

# Wildlife, biodiversity, and the United Nations sustainable development goals: Synergizing conservation and development for a sustainable future

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## ABSTRACT

Biodiversity loss and wildlife decline are two of the most urgent environmental challenges threatening ecosystem services and sustainable development of our planet. The United Nations sustainable development goals (SDGs) that were adopted in 2015 provide a general model to safeguard social and economic development. This review considers the contribution of wildlife and biodiversity to the SDGs, and specifically SDG 15 as the goal that directly relates to the problem of wildlife and biodiversity and the interrelations of this goal with other objectives. We address the goals of biodiversity, turning challenges of goals into practice, and mainstreaming conservation into sustainable development. This paper presents the importance of multi-sectoral interventions in balancing human health and environmental integrity to ensure a sustainable and dependable future for everyone through a combination of scientific research and global reports. The sustainability of biodiversity in the future depends on the actions displayed by individuals today.

**Keywords:** wildlife, biodiversity, conservation, United Nations sustainable development goals

## INTRODUCTION

The issue of conservation of biodiversity has ceased to be a mere ecological necessity in the modern world, where the rates of environmental changes are rapidly increasing, but has already become an important factor for social and economic sustainability. The ecological unity of our planet is directly associated with the present and future quality of life of human societies. Human action makes a notable contribution towards modifying wildlife habitats and biodiversity, emphasizing the need to improve public awareness, attitudes, and behaviors to counteract these effects immediately (Shawon et al., 2025).

The value of wildlife to humanity is significant. Wildlife makes contributions to the environment due to various reasons like food, materials, medicinal resources, ecosystem engineering, etc. (Chaplin-Kramer et al., 2025). Biodiversity entails the diversity of life, at the genetic, species and ecosystem levels, which ensures the required ecological

processes to sustain human life and growth. Biodiversity includes wildlife, which ensures ecological stability and livelihood in the world. Habitat loss, over-exploitation, pollution, alien species invasion and climate change have continued to destroy biodiversity at an alarming rate and is fueled largely by unsustainable economic activities (Chaplin-Kramer et al., 2025).

Conservation of biodiversity is one of the strategies that can be implemented to manage the ecosystem on a sustainable basis in the context of the global environmental change (Hong et al., 2022); conservation of biodiversity is also important in abating the impact of this change (Pires et al., 2018). Tilman et al. (2014) investigate biodiversity and ecosystem functioning, noting that species diversity determines ecosystem productivity, stability, and nutrient cycling. They also note that the loss of diversity impacts ecosystems as much as, or even more than, herbivory, fire, drought, nitrogen enrichment, and elevated CO<sub>2</sub> levels, among other environmental change drivers. Therefore, it is suggested that biodiversity

conservation, preservation, and restoration must become priorities globally (Tilman et al., 2014).

According to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services' (2019) global assessment, sustainable development goals (SDGs) will not be achieved without immediate and decisive actions to halt the loss of biodiversity. It was also demonstrated that biodiversity is closely connected with various other goals than SDG 15, including poverty eradication, food and nutrition security, human health, and climate change. It recommended economic, social and political changes in order to steer development towards environmental sustainability and it was emphasized that it is in the best interest of environmental stability in the long term to include biodiversity in the SDG agenda. The United Nations (UN) incorporated biodiversity conservation in the SDGs of the 2030 Agenda of Sustainable Development to reflect its importance. SDG 15, namely, Life on Land, aims for conservation and the preservation of the health and protection of the land. This can be attained through the establishment of a connection between conservation and socio-economic development and engaging in a wildlife conservation-sustainable human development nexus.

The remainder of this review covers the definition and importance of biodiversity and wildlife, an overview of UN SDGs on biodiversity, and problems in the development versus preservation of biodiversity. It then provides case studies and methods for the achievement of balance in biodiversity conservation and development, biodiversity synergies with other SDGs, global progress and action in the recent past and finally recommended future action.

## MATERIALS AND METHODS

The methodology of the investigation was a systematic literature review of interrelations between wildlife and biodiversity conservation and the SDGs, and the SDG 15: life on land in particular. The purpose of review was to combine empirical research in scientific literature and institutional reports in order to outline primary trends, synergies and issues, which interconnect biodiversity and sustainable development.

