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EDITORIAL

DEAR READER

In this second issue of the EU4Nature Bulletin, we place special attention on EU nature protection policies and instruments, with a particular focus on the Natura 2000 network. In light of the Albanian Government's strong political commitment to EU accession, the negotiation process must accelerate alignment with the European environmental acquis, including the Habitats and Birds Directives.

Albania has made remarkable progress in expanding its protected area network, growing from under 6% to over 21% of the national territory for less than two decades, with the ambition of reaching at least 30%. Yet, effective management of protected areas remains a challenge, and some key natural sites still lack legal protection. In this context, establishing an Albanian ecological network as part of Natura 2000 will not only strengthen legal safeguards but also give Albanian society a powerful tool to preserve its unique biodiversity for generations to come.

WHAT IS NATURA 2000?

Natura 2000 is the largest coordinated network of protected areas in the world, comprising more than 27,000 protected sites across the EU. It reflects the extraordinary diversity of Europe's wildlife and habitats, covering nearly 20% of the EU land and around 10% of its marine areas.

The Birds and Habitats Directives provide the legal foundation for Natura 2000, ensuring both protection and sustainable use of these sites. The network is integrated into key EU policies, including the Common Agricultural Policy, spatial planning, water management, and infrastructure development, helping to balance conservation with human needs.

Unlike traditional nationally designated protected areas, Natura 2000 follows a coordinated approach at European and bio-geographical levels, using unified scientific criteria and procedure for site selection. The network is made up of:

- Special Protection Areas (SPAs): designated under the Birds Directive 2009/147/EC for the protection of significant numbers of wild birds and their habitats;
- Special Areas of Conservation (SACs): designated under the Habitat Directive 92/43/EEC for the protection of rare, endangered, or vulnerable natural habitats and species of animals and plants.

Natura 2000 sites vary widely in their size and conservation objectives. They cover forests, grasslands, wetlands, and extensive coastal and marine environments and include the nationally designated national parks, strict reserves and the other categories of protected areas. Rather than replacing national protected areas, Natura 2000 complements them by adding a new layer of legal protection and management tools.

The benefits of Natura 2000 extend beyond biodiversity. The network safeguards broad variety of ecosystem services such as clean water, groundwater regulation, carbon storage, flood protection, and soil health. By supporting nature-based tourism and sustainable agriculture, it also creates opportunities for jobs and investment, particularly in rural areas.

Mr. Ventzislav Vassilev, International advisor, EU4Nature

Across Albania's protected areas, paying and issuing tickets is becoming faster, clearer, and easier. A unified e-ticketing and e-invoicing system, now in use across protected areas, brings traceable payments and a smooth, fair experience for visitors, whether at fixed booths or pop-up points. Behind the scenes the system runs on state infrastructure (e-Albania) as a certified fiscalization solution, and in practice is delivered through the e-invoicing (easyInvoice) and e-ticketing (easyPOS) applications developed by ESDP and financed by EU4Nature.

A smoother visitor experience

Staff can issue a secure e-ticket in seconds, be that on the trail, at a beach, or right at a boat dock. That means visitors can formally pay for anchoring at Porto Palermo, joining a guided tour, kayaking on the Vjosa River, or taking a panoramic ride on electric buses without hunting for a kiosk. During peak flows at Dajti National Park or Syri i Kaltër, staff can open an extra mobile ticket line using the portable devices to cut queues. And when electricity dips, common in remote sites, the handheld POS keeps working on battery and paid mobile data, so operations don't stall and visitors continue being served in time.

Pop-up access anywhere

The same flexibility turns a spot like Bënja or Porto Palermo into a controlled point of sale with just a table and an umbrella. Portable, battery-powered POS devices with integrated printers and three-year connectivity make it easy to stand up temporary ticketing stations where demand appears. Even niche cases, like issuing tickets to tourists traveling by boat to the Karaburun caves, are now possible.

More than entry tickets.

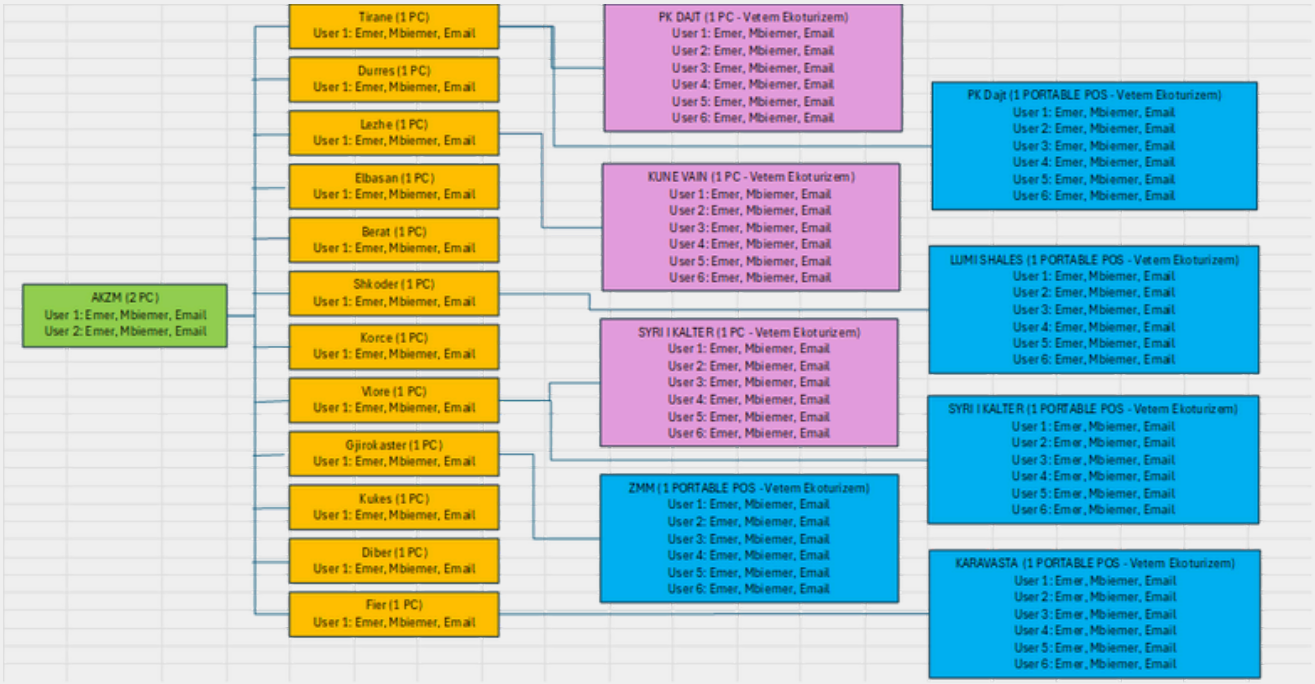
This isn't just about gates and entry fees. The unified catalog covers 95+ services, from hiking permits and scuba diving to eco-friendly lodging, camping, mooring/anchoring, events and filming, and more. Services that were hard (or impossible) to bill formally can now be offered cleanly and consistently. Tour operators, licensed guides, and event organizers can coordinate with the park administration and receive real-time e-invoices on their phones, replacing ad-hoc paper processes with a simple, auditable flow.

