



Bio Knowledge Agora: Developing the Science Service for  
European Research and Biodiversity Policymaking

# D2.2. A Science brief on policy instruments to support the EU Biodiversity Strategy for 2030

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## LIST OF ACRONYMS AND ABBREVIATIONS

Acronym / Abbreviation	Meaning / Full text
BDS2030	EU Biodiversity Strategy for 2030
CAP	Common Agriculture Policy
CSRD	Corporate Sustainability Reporting Directive
EU	European Union
GBF	Kunming-Montreal Global Biodiversity Framework
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
NbS	Nature-based Solutions
NRL	Nature Restoration Law
OECD	Organisation for Economic Co-operation and Development
PES	Payment for Ecosystem Services Schemes
R&D	Research & Development





## BACKGROUND: ABOUT THE BIOAGORA PROJECT

BioAgora is a collaborative European project funded by the Horizon Europe programme. It aims to connect research results on biodiversity to the needs of policy making in a targeted dialogue between scientists, other knowledge holders and policy actors.

Its main outcome will be the development of a Science Service for Biodiversity. This new service will fully support the ecological transition required by the European Green Deal and the European Union's Biodiversity Strategy for 2030.

The BioAgora project was launched in July 2022 for a duration of 5 years. It gathers a Consortium of 22 partners, from 13 European countries, led by SYKE, the Finnish Environment Institute. Partners represent a diversity of actors coming from academia, public authorities, SMEs, and associations.

Funded by the European Union. BioAgora receives funding from the European Union's Horizon Europe research and innovation programme under grant agreement No. 101059438.

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## EXECUTIVE SUMMARY

This document is the deliverable of Task 2.2 from BioAgora Project, funded under the European Union's Horizon Europe research and innovation programme under the grant agreement No 101059438. This deliverable is presented as a science brief. It offers an overview of policy instruments and approaches to support the governance of biodiversity issues, in line with the targets of the Biodiversity Strategy to 2030 (BDS2030), and which are used by selected organizations at the EU science-policy-interface.

### Methods

Our analysis was based on data collected through semi-structured interviews with fifteen organizations, strategically selected. By adopting a semi-structured approach, we aimed to capture both the depth and breadth of insights from participants, facilitating a comprehensive understanding of the subject matter. The interviewees were asked to discuss the policy instruments supported by their work within the organization (in relation to EU Biodiversity Strategy targets), as well as implementation challenges and opportunities. To analyze the data, we developed a framework for policy analysis and policy tool assessment. The framework is based on the OECD's policy coherence framework for sustainable development (OECD, 2016) and has been tailored to meet the objectives of Task 2.2.

### Key messages

This science brief can be useful in different ways to different target audiences. In general, it provides a few insightful take-home messages on some of the main challenges and opportunities currently associated with policy approaches focusing on biodiversity targets. For researchers and practitioners working in the EU science-policy-society interface, some of these take-home messages may indicate relevant leverage points that should be explored in future research for more effective biodiversity conservation and enhancement. For policy-makers, it sheds light on relevant potential implementation barriers and pathways for improvement, which can help refine biodiversity policies to be more practical and effective at ground level.

### Collaboration within BioAgora tasks

In refining Task 2.2, we have ensured close collaboration with Work Packages WP1, WP4, WP5, and within WP2, to effectively identify relevant networks of organizations. The selection of organization/networks to engage with has been guided by defined criteria and by leveraging a shared project dataset. The criteria are as follows: 1. Network must be ongoing; 2. Network must be biodiversity focused; 3. Network must be influential (according to Eklipse); 4. Coverage to guarantee analysis of as many types of networks as possible. This strategic selection process in close collaboration with other BioAgora partners has been foundational to effectively identify the most relevant and influential organizations to engage with in this Task, to ensure a sufficient number of interviews while avoiding stakeholder fatigue, and to align our plans with the overarching project goals.

## NON-TECHNICAL SUMMARY

This document is a science brief and it summarizes the results of a research task dedicated to exploring the different policy instruments being employed to address the targets of the EU Biodiversity Strategy 2030, and to understanding what are the current main challenges and opportunities that different European organizations are facing in their work to support the design or implementation of these instruments.





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# 1. Aim

The EU Biodiversity Strategy for 2030 (BDS2030) aims at addressing the ongoing biodiversity crisis and ensuring the resilience of ecosystems, advancing a variety of targets (Figure 1) to protect nature and restore damaged ecosystems. To achieve these ambitious targets, a range of policy approaches and instruments is available to policy actors to promote conservation, restoration and enhancement of biodiversity. The design and implementation of these instruments is being supported, either directly or indirectly, by various organizations in the science-policy-society interface, whose actions and initiatives play a significant role in the successful achievement of the BDS2030 targets.

The aim of this brief is twofold: (1) to provide evidence and a better insight into the policy approaches and instruments being supported by the different types of organizations operating at the science-policy-society interface; and (2) to identify the main challenges and opportunities in the sustainable solutions being advanced by these organizations in support of BDS2030 targets, highlighting some innovative examples and potential trade-offs at stake.

