoples, local communities, women, youth and children, persons with disabilities and people in vulnerable situation, academia, governments at all levels as appropriate in sustainable land management, protection, conservation and land restoration including in related programs and projects. We recognize the crucial role of traditional and indigenous knowledge as well as their role as key protagonists in sustainable land use and preventing deforestation and protecting, conserving, sustainability using and restoring biodiversity.
4. We acknowledge that wetlands in all their diversity, including peatlands and mangroves, are unique ecosystems and particularly important in the provision of many ecosystem services as well as in climate change mitigation and adaptation. We emphasize our commitment to implement measures to protect, conserve, sustainably use and restore them, and to ensure their sustainability and resilience. We recognize important measures taken by G20 members to contribute to wetlands protection, conservation, sustainable use, and restoration in line with National Action Plan for Wetlands, consistent with their conservation and wise use obligations under the Ramsar Convention on Wetlands, UNEA Resolution 4/16 on Conservation and Sustainable Management of Peatlands and UNEA Resolution 4/13 on Sustainable Management for Global Health of Mangrove. We will increase efforts for the establishment or improvement of monitoring and evaluation systems, including, among others, early warning systems to build community and ecosystem resilience.
5. We recognize the role of sustainable management and land restoration for achieving the objectives of the three Rio Conventions. We underline the importance of finding synergies and promoting complementary action which achieve land degradation objectives and other goals of the Multilateral Environmental Agreements and

recognize that Nature-based Solutions and Ecosystem-based Approaches can play an important role as a means to achieving Land Degradation Neutrality.

6. We acknowledge that healthy ecosystems, freshwater, lands and soils are the foundation of sustainable food systems and global food safety and security. As an integral part of our response to the current food security crisis, we will ensure that our efforts to strengthen global food security will go hand in hand with our measures to achieve our goals related to water resources, climate change mitigation and adaptation, land degradation, pollution reduction, and biodiversity. We will enhance our efforts to drive forward the sustainable food systems transition along the whole value chain including food production, consumption and food loss and waste, as highlighted by the UN Food Systems Summit 2021.
7. We acknowledge the importance of strengthening the G20 support to existing global initiatives for sharing experience and knowledge, enhancing capacity building, coordination, and synergy in tackling desertification, land degradation and drought and its links with all ecosystem loss and degradation, and deforestation, especially of primary forests and other unique ecosystems. Such exchanges between existing initiatives should be further developed for learning and exchanging experiences and best practices, conservation, restoration, and sustainable management, sharing expertise and networking in undertaking and up-scaling restoration.
8. Furthermore, we support and encourage existing platforms and efforts inter alia the UNCCD, the Global Peatlands Initiative, global mangrove alliances, and the UN-REDD Programme to provide ecosystem-specific advice based on physical and cultural landscape approach with the potential to ultimately cover all ecosystems, including peatlands, mangroves, and exchange results and best practices to address protection, conservation, sustainable use, restoration, and sustainable management to contribute to multiple ecological, economic and social benefits.
9. We stress that the protection, restoration, conservation, and sustainable use of nature are critical to achieve the UN 2030 Agenda for Sustainable Development and its Sustainable Development Goals to halt and reverse biodiversity loss. We are committed to strengthen evidence-based, effective, and holistic action to halt and reverse biodiversity loss by 2030 and to address direct and indirect drivers of biodiversity loss through national action as well as through, as appropriate, multilateralism and global responses, with a view to realizing the 2050 vision of “living in harmony with nature”, including through the implementation of nature-based solutions and ecosystem-based approaches. We stress the importance of mainstreaming biodiversity protection, conservation, sustainable use and restoration into all policies. We note with concern the IPBES global assessment report (2019) and welcome the recent approval of the summary for policymakers of the IPBES Assessment on the Sustainable Use of Wild Species and recognize the need to address overexploitation of wild species as a key driver of biodiversity loss. We also recognize the importance of mitigating the harmful effects of pollution on biodiversity globally and welcome the UNEA Resolution 5/8 to establish a science-policy panel for chemicals, waste and pollution.
10. We are working, and welcome the progress made towards achieving a clear, ambitious, realistic, transformative and robust Post 2020 Global Biodiversity

Framework (GBF), and we urge all the parties and countries to finalize and adopt the GBF at the second part of COP15 and, as appropriate, to update National Biodiversity Strategies and Action Plans accordingly. We stress the need for clear and measurable goals and targets for biodiversity and means of implementation, associated with a set of measurable headline indicators and an effective implementation and review and reporting mechanism. Some G20 members have expressed their support for the target to protect or conserve at least 30% of global land and at least 30% of global ocean by 2030. G20 members that made these voluntary commitments encourage and support others to make similarly ambitious commitments.

