

Topic 2: Bioeconomy and Nature-based Solutions

Title: Bioeconomy and Nature-based solutions to address climate change and biodiversity loss, promoting sustainability and climate resilience in urban and rural contexts

Why is this area relevant and which societal challenges does it address?

The global crisis of climate change and biodiversity loss presents critical challenges across environmental, political, social and economic spheres. Strategies such as ecosystem-based adaptation, eco-disaster risk reduction, regenerative agriculture, sustainable landscaping, and green and blue infrastructure are approaches that demonstrate the potential of working with nature to address these challenges holistically. In this context, Nature-based solutions (NbS) emerge as a unifying framework that comprises actions to protect, conserve, restore and sustainably manage natural or modified terrestrial, freshwater, coastal and marine ecosystems. Their significance lies in their capacity to effectively address social, economic, and environmental challenges while promoting human well-being, ecosystem services, resilience, and biodiversity benefits. When integrated with bioeconomy principles, which promote the sustainable use of biological resources to produce goods, services, and energy, NbS can catalyse the transition towards more sustainable and circular economic models that value and preserve natural capital.

The relevance of this field is evidenced by its international recognition and integration into key global frameworks such as the Kunming-Montreal Global Biodiversity Framework and the Sustainable Development Goals. This growing recognition has strengthened the research and innovation partnership between the European Union (EU) and Latin America and the Caribbean (LAC), where NbS have become a cornerstone of collaborative efforts.

The implementation and advancement of NbS varies across regions, reflecting different contexts and priorities. According to the independent expert report from the European Commission, launched in September 2024 ["Bridging continents. Exploring the state-of-play of Nature-based Solutions in the EU and LAC: Building a foundation for collaboration"](#), in Latin America and Caribbean, where urban areas house 80% of the population, NbS initiatives focus on balancing rapid growth with nature conservation, developing strategies such as ecosystem-based adaptation and eco-disaster risk reduction, while greater emphasis is needed on strengthening social inclusion and fostering inclusive governance. According to the report, in Europe, research efforts have built evidence foundation that has enabled the integration of NbS into key European Green Deal policies, including the EU Biodiversity Strategy, Nature Restoration Law, and Climate Adaptation Strategy.

From a general perspective, both regions face common challenges in maximising NbS impact and implementing bioeconomy approaches, including integrating biodiversity into urban planning, facilitating the transition towards low-carbon economies, and strengthening the link between biodiversity conservation and climate adaptation strategies.

Precise scientific research question including added value gained from EU-LAC cooperation for both regions

Global agendas outline the path forward by establishing goals and targets to be achieved across different scales and implemented on the ground. The Kunming-Montreal Global Biodiversity Framework, adopted in 2022, represents a landmark initiative designed to address the critical

biodiversity crisis whilst promoting ecosystem recovery for the benefit of both people and the planet. The Paris Agreement, adopted in 2015 and enacted in 2016, represents a global commitment to combat climate change, enhance climate resilience and reduce greenhouse gas emissions. In 2015, the United Nations General Assembly unanimously approved the 2030 Agenda for Sustainable Development: an action plan for people, planet, prosperity, and peace. However, progress reports reveal concerning trends, with many targets remaining unmet and challenges in achieving integrated implementation across frameworks. This situation calls for comprehensive initiatives that directly contribute to climate action, sustainable development, and biodiversity conservation. NbS and bioeconomy schemes play a pivotal role within these frameworks, as their multifunctional approach enables simultaneous contributions to multiple targets. These approaches drive ecosystem conservation and restoration, enhance climate resilience, and generate sustainable social and economic benefits, advancing the implementation of international environmental frameworks and their vision statements

In this context, this call aims to examine how the implementation of NbS and bioeconomy schemes, developed through EU-LAC cooperation initiatives, contribute simultaneously to achieving targets of biodiversity conservation, climate action, and sustainable development agendas, and what aspects of this collaborative approach provide added value to the process.