### Data Sources and Search Strategy

Grey literature and policy reports of reputable international organizations were included to supplement the search of relevant literature in the form of the UN, Food and Agriculture Organization, Convention on Biological Diversity, International Union for Conservation of Nature (IUCN), and the United Nations Environment Programme (UNEP) were also used to supplement the searches of relevant publications via exhaustive searches in major scholarly databases, which included Scopus, Web of Science, and Google Scholar.

The literature was searched from 2010 to 2025, which is the time frame of the global implementation of SDGs. The retrieval was based on keywords that contained Boolean combinations biodiversity, wildlife, ecosystem services, conservation, sustainable development, SDG 15, and life on land. The screening was done on titles and abstracts to ascertain

thematic relevance and duplicates or irrelevant studies have been eliminated.

### Inclusion and Exclusion Criteria

Studies were filtered to feature publications that were written in English and covered the nexus between the concept of biodiversity or wildlife conservation and one or several SDGs. Empirical and conceptual contributions were taken into consideration.

This was based on the exclusion criteria such as, those studies that dealt with marine biodiversity only, non-scientific editorials, opinion pieces, and documents that have no definite relationship with sustainable development or ecosystem conservation.

### Data Extraction and Synthesis

A qualitative thematic synthesis method was used to review the chosen studies. Individually, each work was evaluated keeping in mind the scope of the work, its methodological orientation, its geographical area of concern, and the SDGs of that work. Themes developed were classified as biodiversity development interactions, governance structures, conservation funding and biodiversity climate linkages.

The synthesis underscored integrative patterns at ecological, social and policy aspects and emphasis was placed on cross-sectoral approaches that would lead to the balance between conservation and development.

### Ethical Considerations

Any literature used in this review was acquired out of the databases and institutional repositories accessible publicly. No new data involving human or animal subjects were obtained and so no ethical approval was necessary.

## THE CONCEPT AND SIGNIFICANCE OF BIODIVERSITY AND WILDLIFE

Biodiversity is a complex phenomenon, which includes genetic, species, and ecosystem levels of diversity. This variety also spans the physiological and ecosystem processes that are carried out by every organism. These processes are influenced by the traits and the properties of organisms and controlled by behavioral and life patterns (Hortal et al., 2022). Moreover, other functions of biodiversity like maintaining an ecosystem balance/productivity and controlling the movement of matter and energy across habitats have made biodiversity an important property of ecosystem functionality (Dudgeon et al., 2006). Ecosystem functionality is the basis of ecosystem service and ecosystem resilience, including pollination, water filtering, nutrient cycling, and climate regulation (Olmos Antillón et al., 2021). Specifically, wildlife diversity allows maintaining the stability of ecosystems. The disappearance of diverse species, especially the keystone and indicator species, impairs these processes and compromises the productivity of ecosystems and human quality of life (Pillay et al., 2022).

Biodiversity valuation is not only limited to direct economics but also includes cultural, intrinsic, and future

potential values, making it difficult to set targets for sustainable development (Olmos Antillón et al., 2021). The complexity of biodiversity makes it hard to plan to conserve biodiversity yet it also shows just how it needs to be conserved, or life-supporting systems may be harmed or lost.

Major observational and experimental research have established that biodiversity is at the center of ecosystem function and provision of critical ecosystem services to human beings. Cardinale et al. (2012) illustrated that higher species diversity increases ecosystem productivity, nutrient cycling efficiency, and stability. According to Hong et al. (2022), an abundance of biodiversity under the pressure of global change exerts a greater influence on the functioning of the ecosystem and a high degree of diversity levels predetermines a greater resilience of communities to environmental change. It has been mentioned that one societal challenge is the reversal of biodiversity loss and change and that all the anthropogenic pressures should be looked at as a system when acting on the matter (Keck et al., 2025; Leclère et al., 2020). Further, loss of biodiversity is also a significant element that limits the ability of the ecosystem to deliver critical services including food production, water purification, and suppression of diseases. Together, these findings support the proposition that biodiversity conservation is not only important to the welfare of the environment but also one of the major needs of human health and sustainable development.