11. We commit to mainstreaming and scaling up complementarities in addressing biodiversity loss, climate change, land degradation, decline in the health of ocean and seas, deforestation, pollution, waste, and food insecurity and water safety, availability and accessibility.
12. We are committed to achieving SDG 6 and the water related goals of the 2030 Agenda. We welcome UNEA Resolution 5/4 on Sustainable Lake Management and commit to working towards a successful outcome of the UN 2023 Water Conference and Ramsar COP 14 to enhance integrated, sustainable and climate resilient water management by emphasizing actions to be implemented including protection, conservation, restoration of water-related ecosystems, including wetlands and aquifers, rivers and lakes, sustainable use of water-dependent ecosystem and involvement of relevant stakeholders and development of international collaboration to achieve living in harmony with nature. We recognize SDG 6 is at risk of being missed and highlight the need for more action and investment in sustainable water resource management from all sources, including from the private sector. We also recognize the need to help countries create an enabling environment to reduce risks and barriers for those sectors most impacted by climate change.
13. We recognize the importance of Integrated Water Resources Management (IWRM) at all appropriate levels including river basin scale cooperation and across sectors and the implementation of water resource protection, conservation and sustainable use. We also recognize the importance of implementation of water-saving sustainable production and consumption patterns, water conservation, as well as the recourse to non-conventional/alternative water sources, including rainwater harvesting, reuse of reclaimed water (treated wastewater) sustainable, effective, and efficient use of surface and groundwater. We encourage community-based water governance and working with relevant communities and structures as appropriate on river basin-based water governance as well as river basin-based approaches recognizing the benefit of cooperation between the neighbouring countries, linking the integrated water resources management with sustainable management of rivers, lakes, the ocean and seas, as well as efforts of cities to improve resource efficiency, including through circular economy approaches. We emphasize the urgency to strengthen and support efforts to mitigate, prepare for and adapt to the impacts of climate change on water resources to ensure that future generations have access to reliable, sufficient, safe and clean water resources.
14. We recall the right to safe and clean drinking water and sanitation as a human right as derived from the right to an adequate standard of living. We also recognize

water's many values for people and nature. Water is essential and underpins almost everything we do towards sustainable development.

15. We underline the need to address water utilization in all sectors mindful of the interlinkages between water, energy, food, and ecosystems in a sustainable manner and highlight its significant economic and social impact and the need to include all the stakeholders and water users in the elaboration of sustainable and integrated water management strategies. We encourage the development of water allocation mechanisms, as part of the Integrated Water Resource Management (IWRM).
16. We note the urgency of predicting and adapting to extreme weather events and other impacts resulting from climate change including incorporating measures to prevent and combat extreme droughts, heat waves, floods and their effects as well as sea-level rise into national mitigation and adaptation policies and plans. We also note the need to increase efforts to build community and ecosystem resilience, establishing accessible early warning and monitoring systems, enhancing forecasting, rehearsing and emergency planning abilities, and acknowledging also the importance to scale up investments in implementation, in particular for most vulnerable countries.
17. We emphasize the significance of sharing of knowledge and best practices regarding integrated and climate resilient water management including the transfer of technology on voluntary and mutually-agreed terms. We support the G20 Water Dialogue and its continuation and will facilitate the use of its output, including through the G20 Water Platform hosted by the Kingdom of Saudi Arabia.
18. We recognize that our current material resource use and its associated impacts need to be compatible with the achievement of the SDGs, especially SDG 12, to address climate change, biodiversity loss, water safety, availability and accessibility, land degradation, waste and pollution. We underline that increasing the circularity and resource efficiency of our economies will help bring our environmental, climate, and development goals within reach. We restate our support and commitment to the implementation of UNEA Resolution 5/11 on 'Enhancing circular economy as a contribution to achieving sustainable consumption and production'.
19. We emphasize the importance of resource efficiency and circular economy for the achievement of sustainable production and consumption thus contributing to addressing climate change, biodiversity loss, land and water degradation and pollution. We underline the need for strong collaboration and cooperation, including on science and knowledge sharing, particularly to developing countries, and among governments at all levels, industries, value chain actors, communities, relevant partners and stakeholders including civil society, Indigenous peoples, local communities, women, youth and children, persons with disabilities or people in vulnerable situation as well as research organizations to enhance implementation of resource efficiency and circular economy, among other approaches and minimize the negative environmental, social and economic impacts of consumption and production.
20. Acknowledging the need to enhance the sustainability of production and services across the life cycle in order to reduce their environmental footprint, including GHG

emissions, biodiversity loss, ecosystem degradation and pollution, and the need to increase the sustainability and the efficiency and circularity of their resource use, as well as supply and value chains transparency as appropriate whilst also being inclusive, resilient and clean, many members recognize the importance to work with the business sector and encourage knowledge sharing between business sectors globally.

