G20 Workshop on
Nature-based Solutions and Ecosystem-based Approaches

Virtual Meeting, 29 November 2021, 11:00-16:00 (CET)

Purpose of the Workshop

The Communiqué adopted by the G20 Environment Ministers in Naples on 22 July 2021 recognized it is a crucial moment to set up actions and push for ambitious and coordinated initiatives in international fora and urgent action for a carbon-neutral, nature positive and just economy. In such context, the G20 Ministers agreed to harness the power of Nature-based Solutions (NbS) or Ecosystem-based Approaches (EbA) to address biodiversity loss, restore degraded land, boost resilience, mitigate and adapt to climate change, and reduce disaster risk while providing multiple benefits across the economic, social, and environmental domains.

As a first step, the G20 Environment agreed to hold a workshop on NbS and EbA, to share national experiences in implementing these approaches and increase awareness and understanding of the possibilities, benefits and impacts of such actions, reporting to the G20 in 2022. The workshop aims, *inter alia,* to contribute to find a common understanding on the contributions of such "solutions" and "approaches" across all ecosystems including urban ecosystems, ensuring environmental protection, social inclusion and the participation of local communities, Indigenous Peoples and relevant stakeholders.

The G20 Rome Leader's Declaration delivered during the Summit held in Rome on 30 - 31 October 2021 confirmed the willingness to scale up and encourage the implementation of Nature-based Solutions or Ecosystem-based Approaches as valuable tools providing economic, social, climate and environmental benefits.

2022 will represent a pivotal year for the environmental agenda and sustainable development, calling up the International Community to adopt the CBD Global Biodiversity Framework post 2020, and to initiate a path to recovery for the benefit of planet and people within the 2050 Vision of "Living in Harmony with Nature". This means ensuring that the interconnected and interdependent challenges of biodiversity loss, land degradation and climate change will be addressed in an integrated manner as part of broader environmentally sustainable and inclusive recovery plans and actions in the post COVID framework.

In line also with the "Kunming Declaration" presented at the UN Biodiversity Conference on October, at the first part of the UN Convention for Biological Diversity, COP 15, the Workshop also aims to focus on areas, models, mechanisms and examples intended to further spur action to emerge from the planetary emergency and increase resilience in our societies and economies.

G20 Environment Communiqué
Final
(Naples, Italy, 22 July 2021)

"***I. Nature-based solutions or ecosystem-based approaches to address climate change, biodiversity loss and poverty***
6. We aim to harness the power of Nature-based Solutions or Ecosystem-based Approaches ***to address biodiversity loss, restore degraded land, boost resilience, mitigate and adapt to climate change****, while providing* ***multiple benefits across the economic, social, and environmental domains****. We highlight that they do not replace the priority actions needed to urgently reduce greenhouse gas emissions in a way that is consistent with Paris Agreement goals, but are a crucial and complementary tool that is needed alongside these efforts. We note the contribution of the outcomes of the IPBES-IPCC co-sponsored workshop report on biodiversity and climate change. We recognize* ***the need of scaling up and implementing*** *Nature-based Solutions or Ecosystem-based Approaches in key sectors of our societies and economies, and across all ecosystems including urban areas, while ensuring social inclusion and environmental safeguards protection. We highlight the importance of the* ***full and effective participation of local communities, Indigenous Peoples and relevant stakeholders in local decision-making****, recognizing their rights, in accordance with relevant national legislation and international instruments, as appropriate. We agree to hold a workshop on Nature-based Solutions and Ecosystem-based Approaches to* ***share national experiences*** *in implementing these approaches and to* ***increase awareness and understanding*** *of the possibilities, benefits and impacts of such actions, reporting back to the G20 2022.*"

Background: NbS and EbA addressing interconnected and interdependent challenges

A recent study affirms that in 2021 global greenhouse gas (GHG) emissions have bounced back after COVID-19 restrictions and are likely to reach close to pre-pandemic levels. With it, global average temperature and harmful impacts will resume their run. As documented by the first volume of the sixth IPCC assessment report[1], drought and wildfires and other climate extremes are starting to occur more frequently, rainfall patterns are shifting, glaciers and the polar ice caps are melting, fueling sea level rise, and we are getting dangerously close to trespassing cascading irreversible tipping points in the Earth system.

Climate change and biodiversity loss are interdependent and mutually reinforcing.