Unified, secure, and built on government rails

Because it's a certified system built to comply with the criteria set by the government, data is durable and easier for auditors to review. Every staff member has a named account and password (no shared logins), so work is traceable and permissions are clear. If a device is lost or a role changes, access can be adjusted instantly without losing any records.

Better management and reporting

The protected areas' Administration can monitor activity live or generate standard reports by location, user, time period, fee type, or counterparty in just a click. That visibility supports timely reconciliations, flags past-due amounts for follow-up, and makes periodic reporting, and even reviews by oversight bodies, faster and less prone to errors. For land-use contracts and other services, e-invoices replace stacks of paper with compliant digital records that are easier to issue, store, and verify. The system and portable POS hardware minimize use of pre-printed entry tickets to emergency-only use, which reduces reconciliation headaches and shifts staff time from back-office paperwork to serving visitors and caring for sites.



Better management and reporting

The system is more secure because every staff member uses a named account and password, no generic logins, so activity is traceable and permissions are clear. E-invoices replace paper invoicing for contracts (e.g., land-granting rights), cutting paperwork while creating clean, verifiable records. Managers can generate standard reports by tariff type, counterparty, period, and amounts to be received, including aging to flag past-due items. That makes periodic reporting and reconciliations faster, prepares ready-made evidence for supreme audit reviews without bespoke spreadsheets, and supports timely collection, so more of every lek can go back to nature.

Trust that every ticket supports nature

When paying is fast, clear, and official, visitors are more willing to go formal and ask for a ticket. The unified, e-enabled process shows them their contribution is recorded and goes where it should, to the care of Albania's parks and landscapes. And because the approach is standardized nationwide, the experience feels familiar and reliable wherever people explore.

One system, less paper, stronger revenues, happier visitors. That's how going digital turns everyday moments, scanning a QR or issuing a receipt, into lasting gains for Albania's protected areas and the people who protect them.

Mr. Azmi Stringa, EU4Nature consultant

Institutionalizing monitoring as a continuous management function is the key to achieving lasting improvements in Albania's protected area system

A recent national assessment has provided valuable insights into the capacity of Albania's protected area institutions to monitor and evaluate conservation performance. The study, Assessment of Capacity for the Implementation of the PA Performance Monitoring System, was carried out by an international consultancy with the support of the National Agency for Protected Areas and all Regional Administrations of Protected Areas. Its purpose was to understand how Albania can strengthen protected area monitoring, align with EU and international standards, and enhance the overall effectiveness of protected area management across the country.

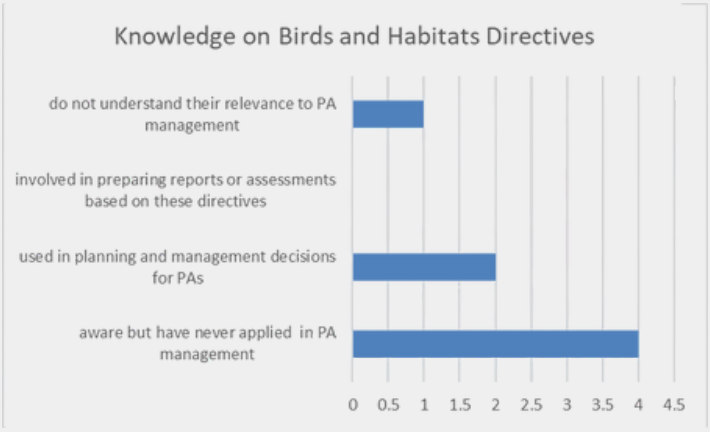
The questionnaire combined quantitative and qualitative questions to capture both institutional capacity and staff perspectives. Interviews and document reviews complemented the survey, providing a clear picture of how monitoring systems function in practice. The questions explored technical aspects such as data storage and access, as well as broader issues like coordination among institutions and the use of monitoring results in management decisions.

The assessment focused on four main themes:

- awareness and institutional knowledge
- current monitoring practices,
- data collection and management, and
- capacity development needs.

It examined how well staff understand international frameworks such as the Management Effectiveness Tracking Tool (METT), the IUCN Green List, the Emerald Network, and the EU Birds and Habitats Directives. It also reviewed how monitoring tools are currently used, how data are gathered and shared, and what training and institutional support are required to improve performance monitoring.

The survey received responses from central and local staff, including directors, specialists, and field experts, most with five to ten years of experience in protected area management.

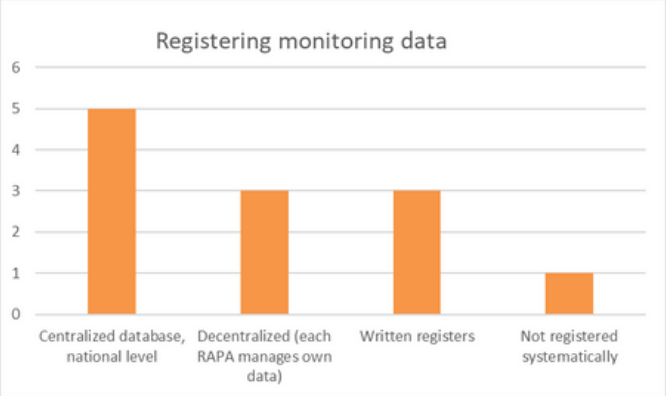


The results show that Albania's protected area institutions have a solid foundation of experience, particularly through donor-funded projects, but that systematic performance monitoring remains underdeveloped. Most respondents reported moderate familiarity with the METT framework, which has been introduced at both national and site levels. However, awareness of other international systems, especially the IUCN Green List, the Emerald Network, and the EU Nature Directives, was limited.