The potential added value of bi-regional cooperation emerges from multifaceted benefits in knowledge exchange. Key advantages include, but are not limited to:

- Enhanced sharing of expertise, data, and best practices, alongside opportunities for democratising knowledge through collaborative project development and inclusive knowledge integration.
- Multidirectional learning, where diverse regional perspectives and experiences contribute to innovative solutions.
- Strengthened multi-level engagement, which can effectively address policy and regulatory barriers, unlock innovative financing mechanisms, and foster meaningful local community participation.
- Strengthened inter-city and cross-country relationships, enabling NbS implementation across diverse contexts whilst facilitating policy alignment between the Kunming-Montreal Global Biodiversity Framework objectives and national agendas.

Expected impact for both regions

EU-LAC collaboration initiatives from this call are expected to facilitate the alignment of global environmental and sustainability agendas with national policies and targets, enhancing the climate resilience of territories and improving ecosystem health for both biodiversity and people.

The anticipated impacts of bi-regional collaboration encompass strengthening the implementation of NbS and bioeconomy schemes, whilst promoting innovative solutions as viable alternatives to traditional and unsustainable practices—such as grey infrastructure in cities. This collaboration is expected to foster sustainable economic development through the creation of green jobs in biodiversity management, green-blue infrastructure, and ecological restoration.

Furthermore, this partnership aims to catalyse transformative change through enhanced multi-level environmental governance, innovative financing mechanisms, and knowledge transfer platforms. Crucially, it has the potential to promote social equity by ensuring equitable distribution of NbS benefits and meaningful community participation, delivering lasting impacts for both regions.

Additional information: strategic, tactical and operational topics

- The [Kunming-Montreal Global Biodiversity Framework](#), adopted at COP 15, establishes a comprehensive plan with four 2050 goals and 23 targets for 2030, aiming to achieve global harmony with nature through national commitments and international cooperation.
- The [Paris Agreement](#), adopted at COP21 in 2015, aims to limit global warming, requiring countries to reach net-zero emissions by mid-century through increasingly ambitious climate action plans.
- The [United Nations' 2030 Agenda for Sustainable Development \(A/RES/70/1\)](#), adopted in 2015, aims to achieve sustainable development globally by 2030. It presents 17 Sustainable Development Goals (SDGs) focused on eradicating poverty, protecting the planet, and ensuring prosperity and peace, with commitments across economic, social, and environmental dimensions.
- The UNEP and IUCN report [“Nature-based solutions for climate change mitigation”](#) examines how NbS can contribute to climate change mitigation and achieving net zero by 2050, whilst evaluating the role of carbon offsets in financing these initiatives.
- The UNEP Resolution 5/5: [“Nature-Based Solutions for Supporting Sustainable Development”](#) outlines the United Nations' resolution on NbS for addressing sustainable development challenges, emphasising actions to protect and manage ecosystems to support human well-being, resilience, and biodiversity.
- The report [“Bridging continents. Exploring the state-of-play of Nature-based Solutions in the EU and LAC: Building a foundation for collaboration”](#), addresses the current state of NbS in the European Union and Latin America and the Caribbean, analysing progress, challenges, and opportunities in their implementation. It proposes concrete steps to strengthen EU-LAC cooperation in areas such as joint research, policy integration, capacity building, and innovative financing of NbS.
- This [EU research and innovation webpage](#) provides an overview of the European Commission's approach to NbS, covering their definitions, global relevance, funding opportunities, research projects, and collaborative initiatives.
- The report [“Nature-based Solutions for Climate Resilient Cities: Perspectives and experiences from Latin America”](#) presents tools to integrate NbS and climate risk assessments into city planning across LAC, aiming to promote resilient urban development through ecosystem services.
- The paper [“Nature-Based Solutions in Latin America and The Caribbean: Regional Status and Priorities for Growth”](#) outlines the growing transition in LAC towards scaling up the adoption of NbS to transform infrastructure planning and investment for more equitable and sustainable development across multiple sectors.