At the same time, nature is declining globally and the pace of species extinctions and habitat disruption is accelerating. Scientists have warned that humanity is causing the sixth mass extinction in our planet's history. One million species are at risk of extinction largely due to human activities, according to the IPBES Global Assessment on Biodiversity and Ecosystem Services[2], threatening the healthy functioning of ecosystems that produce food and provide clean water and air, and eroding the very foundations of economies, livelihoods, food security, health and quality of life worldwide.

Several land and ocean ecosystems and some of the services they provide have already changed due to global warming strongly exacerbating the negative impacts of their unsustainable use. Climate change is already affecting structural, compositional, and functional dimensions of biodiversity and is a major driver of biodiversity loss, interacting with other drivers and often exacerbating them. Biodiversity loss reduces the resilience of ecosystems and people, and narrows our response options to tackle climate change. On the other hand, the loss of biodiversity and notably the destruction of natural ecosystems and the mismanagement of marine and terrestrial landscapes significantly contribute to the accumulation of GHGs in the atmosphere and subsequent global warming.

---

[1] *IPCC (2021): Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press. In Press.* https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf

[2] *IPBES (2019): Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. E. S. Brondizio, J. Settele, S. Díaz, and H. T. Ngo (editors). IPBES secretariat, Bonn, Germany. 1148 pages.* https://doi.org/10.5281/zenodo.3831673

Hence the need to tackle these challenges in a synergetic and complementary manner

However, governments, intergovernmental processes and other key actors and stakeholders continue to address ecosystem disruption, biodiversity, loss and climate change rather in isolation, . Inversely, the dual socio-ecological crises require an immediate, ambitious and coordinated response: addressing them separately risks compromising the world's ability to fully meet our common climate and biodiversity objectives and the Sustainable Development Goals, leaving large parts of the planet uninhabitable and millions of people to lose their livelihood and forced to move elsewhere.

Tackling climate change and biodiversity loss in an integrated manner entails maximizing synergies between protecting and restoring biodiversity and mitigating and adapting to climate change. NbS and EbA deliver multiple benefits and require transdisciplinary collaboration. Hence, they contribute to the needed integrated response to tackle climate change and biodiversity loss, while simultaneously addressing societal challenges in an effective and adaptive way and providing human wellbeing and biodiversity benefits.

Ecosystem-based Approaches aim to manage land, water, sea and living resources in a way that promotes conservation and sustainable use in a holistic and equitable way. The Nature-based Solutions, as umbrella concept, is based on the scientific understanding of the interconnectedness of nature and people, valuing biodiversity and functioning ecosystems and their services within the landscape/seascape. Thus, models of development negatively affecting biodiversity and natural processes, such as planting monocultures or intensive farming, is not considered an EbA and hence does not qualify as sound/ effective NbS.[3]

Sharing national experiences to scaling up and implementing

The outcomes of the IPBES-IPCC co-sponsored expert workshop report on biodiversity and climate change[4] recognize the need of scaling up and implementing NbS in key sectors of societies and economies, and across all ecosystems including urban areas, while ensuring social inclusion and environmental safeguard and protection.

As follow up to the commitment made in Naples, the Italian G20 Presidency promotes this Workshop as an action-oriented session to analyze NbS and EbA as a tool to address biodiversity loss, restore degraded land, boost resilience, mitigate and adapt to climate change, reduce disaster risk, while providing multiple benefits across the economic, social, and environmental domains.

This session will allow G20 members to showcase experiences and initiatives in implementing NbS and EbA in different sectors of our societies and economies and across all ecosystems, including urban ecosystems, possibly using different terms[5], and to eventually focus on gaps and proposals of possible tools for scaling up and implementing approaches and solutions.

The outcomes of the Workshop will be summed in a report, to be presented at 2022 G20 Indonesian Presidency, with a view to resume and stabilize the sharing of best experiences to scale up and implement NbS and EbA also on a regional framework. The report, as well, will offer a contribution in other *fora* including UNEA and the Conferences of the Parties of the Rio Conventions.