## UN SDGS AND BIODIVERSITY OVERVIEW

The 17 SDGs, adopted by the UN in 2015, offer a worldwide vision to eradicate poverty, safeguard the planet, and ensure prosperity for all by 2030 through their integrated targets responding to major social, economic, and environmental imperatives. SDG 1 is to end poverty in all places, SDG 2 is to end hunger and make agriculture sustainable, SDG 3 is to ensure good health and well-being, SDG 4 is to provide quality education for everyone, SDG 5 is to achieve gender equality and empowerment, SDG 6 is to ensure clean water and sanitation, SDG 7 is to use affordable and clean energy, SDG 8 is to promote decent work and economic growth, SDG 9 is to promote industry, innovation, and infrastructure, SDG 10 reduces inequality, SDG 11 creates sustainable cities and communities, SDG 12 ensures responsible production and consumption, SDG 13 offers climate action, SDG 14 conserves life under the water, SDG 15 protects life on land, SDG 16 promotes peace, justice, and institutions of integrity, and SDG 17 strengthens global partnerships that will drive countries toward a common vision of peace and prosperity for people and the planet (United Nations, 2025; United Nations Economic Commission for Europe [UNECE], 2025). The SDGs of the UN, sustainable development, and climate actions are intended to be addressed in a multidisciplinary and holistic way. The 2030 agenda SDG 17 constitute a set of goals linked together to address the issues of elimination of poverty, inequality, better health, education, climate action (SDG 13), and life below water (SDG 14). Biodiversity is specifically mentioned by SDG 15 and crosslinked with other such goals as zero hunger (SDG 2), clean water (SDG 6), climate action (SDG 13), and life below water (SDG 14). SDG 15 is aimed at the

protection, restoration and sustainable management of land-based environments and forests, combating desertification and biodiversity loss, and controlling invasive species, protecting genetic resources, preventing poaching, control of invasive species, integration of policies and financing conservation with regards to nine targets that address conservation of ecosystems, forest management, fighting desertification, protecting biodiversity, sharing genetic resources, anti-poaching, fighting invasive species, policy integration, and funding conservation (Rosen et al., 2025; United Nations, 2024).

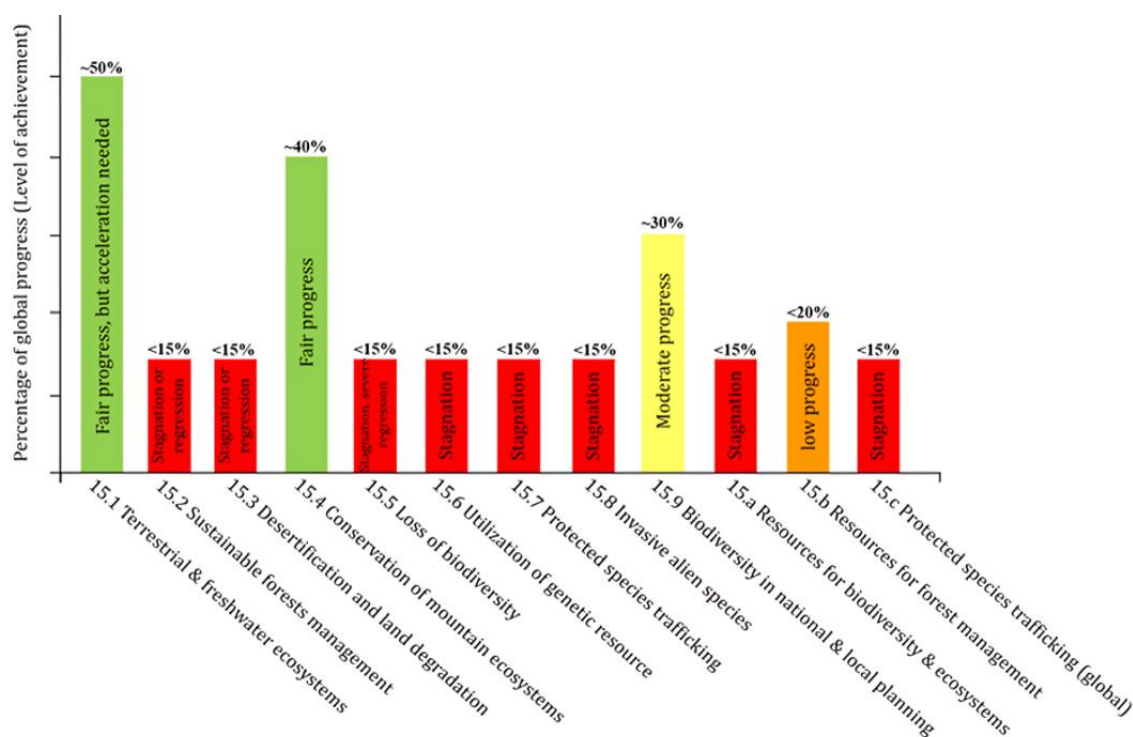
According to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (2023), biodiversity loss will become irreversible without prompt measures to curb it, which will affect the implementation of the SDGs. It highlighted the fact that biodiversity is directly linked by not only SDG 15 but also SDG 1 reduction of poverty, food security, health, and climate resilience. The report calls for radical transformations in the economic, social, and political configurations to align development with ecological sustainability by considering the importance of placing biodiversity in the SDG agenda to guarantee long-term sustainable development. Hence, biodiversity conservation is not only necessary to nature; it is also key to many significant elements of development, including poverty alleviation, food security, human health, and climate resilience. Consequently, biodiversity must be placed at the heart of the SDGs and integrated into all policies and practices.

