

## Policy Brief

# Biodiversity Interdependencies of Sustainable Development Goals (SDGs)

Local experiences across Europe show biodiversity is key in achieving all SDGs

## Lessons Learned From How SDGs Are Implemented and Experienced in Local and Diverse Contexts

1. SDGs take on unique meanings in different cases and contexts.
2. Non-human entities (i.e. various forms of biodiversity) are rarely seen as primary beneficiaries of achieved SDGs.
3. Biodiversity and secured ecosystem services are important in achieving SDGs; however, the terms 'ecosystem services' and 'SDGs' are problematic. The former may be seen as 'exploiting' biodiversity, while the latter overlooks marginalized communities.
4. Biodiversity is interdependent with non-biodiversity-related SDGs across cases; however, inequalities and imbalance between human activities and ecosystems compromise this relationship.
5. Despite their benefits, SDGs are seen as abstract and disconnected from local social, environmental and political practices, which complicates their application. SDGs' focus on reconciling economic growth with environmental sustainability is seen as contradictory and insufficient to foster systemic transformation. The SDGs are criticized for lacking empowerment initiatives and being disconnected from everyday discourse.

## Recommendations for Policy

1. Tailor SDG implementation strategies to local contexts and acknowledge that the interpretation and relevance of SDGs vary. Promote SDGs' flexibility and alignment with local needs and priorities.
2. Recognize and integrate the role of non-human entities as key beneficiaries to promote holistic and sustainable outcomes of SDGs. Encourage policies that prioritize ecosystems alongside human development, without prioritizing the latter.
3. Look for inclusive ways to define ecosystem services. Promote a focus within the SDGs on the empowerment of marginalized communities.
4. Promote policies that recognize the interdependence between biodiversity recovery and non-biodiversity-related SDGs. Focus on reducing inequalities and fostering balanced relationships between human activities and ecosystems.
5. Develop publicly accessible guidelines and practical tools to translate SDGs into tangible, actionable steps tailored to local contexts and marginalized communities. Reconceptualize the SDG framework by transparently addressing its colonial and capitalist roots and limitations (e.g. growth-centric and Global North-centric focus and neglect of underrepresented populations). Ensure that intersectionalities, such as gender, ethnicity, and socioeconomic status are considered to address overlapping challenges and barriers. Incorporate measures to make biodiversity-relevant SDGs relatable to enhance public understanding and engagement.



## Context

The SDGs provide a shared framework to tackle social, economic, and environmental challenges, though the scale and complexity of these challenges vary across contexts. Biodiversity-focused goals, such as SDGs 14 – life below water and 15 – life on land, are crucial since healthy ecosystems underpin progress in other domains, e.g. nature-reliant industries. However, the SDGs are also seen as generic, difficult to measure, and rooted in colonial and capitalistic systems that often disregard local, specific, and heterogeneous contexts. Critics also argue that SDGs reinforce global power imbalances, anthropocentric focus, and prioritization of corporate interests over ecological justice. These shortcomings could be acknowledged, in parallel with introducing practices that respect diverse local contexts and needs (references 1-17).

### About the Project and Study

**This policy brief is based on findings from the Horizon Europe project BIOTraCes concerning Transformative Change towards an inclusive and nature-positive society.**

In November 2024, a literature review was conducted on SDGs concept followed by an internal survey. A survey with closed- and open-ended questions was circulated among 9 BIOTraCes project teams from 8 countries working on case studies focused on biodiversity conservation in sectors such as agriculture and food, forestry, water, and urbanization. The survey targeted researchers who explored the interdependencies of the SDGs through collaboration with various stakeholders using participatory action research as the overarching framework. All participants who received an invitation to participate, responded. Additionally, a shorter and more targeted survey was shared with societal partners, of which 11 responses were received, representing 6 case studies. Perspectives reflecting the teams' unique positions were requested, rather than general formal knowledge that could be obtained from other sources.

To contextualize the SDGs and explore their specific relevance in each of the 9 case studies, as well as to understand researchers' and societal actors' perspectives on the SDGs, we conducted a survey that yielded the following results. This policy brief provides **insights on how SDGs unfold in very concrete, specific, and heterogeneous contexts with a focus on local experiences.**



Foodpark Against Industry



Mertóla Future Lab



Urban Schoolyards - Biodiversity Lab



High Nature Value Farming



Free-Flowing Rivers



Bottom-up Forest Biodiversity



Traditional Herders' Knowledge



Fluvial Eco-Partnership



Nature-Inclusive Building



The graphs describe the relevance of each SDG for each case. The longer the SDG bar, the greater its relevance.



