

EU submission for the intergovernmental consultation following up on the UNEA Resolution 5/5 (UNEP/EA.5/Res.5) on Nature-based Solutions in reply to the co-chairs' invitation to provide input in relation to the overall aim of the intergovernmental consultations and the three specific tasks for the consultations specified in the resolution.

To be posted on the intergovernmental consultation webpage (www.unep.org/about-unenvironment/intergovernmental-consultations-nbs) before the meeting.

1) Overall aim of the intergovernmental consultations

As stated in the UNEA Resolution 5/5 this intergovernmental consultation is “to further support the implementation of nature-based solutions, as defined in the present resolution”. It is not to renegotiate the framing and the multilaterally agreed definition on nature-based solutions included in resolution. There are many ways to support the implementation of nature-based solutions including through communication, education, networking and building partnerships, through exchanging knowledge and best practice and through identifying financial resources and how to access them. Both regional and global consultations should be inclusive and draw on available knowledge from examples on all levels and scales *inter alia* to examine the evidence for successful governance, business, finance and public participation schemes for the implementation of nature-based solutions.

2) Three specific tasks for the consultations specified in the resolution

(a) Compile examples of best practice in nature-based solutions, based on the best available science;

Nature-based solutions have a real and transformative potential to contribute to addressing the triple planetary crisis of climate change, pollution and biodiversity loss, while positively affecting human health and societal well-being. This means they help addressing the planetary emergency we are in, while providing job and business opportunities. The European Union (EU) has actively pursued policy dialogues and outreach initiatives at EU and global level to foster engagement, develop a broad knowledge base and stimulate market supply and demand for nature-based solutions.

The EU has organized open consultations and dialogues on nature-based solutions since 2013 and is a longstanding supporter of nature-based solutions including through its research programmes H2020 (2014-2020) and Horizon Europe (2021-2027). It is noteworthy that international partners participate in these programmes. Detailed information and links to past and on-going nature-based solutions projects and programmes are provided in the infographic in [Annex 1](#).

Another [infographic](#) shows that nature-based solutions are designed to bring more nature and natural features and processes to cities, landscapes and seascapes. Besides benefits directly stemming from enhancing biodiversity, these innovative solutions also support economic growth, create green jobs, contribute to social justice and enhance our well-being.

Nature-based solutions play a vital role in a nature positive economy. This independent expert [report](#) identifies that large scale investment in NBS presents significant but largely unexplored potential to deliver a viable route to a nature-positive economy. It profiles some of the economic activities where nature-based enterprises are engaged in the delivery of nature-based solutions – generating new jobs and skills, innovations, and wider economic impacts. The large-scale investment in nature-based solutions needed for transitioning to a nature-positive economy must carefully balance the vast potential to harness nature for economic development and job creation with equal respect for the voice of communities, culture and traditions and above all, lead to enhanced biodiversity.

Case studies:

With expertise in research, implementation, business strategy, policy and communication - ICLEI Europe, IUCN, BiodivERsA, Oppla and Steinbeis 2i have joined forces to create [NETWORK NATURE](#) which has established a European and global platform allowing all interested stakeholders to access and contribute cutting-edge, innovative knowledge and expertise on nature-based solutions.

[Oppla](#), the EU repository of case studies on NBS, natural capital and ecosystem services and NetworkNature serve as important resources for the nature-based solutions community, creating opportunities for local, regional and international cooperation to maximise the impact and spread of nature-based solutions.

As a direct response to addressing a significant bottleneck where cities and developers seeking to implement nature-based solutions voiced their difficulty in finding and sourcing skilled suppliers of nature-based solutions, the [Connecting Nature Enterprise Platform](#) ¹ was launched. Developed as a marketplace to match buyers and suppliers of nature-based solutions, the Platform aims to share knowledge and relevant research outcomes on nature-based economic activities.