This brief is an output of the BioAgora project (European Commission Horizon Europe programme No. 101059438). BioAgora is developing the Science Service for Biodiversity, which will be the principal mechanism connecting biodiversity knowledge with the needs of policy-makers, while also mainstreaming the knowledge base for decision-making. The reflections contained in this brief intend to contribute to transforming processes between science, policy and society. The findings here presented reflect the views and experience of the interviewees and not necessarily those of the organization to which they belong.

THEMES	ASSOCIATED TARGETS
<b>PROTECTION AND MANAGEMENT OF NETWORK OF PROTECTED AREAS</b>	<p><b>Target 1</b>   Legally protect a minimum of 30% of the EU's land area and a minimum of 30% of the EU's sea area, and integrate ecological corridors, as part of a true Trans-European Nature Network</p> <p><b>Target 2</b>   Strictly protect at least a third of the EU's protected areas, including all remaining EU primary and old-growth forests</p> <p><b>Target 3</b>   Effectively manage all protected areas, defining clear conservation objectives and measures, and monitoring them appropriately</p>
<b>LEGAL FRAMEWORK FOR RESTORATION OF NATURE (ENFORCEMENT AND IMPLEMENTATION)</b>	<p><b>Target 4</b>   Legally binding EU-l targets: By 2030, significant areas of degraded and carbon-rich ecosystems are restored; habitats and species show no deterioration in conservation trends and status; and at least 30% reach favorable conservation status or at least show a positive trend</p> <p><b>Target 17</b>   Stepping up implementation and enforcement of EU environmental legislation</p>
<b>AGRICULTURE, POLLINATION, AND REDUCTION OF PESTICIDES</b>	<p><b>Target 5</b>   The decline of pollinators is reversed</p> <p><b>Target 6</b>   The risk and use of chemical pesticides is reduced by 50%, and the use of more hazardous pesticides is reduced by 50%</p> <p><b>Target 7</b>   At least 10% of agricultural area is under high-diversity landscape features</p> <p><b>Target 8</b>   At least 25% of agricultural land is under organic farming management, and the uptake of agroecological practices is significantly increased</p> <p><b>Target 13</b>   The losses of nutrients from fertilizers are reduced by 50%, resulting in the reduction of the use of fertilizers by at least 20%</p>
<b>AFFORESTATION</b>	<b>Target 9</b>   Three billion additional trees are planted in the EU, in full respect of ecological principles
<b>FRESHWATER ECOSYSTEMS</b>	<b>Target 11</b>   At least 25,000 km of free-flowing rivers are restored
<b>MARINE ECOSYSTEMS</b>	<p><b>Target 15</b>   The negative impacts on sensitive species and habitats, including on the seabed through fishing and extraction activities, are substantially reduced to achieve good environmental status</p> <p><b>Target 16</b>   The by-catch of species is eliminated or reduced to a level that allows species recovery and conservation</p>
<b>LAND TAKE AND SOIL ECOSYSTEMS</b>	<b>Target 10</b>   Significant progress in the remediation of contaminated soil sites
<b>INVASIVE SPECIES</b>	<b>Target 12</b>   A 50% reduction in the number of Red List species threatened by invasive alien species
<b>GREENING URBAN AND PERI-URBAN AREAS</b>	<b>Target 14</b>   Cities with at least 20,000 inhabitants have an ambitious Urban Greening Plan
<b>TRANSFORMATIVE GOVERNANCE</b>	<b>Target 18</b>   European biodiversity governance framework (including a clear set of agreed indicators and will enable regular progress assessment and set out corrective action if necessary. The Commission will assess the progress and suitability of this approach in 2023, and consider whether a legally binding approach to governance is needed.)

Figure 1: The Biodiversity Strategy Targets (BDS2030) organized by 10 themes, as identified in the work developed in Deliverable 1.1 of BioAgora project (<https://doi.org/10.5281/zenodo.7685651>).





## 2. Policy approaches and instruments for biodiversity governance

Biodiversity and ecosystem governance can build on a wide range of policy instruments, which according to IPBES (2018:672) <sup>[1]</sup> can be broadly placed into four main categories (Figure 2): **Legal and regulatory instruments** (“command and control” measures usually applied to deal with environmental degradation); **Economic and financial instruments** (price- or quantity-based mechanisms intended to change the behavior of public and private investors); **Social and information-based instruments** (information-, education-, and certification-based mechanisms that highlight the relevance of socio-cultural dynamics to environmental conservation); and **Rights-based and customary norms instruments** (measures that integrate indigenous and local community rights, norms, standards, and principles into policy, planning, and implementation).