## Key Results

Data from open- and closed-ended questions were collected. For closed-ended questions responses ranged on a scale from 1 to 10, where 1 represented complete disagreement and 10 represented complete agreement.

### SDGs Take On Specific and Differing Meanings in Each of the 9 Cases

The SDGs acquire unique interpretations within each of the 9 cases. This is reflected in various ways. The degree to which team members collectively perceive that they understand the concept of SDGs varies, with a mean value of 7.6 (min 5, max 10). Similarly, the perceived relevance of the SDGs to each case study also differs, with a mean value of 6.1 (min 3, max 9). Furthermore, the importance of individual SDGs varies significantly across cases. Each case study identifies a distinct set of SDGs that hold specific meaning in their respective contexts.

The extent to which SDGs are explicitly mentioned during interactions with stakeholders—such as local communities, policymakers (both local and national), NGOs, and other relevant parties—also varies. Overall, it was reported that references to SDGs in stakeholder discussions occur relatively infrequently, with a mean value of 2.3 (min 1, max 6;).

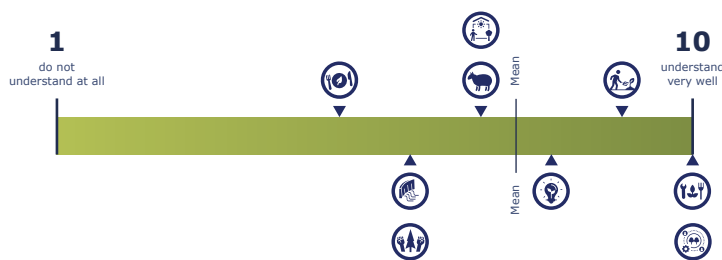
### The Beneficiaries of SDGs: Non-human Entities vs. Anthropocentric Bias

The extent to which non-human entities—such as nature in general, specific ecosystems, or particular species—are perceived as key beneficiaries of SDGs in the case study revealed highly diverse results. In some cases, non-human entities emerged prominently as key beneficiaries, while in others, they were not mentioned at all (mean value: 5; min: 1, max: 10).

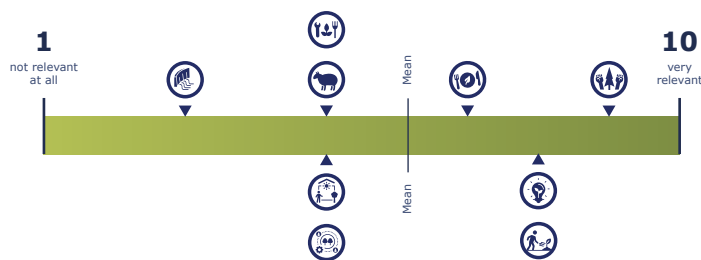
In contrast, the extent to which local people are seen as key beneficiaries of ecosystem services and improved biodiversity indicated a more consistent emphasis on local communities. Compared to non-human entities, local communities were more frequently recognized as beneficiaries (mean value: 7.8; min: 4, max: 10).

This contrast highlights differing perceptions of the SDGs’ impacts, with human-centric benefits often taking precedence over those for non-human entities.

#### An evaluation of how well each case study team collectively understands the concept of the SDGs:



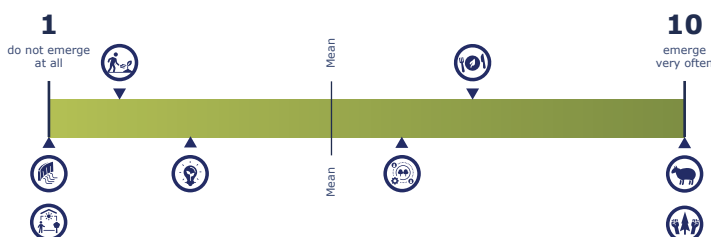
#### An evaluation of the extent to which each case study team believes the concept of the SDGs is relevant to their case study:



#### An assessment of how frequently stakeholders in each case study mention the SDGs during direct interactions:



#### An evaluation of the extent to which non-human entities—such as nature, specific ecosystems, or species—emerge as key beneficiaries of the SDGs in each case study:



## Achieving SDGs Through Biodiversity and Secured Ecosystem Services

Across the case teams, there was a strong belief that improved biodiversity and secured ecosystem services could positively impact social and economic spheres. For example, enhanced biodiversity could support grasslands, sustaining pastoralism and improving food security (Participant 1, hereinafter referred to as 'P'). Regenerative practices that enhance soil fertility and water regulation could stabilize local food systems and reduce reliance on external inputs (P3). Similarly, removing dams to restore river ecosystems could boost local economies through kayaking tourism, expanding the service sector, and creating jobs, directly contributing to SDG 8 (P4). Greening schoolyards was another example, with benefits for biodiversity, gender inclusion, and reduced ethnic marginalization among pupils (P7).