The Horizon 2020 [OPERANDUM](#) project is demonstrating nature-based solutions for mitigating climate-related hazards and inspiring people to take action. At the heart of the project lie its open-air laboratories (OALs) that it has set up for local stakeholders to co-design and implement nature-based solutions for specific hazards in rural and natural areas. Ten OALs have been established in Australia, Austria, China, Finland, Germany, Greece, Ireland, Italy, and the United Kingdom to address hazards such as river flooding, coastal erosion, landslides, and droughts. One of the project's flagship results is the Geospatial Information Knowledge Platform (GeoIKP) which offers many different types of online tools and services aimed at various stakeholders to learn about NBS and OPERANDUM Open-air Laboratories (OALs), explore existing NBS projects on natural hazards, search for datasets of relevance in the context of NBS design and monitoring (e.g. climate data, hazard maps, land use info, relevant policies, etc.) and also perform GIS analysis which shall support evidence-based decision on NBS replication and/or upscaling. (<https://geoikp.operandum-project.eu/about>)

The project [PONDERFUL](#) assesses scenarios of pondscape management as nature-based solutions for biodiversity and ecosystem services, as well as for climate change adaptation and mitigation in seven European (Belgium, Denmark, Germany, Spain, Switzerland, Turkey, UK) and one CELAC (Uruguay) countries representing three bioclimatic regions in northern and southern hemisphere. Its latest

¹ <https://naturebasedenterprise.com/>

publication analyses both challenges and opportunities in the use of ponds and pondsapes as nature-based solutions.

The [JUSTNature](#) project emphasizes the important notion of ecological justice that is central in implementing nature-based solutions. The overall objective is the activation of nature-based solutions by ensuring a just transition to low-carbon cities, based on the principle of the right to ecological space. This in particular refers to the right to clean air and indoor/outdoor thermal comfort for human health and well-being, as well as thriving biodiversity and ecosystems. It also refers to the duty of not constraining the ecological space of others, in particular in relation to the mitigation of climate change and measures required for reducing GHG emissions. JUSTNature will contribute to this vision of shaping low-carbon cities by developing a set of typical Low carbon | High air quality nature-based solutions in seven European city practice labs.

To unlock the potential of nature-based solutions for sustainable urban development, [NATURVATION](#) took a transdisciplinary, internationally comparative approach. It produced an [Urban Nature Atlas](#) that records more than 1000 inspiring nature-based solutions from European cities and beyond. It also developed a Nature-Based Solutions Navigator to support decision-makers in identifying which kinds of nature-based solutions contribute towards which sustainable development goals. To tackle investment-related issues, the project has also developed new business models and financing mechanisms through which nature-based solutions can be supported.

The [UNALAB project](#) has developed a [nature-based solutions replication framework](#) to support cities in the implementation of nature-based solutions for climate and water resilience based on the use of tailored IT-tools and the implementation of Living Lab approaches. The framework follows an adaptive management cycle, or PLAN-DO-CHECK-ACT cycle, supporting every step in the nature-based solution implementation process and provides different entry points for different type of stakeholders, including citizens.

As already said many of the projects mentioned above include international partners. Moving towards a more strategic, targeted and collaborative approach with Latin American and Caribbean (LAC) countries, the EU – LAC Policy Dialogue Support Facility has initiated a dialogue on nature-based solutions, which includes a baseline study, and a bi-regional conference, with engagement of the key stakeholders on nature-based solutions and the relevant policies and developments in both regions. This initiative is based on the [2021 – 2023 EU-CELAC Strategic Roadmap for Research and Innovation – ‘Environmental aspects of sustainable development’](#). In 2019 the [EU-Brazil Sector Dialogue on Nature-based Solutions](#) (2015-2019) delivered its report. Twenty-five case studies from both sides of the Atlantic illustrate how working with nature can have a positive impact on people’s lives. The chosen examples address many challenges: from water management, to ecosystem restoration, urban heat island effect, floods, landslides or coastal erosion.

