

# ENHANCING ECOLOGICAL CONNECTIVITY IN TRANSPORT INFRASTRUCTURE: ALIGNING NATIONAL POLICIES, STRATEGIES AND IMPLEMENTATION WITH THE EU'S GREEN INFRASTRUCTURE STRATEGY

## POLICY BRIEF



### EXECUTIVE SUMMARY

To achieve sustainable development, it is crucial to regulate the relationship between transport (grey) infrastructure and ecological (green and blue) infrastructure. The BISON project thoroughly analysed the alignment of policies and strategies, as well as the level of implementation maturity, in accordance with the European Union Strategy for Green Infrastructure (EU SGI).

Its aim is to ensure ecological connectivity in infrastructure development and provide recommendations to address different maturity levels. BISON findings indicate that while there has been some integration of biodiversity and green infrastructure in national legislation and policies, further advances are necessary, especially in terms of incorporating biodiversity and ecological connectivity in the development and maintenance of transport-related projects at national and regional level.

### KEY POLICIES RECOMMENDATIONS

- To provide a clear and broader definition of "green infrastructure" at EU level and ensure its appropriate translation at national level.
- To integrate biodiversity and ecological connectivity into national transport policies and strategies.
- To mainstream biodiversity into the funding of EU programmes and the national budget for transport and all other sectors over time.
- To define entry points for mainstreaming biodiversity into all development sectors at national level, including national level policies and plans, at sectoral level, development cooperation programmes, local/regional level development plans and actions, and at project level.
- To apply the "polluter pays" principle, accounting not only for the effects of pollution, but also for the effects of the loss of ecological connectivity.



# INTRODUCTION: EU'S LONG-STANDING COMMITMENT TO BIODIVERSITY CONSERVATION, INTRODUCING THE PROMISING EU GREEN INFRASTRUCTURE STRATEGY

The protection of biodiversity has been at the heart of European policies since the beginning of its intervention in environmental matters. The Birds Directive, adopted in 1979, and the Habitats Directive, adopted in 1992, respectively established a framework for the conservation of wild bird species and the basis for a European network of protected areas, known as Natura 2000. More recently, the European Union has committed to following the Kunming-Montreal Global Biodiversity Framework, which calls for respect for the integrity of all ecosystems.

However, despite the multiplicity of policies dedicated to the protection of ecosystems, the "State of Europe's Nature 2020" report, by the European Environment Agency, reveals that biodiversity continues to decline: two-thirds of the species protected by the Habitats Directive in the EU present a poor or suboptimal conservation status. Overexploitation and unsustainable management practices are primarily threatening Europe's protected species.

At the same time, transport infrastructure is one of the anthropogenic activities exerting direct and indirect pressure on biodiversity.

In response to this challenge, the Green Infrastructure Strategy, initiated by the European Union, was a first step in addressing the complex interactions between transport and biodiversity land uses.

Green infrastructure is a strategically planned network of natural and semi-natural areas and other environmental features designed and managed to produce a wide range of ecosystem services. Unlike most "grey" infrastructure, which encompasses construction infrastructure, such as roads and energy networks, typically serving a single purpose, green infrastructure is inherently multifunctional: it contributes to biodiversity conservation, ecosystem services such as climate change mitigation, the identification of critical species habitats, and habitat connectivity.

The European Commission's Green Infrastructure Strategy aims to encourage the deployment of this type of infrastructure in Member States in a comprehensive approach. Despite the importance of the Green Infrastructure Strategy in promoting environmental sustainability, its adoption and implementation at national level remain insufficient, fragmented and lacking in ambition.



Photo credit: Adobe Stock

## MAIN FINDINGS

### LACK OF COORDINATION HINDERS THE INTEGRATION OF THE EU GREEN INFRASTRUCTURE STRATEGY INTO NATIONAL TRANSPORT POLICIES

The BISON project evaluated the integration of the non-binding EU SGI policy into national transport policies. This review examined how national policies, such as transport master plans and strategic environmental assessments, align with the EU's SGI and Biodiversity Strategy, particularly regarding biodiversity and ecological connectivity in all transport modes. The assessment revealed shortcomings at Member State level, mainly due to a lack of coordination between the two sectors and their administrative levels.