Data on biodiversity monitoring

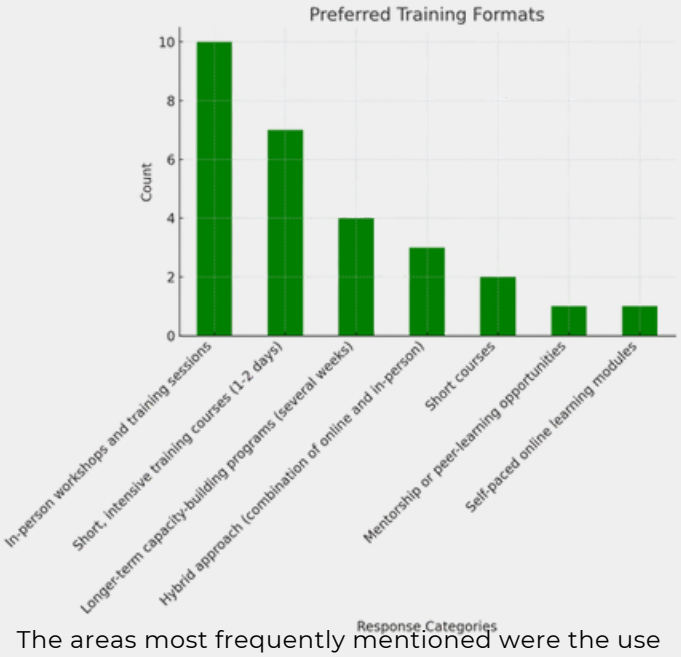
Although data on biodiversity and management indicators are collected in many regions, they are often fragmented, inconsistently reported, and not systematically used to guide management actions. Respondents also noted the absence of a unified digital database, varying reporting formats among institutions, and limited coordination between national and regional bodies.

In several cases, monitoring reports were produced primarily by external consultants, resulting in weak institutional learning and limited staff ownership of the process. This has resulted in a reliance on project-based initiatives, with monitoring often carried out through external support rather than as a routine management function. Such conditions make it difficult to build continuity, standardization, and long-term data integration across the network of protected areas.



Training needs

Training opportunities offered to PA staff were described as sporadic, short-term, and often linked to specific projects rather than continuous professional development. Respondents expressed a clear need for regular, structured training programs that combine theoretical and practical learning.



The areas most frequently mentioned were the use of METT and other monitoring tools, the interpretation of results for management planning, understanding and applying EU environmental legislation, biodiversity monitoring methods, and data management using digital and GIS-based tools. Participants also stressed that training should be certified and recognized as part of career progression, helping to motivate staff and build professional recognition. Limited funding and the absence of incentives were frequently cited as barriers to maintaining a skilled and motivated workforce.

As a conclusion, to strengthen Albania's protected area monitoring system, focused and coordinated action is needed at several levels. Institutionalizing monitoring as a continuous management function, rather than a project activity, should be the cornerstone of future efforts. This requires establishing clear protocols and standardized indicators, supported by a national digital database to ensure that data are comparable, accessible, and used effectively in decision-making.

At the same time, capacity building must become a long-term investment, with regular training programs that combine practical fieldwork, data management, and reporting skills aligned with EU and international standards. Sustained financial and technical resources are also essential to maintain monitoring operations, integrate new technologies, and ensure that results feed back into planning and management.

Ultimately, improving monitoring depends on stronger coordination, modern tools, and empowered professionals who can translate data into informed action. By addressing these needs, Albania can develop a robust, transparent, and science-based monitoring system that supports both biodiversity conservation and sustainable development.

Mr. Andon Bojadzi, International consultant and EU4Nature team

THETH RIVER: ALBANIA'S NOT-SO-HIDDEN ALPINE GEM

Tucked between the iconic peaks of the Albanian Alps, such as Jezerca and Valbona, the Theth River originates in one of Albania's most iconic natural landscapes. As it flows through the traditional mountain village of Theth and merges with other tributaries, it eventually becomes the Shala River: a watercourse increasingly recognized for its pristine beauty, turquoise waters, and growing tourism appeal.

Since its official designation as a Natural Park in January 2022, the Shala River area has experienced a sharp rise in tourism. While this growth brings economic opportunities, it also poses increasing pressure on the delicate alpine ecosystem, highlighting the urgent need for science-based conservation and sustainable planning.
In July 2025, within the EU4Nature project, the University of Trento (DICAM department), together with the University of Tirana and the Polytechnic University of Albania, organized a multidisciplinary summer school based in Theth, with the support of the local NGO VIS and RAPA Shkodër. The program brought together 19 students from diverse academic backgrounds to conduct a week-long field campaign, aiming to build a baseline understanding of the environmental status of the Theth River, the upstream genesis of the Shala.

Fieldwork was carried out across four strategic sections: upstream of Theth village (headwaters), within the village itself, downstream before the confluence with the Zi River, and finally along the Shala River. While the first three sites were monitored continuously over seven days, the latter two involved daily campaigns.

The study focused on three key areas:

- Water quality, assessed through in-situ chemical analyses using field kits to measure different parameters, including pH, nitrites, chromium, alkalinity, cyanuric acid, Escherichia coli, and others. In addition, the Extended Biotic Index (IBE) was used to evaluate the ecological status of the river based on the presence of macroinvertebrates.

- Hydraulic data, including discharge, conductivity, turbidity, water level, and temperature monitored using specialized sensors and instruments.

