



























Forewords



Andrea Vettori

Head of Unit Nature
Conservation, European
Commission

"Meeting Europe's ambitious nature protection goals will only be possible with strong stakeholder engagement. Farmers, landowners, NGOs, businesses, and local communities are essential actors for ensuring meaningful nature conservation and restoration on the ground that would benefit all. When all relevant stakeholders are involved at the earliest stages, conservation and restoration measures become more effective, resilient, and widely supported. We urgently need to protect Europe's nature and restore our degraded ecosystems with the contribution of everyone."



Raimonds Čudars

Minister for the Smart Administration
and Regional Development of Latvia

"Lasting solutions for nature emerge only when science, policy, landowners, and communities work together. The studies presented in this edition show that nature conservation succeeds through such cooperation, across habitats, species, and landscapes. They highlight both the urgency of action and the creativity of solutions. May the experiences gathered here inspire future partnerships and guide us toward a more resilient and biodiverse Europe."



Laura Anteina Director General of the Nature Conservation Agency of Latvia

"At the heart of every success story in nature conservation lies communication - listening, learning, and inspiring each other. The summaries gathered here reflect that spirit: from community-led projects to creative outreach, they show how dialogue turns ideas into action. I hope you find them as motivating as we do in our daily work."

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Beneath the Shell: Balkan Terrapin – Keystone Species of Mediterranean Freshwater Habitats

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The Balkan Terrapin, *Mauremys rivulata* (Valenciennes, 1833), stands as one of Europe's two genera of freshwater turtles and is protected under the EU Habitats Directive, listed in both Annex II and Annex IV. In Croatia, it is a key umbrella species in reptile conservation and one of the two native freshwater turtle species. While its range extends from western Asia to the Balkan Peninsula, its presence also spans the Black Sea and Continental biogeographical regions. In Croatia, however, the species is found in just four isolated populations, located in the southern part of the country, marking the north-western edge of its distribution.

We present a forward-thinking conservation approach that not only focuses on safeguarding the Balkan Terrapin but also actively engages local communities in the preservation of Mediterranean wetland ecosystems. Through a blend of educational initiatives, hands-on volunteer opportunities, and robust collaborations with local stakeholders, our project seeks to foster a deeper connection between people and nature.

Volunteers will play an essential role in field activities, focusing on habitat restoration and maintenance for the Balkan Terrapin, as well as managing invasive species to ensure the protection of these crucial habitats. By becoming actively involved, local community members will gain a profound sense of ownership and pride in preserving their natural heritage.



Balkan Terrapin (*Mauremys rivulata*) in its Natural Habitat, Konavosko Polje, Konavle, Croatia. Photo by HYLA Association Croatia

Beyond volunteer efforts, we are empowering local farmers, landowners, and businesses to adopt sustainable practices that safeguard nesting sites. By working closely with these stakeholders, we ensure that conservation efforts align with community development, benefiting both the people and the environment.

Our citizen science program invites the public to contribute to the detection and monitoring of invasive species, aiding in the creation of a national database and strengthening conservation strategies. Engaging educational materials—including books, games, and films—will be distributed to schools in the region and the broader local community. These resources aim to raise awareness from an early age, instilling the importance of biodiversity conservation for future generations.

Through the integration of eco-tourism, we are not only raising awareness but also creating opportunities for the public to connect with nature. Events such as "Mauremys Days" and "Mediterranean Wetland Days" will attract thousands of visitors, inspire local pride, and foster sustainable tourism practices.

Ultimately, this project lays the groundwork for ongoing, community-driven conservation efforts, contributing to the long-term protection of the Balkan Terrapin and Mediterranean wetlands for generations to come.

Citizenship as a Key Element Against Invasive Alien Species

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One of the most successful forms of environmental awareness (capable of achieving changes in population behavior) is that which actively involves citizens. Environmental volunteering is a great way to contribute to the restoration of degraded ecosystems, especially when it comes to combating invasive alien species. However, addressing invasive alien species (IAS) isn't so easy.

Communicating about IAS is a complicated task, and it's important to choose your words carefully. The information to be provided must be clear and rigorous, but at the same time, the concepts must be balanced. This is especially important for audiences unfamiliar with the problem of biological invasions. Focusing on the conservation and restoration of habitats degraded by the presence of invasive species is more beneficial than focusing on the eradication of IAS.



Uprooting a Cortaderia selloana specimen during a volunteer restoration project at a school playground. Life Coop Cortaderia Project.