The contribution to the nature-based solutions work stream of the Climate Action Summit in 2019 (Annex 2) provides a condensed overview on EU’s work on nature-based solutions until mid-2019. In September 2019 with the adoption of the [European Green Deal](#) (EGD) the EU agreed on a holistic roadmap for a just transition leaving no one behind recognizing the importance of protecting and restoring ecosystems. In this context, the transformative change needed to tackle the interdependent climate and biodiversity crisis can greatly benefit from investments in NBS. In the frame of the EGD

several initiatives have been established which recognize the multiple benefits for nature, people and biodiversity which can be harnessed through the implementation of nature-based solutions.

These initiatives include *inter alia*:

- ✓ the [EU's Biodiversity Strategy for 2030](#) and its [Nature Restoration Law](#) which highlight the important role of nature and nature-based solutions for human wellbeing and climate. As part of the strategy - in order to bring nature back to cities and reward community action - European towns and cities of at least 20,000 inhabitants have been called to "...develop ambitious Urban Greening Plans" including "measures to create biodiverse and accessible urban forests, parks and gardens; urban farms; green roofs and walls; treelined streets; urban meadows; and urban hedges." Following up the EU together with Eurocities and ICLEI has developed [guidance for cities on urban greening plans](#). This guidance aims to support local authorities in achieving this objective.
- ✓ the [EU's Climate Change Adaptation Strategy](#) which recognizes the need to better understand the interdependencies between climate change, ecosystems, and the services they deliver and to leverage more investments in nature-based solutions to generate gains for adaptation, mitigation, disaster risk reduction, biodiversity, and health.
- ✓ the [European Bauhaus Initiative](#), a creative and interdisciplinary initiative connects the European Green Deal to our living spaces and experiences, which calls on all of us to imagine and build together a sustainable and inclusive future that is beautiful for our eyes, minds, and souls. Beautiful are the places, practices, and experiences that are: a) enriching, inspired by art and culture, responding to needs beyond functionality, b) sustainable, in harmony with nature, the environment, and our planet and c) inclusive, encouraging a dialogue across cultures, disciplines, genders and ages.

The related knowledge platforms – [European Knowledge Centre for Biodiversity](#) and [European Climate Adaptation Platform Climate-ADAPT](#) also provide data and knowledge on nature-based solutions.

(b) Assess existing and discuss potential new proposals, criteria, standards and guidelines to address divergences, with a view to achieving a common understanding among Member States for the implementation of nature-based solutions, including to support Member States in designing, implementing and evaluating nature-based solutions, building on existing work, initiatives and platforms, as appropriate, and without prejudice to existing efforts and initiatives of and new proposals from individual Member States;

The [Handbook for Practitioners](#) accompanied by a [summary for policy makers](#), is based on the findings of research on nature-based solutions and provides a comprehensive nature-based solutions impact assessment framework, and a robust set of indicators and methodologies to assess impacts of nature-based solutions across 12 societal challenges: Climate Resilience; Water Management; Natural and Climate Hazards; Green Space Management; Biodiversity; Air Quality; Place Regeneration; Knowledge and Social Capacity Building for Sustainable Urban Transformation; Participatory Planning and Governance; Social Justice and Social Cohesion; Health and Well-being; New Economic Opportunities and Green Jobs. The accompanying Appendix of Methods provides a brief description of each indicator

and recommends appropriate methods to measure specific impacts, along with guidance for end-users about the appropriateness, advantages and drawbacks of each method in different local contexts.

The European Partnership on Biodiversity [BIODIVERSA+](#) aims *inter alia* to contribute to high-end knowledge for deploying nature-based Solutions through co-developing research and innovation activities on nature-based solutions with relevant stakeholders (in particular practitioners, land planners, businesses, local authorities and citizens) and reinforcing the uptake of nature-based solutions. The partnership brings together 74 partners from 36 countries inside and outside Europe including partners from Brazil and South Africa.