---

[3] *https://www.preventionweb.net/publication/words-action-nature-based-solutions-disaster-risk-reduction*

[4] *VV.AA.(2021). IPBES-IPCC co-sponsored workshop report on biodiversity and climate change; IPBES and IPCC. https://zenodo.org/record/4920414#.YYQB71XMLIU*

[5] For example, at regional level, EU Green Infrastructure, Ecosystem-based Disaster Risk Reduction, or Natural Water Retention Measures have in common the assumption that ecosystems in healthy condition deliver multiple benefits and services for human well-being and address economic, social and environmental objectives. A similar approach can be detected in the framework of the US "REPLANT Act", the Reforestation Trust Fund, the Collaborative Forest Landscape Restoration Program and the related investments for natural infrastructure resilience and to reduce flooding and manage stormwater, in collaboration with local communities.

Agenda

11:00 – 11:15	**Introduction** Preliminary remarks by the G20 Presidency: Italy, Saudi Arabia and Indonesia. Welcome and introduction: - ***Ottavio Di Bella***, Deputy Chair of G20 EDM Group, Director of the Division for EU and international protection and promotion, Italy's Ministry for ecological transition.
11:15 – 12:00	**Session I – Setting the scene of the Workshop** Science experts from international and regional institutions, organizations and NGOs will provide an overview of Nature-based Solutions (NbS) and Ecosystem-based Approaches (EbA) with a view to offer a path for a common understanding of what they are, referring *inter alia*, to the following aspects: ➢ *The progressive development and deployment of NbS and EbA in policy and practice, and in international fora.* ➢ *The delineation of areas and/or key sectors where NbS and EbA have demonstrated their potential, and how we can upscale and broaden their scopes of application including through improved monitoring and valuation in different sectors* Keynote Speakers: - ***Lorenzo Ciccarese***, *moderator,* ISPRA[6], Head of the Area for Terrestrial Species, Habitat, Forests, Agriculture. - ***Karin Zaunberger***, European Commission, Directorate-General for Environment. - ***Radhika Murti***, IUCN, Director of the Centre for Society and Governance. - ***Bronson Griscom***, Conservation International, Director of Natural Climate Solutions. - ***Barron Orr***, Lead Scientist UNCCD, Professor Emeritus at the University of Arizona.
12:00 – 13:30	**Session II – National experiences in implementing and increasing awareness and understanding** The focus is to allow the G20 members to showcase best initiatives, policies and practices in implementing NbS and EbA in different sectors of our societies and economies (including traditional knowledge), and across all ecosystems (including urban areas, and coastal, marine and terrestrial environments). Speakers are encouraged to remark the role of local communities in implementing them, offering cases and examples. Guiding questions for G20 members: ✓ *According to your national experience, which sectors and ecosystems have proven to showcase the potential of NbS and EbA, to ensure environmental protection social and inclusion and what were the synergies or difficulties experienced?* ✓ *What tools have been adopted, or tested, at national and local level to collect and improve models and mechanisms, to share knowledge?* ✓ *How did you manage to promote the participation of local communities, Indigenous People and relevant stakeholders?*

[6] Italy's Higher Institute for Environment Protection and Research.

13:30 – 14:00	Break
14:00 – 15:50	**Session III – Finding the gaps, scaling up approaches and solutions** The focus of the last session is to jointly analyze gaps and suggest possible ways to scaling up and implementing NbS or EbA, to address climate change and biodiversity loss, with the aim to report to the G20 2022 and to raise international attention. Following some conclusive remarks, the last session will open up the debate among G20 Members to offer their views on the gaps to be prioritized and the options to be proposed to scale up approaches and solutions. Keynote Speakers: - ***Lorenzo Ciccarese***, *moderator,* ISPRA, Head of the Area for Terrestrial Species, Habitat, Forests, Agriculture. - ***Hans Otto Pörtner***, Alfred Wegener Institute, Head of the Department of Integrative Ecophysiology, Co-Chair of the IPBES/IPCC workshop scientific steering committee - ***Piero Visconti***, International Institute for Applied Systems Analysis (IIASA), Biodiversity, Ecology, and Conservation Research Group Leader - ***Andrew M. Deutz***, The Nature Conservancy, Director of Global Policy, Institutions and Conservation Finance, Debate on outcomes of the Workshop and further considerations on the implementation of NbS or EbA will follow, moderated by the ISPRA senior researchers. Guiding questions for G20 members: ✓ *What are the gaps and the sectors to be first addressed in your Country?* ✓ *What are the priorities to further achieve success at a local and regional scale also with transboundary or transnational initiatives?* ✓ *How can we improve communication to make sure that the lessons learned by some countries will be leveraged by other countries to avoid the same problems?*
15:50 – 16:00	**Conclusions** Final remarks by the G20 Presidency