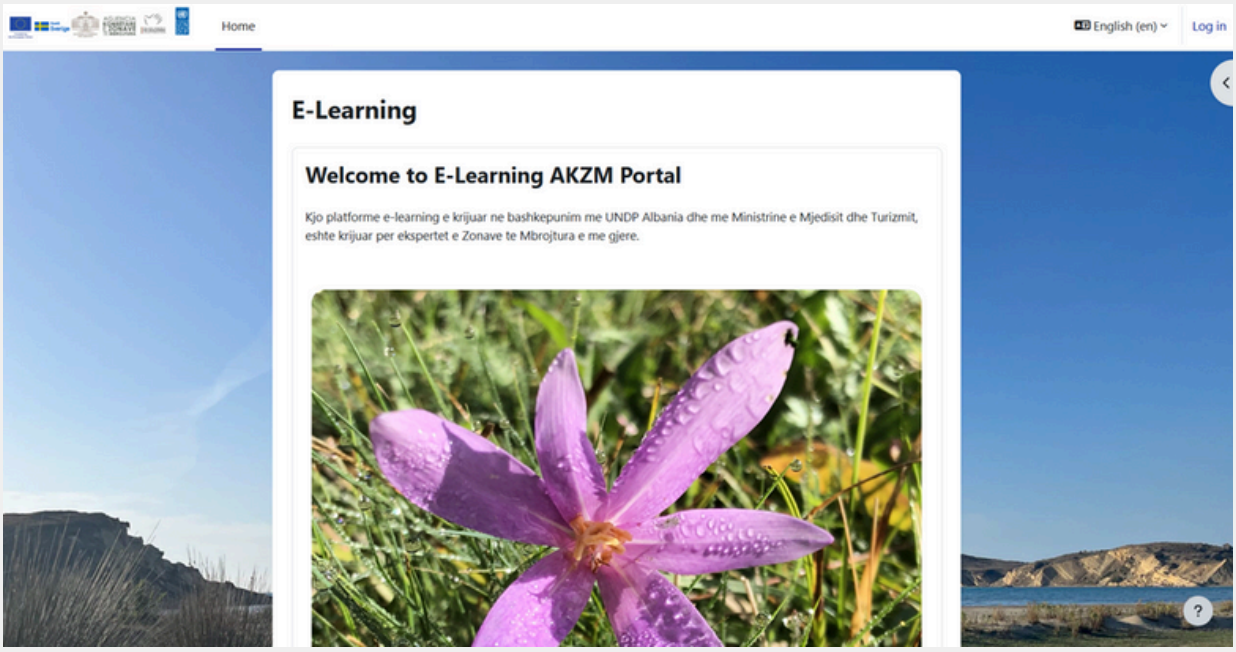
- Waste management, analyzed through direct observation of local practices among residents, tourists, and hospitality operators.

A fundamental aspect of the initiative was community engagement. Students conducted interviews with local stakeholders, gaining insights into the lived realities, concerns, and aspirations of those who call the area home. Understanding these human dimensions is vital to identifying both vulnerabilities and strengths in the region's environmental and socio-economic systems.

Through this hands-on, educational approach, the summer school not only generated valuable data but also strengthened collaboration between Italian and Albanian institutions. It laid the foundation for future conservation efforts along the Shala River and reaffirmed the central role of science in EU4Nature's environmental strategies within Albania's protected areas.

The summer school final output, which would be delivered at the end of 2025, represents the scientific baseline to proceed within EU4Nature project activities, aimed to promote nature based solutions for freshwater biodiversity conservation within protected areas.

A NEW ERA OF LEARNING: THE E-LEARNING PLATFORM GROWS STRONGER



https://learning.akzm.net

The E-Learning Platform continues to grow as an essential instrument for building the skills and knowledge of professionals working in Albania's environmental and protected area sectors. Developed and continuously improved in close cooperation with the Albanian School of Public Administration (ASPA), the platform aims to make high-quality, flexible, and accessible learning opportunities available to public administration staff and practitioners across the country.

Currently, the platform offers 10 comprehensive modules covering key areas of environmental governance, management planning, biodiversity conservation, monitoring and evaluation, and stakeholder engagement. Each module integrates interactive lessons, case examples, and graded quizzes that reinforce learning through practical application. To earn a certificate of completion, participants must achieve a passing grade of 80% or higher on all quizzes within a module, a standard that promotes consistent quality and accountability.

The initiative responds to Albania's growing need for well-trained professionals who can effectively address the challenges of biodiversity conservation, natural resource management, and sustainable development. Through this digital learning environment, participants can engage in structured, self-paced training that supports both institutional goals and personal professional growth. The partnership with ASPA ensures that all materials meet national standards for public sector training and that the platform contributes directly to capacity-building objectives under Albania's environmental and administrative reform agendas.

The e-learning platform has already attracted a growing community of learners, with over 50 registered users from across the network of protected areas, local administrations, and partner institutions. These participants are using the system not only to deepen their technical understanding but also to strengthen communication and coordination among agencies responsible for environmental protection.
Through these efforts, the platform is becoming far more than an online repository of information, it is a national learning hub supporting institutional development, improving performance, and building a community of motivated professionals dedicated to protecting Albania's natural heritage.

The ongoing collaboration between AKZM and ASPA plays a key role in maintaining the quality and relevance of the platform's content. Regular updates, technical improvements, and periodic reviews ensure that the system remains responsive to the evolving training needs of Albania's environmental administration. Future plans include expanding the number of users, diversifying learning materials, and introducing new functionalities that will facilitate blended learning and peer-to-peer exchange.

EU4Nature Team

BIODIVERSITY HIGHLIGHTS FROM THE SHALA RIVER VALLEY NATURE PARK

This article summarizes the findings of a comprehensive biodiversity study conducted in the Shala Valley under the EU4Nature Project, which aimed to establish a scientific baseline for the park's natural and cultural values through field surveys and literature review identifying key species, assessing their conservation status, and analyzing main ecological pressures. Parallel attention was given to documenting the valley's cultural and historical heritage, traditional practices, and the social and economic factors influencing the sustainable use of its natural resources.

The Shala Valley Nature Park, designated as a protected area in 2022 and covering approximately 10,619 hectares, is located in the heart of the Albanian Alps. It represents one of the country's most pristine and biologically diverse ecosystems, where the crystal-clear waters of the Shala River intertwine with dense forests, alpine pastures, and distinctive karst formations. This interplay of Mediterranean and alpine influences, has created a well-balanced ecological structure, serving as a refuge for numerous endemic, relicts, and protected species at both the national and European levels.

Main habitats and flora in Shala Valley

The Shala Valley is represented by diverse habitats extending from riparian lowlands to subalpine pastures. This ecological diversity creates a rare mosaic that sustains a rich flora and a range of functional ecosystems with significant environmental value.

The aquatic habitats are concentrated along the Shala River and its tributaries, forming a typical mountain system characterized by clean, cold, and fast-flowing waters, creating favorable conditions for trout and aquatic insect larvae. Along the riverbanks, stands of willow (*Salix* sp.) and alder (*Alnus glutinosa*) help stabilize the slopes, regulate the microclimate, and provide habitats for amphibians, birds, and small fish.