21. We recognize the importance of raising awareness in society, in particular among youth regarding sustainable production and consumption patterns, including circular economy, life cycle perspective and the importance of more sustainable choices in relation to products and services, among other approaches, as fundamental tools to achieve sustainable development.
22. We highlight the important role of the G20 Resource Efficiency Dialogue in sharing measures, actions, knowledge and good practices, in cooperation with relevant stakeholders, to foster resource efficiency and circular economy and other means to achieve sustainable production and consumption patterns. Our sharing will consider national circumstances, capabilities and priorities and include information on the implementation of national Extended Producer Responsibility (EPR) schemes and other market-based instruments, voluntary schemes, regulation, Sustainable Public Procurement, capacity building, technological aspects and new circular business models that take into account a life cycle perspective and include sustainable, resilient and transparent supply and value chains as appropriate. We welcome the further development of the G20 Resource Efficiency Dialogue Portal in July 2022 and thank the Presidency for having organised a meeting of the G20 Resource Efficiency Dialogue as well as the European Union, Italy and Indonesia's Chamber of Commerce and Industry for organizing relevant workshops. We hereby endorse the G20 Resource Efficiency Dialogue Roadmap 2021-2023 and support its implementation. We reaffirm to continue our cooperation through the Dialogue, profiting from science-based inputs among others the UNEP International Resource Panel.
23. We acknowledge the role of the 10-Year Framework of Programmes on Sustainable Consumption and Production and of clear national strategies on sustainable and circular economy approaches to accelerate innovation and develop effective measures for sustainable development as well as clean and sustainable consumption and production. We recognize the importance of new, circular and resource efficient business models, among other sustainable production and consumption patterns in line with SDG 12.
24. We invite the research and scientific community and relevant international organizations such as, inter-alia, the International Resource Panel, UNEP, UNIDO, and OECD to continue research and analysis on material and natural resource use and their impacts on the environment, climate, the economy and societies, identifying gaps and challenges, and suggest possible actions and policy options, as appropriate, for consideration in accordance with national priorities and needs.
25. We recognize marine litter and plastic pollution, including microplastics, have significant impacts on ecosystems and their biodiversity. We also acknowledge that the main sources of marine litter and plastic pollution are land-based, while there

are also a number of contributors to marine litter from sea-based sources including abandoned, lost or otherwise discarded fishing gear, known as ghost gear.

26. We fully support and are committed to doing our utmost to end plastic pollution worldwide, including by participating in the Intergovernmental Negotiating Committee (INC), established by Resolution UNEA 5/14, to develop an international legally binding instrument on plastic pollution, including in the marine environment, which could include both binding and voluntary approaches, based on a comprehensive approach that addresses the full life cycle of plastic, taking into account, among other things, the principles of the Rio Declaration on Environment and Development, as well as national circumstances and capabilities. We are determined to play a constructive and strategic role in the process, with the ambition of completing its work by the end of 2024. We reiterate the need for a long-term global vision for the instrument.
27. We are committed to cooperation among and beyond G20 countries and other relevant stakeholders through the Intergovernmental Negotiating Committee to negotiate arrangements for capacity building and technical assistance, technology transfer on mutually-agreed terms, and financial assistance, recognizing that some legal obligations arising out of a new international legally binding instrument will require capacity-building and technical and financial assistance in order to be effectively implemented by developing countries and countries with economies in transition.
28. We highlight the progress made and call on participating delegations to achieve an ambitious and balanced agreement without delay on an international legally binding instrument under the UNCLOS on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (BBNJ) as called for in UN General Assembly Resolution 69/292.
29. We emphasize the importance of accelerating the implementation of SDG 14 on conserving and sustainably using the world's ocean, seas and marine resources as well as the speedy implementation of the other ocean-related SDGs including access for small scale artisanal fishers to marine resources and market in line with SDG 14b.
30. We reiterate our strong commitment to combat and to end illegal, unreported and unregulated (IUU) fishing and recognize that IUU fishing remains a serious threat to the sustainability of the ocean in many parts of the world. We welcome the landmark new WTO Agreement on Fisheries Subsidies that will prohibit subsidies to vessels or operators engaged in IUU fishing or fishing related activities in support of IUU fishing and that will discipline subsidies for fishing or fishing related activities with regard to overfished stocks. We continue our efforts to achieve a comprehensive WTO agreement that responds to the imperative of sustainability of our oceans, seas and marine resources including through further disciplines on certain forms of fisheries subsidies that contribute to overcapacity and overfishing recognizing that appropriate and effective special and differentiated treatment for developing country members and LDC members should be an integral part of these negotiations in line with SDG 14.6.

31. We recognize the important work of the Taskforce on Nature-related Financial Disclosures (TNFD) in developing a framework for businesses and organizations to report and act on evolving nature-related financial risks, and for the investors to better evaluate nature-related financial risks. We invite market participants to engage in the TNFD's framework and commit to support its development. We continue working with Finance Ministers in this area.
32. We support scaling up sustainable finance for protecting, conserving, sustainably using and restoring all ecosystems, such as but not limited to surface and ground water wetlands including peatlands and mangroves, coral reefs, forest, marine and other unique ecosystems with close cooperation and collaboration with the G20 Sustainable Finance Working Group and the Finance track of the G20, and call for additional progress in addressing the priority actions identified in the G20 Sustainable Finance Roadmap for stepping up G20-led efforts concerning finance for nature, biodiversity, circular economy and resource efficiency, water, sanitation and social issues. We welcome the Finance for Biodiversity Pledge launched at the Biodiversity Summit of the United Nations General Assembly in September 2020 and encourage financial institutions to sign it. We welcome the Statement on 'Nature, People and Planet' made by Multilateral Development Banks at UNFCCC COP26 and call upon MDBs to commit to pledging concrete amounts to international biodiversity finance before CBD COP15.2. We also highlight the urgent need to align financial flows with sustainable development, nature and climate objectives and underline the many synergies in these areas. We will strengthen those synergies to maximize co-benefits.
33. We are committed to strengthening policies to enhance the participation in sustainable finance of public and private financial institutions and other relevant public institutions, and we are also committed to the implementation of the G20 Sustainable Finance Roadmap. We encourage the further development and implementation of innovative financing instruments that support the protection, conservation sustainable use and restoration of nature.
34. Supporting strong legal and policy instruments, as well as effective institutions at all levels, including through river basin management and relevant MEAs measures, as appropriate, many members recognize that the instruments allow capacity building and river basin scale cooperation between neighbouring countries on water and wetlands. Members also recognize that the effective implementation of collective actions requires enabling and coherent legal and policy frameworks at all levels, according to national laws and regulations, by scaling up capacity building, environmentally sound technologies, development of existing as well as new and innovative financing schemes, dedicated development partnerships, and a renewed and strong commitment to multilateralism and international cooperation.
35. We highlight the role that fiscal policies can play as an effective instrument to foster behaviour changes in businesses and consumers for steering the economy on the whole towards greater sustainability, leaving no one behind and encourage initiatives to scale up and maximize these instruments, including through international partnerships among countries to finance land protection, conservation, sustainable management and restoration programs and projects.