To realise the transformative potential of NBS, their practical implementation must be accelerated and the evidence-base of NBS outcomes and impacts must be further strengthened. As implementation efforts accelerate, it also becomes more important to ensure that implemented NBS interventions set high-quality standards for their own operations and for future projects. The NetworkNature semester on “[NBS and Standards](#)” focused on better understanding what high-quality NBS means in practice and how quality principles and criteria can be translated into universally applicable standards.

(c) Identify options for supporting sustainable investment in nature-based solutions and share information on bilateral and multilateral sources of finance to enable developing countries to develop and deploy nature-based solutions;

The H2020 project Connecting Nature has developed a [guidebook](#) which introduces the topic of financing and business models for nature-based solutions, identifies some common challenges and enablers to financing and presents a step-by-step guide to securing financing. Connecting Nature also delivered a [report](#) on public procurement on nature-based solutions.

The European Investment Bank (EIB) and the European Commission have undertaken a study on the ‘Assessment of access-to-finance conditions for innovative nature-based solutions in the EU’. The study looks at what prevents large scale private finance and investment into NBS through the state of the market and market trends, as well as the market failure and barriers. It investigates the most relevant financing tools for nature-based solutions, value creation sources, and finally makes recommendations in terms of the way forward.

The European Environment Agency prepared a brief [Financing Nature as a Solution](#) that highlights four focus areas for more effective financial investment in nature-based solutions. In the context of financing of nature-based solutions special attention must be given to equity and justice aspects. A systemic view of the role of financial capital in shaping future value creation through nature-based solutions is needed.

In order to build successful business cases for investment in nature-based solutions methods on mapping and assessing ecosystem services and valuing nature are important assets. The MAES initiative on Mapping and Assessing Ecosystems and their Services has delivered in 2020 the [first EU wide ecosystem assessment](#) and an [EU-wide methodology to map and assess ecosystem condition](#). EU has also invested in research on valuing nature, and integrating natural capital valuation methods at EU and national level, as well as in businesses, and will continue to do so.

Annex 1:

Infographic on projects in nature-based solutions funded under the EU's H2020 and Horizon Europe Programmes https://rea.ec.europa.eu/publications/nature-based-solutions-0_en

Annex 2:

EU submission to the work stream on nature-based solutions co-led by China and New Zealand in the context of the Climate Action Summit 2019.

Contribution to Track #6 Nature-Based Solutions by the EU/European Commission drawing on existing policies and strategies

Joining forces and prioritising nature-based solutions with safeguards

Context and rationale

Science is clear: half a degree matters – each year matters – each choice matters. Climate change interacts and exacerbates other drivers of biodiversity loss, and vice-versa. Both IPCC and IPBES reports describe the increasing impacts of climate change on biodiversity and ecosystem services, and the crucial role of ecosystem services for climate regulation.

Climate, biodiversity and long term sustainability objectives can only be achieved through addressing climate change land and ecosystem degradation in an integrated manner. Better alignment between policies to phase out counterproductive measures, emphasis on multiple benefits and scaling up of action through more integrated approaches are vital and urgent.

The principles and safeguards laid down in the voluntary guidance adopted at CBD CoP14 for the design and effective implementation of ecosystem-based approaches to climate change adaptation and disaster risk reduction² could serve as a basis for safeguards for nature-based solutions/natural climate solutions.

An overview of the contribution

This submission includes a number of examples of how the European Commission promotes nature-based solutions (NBS). Depending on their user community, NBS are shaped also as ecosystem-based adaptation (EbA), Green Infrastructure (GI), ecosystem-based Disaster Risk Reduction (EcoDRR), or Natural Water Retention Measures (NWRM). All have in common that they deliver multiple benefits, based on the assumption that ecosystems, if in healthy conditions, deliver at the same time important services for human well-being and address economic, social and environmental targets, including climate change adaptation and mitigation and biodiversity conservation, enhancement and restoration.