At mid-elevations (300–1000 m), forests dominated by oriental hornbeam (*Carpinus orientalis*) and hazel (*Corylus avellana*) play a crucial role in soil and moisture conservation, acting as ecological corridors between the lowland and alpine zones. At similar elevations, mixed forests of oak (*Quercus* sp.), chestnut (Castanea sativa), and hornbeam represent an ancient and multifunctional formation essential for soil preservation, erosion control, and as shelter for forest fauna.

In the same altitudinal range, thermophilus beech forests (*Fagus sylvatica*) form a transitional belt between lower and cooler mountain forests. They possess a dense canopy layer and a rich spring herbaceous layer, dominated by *Anemone, Viola,* and *Galanthus*. These forests have a high carbon sequestration capacity and improve soil quality through their rich humus layer.

There are at least 6 endemic plant species in Shala Natural Park

At 900–1600 m, the montane and subalpine beech forests among the best preserved in the Albanian Alps dominate the landscape. These forests, often mixed with silver fir (Abies alba), are vital for water conservation and erosion control, representing a natural reservoir of biodiversity.

Another characteristic formation is the Dinaric mixed forests of black pine (*Pinus nigra*), beech, and oak, stretching from 700 to 1600 m. These ecosystems hold great ecological importance as habitats for large mammals (such as the brown bear, wild boar, and roe deer) and forest birds, while also helping to regulate the microclimate and the water cycle.

At high altitudes (1500–2350 m), alpine pastures identified as part of the Dinaric-Balkan biome host a rich flora of alpine grasses, aromatic plants, and endemic species such as Gentiana lutea and *Campanula waldsteiniana*. These pastures play a vital role in biodiversity conservation and in supporting traditional grazing practices.

In the lower zones (200–1200 m), thermophilus grasslands dominated by *Festuca, Bromus*, and *Thymus* thrive under a dry Mediterranean climate. These grasslands are essential for pollinating insects, medicinal plants, and soil protection against erosion.

Finally, rocky habitats above 1000 m represent harsh environments yet host specialized and highly adapted flora, further enriching the botanical diversity of the Shala Valley.

Genista depressa

Overall, the Shala Valley presents a unique mosaic of habitats and floristic assemblages, blending Mediterranean and alpine influences. This ecological interplay makes the area an exceptional natural asset and a priority for biodiversity conservation in Albania.

Invertebrates are the most diverse group, including insects, beetles, mollusks, spiders, and aquatic larvae. Notable species such as *Parnassius apollo, Rosalia alpina,* and *Lucanus cervus* indicate the presence of well-preserved natural habitats. Aquatic ecosystems sustain sensitive larvae of Ephemeroptera, Plecoptera, and Trichoptera, reflecting excellent water quality, while pollinators like wild bees and butterflies play a vital role in alpine flora reproduction.

Vertebrate fauna are equally rich, including cold-water fish like *Salmo trutta* and *Barbus prespensis*; amphibians such as *Bombina variegata* and *Salamandra atra*; and reptiles like Testudo hermanni and *Vipera ammodytes*. The valley is also home to rare birds such as the golden eagle (*Aquila chrysaetos*) and bearded vulture (*Gypaetus barbatus*), as well as large mammals including the brown bear (*Ursus arctos*), wolf (*Canis lupus*), and Balkan chamois (*Rupicapra rupicapra balcanica*). Numerous small mammals, bats, and insectivores further highlight the ecological integrity of this pristine mountain ecosystem.

Overall, the flora and fauna of the Shala Valley Natural Park represent an exceptional national and Balkan biodiversity asset. This remarkable species richness, spanning from aquatic microorganisms to large montane predators, reflects the ecological integrity of the area. The conservation of natural habitats, sustainable forest management, and population monitoring are essential to ensure the long-term protection of this unique biological treasure in Northern Albania

The Kune-Vaini Volume (Miho et al., 2024; ISBN 978-9928-809-41-4) was recently published by the Academy of Sciences in Tirana, also available online through the Faculty of Natural Sciences, University of Tirana:
https://fshn.edu.al/Info/ku-va-2022.
It presents, for the first time, the full range of scientific findings from the joint research program "Ecological Approach of the Kune-Vaini Lagoon System, Lezha", part of the UNEP-GEF-Albanian Government project "Building the Resilience of Kune-Vaini Lagoon through Ecosystem-based Adaptation (EbA)" (2018–2019).

Spanning 616 color pages, the Volume features 11 scientific papers on water quality, biodiversity, and pollution, edited by A. Miho and colleagues, with 25 contributors from the University of Tirana and the National Herbarium. Mostly in Albanian with English summaries, it offers vital insights for the conservation and management of the Kune-Vaini Protected Area.

On the Kune-Vaini wetland system, Lezha

The Kune-Vaini lagoon system is located in the northern part of the Albanian Adriatic coast, west of the Lezha plain, formed under the influence of the Drini and Mati rivers. The total area is about 44 km^2 of which 12.5 km^2 (about 30%) is water, the rest are swamps, reed, forests and bushes, and sandy dunes. There are 5 main water bodies: Merxhani (250 ha) and Knalla (220 ha) in Kune wetland (1,000 ha), the northern part of the Drini of Lezha mouth (estuary); and Ceka(220 ha) and Zaja in Vaini wetland, in the southern part (1,450 ha) of Drini Mouth; and Drini of Lezha Estuary.
Kune-Vaini wetland system shelters rare values not only for Lezha and Shengjini, but for the whole Mediterranean region. Therefore, it is protected within the Managed Nature Reserve Kune-Vaini-Tale-Patoku (Category IV, according to IUCN); there are 3,392 ha in Kune-Vaini, and 8,092.3 ha in the whole PA, including Patoku and Tale wetlands (DCM 60/2022). Present DCM left outside the former PA the Knalla wetland and partly the Tale coastal area. The area is recognized as a Special Protected Area (SPA) and especially as an Important Bird Area (IBA).