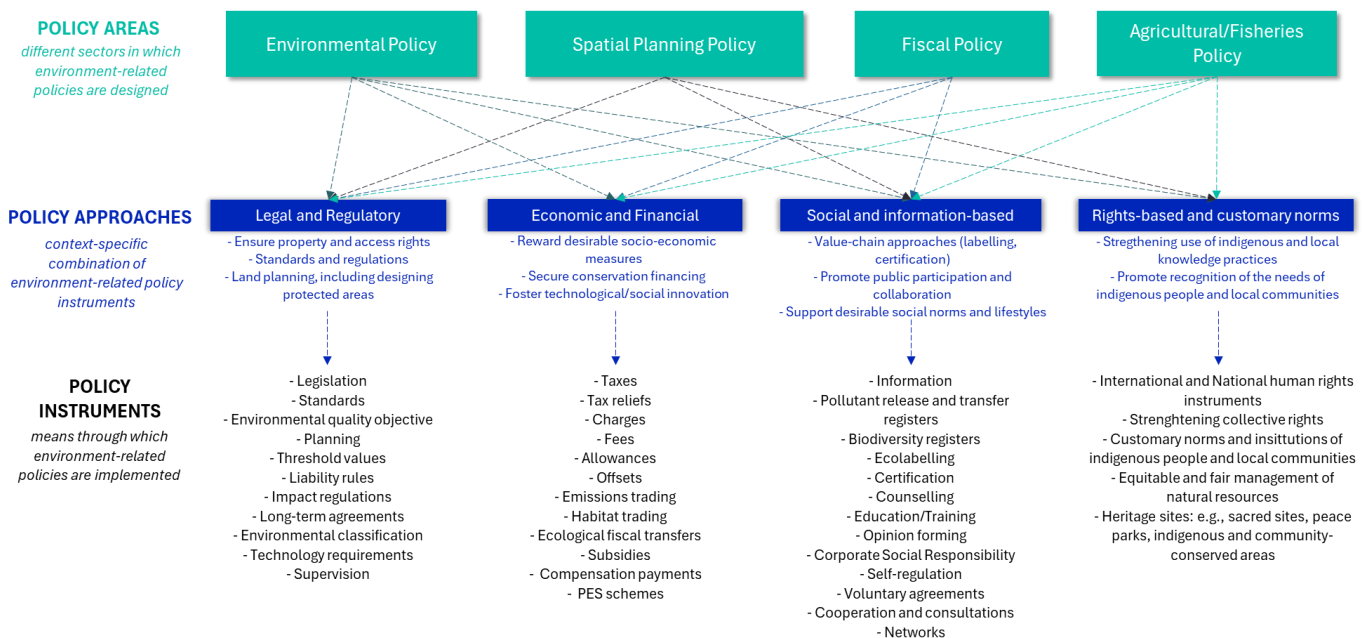


Figure 2: Hierarchical representation of policy areas, policy approaches and policy instruments related to biodiversity conservation, restoration, and enhancement. Inspired by <sup>[1,2]</sup>







### 3. Where does our data come from?

A set of semi-structured interviews were conducted with 15 organizations deemed relevant among the ones mapped in the social network analysis developed by BioAgora Deliverable 2.1 (Figure 3). The interviews followed a script with a combination of closed and open-ended questions focused on understanding: (1) which BDS2030 targets are being addressed by different organizations; either directly or indirectly (Figure 4); (2) which policy instruments are being supported by the work of different organizations to address these targets; and (3) what are the main challenges and opportunities encountered in implementing or supporting such tools. Interviews were analyzed using inductive coding<sup>[3]</sup>, and a SWOT-based analysis was performed to assess opportunities and challenges of implementing the different policy tools that were identified.

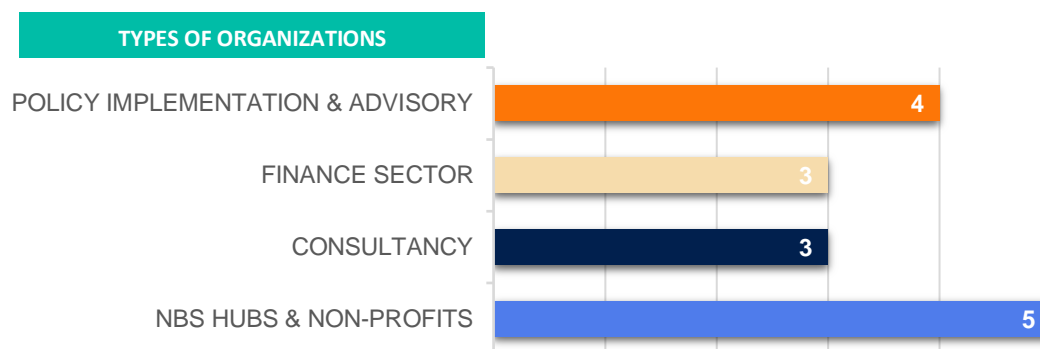


Figure 3: Number of organizations interviewed organized by organization type.