Improved implementation of the current policies and strategies will contribute to reduce carbon emissions and climate vulnerability and increase carbon capture, climate resilience and food security. The implementation of nature-based solutions creates jobs and business opportunities and these ecosystem-based approaches are ready for use and easily accessible. It can be a

² CBD COP14/5 <https://www.cbd.int/doc/decisions/cop-14/cop-14-dec-05-en.pdf>

significant contribution to transformative change needed to stem the climate and ecological crises as outlined in the IPBES global assessment on biodiversity and ecosystem services.

EU Strategies and Policies in support of nature-based solutions

- The [EU Strategy on adaptation to climate change](#) (2013) commends ecosystem-based approaches (EbA) for their cost-effectiveness under different scenarios, for being easily accessible, and for providing multiple benefits.
- The EU [Green Infrastructure Strategy](#), (2013) commends to consolidate actions on green infrastructure, ecosystem-based approaches to adaptation and disaster risk reduction. At the core of the Green Infrastructure is the Natura 2000 network, the largest coordinated network of protected areas in the world stretching over 18 % of the EU's land area and almost 10% of its marine territory.
- The EU [Biodiversity Strategy for 2020](#) (2011) called on Member States to map and assess the state of ecosystems and their services in their national territory with the assistance of the European Commission, including the important role that ecosystems play in mitigating climate change and adapting to its impacts as essential ecosystem services.
- The EU "Blueprint to Safeguard Europe's Water Resources" recognizes the role of [Natural Water Retention Measures](#) for preventing flood risk when producing co-benefits.
- The [EU Action Plan on the Sendai Framework for Disaster Risk Reduction](#) covers ecosystem based approaches to DRR under priority 3 'Investing in disaster risk reduction for resilience'.
- The [EU policy on international ocean governance \(2016\)](#) sets out a series of action with a nature-based solution approach. The EU has recognized the importance of the oceans and climate nexus and is promoting and developing ocean-related action to implement the Paris Agreement, including nature-based solutions.

Investment in Nature-based solutions

- The [Research and Innovation policy initiative on Nature-based solutions](#) triggered a to portfolio of projects on nature-based solutions supported with EUR 156 M (200 M up to 2020) under the Current Framework Programme, Horizon 2020.
- The [Urban Agenda for the EU](#) partnerships includes a partnership on sustainable land use and nature-based solutions.
- The [Global Climate Change Alliance Flagship](#), since 2007 has supported 77 countries (37 LDCs, 39 SIDS) in implementing actions for tackling climate change (including disaster risk reduction, from which 72% are directly related to nature-based solutions.
- The EC is the major funding institution for an [Eco-DRR Programme](#) implemented by UNEP.
- The [Natural Capital Financing Facility](#), set up by the EC and the European Investment Bank with a budget of €185 million, provides resources for the preservation of natural capital, including adaptation to climate change.
- Since 2017, the EU has dedicated specific funding to restore marine and coastal ecosystems in different regions around the world, including the Mediterranean, Southeast Asia, and the ACP countries for a total of more than EUR 90 million.³

Knowledge hubs and knowledge items

³ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019SC0104&from=EN>

OPPLA, the EU knowledge repository on NBS, Natural Capital and Ecosystem Services holds a [database of more than 100 NBS case studies](#) . A Knowledge repository on natural water retention measures has been developed with key stakeholders (<http://nwrn.eu>), as well as guidance including on [finance instruments](#). A set of common indicators for assessing the impact of NBS in urban areas, [guidelines on how to finance NBS](#) , innovative NBS business models framework are being developed through the on-going projects. The indicators address climate mitigation and adaptation (carbon emissions reduction, carbon sequestration, temperature decrease, flood peak and runoff reduction), water quality and availability, air quality, accessibility and connectivity of green infrastructures, as well as on different social and economic issues: social cohesion, health, well-being, or creation of green jobs.