Briefly about the study

A research program focused on master theses was implemented during 2018 – July 2019, as cooperation between the departments of Biology and Chemistry, FNS, UT. It was focused on the ecological approach of the Kune-Vaini wetland system (Lezha). Three important biological parameters were under interest: phytoplankton and toxic algae, aquatic macrophytes and zooplankton; physic-chemical parameters, nutrients (N & P) and chlorophylls were considered in parallel. In addition there were also considered: heavy metals (Cu, Pb, Cr, Fe, Mn), diatoms in the periphyton, terrestrial flora, vegetation and habitats, wintering and breeding of waterfowl, microplastics, and microbiology. Sampling and other field assessment was every two months, respectively in July, September, November 2018 and January, March, May, July 2019. At least 5 representative stations were visited: three in Ceka lagoon and one each in Zaje and Merxhani lagoons, and Drini (estuary)

Summary of the research findings - chemistry

The Zaje waters were less saline (8-18 ‰) (mesohaline), due to close water exchange with the Drini mouth. The Ceka waters showed moderate salinity (polyhaline, 18-30 ‰); the Merxhani waters showed realively higher salinity (25-40‰; euhaline); a narrow sandy belt separates the Merxhani lagoon from the sea; two or more times a year, seawater floods and mixes with the lagoon waters. Based on BOD values, the waters of the three Kune-Vaini lagoons were generally moderately polluted (quality II); quality III (poor) was observed in Merxhani in January 2019 (8.78 mg/L), and Ceka in November 2018 (6.40 mg/L) (according to lake water quality classification of the UNECE) (Vallja et al.).

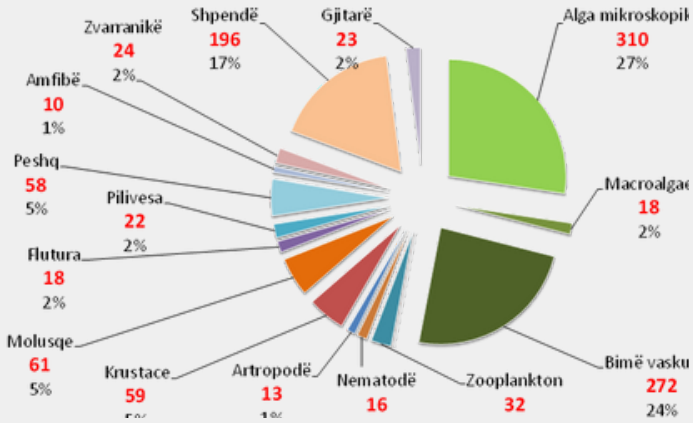
The nutrients (N & P) content was not negligible, due to the close relationships that the lagoons have with the watershed and the sea: Ceka with the pumping station in Tale; Zaje with the Drini mouth; Merxhani with the pumping station in Ishull-Shengjini. Urban and agricultural waste is discharged into the drainage canals and then into the respective lagoons. The average total nitrogen (NO_2 + NO_3) was higher than the 'very high limit' (>8 µmol/L) set by the EEA (2017): 10.72 µmol/L for Ceka, 21.59 µmol/L for Zaje and 9.90 µmol/L for Merxhani. The average total phosphorus (TP) was 88.91 µg/L for Ceka, 66.31 µg/L for Zaje and 56.57 µg/L for Merxhani (Fig. 3d), several times exceeding the limit values reported for Mediterranean countries by Poikane et al. (2019) (Nutrient criteria for surface waters according to the WFD) (Salas Herrero et al. (2019) have set the values of 18 µgTP/L for MED Type IA and 13 µgTP/L for MED Type IIA as good-average quality limits).

Summary of the research findings - biodiversity

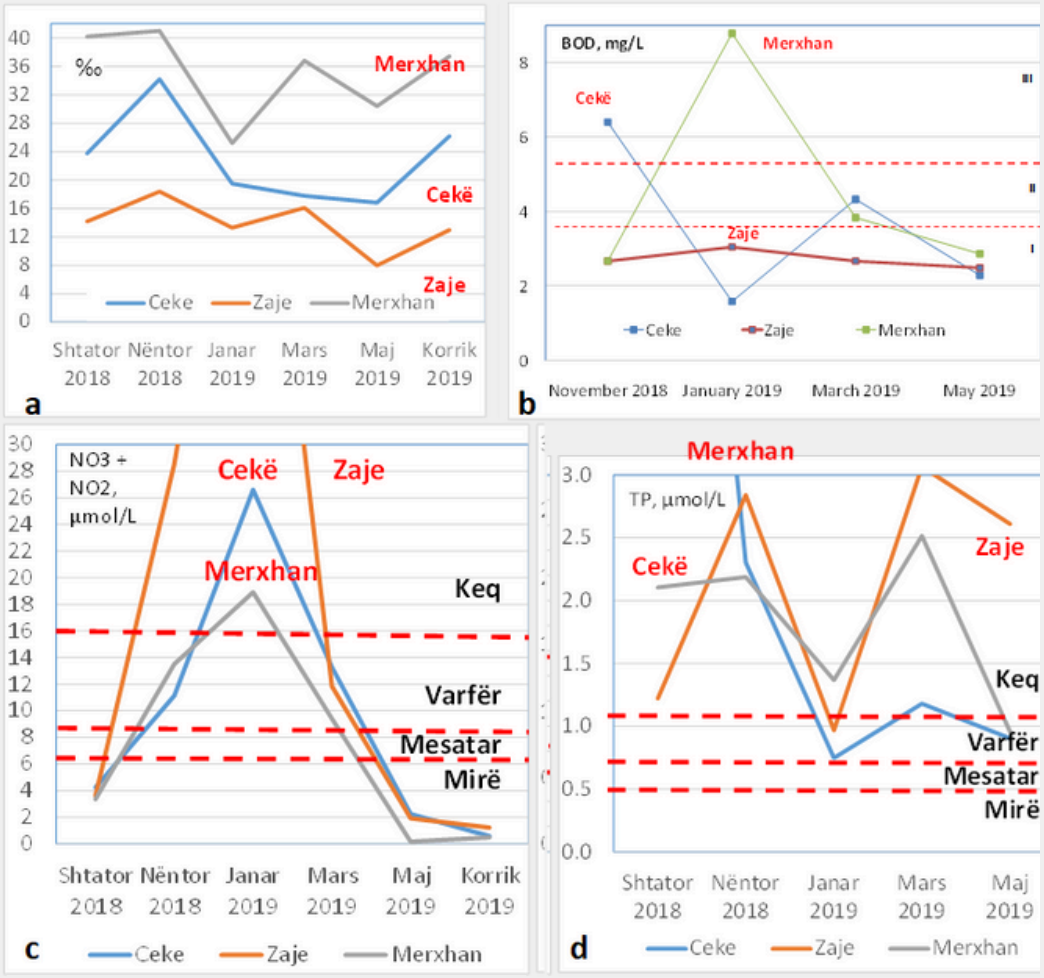
There are in total about 1,132 species known for the Kune-Vaini area, 328 non-vascular plants (algae); 272 vascular plants (higher plants); 221 invertebrates (mainly aquatic); more than 310 vertebrates, mostly birds.