36. We recognize the implementation of relevant innovative financing instruments and encourage initiatives to scale up and maximize these instruments, including through international partnerships among countries to finance land protection, conservation, sustainable management and restoration programs and projects.
37. Mindful of the interconnectedness of poverty, health, economic and environmental challenges, we commit to a just and equitable transition to sustainable economies, leaving no one behind, whilst taking into account the different levels of development and capacity of countries. We encourage the provision of financial, technological and capacity building support to developing countries especially to the least developed countries, making the best use of existing governance frameworks and working to identify new and innovative solutions. Recalling the principles of the Rio Declaration and recognizing that we face different challenges, we will strengthen our international cooperation towards sustainable development.

Climate Sustainability

1. Recognizing the importance of leading, members reaffirmed their steadfast commitments and objectives of the UNFCCC to tackle climate change by strengthening the full and effective implementation of the Paris Agreement in holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, reflecting equity and the principle of common but differentiated responsibilities and respective capabilities, in light of different national circumstances.
2. Recalling with concern the findings of the best available science, including IPCC special report on Global Warming of 1.5°C and the 6th Assessment Report of the IPCC (AR6), members recognized that the impacts of climate change at 1.5°C are much lower than at 2°C and that climate resilient development may not even be possible in some regions if global warming exceeds 2°C, and that the resolve to try to limit the temperature increase to 1.5°C is urgent. In this regard, some members underlined the leading role of developed countries in deep reduction of GHG emissions.
3. We underline that climate change has already caused widespread adverse impacts and related losses and damages to nature and people when natural and human systems are being pushed beyond their ability to adapt. We will enhance adaptation measures, including nature-based solutions and ecosystem-based approaches to improve resilience to climate change.
4. We will play our part fully in implementing the relevant outcomes of previous COPs and CMAs including COP26 and CMA3. We welcome the efforts and express our full support to the incoming Egyptian Presidency of COP27 and will work constructively to pave the way for a successful, ambitious and balanced set of outcomes to be adopted in Sharm el-Sheikh. We support and underline the implementation and highlight the reinforcement of mitigation, adaptation, and means of implementation.

5. We recognize the importance of a sustainable, resilient, inclusive, and just recovery from the pandemic and the opportunity to work together in promoting a prosperous, inclusive, resilient, secure and sustainable society that leaves no one behind in order to accelerate NDC implementation and just transitions towards net zero GHG emissions/carbon neutrality by or around mid-century, reflecting the latest science and taking into account different national circumstances and approaches, including the circular carbon economy, socio economic, technological and market development.
6. We appreciate the presidency's initiative in commissioning the Study on Stocktaking of Economic, Social, and Environmental Impacts of Sustainable Recovery, including Impacts on NDC Implementation. We note that Covid-19 recovery spending may create an opportunity to advance mitigation and adaptation spending of each country. We also note that recovery spending may lead to faster and targeted actions in the effort to confront climate-related challenges, maladaptation, as well as seizing the opportunities in social, environmental and health co-benefits that support progress towards achieving the Sustainable Development Goals.
7. We note the importance of promoting locally-driven approaches, stakeholder participation and inclusive governance arrangements in designing and implementing recovery measures. These include recovery through existing local initiatives that engage local communities and Indigenous peoples and leveraging traditional knowledge, knowledge of Indigenous peoples and local knowledge systems as well as measures for just transitions towards low GHG emissions and climate resilient development that ensures sustainable development and respects and promotes respective obligations on the rights of Indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations, as well as promotes and respects gender equality, empowerment of women, girls, and youth and intergenerational equity.
8. Acknowledging the ambition gap and to align with the Paris Agreement temperature goals, some members recall the Glasgow Climate Pact's request to Parties to revisit and strengthen the 2030 targets in their NDCs as necessary to align with the Paris Agreement temperature goal by the end of 2022, taking into account different national circumstances. Some members also noted the importance of concrete implementation actions, including but not limited to adopting and implementing domestic measures, aiming to achieve NDC targets and net zero commitments informed by the best available science for effective climate action and sufficient financial support to developing countries.
9. Acknowledging the importance of the climate and energy nexus and the need for just energy transitions, majority of members look forward to the outcomes of Energy Ministerial Meeting that focus on concrete and practical actions toward sustainable energy transitions, as we are recovering together and recovering stronger.
10. We welcome and commit to implement the Glasgow-Sharm el-Sheikh work program on the global goal on adaptation on enhancing adaptive capacity, strengthening resilience, and reducing vulnerability to climate change with a view to contributing to sustainable development and ensuring an adequate adaptation response in the

context of the temperature goal referred to in Article 2 of Paris Agreement. We underscore the potential synergy between adaptation and mitigation actions.