Citizen participation plays a key role in the <u>Life Coop Cortaderia project</u>. We actively promote the formation and support of volunteer groups dedicated to conserving ecosystems and restoring natural areas degraded by the presence of *Cortaderia selloana*.

The actions carried out range from hands-on volunteer actions to citizen science actions, with the final objective of restoring degraded natural spaces:

- ▶ Hands-on volunteering: focused on the elimination of *Cortaderia* and the restoration of the territory (corporate volunteering, volunteering on special occasions, etc.)
- ➤ Citizen science: focused on the detection of isolated pockets of pampas grass, and mapping the species.
- CORTA-deria Challenges: annual campaign that encourages the population to detect, report, and eliminate *Cortaderia*.

These activities have great potential as a way of raising awareness and have a positive impact on the community and the environment.

The project also co-organizes the Iberian Invasive Species Week (SEI2025). During this week, multiple public and private entities voluntarily participate in a variety of activities: informative talks, technical seminars, land restoration activities, citizen science, and more. It also allows for networking among related organizations, amplifying results and exchanging knowledge related to *Cortaderia* and other IAS.

The keys to successful initiatives can be summarized as follows: 1) conducting awareness-raising activities prior to the initiative; 2) involving the community in planning; 3) collaborating with local schools, businesses, and organizations to expand reach and attract more volunteers; 4) promoting activities through various channels; 5) creating a welcoming environment with inclusive and accessible initiatives for all; and 6) recognizing the efforts made by volunteers.

Early results in grassland restoration experiment in the University of Latvia Botanical Garden

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The grassland management experiment in the University of Latvia Botanical Garden from the bird's view. Photo by Jekaterina Matuko

Botanical gardens play a crucial role in preserving the world's flora and biodiversity in various ways. Gardens hold documented collections of living plants for the purposes of scientific research, conservation, display, and education. In addition, since 2018, botanical gardens have placed greater emphasis on conserving rare and threatened plants. Horticulture and cultivation skills allow botanical gardens to grow plants that might be lost in the wild, while the living collections enable the restoration of degraded habitats. This includes the development and management of protected areas, ecological restoration, and working with communities to promote sustainable plant use.

The loss of semi-natural grasslands in Latvia, similar to trends throughout Europe, has been observed in recent decades. Mostly, this is a result of land use changes such as the intensification of agriculture, succession of grasslands to bushes and forests, and the cessation of regular mowing or grazing. Today, of all habitat types of European Union importance, which occupy about 10% of the entire country, only 1% belongs to grasslands. Of these, the dominant areas are Fennoscandian lowland species-rich dry to mesic grasslands and Northern boreal alluvial meadows.

To restore grasslands and species associated with these habitats, different management projects have been implemented in Latvia. One such project, a 7-year activity, was started in the University of Latvia Botanical Garden in 2021. It aims to restore grassland in a former orchard. Six regimes are being tested in 30 experimental plots, combining different mowing intensities, removal of the sod layer, and application of grassland-related seed material.

Repeated monitoring of vascular plant and bryophyte species showed that, compared to the control plot, any management activity has a positive effect on species diversity. Annual mowing, collecting of mowed material, planting of grassland-related species seeds combined with removal of dense graminoid sod improves lawn quality just two years after management. According to species ecology, from 121 vascular plant species found in experiment plots from 2021 to 2024, 34 species are characteristic of grassland plant communities, 43 species have a wide ecological range and are mostly found in cultivated and ruderalized grasslands, and 44 are adventitious and expansive weed species. Although species richness gradually begins to decrease in the fourth year of the experiment as the expansive weed species disappear (as expected), the project's activities show promising results for the study in the coming years.

Acknowledgements: This research was supported by the European Comission LIFE LatViaNature LIFE19 IPE/LV/000010.

From Cities to Wilderness: A Growing Volunteer Force for Natura 2000

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For the past five years, Lithuania has seen a growing movement of volunteers contributing to nature conservation efforts in its protected areas. Initiated by the State Service for Protected Areas and the LIFE Integrated Project "Optimising the Management of the Natura 2000 Network in Lithuania", this initiative organizes hands-on clean-up and maintenance actions across various regions.

In 2021, only 13 volunteer events were held with 145 participants. By 2024, the number had risen to 198 events involving 3,850 participants. On average, around 100 actions take place each year, largely in Natura 2000 areas. Most volunteers are employees of Lithuanian companies, demonstrating strong corporate social responsibility. It is estimated that in 2024 alone, the volunteers contributed work equivalent to nearly €0.5 million in value.