Worth mentioning that 196 bird species are recorded in years: 59 permanent nesting; 65 migratory wintering, 51 summers migratory and 21 wandering. About 18 species of higher plants and 190 animal species are part of the Albanian Red List (2013), and some of them globally threatened. Other species are of economic interest, or potentially toxic (algae). The area hosts 10 priority habitats on the Natura 2000 list.

Grupet e gjallesave / Living groups	Lloje/Species
Bimë jo vaskulare: Alga mikroskopike / Microscopic algae	310
Bimë jo vaskulare: Makroalgae/ Macroalgae	18
Bimëvaskulare: Stere / Terrestrial vascular plants	270
Bimëvaskulare: Ujore/ Submersed macrophytes	2
Invertebrorë: Zooplankton / Zooplankton	32
Invertebrorë: Nematodë/ Nematodes	16
Invertebrorë: Artropodë/ Arthropods	13
Invertebrorë: Krustace/ Crustaceans	59
Invertebrorë: Molusqe/ Molusks	61
Invertebrorë: Flutura /Butterflies	18
Invertebrorë: Pilivesa/ Dragonflies	22
Vertebrorë: Peshq/ Fish	58
Vertebrorë: Amfibë/ Amphibians	10
Vertebrorë: Zvarranikë/ Reptiles	24
Vertebrorë: Shpendë/ Birds	196
Vertebrorë: Gjitarë/ Mammals	23
Gjithsej / Total:	1,132



Updated graph on biodiversity on the Kune-Vaini Managed Nature Reserve



Updated graph on biodiversity on the Kune-Vaini Managed Nature Reserve

The submersed grass *Ruppia cirrhosa* forms meadows in Ceka, while *Zostera noltii*, found only in Zaje, is listed as Vulnerable (VU A2d) in Albania's Red List. Extensive reed beds of *Phragmites australis, Typha angustifolia*, and *Scirpus spp*. dominate littoral zones and drainage channels, with *Potamogeton* and *Myriophyllum* growing in less saline areas. Over 270 higher plant species occur in terrestrial habitats, including 18 endangered dune species such as *Pancratium maritimum* and *Ammophila arenaria*, and 10 Natura 2000 priority habitats have been identified. More than 530 animal species are recorded, 220 invertebrates and 310 vertebrates, with about 190 on Albania's Red List. Of 196 bird species, 59 are resident and 116 migratory, with revitalized heron colonies (Egretta garzetta, Ardeola ralloides, Microcarbo pygmaeus, Bubulcus ibis, Nycticorax nycticorax) showing improved management, though long-term data indicate declining wintering waterfowl due to habitat loss, disturbance, and climate change.

Critical reflection on transitional ecosystems in Albania and Kune-Vaini wetland complex

Transitional ecosystems (interfaces between land and sea) are represented by lagoons, estuaries and other coastal marshes with brackish water; they are the interface between sea and land, partly saline by the influence of coastal marine waters, but at the same time also under the influence of freshwater flows. Transitional habitats such as those found today in the Drini delta of Lezha (Kune-Vaini), Delta of Vjosa, Butrinti, Karavasta-Divjaka, Patoku-Tale, Velipoja, Semani and Orikumi are among the most productive ecosystems in the world. In addition to the abundant carbon dioxide fixation, they also help in the circulation of other nutrients (especially in the reduction of nitrogen); these ecosystems also contribute significantly to climate mitigation and global warming.

Name (Region in Albania)	Surface (ha)	Category	Albanian decision	International value (codes)
Buna River-Velipoja (Shkodra)	21,678.85	V	DCM 593/2024	RAMSAR site (1598); IBA (Al013); IPA (01&02)
Vaini–Tale-Patoku–Fushekuqe–Ishmi (Lezha & Kurbini)	8,092.30	IV	DCM 60/2022	IBA (AL007; Drini Delta; AL014; Patoku Lagoon); IPA (21&26)
Rrushkulli (Durresi)	579.5	V	DCM 60/2022	IBA (AL015; Lalzi Bay)
Shkumbini Delta (Lushnja & Rrogozhina)	16,628	II	DCM 59/2022	Divjaka-Karavasta NP; RAMSAR site (781); IBA (AL006); IPA (33)
Semani Delta (Lushnja & Fieri)	20,413	-	-	Schwarz, 2024 in https://fshn.edu.al/Info/delta-vjose
Vjosa Delta (Vlora & Fieri	23,690	V	DCM 694/2022	Pishe Poro-Narta LPA; IBA (AL005; Narta Lagoon); IPA (35)
Orikumi wetlands (partly in Karburuni Nature Reserve Vlora)	800	IV (1.5 km²)	DCM 60/2022	IBA (013; Vlora Bay, Karaburuni peninsula, Orikumi lagoon, Sazani island and Cika mountain); IPA (36)
Butrinti (Saranda)	8,622.20	II	DCM 59/2022	RAMSAR site (1290); IBA (AL012); IPA (45)
Total	**100,503.85**			

Albania hosts over 1,000 km² of transitional ecosystems, and Kune-Vaini, spanning about 44 km² (4.4%), is one of the most significant. These wetlands are crucial breeding grounds for fish and mollusks, vital for fisheries and aquaculture, and help mitigate floods, buffer storms, and maintain water quality. Their protection is recognized under national law and international frameworks including the EU Water Framework Directive, Ramsar, Bern, and Barcelona Conventions.

KU-VA 2022 - Fakulteti i Shkencave të Natyrës

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LIONFISH IN ALBANIAN WATERS, EMERGING SIGHTINGS AND THE NEED FOR VIGILANCE

In recent years, fishermen and Protected Area managers have reported the presence of Pterois miles, commonly known as the lionfish, in the waters of the Vlora Gulf and along Albania's southern coastline, including the Marine Protected Areas (MPAs) of Karaburun–Sazan and Porto Palermo. Although there is no evidence yet of dense or established populations within Albanian waters, these sightings follow a broader trend observed across the Eastern Mediterranean, where the species has expanded rapidly since entering via the Suez Canal (Kletou et al., 2016; Azzurro et al., 2017).