11. We commit to averting, minimizing and addressing loss and damage associated with the adverse effects of climate change, including via strengthening policy strategies and governance of comprehensive risk management including disaster risk reduction, displacement and non-economic losses. We also commit to continue to constructively engage in the Glasgow Dialogue and work towards full operationalization of the Santiago network.
12. Recognizing National Adaptation Plans are a relevant source of information on countries' needs and priorities on climate adaptation, and noting that countries face different challenges, in particular developing countries, some members called for different level of support to continually prepare, implement and monitor National Adaptation Plans.
13. We highlight that raising ambition on climate mitigation and adaptation will accelerate efforts to create enabling conditions, particularly in developing countries, including through strong domestic policy actions that align with the goals of the Paris Agreement. We also highlight the importance of support for developing countries through capacity building, development, transfer, and deployment of technologies, and mobilization of climate finance, as well as the coherence of financial flows with a low GHG emissions and climate resilient development.
14. Some members stress the importance of balance between mitigation and adaptation in the provision of scaled-up financial resources, including, as appropriate through recovery measures by increasing the availability of and facilitating access to financial resources for developing countries with high climate vulnerability and creation of decent works and quality jobs.
15. Highlighting the vital role of strengthening cooperative actions on technology development and transfer for innovation, including in circularity and capacity building in mitigation and adaptation action to achieve our collective climate ambition, members recognize the need for holistic approaches, including technology in the transition phase through enhanced international cooperation in research and development as well as deployment and transfer of technology to developing countries by supporting low emission technology development that enhances abatement and sinks capacity of GHG Emissions. In this regard, some members reiterated the intention to consider further actions to reduce by 2030 non carbon dioxide GHG emissions, including methane.
16. We recognize the role of multilateralism in addressing climate change and promoting regional and international cooperation in order to strengthen climate action in the context of sustainable development and efforts to eradicate poverty.
17. We acknowledge, taking into account different government systems, the important role of cities, regions and local governments, in implementing climate actions and in making the transitions in the context of local needs and environmental conditions, including environmentally conscious lifestyle, promoting knowledge sharing and city-to-city collaboration. In this regard, we also acknowledge the need to reduce

vulnerability by increasing adaptive capacity in urban context. We recall the crucial importance of sustainable urban development as underlined by the New Urban Agenda. We highlight the significance of lifestyle choices in combating climate change and the importance of education, training, public awareness, public participation and public access to information in this regard.

18. Recognizing the importance of harnessing the ocean-climate nexus to foster climate change mitigation and adaptation, many members called for stepping up their efforts towards more collaborative ocean climate actions, including through strengthening international cooperation, national plans and initiatives to promote more sustainable, inclusive, and resilient coastal ecosystem management.
19. We underline the importance of improving ocean observation and modelling for data collection and management, research and development, predictions, and enhanced understanding of the ocean-climate nexus, in order to improve scientific knowledge and put in place efficient actions including disaster risk reduction, to mitigate, adapt and enhance resilience to the adverse impact of climate change such as sea level rise across all geographies and scales in line with UN Decade of Ocean Science for Sustainable Development taking into account different national and regional circumstances.
20. Members commit, consistent with national circumstances, respective capabilities and priorities, to invest in efforts to conserve, sustainably use, protect and restore blue carbon ecosystems and to foster research and development and technological innovation for ocean mitigation and adaptation, as well as improve the protection, conservation restoration, sustainable use and management of coastal ecosystems including blue carbon habitats, in order to enhance their health, integrity and effectiveness in reducing GHG emissions and in building resilience to climate change. Furthermore, we highlight the importance of experience sharing, development, deployment and dissemination of environmentally sound technologies, capacity building, finance, and cooperation on safe and sustainable ocean climate innovation and action at the global level to promote more sustainable and inclusive coastal resilience. In this regard, some members underlined the importance of taking into account different national needs, priorities, circumstances and respective capabilities. Furthermore, some members commit to accelerate the transition of the shipping sector to zero-emission fuels and technologies, placing the sector on a pathway that aligns with the goal to limit global temperature rise to 1.5°C.
21. We recognize the importance of promoting the policy interface of social, physical, and economics sciences to enhance collective knowledge regarding different approaches by facilitating inclusive dialogue in and between these three areas as well as engaging all relevant stakeholders in the process. We also recognize the role of local and regional initiatives in the sustainable lifestyles, growth and resilient development of coastal areas that contribute to GHG emissions reductions and removals as well as adaptation.
22. We acknowledge the importance of engaging vulnerable groups, including women, children, youth, indigenous peoples and local communities in vulnerable situations in coastal zones and cities affected by the adverse impacts of climate change, in

developing and implementing ocean-based climate policies and strategies, ocean-based adaptation planning and integrated coastal zone management.