## 4. Key findings

### 4.1 BDS2030 targets directly and indirectly addressed by the organizations interviewed

**BDS2030 targets related to protected areas, nature restoration and urban greening themes are the ones most directly addressed by the organizations interviewed (Figure 4).** Themes like Invasive Species (Target 12), Freshwater ecosystems (Target 11) and Soil ecosystems (Target 10) are only directly addressed by one organization. Finally, the Transformative Governance theme (Target 18) is not directly addressed by any organization interviewed. Interviewed *NBS Hubs and non-profits* organizations are directly addressing most of the themes of BDS2030 targets, as opposed to the finance sector organizations which directly address only a few themes, namely restoration, protected areas and invasive species.

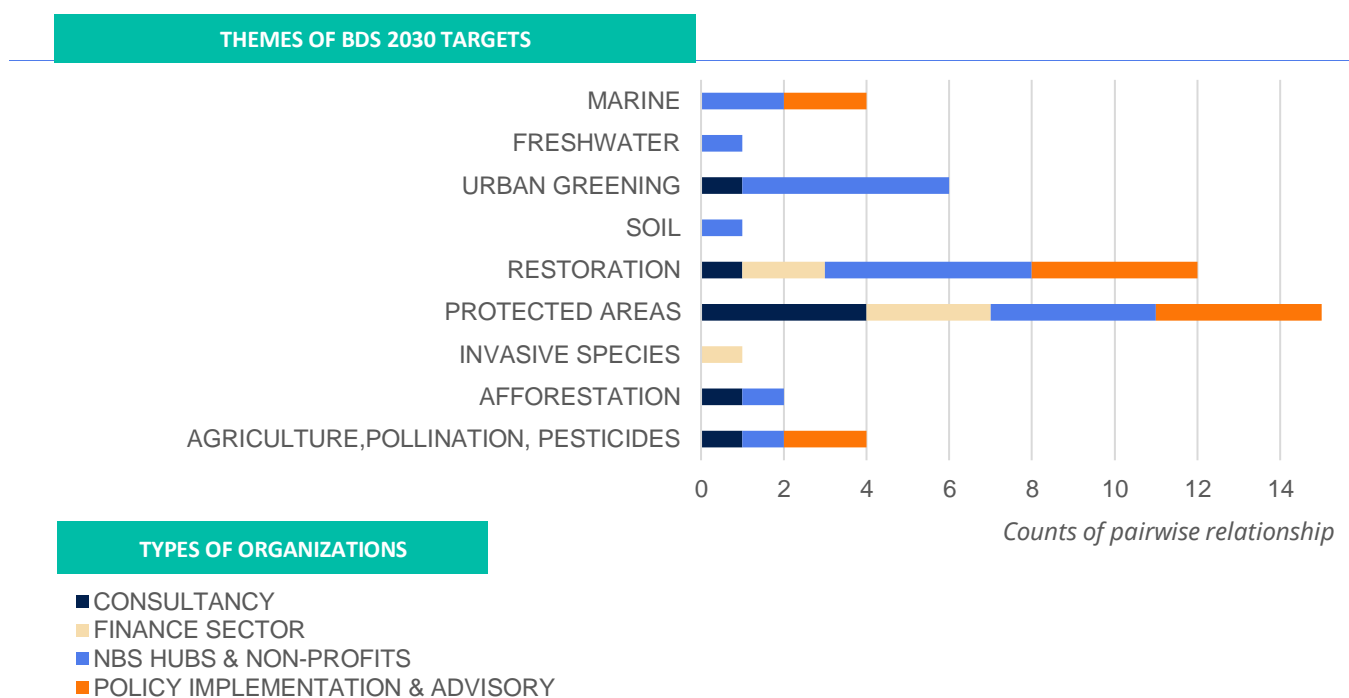


Figure 4: Targets (organized by themes) directly addressed by the different organizations interviewed (organized by type) Chart shows count of pairwise relationships – i.e., one target directly addressed by one organization. Organizations could directly address multiple targets.

**Most organizations interviewed indirectly address or support all of the BDS2030 targets.** Notwithstanding the direct contributions analyzed above, interviewees from *Policy implementation & advisory* and from *NBS Hubs & Non-profits* have stated their organization also indirectly contributes to address or support all of the BDS2030 targets. The interviewees from the *Finance sector* organizations have recognized indirect support to all BDS2030 targets except Urban Greening (Target 14). Contrastingly, the *Consultancy* organizations interviewed have recognized indirect contributions to almost all themes of targets, except Soil ecosystems (Target 10), Invasive Species (Target 12) and Transformative Governance (Target 18).





## 4.2. Policy instruments engaged with at the science-policy-society interface for biodiversity protection or enhancement

Most of the instruments supported by the interviewed organizations to address the BDS2030 targets relate to **Social & Information-based approaches (51%)** (shades of blue instruments in Figure 5). Instruments under *Legal & Regulatory* approaches are also well supported (29%, shades of red), with a few legal or regulatory instruments mentioned by each category of organization. *Economic & Financial* instruments (15%, shades of green) are mostly supported by the consultancy sector. Instruments under *Rights-based and Customary Norms* approaches are still emerging (5%, shades of grey), with minor references to co-management by organizations from the policy and consultancy sectors, for example.

