

BOSNIA AND HERZEGOVINA

As part of the project, “Supporting decision-making and building capacity to support the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) through National Ecosystem Assessments”, under the [National Ecosystem Assessment Initiative](#), a multidisciplinary team of experts embarked on a journey to undertake an assessment of the state of nature and governance of natural resources in Bosnia and Herzegovina (BiH). This research process involved extensive collection, analysis, and synthesis of existing knowledge, including local and traditional knowledge, on the status and trends of biodiversity and nature’s contributions to people in BiH. The assessment was completed in December 2023, and resulted in a first-of-its kind, comprehensive and up-to-date evidence base that is intended to support national policies and actions related to biodiversity and its benefits for people.

The findings are available in the [Technical Assessment Report](#) and the [Summary for Policymakers](#).

This information sheet presents the main findings and knowledge gaps that aim to support policymakers and decision-making on the conservation and sustainable use of natural resources, and diversity of the ecosystems and species in BiH.

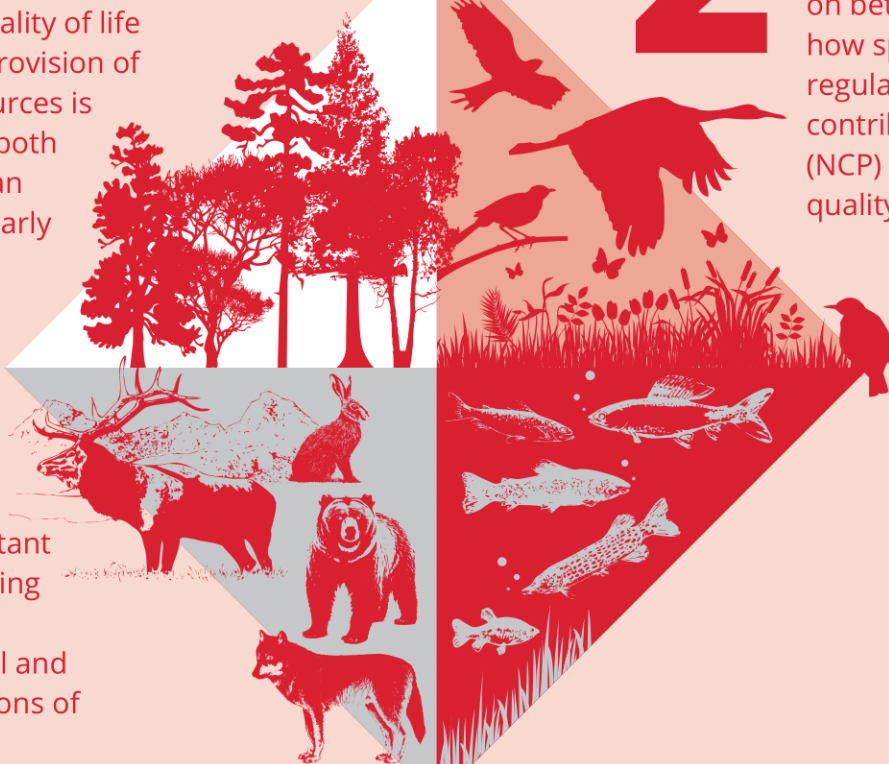


To what extent and in which ways do nature and use of natural resources contribute to the provision of livelihoods, quality of life and the sustainable development in BiH?

1

The contributions of biological diversity and natural resources to people’s quality of life through the provision of material resources is prominent in both rural and urban areas, particularly for industrial development.

Regulating and non-material contributions play an important role in improving day-to-day environmental and health conditions of BiH’s citizens.



2

The assessment identified a significant lack of research focusing on better understanding how specific types of regulating nature’s contribution to people (NCP) support a good quality of life in BiH.

3

Important contributions of nature include pollination, maintenance of air quality, and maintenance of the quantity and quality of water. Ecosystems are important regulators of land quality and protection, serving as 'green infrastructure' that prevents and mitigates the impact of extreme events and natural disasters.

4

Healthy functioning ecosystems have an indispensable role in supporting the primary production of organic matter, as well as in its decomposition, carbon storage and regulation of all other environmental processes.



5

The important role of healthy functioning ecosystems is best understood in the context of adaptation to climate change. Ecologically stable and resilient ecosystems positively support the process of adaptation to climate change locally.