23. Majority of members strive to strengthen our engagement in the UNFCCC Ocean and Climate Change Dialogue and in other relevant fora, to advance potential ocean-based actions in reducing anthropogenic GHG emissions and in enhancing resilience and adaptation to climate change. Furthermore, members will further explore the opportunity to build on existing initiatives and processes including to discuss the possibility of establishing a voluntary partnership on the ocean-climate nexus to advance ocean-based mitigation and adaptation. In this regard, some members noted Presidency's Proposal of G20 Partnership on Ocean-based Actions for Climate Mitigation and Adaptation (Annex 1).
24. We recognize the importance of fiscal and monetary policies, financial and sectoral regulations and public finance instruments taking into account national circumstances which can serve as drivers of mobilizing private finance, improving climate related risk management, and the implementation of NDCs. We recognize the key role policy approaches and regulatory reform in enabling private investment to support scaled up climate action. In this context we support the ongoing discussion in the Finance Track.
25. Recalling Article 9 of the Paris Agreement, some members appreciated progress made thus far and increased volume of climate finance mobilized. While some members noted with deep regret that the goal of developed country Parties to mobilize jointly USD 100 billion per year by 2020 in the context of meaningful mitigation actions and transparency on implementation has not been met, yet welcomed the increased pledges made by many developed country Parties and the Climate Finance Delivery Plan: Meeting the USD 100 Billion Goal and the collective actions contained there in, and emphasize the importance of transparency in the implementation of their pledges.
26. Recalling the Glasgow Climate Pact by which parties urged developed countries to at least double their collective provision of climate finance of adaptation to developing countries parties from 2019 levels by 2025, in the context of achieving a balance between mitigation and adaptation, in the provision of scaled-up financial resources, recalling Article 9, paragraph 4, of the Paris Agreement, some members called on developed countries to continue to provide more information on these efforts through the progress report to the Delivery plan, while also unlocking multiple opportunities for targeted investments to protect against adverse impacts of climate change.
27. We emphasize that public finance remains a key enabler for mobilizing other sources of climate finance, in particular for adaptation actions, and that there is a need to continue to work to identify synergies between private and public national, bilateral and multilateral financial sources to increase the provision and mobilization of resources including exploring alternative and innovative sources of finance, which should not undermine efforts towards debt sustainability.
28. We welcome the initiative of the presidency to commission the study on Innovative Finance Towards Low Greenhouse Gas (GHG) Emissions and Climate Resilience

Future, which notes that regulators, law makers, financial associations, and private entities in G20 countries, in the context of their roles and responsibilities, have proposed, developed, and applied policies, systems, and innovative financial instruments to accelerate funding for the low GHG green and sustainable transitions, and further notes that could serve as a role model for accelerating climate and sustainable finance application while taking into account different circumstances and levels of development.

29. Majority of members call on public and private financial institutions, multilateral development banks (MDBs) and international financial institutions (IFIs) to increase cooperation in developing countries for enhancing access to financial resources to deliver the scale needed to achieve effective climate actions. In this regard, majority of members reiterate call to MDBs to follow up with their commitments, in line with their mandates, to mobilize increased climate finance, and step up their efforts to pursue alignment of the portfolio of activities and investment with the Paris Agreement within ambitious time frames and make finance flows consistent with a pathway towards low GHG emissions and climate-resilient development. Furthermore, many members recognize the key role of MDBs and IFIs in mobilising finance for addressing climate change, as well as the importance of mainstreaming mitigation and adaptation issues in their policies, investments and operations. In light of this, many members further call on MDBs to set out plans by 2022 to mobilize private finance, in line with their mandates, and strategically de-risk investments in view of co-sharing risks with the private sector, including where appropriate through country-led processes and platforms.
30. We also call on all multilateral development banks and financial institutions to finalise and make publicly available robust methodologies for Paris and SDG alignment before COP27 for all their activities, in particular for indirect and policy-based lending, and to set out how they collectively plan to report on the alignment of their portfolios by COP27.
31. We stress the importance of the implementation of Article 6 of the Paris Agreement, which has potential to enhance climate actions. We also recognize the need for capacity building in particular in developing countries for implementation of Article 6 and enhanced transparency framework under Article 13 in the Paris Agreement as well as to increase the readiness for accessing climate finance resources for private and public sectors to support national and global climate objectives and international cooperation.
32. Welcome the following studies as part of the Presidency's initiative in the Climate Sustainability Working Group (Annex 2):
 - a. Study on Stocktaking Economic, Social and Environmental Impacts of Sustainable Recovery, including Impacts on NDC Implementation;
 - b. Study on the role of mitigation-adaptation co-benefits for creating a more resilient future for all;
 - c. Study on Strengthening Action and Partnership for Sustainable Ocean Initiatives,
 - d. Study on Promoting Ocean-based Solutions to Climate Change Through Enhanced Cooperation in Science, Research, and Innovation;
 - e. Study on Innovative Finance Frameworks towards Low GHG Emission and Climate Resilience Future; and

- f. Study on Accelerating NDC Implementation and Sustainable Transition Towards Low GHG Emission and Climate Resilience Future through Utilizing Economic Value of Carbon.