Despite these ambitious objectives, advancement remains wanting at the world level, with the degradation of land, loss of habitat, and loss of species accelerating (United Nations, 2024). **Figure 1** illustrates progress toward the SDG 15 targets. **Figure 2** shows global forest cover change (%) from 1990 to 2023. As seen from **Figure 2**, between 1990 and 2023, global forest area decreased from approximately 4,244 million hectares (31.6% of total land area) to around 4,050 million hectares (30.5%). The rate of forest loss was more pronounced in the early years but slowed notably after 2010. From 2020 to 2023, the area remained nearly stable with only a slight decline, reflecting some success in global forestry conservation efforts. Despite this, the loss of forest area continues to pose significant challenges for biodiversity conservation and climate regulation, emphasizing the need for sustained and enhanced.

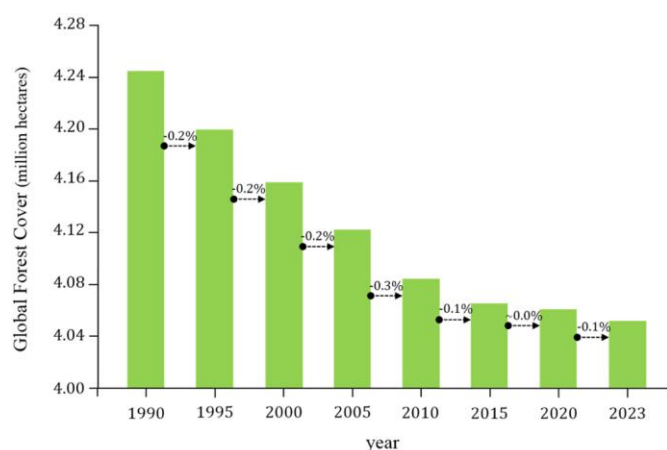
## CHALLENGES IN INTEGRATING BIODIVERSITY CONSERVATION WITH DEVELOPMENT

### Complexity of Biodiversity and Measurement Issues

Biodiversity is multi-scaled, which makes monitoring and measuring progress challenging. Composite indices are hard to create because ecosystems and species distributions can vary (Olmos Antillón et al., 2021). For instance, certain species may decline in population whereas others may rise locally, camouflaging general losses.



**Figure 1.** Progress toward SDG 15 targets (<https://unstats.un.org/sdgs/report/2023/Goal-15>)



**Figure 2.** Global forest cover change (%) from 1990 to 2023 (<https://www.fao.org/forest-resources-assessment/2020/en/>)

Thus, when monitoring biodiversity, it is not sufficient to focus solely on species numbers; multifaceted approaches that encompass the functional roles of species, habitat quality, and ecosystem processes are required.

### Trade-Offs Between Economic Development and Biodiversity

Habitat destruction and resource overexploitation are generally the byproducts of economic growth and impair conservation. SDG 15 indirectly calls for these contradictions to be addressed, but trade-offs are not always made transparent in policy tools (Olmos Antillón et al., 2021; United Nations Department of Economic and Social Affairs, 2021). Agricultural productivity increase (SDG 2), for instance, can lead to forest clearance or applications of chemicals that have adverse effects on wildlife habitats. Balancing such conflicting

objectives calls for innovative solutions in land use planning and sustainable agriculture.