However, opposing views also emerged. Some argued that secured ecosystem services might not contribute to SDGs (P5). In sectors like forestry, ecosystem services and SDGs were either absent or inconsistently addressed (P6). In some cases, participants found it difficult to assess the benefits of ecosystem services

**An evaluation of the extent to which local communities emerge as the key beneficiaries of ecosystem services and improved biodiversity in each case study:**



to SDGs, viewing the concept of 'ecosystem services' as exploitative, perpetuating capitalist growth and undermining biodiversity (P8). Concerns about the technical nature of these concepts and doubts about their value in fostering innovative human-nature relations were also raised (P9).

## Interdependencies of Non-biodiversity-related SDGs and Case-Relevant Biodiversity Recovery

There was broad agreement across cases that biodiversity recovery is interdependent with other SDGs. Herder communities, for instance, can be empowered to contribute to biodiversity regeneration through sustainable practices (P1). Reducing poverty (SDG 1) and promoting decent work and economic growth (SDG 8) can alleviate economic pressures that often lead to the overuse of natural resources and biodiversity decline (P3). Education emerged as important, with contextualized lessons for children on the impacts of river dams potentially influencing parental values and community choices (P4). Broader social issues—

such as emigration of young people, corruption, weak institutions, and power asymmetries—though not directly linked to biodiversity loss, can indirectly affect biodiversity outcomes (P5). Gender equality in forest ownership was highlighted as a factor that could lead to more sustainable forestry practices (P6). Additionally, reducing inequalities (P9) and fostering balanced relationships between human activities and ecosystems (P8) were considered essential when addressing the interdependencies between biodiversity recovery and other SDGs.





## Limitations of the SDG concept

The SDGs reflect complex global challenges and are inherently interdependent, meaning they cannot be addressed in isolation (P3; P1). However, this interconnectedness is often overlooked, and the SDGs are frequently perceived as abstract, disconnected from the complexities of social dynamics (P3). Their broad scope and lack of specificity can make them seem overly generic and ill-suited for addressing localized, complex challenges (P3; P2). As a result, the SDGs fail to capture the intersectional nuances essential for understanding and tackling social and environmental issues (P3; P2).

Moreover, the SDGs are often seen as declarative, making them difficult to understand and translate into practice (P4). In many cases, the framework appears artificial—something that must be forced into case studies, rather than being naturally integrated into real-world issues (P4).

A key criticism is that the SDGs were designed to achieve a global consensus without aiming for transformative change. Rather than fostering systemic transformation, they promote a continuation of existing economic models by reconciling infinite economic growth with environmental sustainability (P7). This leads to a focus on reformist changes within the current capitalist system, addressing issues like health, unemployment, and poverty, while making production systems more environmentally efficient rather than advocating for radical change (P7). The SDGs function as an inspirational tool or soft law mechanism and lack binding efficacy (P8).

The SDGs are also criticized for oversimplifying complex social realities. Social dynamics are intricate, and



frameworks based on normative visions of environmental social justice rarely align with local lived experiences (P8). Additionally, while the SDGs focus on reducing inequalities, they do not actively promote empowerment (P9). Outside of academic and institutional contexts, the SDGs remain a niche topic with limited presence in everyday discourse and practices (P3; P8).

### Link to Sources

[BIOTraCes - Resources](#)

[Policy Brief - Information Sheet](#)

Photos: [Envato Elements](#), [Vecteezy](#)

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### Administrative Info About the Project

BIOTraCes (December 2022 to November 2026) is a [Horizon Europe](#) project that strives for an inclusive and nature-positive society. The key objective is to co-produce and develop knowledge and approaches that contribute to transformative changes for biodiversity and equity. 9 transformative biodiversity innovations spread across Europe will help to understand how a plurality of values and manifestations of power, lock-ins and leverage relates to behaviour (practices, actions, choices and decisions) and influences the underlying causes and indirect drivers of biodiversity decline.

BIOTraCes works together with [10 sister projects](#) on Transformative Change.

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