We also had a robust exchange of views on a wide range of issues related to , among others, land degradation, biodiversity conservation, integrated and sustainable water management, resource efficiency and circular economy, marine litter, ocean conservation, sustainable finance, climate mitigation and adaptation as well as means of implementation. We remain committed to continuously enhance our work and concrete actions on these issues.

The Ministers expressed their high appreciation for Indonesia's leadership as well as for the hospitality and excellent organization in hosting both of the Environment Deputies Meeting and Climate Sustainability Working Group (EDM-CSWG) and the Joint Environment and Climate Ministers' Meeting (JECMM) in 2022. We also support India's Presidency in 2023 and will work closely to ensure success in advancing cooperation in environment and climate sustainability at the G20 and beyond.

Annex 1.
Presidency's Proposal:
G20 Partnership on Ocean-based Actions
for Climate Mitigation and Adaptation

Background

According to the Special Report on the Ocean and Cryosphere in a Changing Climate and the recent contributions of WGI, WGII, and WGIII to the Sixth IPCC Assessment Report, there are systemic changes such as ocean warming, acidification, deoxygenation, ice melt, and sea level that have disastrous effects on ocean and coastal life and the livelihoods of coastal communities.

The SROCC also identified that protection, restoration, precautionary ecosystem-based management of renewable resource use, and the reduction of pollution and other stressors could support the services and options provided by ocean ecosystem. Response options highlighted in the SROCC include networks of protected areas to help maintain ecosystem services, including carbon uptake and storage; terrestrial and marine habitat restoration and ecosystem management tools; strengthening precautionary approaches; restoration of vegetated coastal ecosystems, such as mangroves, tidal marshes and seagrass meadows (coastal 'blue carbon' ecosystems) to provide climate change mitigation through increased carbon uptake and storage; and ocean renewable energy to support climate change mitigation, comprising of energy extraction from offshore winds, tides, waves, thermal and salinity gradient and algal biofuels.

Based on the Study on Promoting Ocean-based Solutions to Climate Change through Enhanced Cooperation in Science, Research, and Innovation and the Study on Strengthening action and partnership for sustainable ocean initiatives prepared by Presidency, all G20 members have developed ocean policies, plans, and strategies. In addition, some members have included ocean into their NDCs in the element of adaptation or mitigation as well as in both elements.

The studies identified the need to enhance scientific understanding of the ocean and climate nexus to be adequately reflected in policy, dialogue, and action. Urgent action is needed to invest in ocean science, facilitate the exchange of technology and information, support the scaling-up of the protection of coastal and marine environments, support small-scale fishing communities, and the sustainable management of the oceans. The contribution of the oceans to the global economy is projected to grow to USD 3 trillion by 2030. More than 3 billion people rely on the oceans for their livelihoods, and over 80 per cent of world trade is transported by sea. Small-scale fisheries account for about 90 per cent of primary marine fisheries employment. Climate change increases the intensity and frequency of natural hazards, ocean warming, acidity, and deoxygenation, and it causes shifts in the distribution and abundance of fish populations, adversely affecting fishery-dependent developing countries.¹ Small-scale fishers and fish farmers are also important stakeholders as they are the local implementers and enforcers that restore

¹ United Nations. 2022 United Nations Conference to support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas, and marine resources for sustainable development. Access through: https://sdgs.un.org/sites/default/files/2022-05/ID_4_Fisheries.pdf

and protect their natural resources, thus being vital champions for nature-based solutions to climate change². Until recently, the mainstreaming of climate change adaptation in national fisheries and aquaculture development and policies was weak and only slowly improving. There is a need for greater adaptation in the sector, but in particular to its tailoring to national and sub-national contexts in order to take into account the specific threats, sensitivity, and vulnerability of fisheries and aquaculture systems and to enhance their adaptation potential and that of the communities and stakeholders who depend on them. Recognizing, integrating, and addressing concerns specific to fisheries and aquaculture will lead to greater resilience of the sector and of the communities it supports in the face of climate and other environmental threats³.

G20 members are countries that have coastlines and concerns about the ocean's vital role in strengthening the action toward low carbon and climate resilience by promoting the role of research, innovation, and technology development.

Objectives

Indonesia G20 Presidency proposes the G20 Partnership for Ocean-based Actions for Climate Mitigation and Adaptation to explore the opportunity to establish a partnership on the ocean-climate nexus on knowledge sharing, technology transfer, and capacity building to advance ocean-based mitigation and adaptation actions among all G20 members.

G20 partnership will provide more close cooperation on the importance of enhancing the policy interface of social, physical, and economic sciences by facilitating dialogue in and between these three areas. In addition, the partnership will be designed to exchange views and experiences on policy options, research, innovation, and best practices examples for ocean-based actions for climate adaptation and mitigation among G 20 members.