### BIODIVERSITY TAKES A BACKSEAT: EUROPEAN TRANSPORT POLICIES MISALIGNED WITH CONSERVATION GOALS

#### **Differing national interpretations of the Green Infrastructure Strategy hamper progress**

EU Member States have considerable flexibility in interpreting and implementing the European Green Infrastructure Strategy due to its novelty, non-binding nature and inadequate coordination between the transport and biodiversity sectors and administrative levels. Consequently, these variations in interpretation have resulted in significant disparities in how green infrastructure is defined across various Member States and in its alignment with the European Commission's definition. Consequently, certain Member States lean toward a more restrictive interpretation of the term, which has led to a limited inclusion of this strategic policy within their national transport plans.

#### **Environmental Impact Assessments: Disregarded Findings leading to the Erosion of Biodiversity Considerations in Infrastructure Projects**

While environmental impact assessments carry legal weight, their findings may still be disregarded, either partially or entirely. Indeed, environmental impact assessments are determining documents informing the decision on whether to authorise infrastructure projects. They therefore constitute a key factor in the consideration of biodiversity in transport infrastructures. However, the effectiveness of impact assessments can be altered by the accelerated procedures used and the discretion granted to public authorities who can approve a project that has been demonstrated to be detrimental to the environment by the impact assessment under the justification of "overriding public interest".

## POLICY RECOMMENDATIONS

There is a clear need to transform political will into action by integrating international and European policies in decisions on strategies and action plans at national level, based on the criteria of the four pillars of sustainability (society, environment, economy and reversibility of impacts) and the needs of biodiversity conservation.

It is crucial to provide a clear definition of green infrastructure (GI) with concrete management directions for Transport Policy and Strategies documents, as well for other sectors (i.e. agriculture policy), considering their cumulative impacts on GI, identifying and ensuring the functionality of ecological corridors.

The definition of green infrastructure should be carried out at EU level. Each country should then deal with an appropriate translation of this definition. This will enable a coherent and harmonised approach to green infrastructure in each country, in line with the guidelines and objectives of the European Green Deal.

The overall objective of green infrastructure from a biodiversity perspective should be to contribute to the conservation of species, habitats and ecosystems. The ratification of international conventions and agreements with concrete national action plans has enabled their transposition into national legal and institutional systems. To achieve a truly interconnected and resilient Trans-European Nature Network, it becomes crucial to establish ecological corridors that prevent genetic isolation, facilitate species migration and uphold the well-being of ecosystems. In this context, promoting and supporting investments in green and blue infrastructure, as well as fostering cross-border cooperation between Member States, including through the European Territorial Cooperation, becomes essential.

BISON proposes recommendations for improving policies and legislation at EU and Member State level for implementation at local and regional level:

- Mainstream biodiversity and ecological connectivity in EU programme funding and national budgeting for transport and all other sectors over the years.
- Define entry points for mainstreaming biodiversity into all development sectors at national level. These entry points can be:
  - State-level policies and plans
  - Local/regional level (development plans and actions)
  - Development of cooperation programmes
  - Sectoral level
  - Project level
- The application of the "responsible polluter pays principle" should not only focus on pollution, but also consider the wider impacts on biodiversity and ecological connectivity. By implementing this recommendation, the objective highlighted in § 3.3.2 of the EU Biodiversity Strategy can be supported. This strategy encourages the adoption of tax systems and pricing mechanisms that account for environmental costs, including the loss of biodiversity. It involves incentivising adjustments in national fiscal systems to shift the tax burden from labour to pollution and undervalued resources, while also applying the principles of 'user pays' and 'polluter pays' to prevent and address environmental degradation.