Anthropogenic activities often have significant negative consequences on biodiversity, as they cause a broad set of environmental pressures, including habitat degradation through land use, pollution, and climate change (Díaz et al., 2019). Cowie et al. (2022) suggests that human-caused environmental degradation puts the planet on the brink of a new mass extinction. Moreover, the analyses of Keck et al. (2025) indicate that the biological communities have been affected by human pressures, decreasing the local diversity of terrestrial, freshwater, and marine ecosystems. The outcome is that anthropogenic forces, which are mainly pollution, habitat loss, climate change, and invasive species, cause a systematic change in community composition. The researchers thus point out that all these pressures should be dealt with collectively to stop or reverse the loss of biodiversity.

Newbold et al. (2015) discovered that anthropogenic land-use alteration has reduced the richness of local species greatly, mostly in the tropics. The findings indicate significant tensions between economic development and environmental protection since destruction of habitats continues to occur in the form of agriculture expansions, urban sprawl, and infrastructure developments. The report highlights that, without radical restructuring of land use plus sustainable food production, it will not be easy to incorporate biodiversity conservation into socio-economic development. This will likely become a significant bottleneck in the attainment of the SDGs.

### Lack of Clear Definition of Targets

Some of the SDG 15 targets focus on secondary issues such as poaching and invasive alien species but fail to focus intensely on big drivers such as habitat loss and land-use



change (Olmos Antillón et al., 2021). Such incomplete emphasis can render conservation efforts less potent.

One of the factors that endangers wildlife diversity is the wildlife trade, speciallyt withoute appropriate measures established. Unless appropriate education and awareness is developed to curtail the increasing world wildlife trade demands, local extinctions and loss of biodiversity may transform into global extinctions. According to Morton et al. (2021), it was estimated that wildlife trade has resulted in a 61.6 percent decrease in species abundance and 16.4 percent of local species extinctions. They stress that this is about 80 percent among the threatened species and species under trade should be better preserved in nature. They point out the need for awareness to be raised by means of greater surveillance and education of local communities about the laws concerning trade and hunting. In this respect, solutions that establish globally coordinated and specific trade restrictions and relevant controls are of high significance (Cardador et al., 2019).

### Funding and Capacity Constraints

Conservation efforts require institutional and financial investment. International, national, and local resource mobilization remains a constraint, especially for the developing world (Olmos Antillón et al., 2021). Institutional capacity and good governance are critical components.

## INTEGRATION APPROACHES

### National Responses

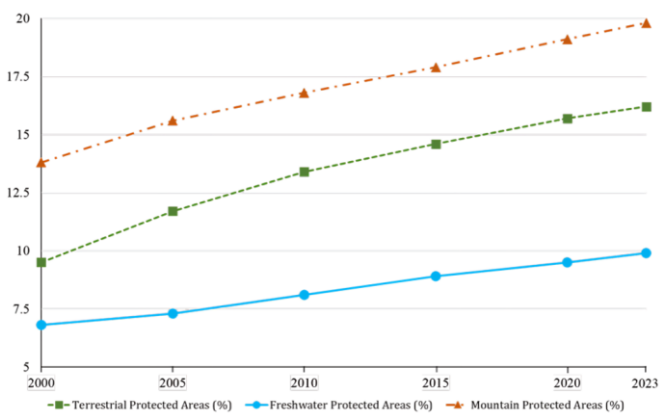
Various national responses to conservation needs for wildlife and biodiversity have been developed. India, for example, employs wild elephant population health as a proxy for ecological integrity, valuing the wild elephant's role as an umbrella and flagship species. Elephants also destroy crops, which illustrates a human-wildlife conflict and the challenge of balancing conservation with community livelihood (Olmos Antillón et al., 2021).

Treating wildlife as a natural asset with economic value, just like other types of produced capital, may enable the development of alternative approaches to reducing conflicts between humans and wildlife (Nguyen et al. 2022).

### Area-Based Conservation

Protected areas remain a cornerstone of biodiversity conservation. Effective protection and management of protected areas lend themselves to numerous SDGs beyond target 15, such as health and climate resilience (Dudley et al., 2022). However, protected areas must be managed equitably for the advantage of local populations and development aims.

Mitchell et al. (2007) insisted that small-scale impacts of climate change in protected territories may be partly compensated by direct management activities. In the same manner, Morton et al. (2021) note that the negative effect of trade on biodiversity can be considerably reduced in internationally recognized and conserved regions, in contrast to unprotected ones.