Setting the Context

Indonesia Presidency initiates the partnership with the participation of CSWG G20 members, which is voluntary in nature while taking into different national circumstances, needs, and priorities, while exploring the possibility of engaging experts from G20 members, international organizations, and other relevant organizations.

The partnership will be started with a kick-off event of exchange of best practices, lessons learned and knowledge, research, and innovation on coastal resilience and protection, nature-based solutions and ecosystem-based approaches, equal social development, more efficient international shipping corridors, and increased sink capacity of ocean, as well as sustainable green-blue economies. The partnership is expected to support the next series of G20 meetings.

² United Nations Climate Change. Climate Action Pathways: Oceans and Coastal Zones Action Table. 2020. Access through: https://unfccc.int/sites/default/files/resource/Action_table%20_OCZ.pdf

³ FAO. Addressing Fisheries and Aquaculture in National Adaptation Plans. 2020. Access through: https://www4.unfccc.int/sites/NAPC/Documents/Supplements/FAO_Fisheries%20and%20aquaculture_ca2215_en.pdf

The Scope of Partnership

The scope of this partnership as recognized under the CSWG discussions as follow:

- 1) Sharing information and knowledge, experience, and good practices on ocean-based actions for adaptation and mitigation through promoting research, development, and technology deployment (R, D&D) on ocean climate nexus for ocean-based solutions.
- 2) Strengthening actions through joint cooperation for sustainable ocean initiatives at the global levels to catalyse the role of ocean towards low GHG emission and climate resilience, as well as capacity-building, technical assistance, and resource mobilization; and
- 3) Facilitate stakeholder, expert-moderated/knowledge sharing through the G20 dialogue.

The proposed topics are ocean science, ocean-based adaptation, and ocean-based mitigation and adaptation with mitigation co-benefits.

Proposed Agenda of the First Workshop

Thursday, 1 September			
Session/Time (UTC+8)	Theme/Duration	Speakers	Topic
09.00 – 09.20	G20 Partnership for Climate Adaptation and Mitigation 20 min	<ul style="list-style-type: none">• Welcome Remark by Minister of Maritime and Fisheries Affairs (MMFA), Republic of Indonesia• Keynote and Opening Remark by Minister of Environment and Forestry (MoEF), Republic of Indonesia	The urgency of ocean-based climate actions and the follow-up actions.
Panel I and moderated discussion			
09.20 – 09.50	Reflecting on the State of Ocean-Climate Science 30 min	Nathan Bindoff, Coordinating Lead Author Chapter 5 IPCC SROCCC, Institute for Marine and Antarctic Studies, University of Tasmania)	The importance of the ocean and cryosphere for people living in the lowest-lying coastal areas.
		Prof. Dr. Katja Matthes - Director of Helmholtz Centre for Ocean Research Kiel	The critical role of addressing ocean data science to explore ocean and climate-based solutions
		Victor Gustaaf Manoppo, Director General of Marine	Strategy to implement the blue economy through

		Spatial Management, MMAF Indonesia	sustainable innovation	ocean
		Moderator: Manuel Castillo, UNESCAP		
Panel II and moderated discussion				
09.50 – 10.20	Robust Ocean- Climate Data, Research, Innovation, and Technology (R, D&D) as Basis to the Policy Decision Making 30 min	Prof. Kouadio Affian - Advisor Board of UN Ocean Decade	The importance of science and technology for ocean climate for adaptation and mitigation	
		Hide Sakaguchi, President of Ocean Policy Research, Institute of the Sasakawa Peace Foundation	Ocean-based solutions to advance climate action towards climate resilience	
		Prof. William Cheung – University of British Columbia	Assessing the impacts of climate change on marine ecosystems and their goods and services	
		Moderator: Gerd Fleischer, GIZ		
Panel III and moderated discussion				
10.20 – 10.50	Building an Ocean-Climate Partnership 30 min	Short statement from G20 Delegations	Exchange views and knowledge for research, innovation, and development, as well as technology deployment	
		Moderator: Nur Masripatin, Senior Advisor to Minister of Environment and Forestry (MoEF)		
10.50 – 11.00	Closing remarks 10 min	Laksmi Dhewanthi - Director General of Climate Change, MoEF, Chair of G20 EDM-CSWG		

Proposed Second Workshop

Presidency proposes to convene the Second Workshop in Sharm-el-Sheikh in conjunction with COP 27 UNFCCC

Next Activities

Will be discussed during the First Workshop

Annex 2.
G20 Studies
under the Climate Sustainability Working Group:

- a. Stocktaking Economic, Social and Environmental Impacts of Sustainable Recovery, including Impacts on NDC Implementation;
- b. The role of mitigation-adaptation co-benefits for creating a more resilient future for all;
- c. Strengthening Action and Partnership for Sustainable Ocean Initiatives,
- d. Promoting Ocean-based Solutions to Climate Change Through Enhanced Cooperation in Science, Research, and Innovation;
- e. Innovative Finance Frameworks towards Low GHG Emission and Climate Resilience Future; and
- f. Accelerating NDC Implementation and Sustainable Transition Towards Low GHG Emission and Climate Resilience Future through Utilizing Economic Value of Carbon.