6

Current evidence on the state of ecosystems and trends of drivers suggests a downward trend in the ability of BiH's ecosystems to support human wellbeing by providing NCPs.



7

Ecosystems play an important role in ensuring energy for people in BiH, which is seen in the traditional use of wood, as well as in the potential for diversification of energy sources through energy produced from agricultural and forest biomass.

8

Assessing the monetary and non-monetary values of biodiversity and natural resources in BiH is crucial, but currently lacking. Without this information, it is impossible to conduct valuation and monitoring of BiH's natural capital.



9

Economic valuation of NCPs should play an important role in governance and regulatory procedures across sectors in BiH, and should be an integral aspect of planning and monitoring for all sectors who use and depend on biological diversity and natural resources.



What are the status, trends and future scenarios for the state of nature and use of natural resources in BiH?



1

The richest areas of endemic and relict flora are in the canyons and ravines of BiH rivers. BiH's particularly sensitive ecosystems of wetlands and ponds have displayed a trend of decreasing surface size.



23 species of amphibians



34 species of reptiles

37 subspecies of reptiles

2



351 species of birds



6,105 terrestrial invertebrates



91 species of terrestrial mammals



12 species of marine invertebrates

3

The need for development combined with the country's economic challenges is leading to the loss of natural habitats and the occasional state of degradation in almost all BiH's ecosystem groups. This is happening mainly as a result of overconsumption of BiH's natural resources. Such results suggest relatively high intensity and increasing trend of all types of direct and indirect drivers.

Quality of Life

4

As a result, there are downward trends in NCPs and more visible reductions in the capacity of ecosystems to regulate environmental processes, decreased availability of material resources and declining quality of life for individuals and society as a whole.



Which developmental drivers (manufacturing and consumption of goods, energy needs, tourism, etc.) and social drivers (demographic developments, socio-political processes, etc.), impact the state and trends of nature and natural resources in BiH, and in which ways?



1

Prominent among the direct drivers are conversions of habitats, which leads to a loss of natural habitats and expansion of areas with low biodiversity and have a low capacity for providing contributions to people and a limited capacity to provide for people. Another major issue is the excessive exploitation of natural resources that exceeds ecosystem's carrying capacity, making it unable for ecosystems to replenish itself to a level necessary for producing goods and services for people.

2

Moreover, air, land and water pollution are a consequence of human activity, which reduces the health and resilience of soil and water ecosystems, and the species contained within them. The impacts of these drivers combined with the worsening effects of climate change have led to increased numbers of invasive alien species into already degraded ecosystems.

3

At the same time, land converted for agriculture in BiH has resulted in large areas of land that are low in biodiversity and have low resilience to extreme weather, pests and diseases.

4

Indirect drivers that adversely impact biodiversity include weak institutional capacity for conserving biodiversity and promoting sustainable development, as well as poor enforcement of the legislative framework. Additional indirect drivers include the challenging economic circumstances for the society of BiH during the current period of transition, demographic processes such as abandonment of rural areas, loss of traditional religious and cultural norms and practices as a result of social change, and low scientific and technological capacity of BiH to develop and apply better standards for the conservation of biological diversity and sustainable use of NCPs.

▶ [See these infographics here to learn more about the intensity and trends of direct and indirect drivers on main habitat types.](#)



What are the current and potential options for improving different sectoral policies, interventions, investments, governance and institutional arrangements for greater contribution of nature and natural resources to sustainable development in BiH?

1

BiH has not yet signed agreements on the conservation of genetic diversity and related traditional and local knowledge. BiH is not a party to the Nagoya Protocol on Access and Benefit Sharing and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) Treaty. This has hampered opportunities to regulate access to local genetic resources and ensure fair and equitable sharing of arising benefits from their utilization.

2

Biological diversity has been integrated into some sectoral strategies, but not into BiH's sectoral programmes and regulations. The need for coordinated and efficient planning to support the conservation and sustainable use of biodiversity through a multisectoral approach is evident.



3

Priorities for monitoring and methods of data collection and flow have still not been identified, which impedes progress in the planning and establishment of ecological networks in BiH. Information systems have not been established in the Brčko District of BiH.