Lionfish are considered a high-risk invasive species due to their rapid reproduction, lack of natural predators, and predation on native reef fish and invertebrates. Their spread could threaten local biodiversity, small-scale fisheries, and the ecological balance of shallow marine habitats, especially seagrass meadows and rocky reefs characteristic of the country's southern MPAs.

While lionfish are not aggressive, their spines contain venom that can cause painful stings if touched. For humans, these usually result in temporary pain, redness, or swelling and only rarely in stronger reactions such as nausea or muscle cramps. Fishermen, divers, and other sea users should exercise caution when handling nets, traps, or exploring reefs. In case of a sting, immersing the affected area in warm water and seeking medical advice if symptoms persist are recommended.

Early detection and consistent reporting remain essential for both biodiversity protection and public safety. Although Albania has yet to adopt a national response strategy, several international approaches provide useful models for preventive action:

- Monitoring protocols in Marine Protected Areas to document and manage new occurrences.
- Citizen science and local reporting platforms (e.g., iSea, CIESM Watch) that encourage divers and fishers to share sightings.
- Targeted removals and fishing derbies, as implemented in Cyprus and Greece, to limit local populations.
- Awareness campaigns for fishers, diving clubs, and tourism operators on safe handling and identification.

The gradual spread of lionfish across the Mediterranean underscores the need for coordinated observation and early intervention, ensuring Albania's coastal ecosystems remain resilient and its sea users informed and safe.

RAPA Vlore and EU4Nature team

CAMERA-TRAP MONITORING IN SHEBENIK NATIONAL PARK, TRACKING THE BALKAN LYNX AND WILD GOAT

This year, the Regional Administration of Protected Areas (RAPA)Elbasan, led a targeted wildlife monitoring campaign in Shebenik National Park, one of the pilot sites of the EU4Nature project, guided by its management and monitoring objectives.

The primary focus of this year's monitoring includes two emblematic species of national and European conservation importance, the Balkan Lynx (Lynx lynx balcanicus), a critically endangered subspecies listed under Annex II of the Habitats Directive, and the Chamois, (Rupicapra rupicapra), listed in Annex V of the same Directive, which requires sustainable management measures to maintain its favourable conservation status. Both species were successfully recorded by the camera traps during this year's monitoring cycle, confirming their continued presence in the park.

Rupicapra rupicapra

Lynx lynx balcanicus

Ursus arctos

Analysis of the collected data reveals that the most frequently observed species include the European Hare, Red Fox, Roe Deer, Wild Boar, and Brown Bear, reflecting the park's rich mammalian diversity. The monitoring period extends from October to April, when full coverage is ensured across key ecological corridors. During the remaining months, five cameras remain active in undisturbed zones where livestock activity is minimal, allowing for continuous observation of wildlife dynamics.

To strengthen RAPA's technical capacity for scientific monitoring and ecological data collection, the EU4Nature project has provided 15 new camera traps to Shebenik National Park. These devices now support a systematic, non-invasive monitoring program that captures evidence of species presence, behavior, and habitat use across different altitudes and seasons.

By generating consistent and verifiable wildlife data, camera-trap monitoring enhances the park's ability to evaluate management effectiveness under the Protected Area Management Effectiveness (PAME) framework. The resulting insights feed directly into management objectives revisions, conservation prioritization, and Albania's broader efforts to align biodiversity monitoring with EU Natura 2000 standards.

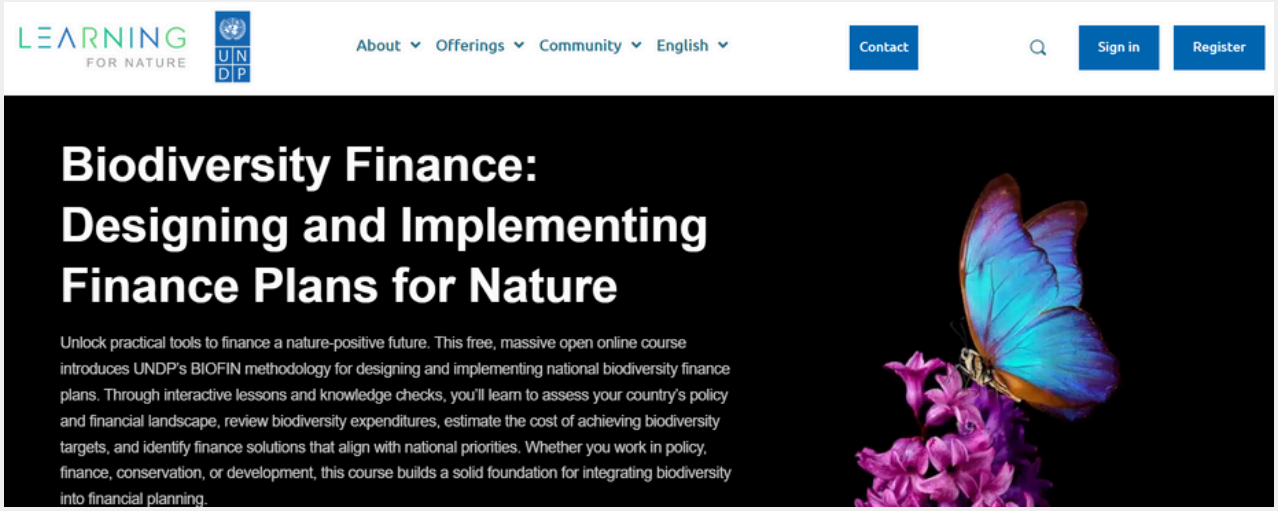
Through this enhanced monitoring system, Shebenik National Park is emerging as a model for adaptive, science-based management, where technology, institutional capacity, and conservation objectives converge to ensure the long-term protection of large mammals and the ecological integrity of Albania's mountain ecosystems.

RAPA Elbasan and EU4Nature team

Short news

New course from Learning for Nature: Biodiversity Finance: Designing and Implementing Finance Plans for Nature

https://www.learningfornature.org/en/courses/biodiversity-finance-designing-and-implementing-finance-plans-for-nature-mooc/



UNDP's Learning for Nature platform has launched a new online course, "Biodiversity Finance: Designing and Implementing Finance Plans for Nature." This free, six-week course guides participants through the BIOFIN methodology, helping them assess policy, institutional, and financial frameworks for biodiversity, identify funding needs, and design effective finance plans to support national and global biodiversity goals.

Available in multiple languages, the course is open to policymakers, practitioners, and conservation professionals worldwide. Registration is now open for the next session starting 22 September 2025.