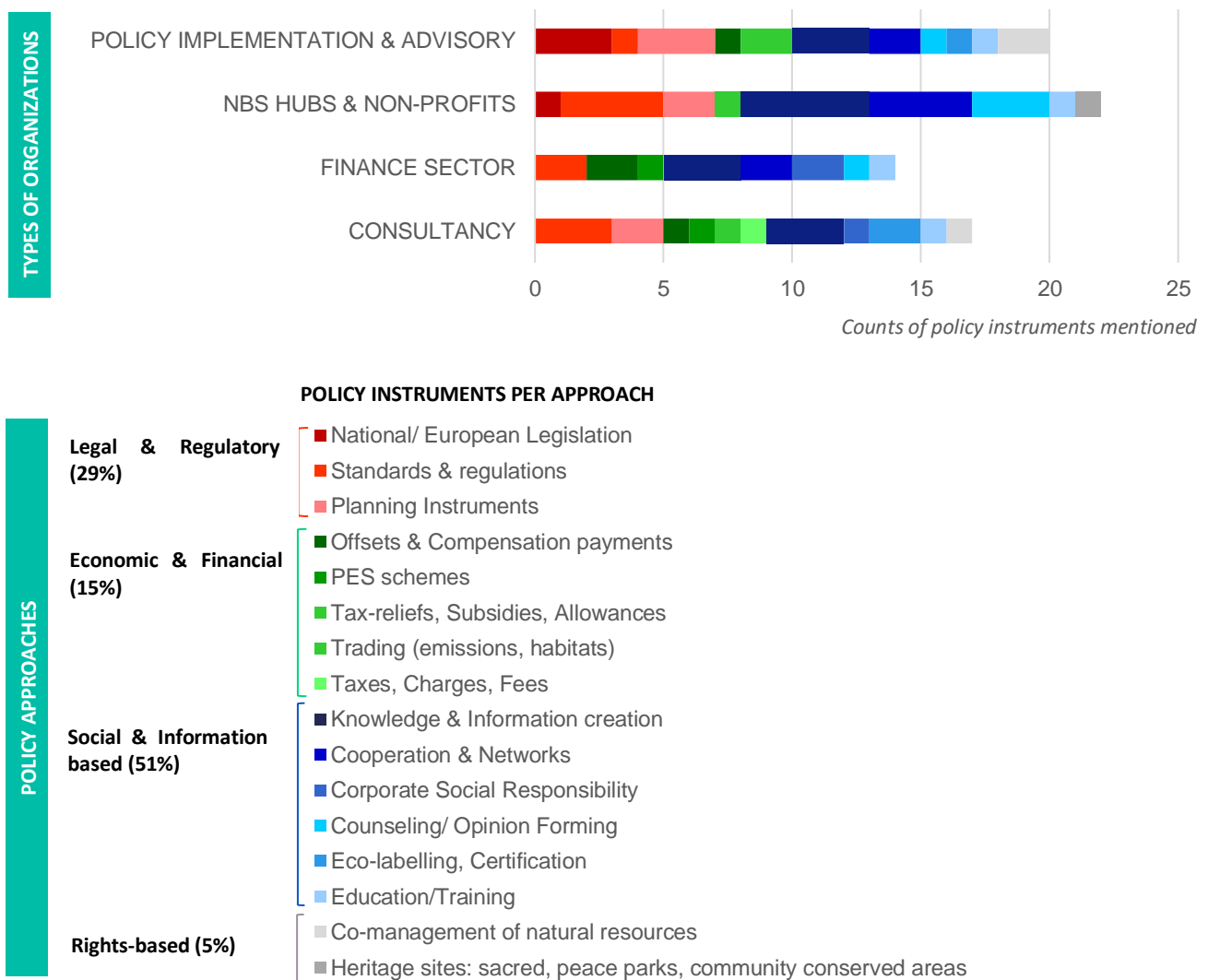


Figure 5: Counts of policy instruments supported by the different organizations interviewed. Color code refers to the policy approaches of the instruments (shades of red = legal & regulatory approaches; shades of green = financial & economic approaches; shades of blue = social and information-based approaches; and shades of grey = rights-based and customary norms approaches). The percentages represent the share of policy instruments mentioned in all interviews per policy approach (n=73).





There was no mention of *economic & financial instruments* directly addressing **BDS2030 targets related to protected areas, to marine ecosystems or to urban greening**, which are mainly supported by *legal & regulatory* and *social & information-based* instruments (Figure 6). Instruments under *economic & financial approaches* were mainly related to nature restoration targets, though a few examples of such instruments applied to agriculture-related targets and afforestation were mentioned. Only a few examples of instruments addressing targets related to afforestation, freshwater ecosystems, land-take/soils, and invasive species have been provided. No instrument was mentioned in the interviews in support to targets related to biodiversity governance (Target 18).