**Figure 3.** Global trends in protected area coverage: Terrestrial, freshwater, and mountain ecosystems (2000-2023) (<https://digitalreport.protectedplanet.net><https://www.protectedplanet.net/en/thematic-areas/wdpa>)

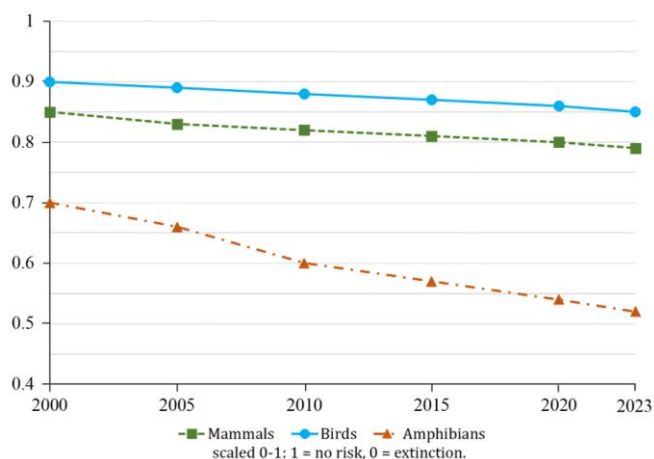
The report by the IPCC (2022) notes that the possible advantages and avoidance of damage may be most effective when solutions based on nature are accepted in appropriate locations using methods suited to those areas, within a platform of inclusive government. In this connection, it is accentuated that multidisciplinary scientific research, indigenous knowledge, and decisions made with references to local knowledge and practical skills are the keys to successful ecosystem-based adaptation.

According to Berkes (2009), locally controlled conservation sites where the local people are actively involved in conservation of the biodiversity can provide a powerful complement to government-conserved sites and make contributions to a variety of SDGs. Based on case studies in Asia, Africa, and Latin America, there is a clear indication that both conservation and the well-being of people improve when local people are given first-hand benefits such as ecotourism income or sustainable resource utilization. These examples help improve understanding of the great importance of participatory governance and recognition of indigenous and local rights when it comes to balancing conservation and development objectives.

Moyo et al. (2021) emphasize that restoration projects of ecosystems are more effective in attaining the larger goals of the SDGs when such projects aim at enhancing the lives of people, based on their findings through case studies in South Africa.

### Biodiversity Mainstreaming

Biodiversity values mainstreaming into national planning, economic accounts, and poverty reduction strategies is essential to align conservation with overall development (United Nations, 2024). The application of environmental-economic accounting systems enables mainstreaming. Measuring success at mainstreaming programs involves monitoring biodiversity outcomes in terms of global trends in protected area coverage and species conservation status. **Figure 3** shows a global overview of terrestrial, freshwater, and mountain protected area coverage during the period 2000-2023. Between 2000 and 2023, the proportion of protected areas relative to the total extent of terrestrial, freshwater, and



**Figure 4.** Trends in the IUCN red list index for mammals, birds, and amphibians (2000-2023) (<https://www.iucnredlist.org/assessment/red-list-index>)

mountain ecosystems has steadily increased. The coverage in mountain ecosystems showed a significant rise from 13.8% to 19.8%, reflecting focused conservation efforts in these sensitive ecosystems. Freshwater and terrestrial ecosystems also showed steady gains, though at a somewhat slower pace. Despite these advances, there remains a substantial gap to reach the global target of protecting at least 30% of critical habitats by 2030. Accelerated conservation actions and sustained management efforts are imperative.

**Figure 4** gives a global overview of trends in the IUCN red list index for birds, mammals, and amphibians during the period 2000-2023. The IUCN red list index has shown that the extinction threat of mammals, birds and amphibians around the globe has been steadily growing over the last 20 years. Amphibians are the most greatly degenerated and this shows that they are sensitive to loss of habitat, disease, and climate change. Gradual decreases are also observed in birds and mammals, but to a lesser degree. This index demonstrates the change in net population and threat status, including a species that crosses between the threat status because of real-world changes or increased knowledge. The statistics confirm the imperative to take conservation measures to protect the most endangered species with particular focus on amphibians. IUCN, a global organization that focuses on nature conservation and natural resource use, is known for issuing the IUCN red list of threatened species, which assesses the global conservation status and extinction threat of species like amphibians, mammals, and birds.