4

Participation of scientific experts in policymaking regarding the conservation and sustainable use of biodiversity is currently insufficient. Nature protection and conservation in BiH is financed through a set of non-tax levies/revenues, but very little funding comes through overall public revenues.

The infographic features a background of geometric shapes in shades of grey, red, and dark green. A photograph of a forest with tall trees is partially visible on the left side, overlaid by the green and red shapes.

5

Knowledge of local biological diversity and traditional and local knowledge are not sufficiently represented and taught in the elementary and secondary school curricula. In higher-level education, this form of knowledge is somewhat covered in the programmes of science, agriculture and forestry faculties. Research has confirmed a gradual loss of traditional and local knowledge in BiH, while the option of including traditional and local knowledge in policymaking processes has not been utilized.

6

The legislative frameworks that cover the protection of biodiversity and the environment are not implemented by the same institutions as those who are responsible for adopting and applying legislative frameworks for NCPs. In the Federation of BiH (FBiH), the institutional framework is more complex. Current institutions in BiH do not have sufficient human or technical resources for implementation and oversight of the adopted regulations.

7

The procedure of issuing environmental permits is not sufficiently transparent, and together with the procedure for environmental impact assessment, does not result in sufficient protection of biological diversity under many development initiatives and projects.

8

Various instruments and tools are applied for the conservation of biodiversity in BiH, but the extent and quality of their application are not at a satisfactory level.

9

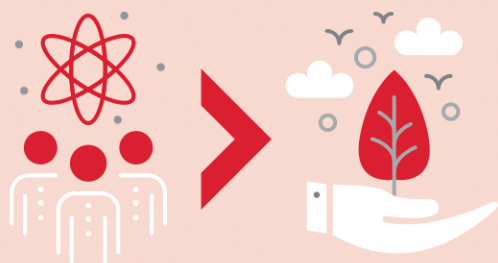
Findings indicate that there are only a few tools and instruments, such as sanitary and phytosanitary measures and tools relating to food safety and forest certification that have been consistently and efficiently applied in BiH.

10

However, there is a need for more research into the effective use of available tools and instruments for the sustainable management of natural resources in BiH.



Which gaps need to be addressed to strengthen policy making processes to improve the state of nature and governance of natural resources in BiH?



In BiH, science-based solutions for the management of biodiversity and natural resources in practice do not include traditional and local knowledge relating to biological and cultural diversity, even though it could provide solutions to some of BiH's environmental challenges. The establishment of a continuous science-policy interface could significantly increase the effectiveness of current interventions aimed at the conservation of biodiversity and sustainability of NCPs, as well as create strong mechanisms that enable integrated governance of BiH's biodiversity and natural resources.



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Knowledge Gaps and Needs Identified in the Assessment

The National Ecosystem Assessment of Bosnia and Herzegovina (BiH) highlighted knowledge gaps that need to be addressed to contribute to the conservation and sustainable use of biodiversity and ecosystem services in the country. Decision-makers should take these into account when planning future research work.

1

There is a significant lack of research on how specific types of regulating nature's contributions to people (NCPs) support a good quality of life in BiH.

2

Indirect drivers in BiH are complex and there is a need for further research on how growing trends in scientific and technological drivers impact biodiversity in the country.

3

There are no studies on the resilience and functionality of ecosystems in BiH.

4

There are geographical areas where mosses have not yet been adequately investigated despite their abundance in those ecosystems.

5

There is a lack of scientific and technical data on established numbers of native plant and animal species that comprise a large portion of BiH's flora and fauna, and established parameters of nativeness.

6

Little is known about the overall biodiversity of BiH, particularly for some groups such as invertebrates, fungi and microorganisms.

7

Growing numbers of alien invasive species of plants, animals and fungi are recorded in the country, but there is no data on their distribution.

8

There is a need for systematic research on the spatial and temporal impacts of climate change in BiH through the establishment of long-term systems for monitoring. There is no research in the country on how climate change impacts ecological processes and ecosystem function.

9

There is a lack of scientific sources and quality indicators to assess the impact of different development scenarios on nature and ecosystem services.

10

There is a significant lack of data and literature on the potential impacts of population changes on the state of nature.

11

The biggest knowledge gap concerning governance options relates to analyses of the efficiency of existing tools/instruments and the effectiveness of protecting the state of biodiversity in the country.