		POLICY APPROACHES			
		LEGAL & REGULATORY	ECONOMIC & FINANCIAL	SOCIAL & INFORMATION-BASED	RIGHTS-BASED & CUSTOMARY NORMS
THEMES OF BDS2030 TARGETS	PROTECTED AREAS	.....		.....	..
	RESTORATION	.....	....	.....	
	AGRICULTURE, POLLINATION, PESTICIDES	...	..	....	
	AFFORESTATION	.	.		
	MARINE	....		.	.
	FRESHWATER			.	
	LAND TAKE/ SOIL			.	
	INVASIVE SPECIES			.	
	URBAN GREENING	.....		.....	.
	GOVERNANCE				

Figure 6: BDS2030 Targets (organized by themes) being addressed through the various policy instruments (organized by approaches) supported by the organizations interviewed. Each dot represents one example of an instrument as provided in the interviews. Green cells indicate at least 3 examples to address targets were provided. Yellow cells indicate less than 3 examples were provided. Red cells indicate no mention of policy instrument to address the targets.





## 4.3 Challenges to the effective implementation of policy instruments for biodiversity

The most mentioned challenges for the successful implementation of policy instruments to address BDS2030 targets were found to cut across different policy approaches, and they include uncertainty, lack of resources, and “missing pioneers” (Figure 7). The implementation of *rights-based and customary* norms instruments was found to be emerging and no substantial challenges have been highlighted in our interviews.

	POLICY APPROACHES		
	LEGAL & REGULATORY	ECONOMIC & FINANCIAL	SOCIAL & INFORMATION
MAIN CHALLENGES MENTIONED	(3) Complex Communication	(4) Uncertainty	(10) Lack of resources/Undercapacity (data/skills)
	(3) Insufficient efforts or regulations	(4) Missing pioneers	(4) Complex topic/communication
	(3) Lost in translation	(3) Risk	(4) Silos-thinking
	(2) Missing Pioneers	(3) Commodification of nature	(2) Uncertainty
	(2) Uncertainty	(2) Trust	(2) Overwhelming information
	(2) Lack of resources/Undercapacity (data/skills)	(2) Standardization	Sociocultural dynamics
	Sociocultural dynamics	(2) Lack of resources/Undercapacity (data/skills)	Risk
	Difficulties in monitoring	Access to funds	Missing pioneers
	Silos-thinking	Lack of political will	Lack of political will
	Lack of overarching strategy	Insufficient efforts/regulations	Data proprietorship
	Lack of political will	Lack of guidance	Standardization
	Trust		Insufficient evidence

Figure 7: Main challenges of current policy instruments as mentioned by the organizations addressing BDS2030 targets. Number in brackets refers to frequency of mention, absence of number indicates single mention.

**Uncertainty** | For *economic & financial instruments*, uncertainty relates mostly to private agents and investors being still unclear about the long-term return on investments on biodiversity conservation/enhancement, or about the growth opportunities that can emerge from taking part in compensation mechanisms and PES schemes, which is particularly aggravated by changing political will and volatile markets. For *legal & regulatory instruments*, uncertainty relates to the unclear outcomes of the implementation of specific regulations due to lack of straightforward cause-effect evidence for biodiversity restoration/enhancement, which affects agents such as fishers or farmers.





For *social and information-based instruments*, uncertainty refers to unclear mechanisms for ensuring continuous science-policy cooperation, when most initiatives for biodiversity restoration and enhancement require long-term commitment that lasts longer than administrative cycles, and success is left at the chance of finding fortuitous “motivated agents” along the way.

**“Missing pioneers”** | For *economic & financial instruments*, the lack of pilot initiatives (“*missing pioneers*”) refers, for instance, to the need for more vested interest from Member-States to push for green accounting initiatives, paving the way for the establishment of standards and standardized methodologies, as well as the need for more successful examples of blended finance mechanisms for achieving biodiversity restoration and enhancement, to counteract risk aversion from private investors (BOX 1). For *social and information-based instruments*, the “missing pioneers” challenge identified refers to not only the need for more concrete and on-the-ground examples of successful nature-based solutions (NbS) with positive outcomes for biodiversity, but also to the need for more businesses to show up and communicate the added-value of understanding their dependencies and impacts on biodiversity, rather than seeing Corporate Sustainability (CSRD) and similar reporting as a mere obligation or requirement.

**Lack of resources** | For *social & information-based instruments*, lack of resources refers both to lack of data and/or skills from businesses and some Member States to disclosure quantitative and robust biodiversity-related information (e.g.: undercapacity and inability to access information) and also to the lack of financial and human resources available to local administrations to carry on knowledge and information creation related to biodiversity beyond the lifespan of R&D projects. For *legal & regulatory instruments*, lack of resources refers mainly to the undercapacity of some Member States to implement and monitor regulations as imposed by EU legislation (“*unrealistic timings*”).