## SYNERGIES BETWEEN BIODIVERSITY AND OTHER SDGs

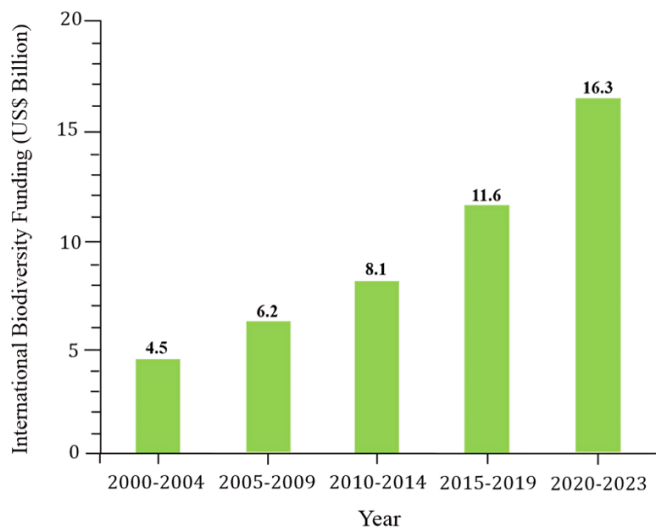
Biodiversity conservation contributes to a number of the other SDGs. For instance, it contributes to food security (SDG 2) by promoting pollinators and genetic diversity. It contributes to clean water (SDG 6) by stabilizing ecosystems, and to climate resilience (SDG 13) by sequestering carbon in soils and forests. Taking note of these synergies enables more interlinked and sustainable development strategies (United Nations Department of Economic and Social Affairs, 2021).

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services' (2019) global assessment demonstrated that biodiversity conservation creates robust positive interactions between various SDGs. For example, healthy ecosystems maintain agricultural production (SDG 2), manage water supply and quality (SDG 6), and help in preventing and adapting to climate change by sequestering carbon (SDG 13). Ecosystems with high biodiversity levels also promote human health and well-being (SDG 3) through the reduction of disease risk and the preservation of cultural heritage.

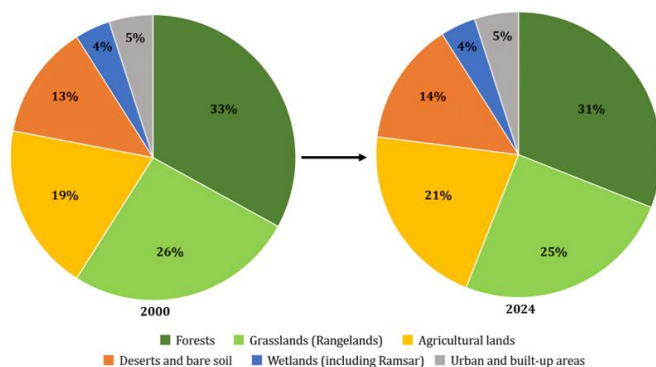
It has been stated that adaptation measures could mitigate the expected adverse effects of climate change, particularly for species that will be negatively affected by rapid anthropogenic changes in climate (Mawdsley et al. 2009). The IPCC (2022) report stated that protecting planetary health is indispensable for human and societal health and is even considered a prerequisite for climate-resilient development. An appreciation of such interlinkages underscores that conserving biodiversity is part of, and not separate from, general efforts for sustainable development.

## CURRENT GLOBAL ACTION AND INITIATIVES

A slow pace in halting loss of biodiversity is observed in a 2024 UN report despite more forest management and greater area coverage of protected areas. The threat of species extinction is becoming greater, particularly in Asia. The Kunming-Montreal global biodiversity framework provides global commitment to biodiversity on the basis of funding, monitoring, and capacity building activities (UNEP, 2024; United Nations, 2024). In the article "Making peace with nature", Constantinou and Christodoulou (2024) point out that despite advancements in increasing protected areas and managing forests, the rate of loss of biodiversity at the global scale remains high. It is stressed that small incremental progress is insufficient and that a radical shift in the production and consumption of goods must occur if the present trend is to be reversed. The authors also highlight the imperative to mobilize, finance and implement nature-based solutions, and to strengthen international cooperation—through the Kunming-Montreal global biodiversity framework in particular—to achieve biodiversity targets in line with climate and development targets. To contextualize these policy frameworks and global challenges, **Figure 1** presents progress toward SDG 15 targets; **Figure 2** illustrates changes in global forest cover; **Figure 3** depicts global trends in protected area coverage across terrestrial, freshwater, and mountain ecosystems; **Figure 4** shows trends in the IUCN Red List Index for mammals, birds, and amphibians; **Figure 5** displays trends in international biodiversity finance commitments; and **Figure 6** illustrates global land cover distribution and changes. As seen from **Figure 5**, international biodiversity finance commitments have steadily increased from 4.5 billion USD in 2000-2004 to approximately 16.3 billion USD in 2020-2023. This rise aligns with global efforts such as the Kunming-Montreal global biodiversity framework, which aims to mobilize over 30 billion USD annually by 2030.