**Complex topic/communication** | For *legal & regulatory instruments*, the complexity of biodiversity as a concept results in challenges to adequately translate and capture biodiversity into legislation. Some pieces of legislation or regulations currently rely on concepts that are still not well-defined and/or are oversimplified (for communication and easiness of use), decreasing its reliability as scientific evidence and potentially impacting the expected outcomes of their implementation. For *social and information-based instruments*, such as knowledge creation for the implementation of NbS or CSRD reporting, it has been noted that the majority of actors working in public administration and in the private sector are much less versed in biodiversity than they are in other environmental topics such as climate change, being a particular complex topic to be handled by local administrations or by businesses. This difficulty is evident, for instance, in the struggle to mint a common terminology among practitioners, decision-makers, and scientists to create standards, determine thresholds and identify suitable indicators for monitoring and reporting.

**Silo-thinking** | For *legal & regulatory instruments*, silo-thinking refers mainly to a lack of integration of sectoral policies in relation to biodiversity governance, particularly in the marine environment. For *social and information-based instruments*, it refers mainly to difficulties in cooperation, data sharing and co-creation among various actors, such as different departments in administration offices or between public bodies and the private sector (e.g., financial institutions). This self-centered focus creates difficulties in achieving a shared common vision to align development objectives and to support biodiversity restoration and enhancement more efficiently.





### BOX 1 | The “missing pioneers” for improved *economic & financial instruments* for biodiversity conservation, restoration and enhancement in Europe

Many examples of **blended finance solutions for nature restoration** - catalyzing public, private and philanthropic investments - have been developed in the past decade, with more emerging in light of the Kunming-Montreal Global Biodiversity Framework (GBF). However, there is still a need to demonstrate to private investors that these solutions can be sufficiently insulated from economic downturns and changings in political will, through strong policies that institutionalize standardized tools and processes to ensure the availability of continuous and consistent funding for biodiversity restoration and enhancement. Pilot projects to showcase the benefits of these solutions to both private investors and nature are still few. Access to these solutions should be stripped of excessive bureaucracy and accelerated for such small, pilot-projects that can pave-the-way for more ambitious investments. Evidence-based quantification of biodiversity benefits and ROI estimates should help boost the uptake of such financing solutions.

A particular example for financing biodiversity restoration and enhancement in urban settings includes the use of **EU R&D funds** to oversee the implementation of pilot projects on Nature-based solutions (contributing to Target 14). These projects run from design to infrastructure development and construction, with the latter being co-financed by local administrations and other relevant private actors that will directly benefit from these solutions (e.g., water management companies), facilitating science-policy cooperation, promoting engagement and ensuring the implementation of evidence-based biodesign solutions that maximize social and environmental benefits for the city.





## 4.4 Opportunities for the effective implementation of policy instruments for biodiversity

The most mentioned opportunities for the successful implementation of policy instruments to address BDS2030 targets cut across different policy approaches, and include collaboration, engagement, and acting on the value chain (Figure 8). A few opportunities for advancing rights-based instruments have also been identified.

					POLICY APPROACHES			
					LEGAL & REGULATORY	ECONOMIC & FINANCIAL	SOCIAL & INFORMATION	RIGHTS-BASED AND CUSTOMARY NORMS
<b>MAIN OPPORTUNITIES MENTIONED</b>							(7) Collaboration	
							(4) Engagement/Commitment	
				(2) Collaboration	(3) Improved funding		(4) Data	
				(2) Creating new regulations	(2) Engagement		(2) New/improved frameworks	(4) Engagement/Commitment
				Improving regulations	(2) Acting on the value chain		(2) Acting on the value chain	(2) Collaboration
				Innovating through current regulation	Shift in perspective/Mindset		(2) Capacity building	Acknowledgement
					Funding mix Schemes		Standardization	Pioneers
					Improving access to funds		Governance	
							New dedicated institutions/agencies & Synergies	
							Streamlining certifications	

Figure 8: Main opportunities for the effective implementation of policy instruments targeting biodiversity as mentioned by the interviewed organizations. Number in brackets refers to frequency of mention, absence of number indicates single mention.

**Collaboration** | For *social & information-based instruments*, collaboration may refer to potentially available channels for data-sharing between public administrations and financial institutions, which can improve CSRD reporting and similar initiatives (e.g., disclosure of the location of facilities where different businesses operate, which is known to public administrations via permits, licensing, and other legal requirements). It may also refer to massive efforts in standardizing methodologies for collecting biodiversity data, to advancing innovative solutions through collaboration among different public offices or with R&D projects, or to the creation of aggregating agencies at the Member-state level to oversee the collection of biodiversity data, all of which stemming from high levels of cooperation among different actors. For *legal & regulatory instruments*, opportunities for







collaboration can be seen in the increasing EU efforts pushing for collaboration among actors both intra and inter sectors (BOX 2). For *rights-based and customary norms instruments*, collaboration refers to examples of co-management initiatives that can be seen for instance in a few coastal fishing communities, where academia, decision-makers and local organizations/actors are coming together to restore and enhance habitats and stocks.