**Figure 5.** Trends in international biodiversity finance commitments (2000-2023) (<https://www.cbd.int/doc/c/8d7f/55df/1d2dbb096d00be743f006a05/rm-ac-2024-01-02-en.pdf>)



**Figure 6.** Global land cover distribution and change (2000-2024) (<https://www.fao.org/land-water/land/land-governance/land-resources-planning-toolbox/category/details/en/c/1036361/>)

Despite these gains, a significant financing gap remains, underscoring the need for innovative funding mechanisms and enhanced international collaboration to effectively safeguard biodiversity.

As seen from **Figure 6**, the global land cover distribution reflects the critical ecosystems central to biodiversity and SDG 15. Forests remain the largest natural land cover but have slightly declined as agricultural lands and urban settlements expand. Grasslands and wetlands are vital habitats but face pressures from land use change. Monitoring these trends is essential for managing sustainable land use and protecting biodiversity.

Meanwhile, **Table 1** highlights the correlations between SDGs related to SDG 15 (life on land).

## FUTURE DIRECTIONS: RECOMMENDATIONS

Developing multi-perspective indicators for the conservation of biodiversity is essential for accurately

**Table 1.** Correlations among SDG related to SDG 15 (life on land)

|   | SDG 15<br>(life on land) |
|---|--------------------------|
| SDG 13 (climate action)                         | 0.92                     |
| SDG 6 (clean water and sanitation)              | 0.85                     |
| SDG 2 (zero hunger)                             | 0.83                     |
| SDG 14 (life below water)                       | 0.81                     |
| SDG 12 (responsible consumption and production) | 0.8                      |
| SDG 3 (good health and well-being)              | 0.79                     |

interpreting ecological changes. In this context, developing integrated policy and management mechanisms is important.

Including nature-based solutions in decision-making processes in appropriate areas, within an inclusive governance framework, and in a synchronised manner through collaboration between disciplines and local communities, enhances the benefits for biodiversity conservation.

Enhancing the mainstreaming of biodiversity into national development plans can be done by establishing specific and measurable targets of habitat conservation and augmenting sustainable finance. Social benefit-based restoration applications can assist efforts for long-term sustainability. In addition, encouraging inter-national collaboration to facilitate genetic resources exchange and make illegal the trade of wildlife. Leclère et al. (2020) presented unified internationalized models having the potential to put a stop to the decline of biodiversity by 2050 provided that fruitful conservation is combined with modifications in food mechanisms that are sustainable. The study emphasizes the point that conservation of the habitats is insufficient, and that there should also be radical changes in agriculture, trade, and consumption patterns. These suggestions include adding the area of preserved locations, rehabilitating damaged ecosystems, reducing food waste, and encouraging more vegetarian diets. These findings provide scientific foundations to measures of integrating biodiversity preservation and sustainable development of human populations.

## CONCLUSION

An important facet of sustainable development is wildlife and biodiversity protection. The UN SDGs offer a good platform to balance conservation and development objectives but there is much that needs to be achieved in the realization of these hopes. A multidisciplinary, well coordinated effort is required, which includes ecological, social, and economic dimensions. The future of the ecosystem services, which are central to human well-being and the future of the planet, can be supported by ensuring the welfare of wildlife and biodiversity. According to Díaz et al. (2023) long term sustainability is an operation of daring, measurable, and temporal biodiversity targets in line with the SDGs. The authors believe that patchwork or incremental steps will not be adequate to stop the decline in biodiversity and that only comprehensive and transformative steps will ensure ecological integrity and human well-being. To support this, international collaboration, scientific development, and civic activity need to be drawn together to make conservation of biodiversity a



significant goal of sustainable development. Supportive decisions made now will help ensure the ecological health of the future.

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**Data sharing statement:** Data supporting the findings and conclusions are available upon request from corresponding author.

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