**Engagement & Commitment** | For *social & information-based instruments*, engagement refers mainly to the high engagement and commitment levels currently displayed by a large number of local actors, including municipalities and citizens, involved in the implementation of NbS in urban settings. For *economic & financial instruments*, engagement opportunities refer to a few successful examples of businesses interacting with a wide range of stakeholders for constructive policy making and market regulation/reconfiguration. For *rights-based instruments*, the engagement opportunities highlighted refer to recent efforts for integrating local and indigenous knowledge in biodiversity-related databases and in the design and implementation of NbS solutions.

**Acting on the value chain** | For *economic & financial instruments*, good examples linking environmental subsidies to proper investments in the creation of green labels and products provide an avenue for upscaling good environmental practices in the agrifood sector. For *social & information-based instruments*, acting on the value chain may refer to opportunities for rewarding forestry producers that are complying with environmental standards by reducing their bureaucratic burden, potentially supporting more just and competitive prices. It also refers to pioneer examples for engaging local communities in the creation of green labels and markets associated with positive environmental practices - such as “from your local fisherman” label initiatives, which provide a good opportunity for supporting the restoration and enhancement of coastal habitats and stocks.

**Improved funding schemes** | For *economic & financial instruments*, new or improved funding schemes refers to encouraging blended finance solutions to complement market mechanisms by involving the private sector and local/regional administrations, which includes improving accessibility to public funds for leveraging private investments in biodiversity restoration and enhancement. It also refers to ensuring that different financial instruments can be used by different actors depending on the context (promoting a culture of “funding mix”).

**Data** | Improvements in data collection processes through technology (e.g., advancements that allow better sampling and monitoring of pollinators) and scientific collaborations are currently central for better biodiversity conservation and monitoring in various sectors. For *social and information-based instruments* this includes, for instance, new decision support-systems that consider weather conditions and other parameters at the land parcel scale to optimize pesticide usage, or new quantitative evidence on the biodiversity benefits resulting from NbS implementation. In many aspects, it has been highlighted that information is increasingly available, and new ways of sharing, connecting, and analyzing this information are significantly contributing to monitoring and promoting biodiversity across different scales.





## BOX 2 | New opportunities for *legal & regulatory instruments* for biodiversity conservation, restoration, and enhancement in Europe

In Europe, biodiversity is protected and managed through a comprehensive framework of legal and regulatory instruments at both the European Union (EU) and national levels, including directives, regulations, standards and even planning instruments. However, past efforts have been insufficient to halt biodiversity loss and promote enhancement, which requires more systemic, adaptive, and integrated approaches.

With the recently passed EU Nature Restoration Law (NRL), opportunities for potentially operating at ecosystem levels and ensuring a long-term perspective for nature restoration have been renewed. This binding legal instrument focuses primarily on the protection and restoration of habitats and of habitats for individual species, and it advances an ambitious set of time framed targets (and monitoring reporting) that is to be achieved through voluntary actions. In practice, Member States will thus likely turn to existing policy instruments under different policy areas, such as the Common Agriculture Policy (CAP) or Regional Development Funds, and reassign them to clearly address NRL targets, to build a resilient funding and implementation structure. As many of the drivers for biodiversity decline emerge, for instance, from land-use changes and agriculture land-use, further integrating NRL targets when implementing these sectoral policy instruments will be relevant for making progress on various BDS2030 targets.

However, given the voluntary nature of the actions in the Nature Restoration Plans to be produced by Member States, it has been acknowledged that the successful implementation of NRL will require not only financial investments but also supportive institutions for cooperation, peer-to-peer learning, business models that support land-use change, and societal acceptance to work with nature <sup>[4]</sup>, bringing focus to the need for orchestrating various policy approaches to achieve effective biodiversity restoration and enhancement. Focus should be given to the provision of appropriate resources and capacity-building for implementation and monitoring of the NRL, including the creation of standardized methodologies.

## 5. Key messages

- *Social and information-based* instruments are the most engaged with by the interviewed organizations for addressing BDS2030 targets, followed by legal & regulatory approaches
- *Economic & financial* instruments for addressing BDS2030 targets are also supported by many organizations, but no evidence of its application to address protected areas or urban greening targets has been found.
- *Rights-based and customary norms* instruments to biodiversity conservation are still emerging, with limited but promising examples evidenced
- High engagement levels from local actors, new avenues for collaboration, and improvements in technology and data collection provide promising opportunities for improving *legal & regulatory instruments* for biodiversity
- Uncertainty, lack of resources, and lack of pioneering initiatives are challenges to be addressed to improve policy instruments for biodiversity conservation and enhancement





## 6. References

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