Volunteering helps challenge misconceptions about nature conservation being solely about restrictions. Participants come to understand the necessity of active human involvement in preserving biodiversity and landscapes. After each event, participants are asked to complete a short questionnaire. The responses reveal that for the majority, it was their first time learning about protected areas, and many reported becoming more interested in nature and conservation activities afterward.

Coordination by regional park specialists ensures that volunteers receive both guidance and insight into conservation practices. Looking ahead, the aim is to develop a robust national volunteering network involving wider community participation, enhanced digital tools for registration and training, and the integration of citizen science through data collection. Volunteering is not only addressing ecological needs but is also fostering environmental awareness and civic engagement.



A collage of volunteering activities. By SSPA

LIFE-IP 4 NATURA: Tools for advancing knowledge and capacity for the Natura 2000 network in Greece

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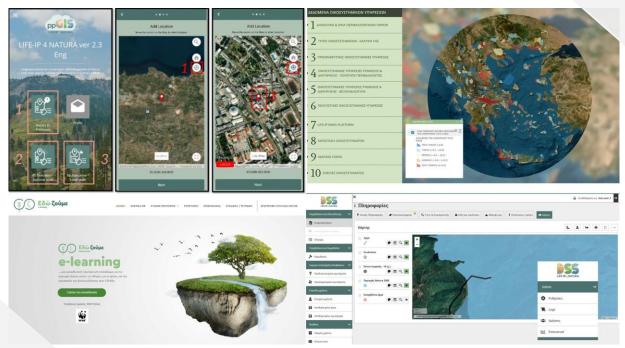
The <u>LIFE-IP 4 NATURA project</u> strengthens the management and protection of Natura 2000 sites in Greece, promoting biodiversity and nature conservation. Through collaborations with public entities, organizations, and local communities, it develops strategies and tools for ecosystem management and promotes environmental education and citizen participation in nature conservation.

The project includes several stakeholder engagement activities -including capacity building. Among these, the development of 3 innovative tools is of great importance, as it aims to provide a solid ground for advancing - inter alia- engagement and participation, learning, and effective implementation of EU and national law.

The first tool is a Public Participation Geographic Information System (ppGIS/webGIS) that incorporates all Mapping and Assessing Ecosystem Services research developed in this project plus all ecosystems-related available data in Greece. It provides interactive use of spatial data and geo-referenced cartography, with the aim to improve knowledge on the condition of ecosystems in Greece and further enhance appreciation of the value of biodiversity and ecosystem services amongst policy makers, businesses, stakeholders, local communities, and the general public. There is also a citizen science functionality attached to the ppGIS/webGIS: users may use a custom-made mobile app in order to add data on ecosystems pressures and/or to perform an ES evaluation on a national or local scale.

In addition, a Decision Support System (DSS) has been developed as a tool to facilitate the most appropriate responses on behalf of the competent authorities in the appropriate assessment procedure (article 6.3 of the Habitats Directive). In this way, it helps nature administration managers and personnel of public services, on a national, regional, and local level, to adequately monitor the status of the Natura 2000 sites in Greece.

The third tool is a key component of the LIFE-IP capacity building programme, the latter aiming to fill in knowledge gaps and improve understanding of policy implementation and management of the N2k network for both pertinent authorities and interested stakeholders. In addition to participating in a series of online seminars, the targeted audiences are provided with a custom-made e-learning platform which hosts lessons on a series of Natura 2000 network themes. The platform's design incorporates acknowledged e-course principles, and the learning process allows for maximum flexibility of use while also providing easy-to-follow and step-by-step guidance.



LIFE IP 4 NATURA Project: Digital tools developed for Natura 2000 protection and management in Greece

#Engagement #Learning #Capacity building tools #webGIS #DSS #Public participation #Citizen science

Mediterranean temporary pond conservation and ecological restoration in Girona

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Freshwater is an increasingly valuable resource in the Mediterranean climate, especially in the current context of climate change. Periods of drought are becoming longer and more intense, making the conservation of aquatic ecosystems more urgent than ever.

In the Vall de Sant Daniel, in Girona (Spain), several ponds act as crucial oases for local wildlife. Most of them are temporary ponds, which means they dry out completely during the summer months. These ecosystems are not only vulnerable to seasonal changes, but also to human pressure—such as over-visitation—and the presence of invasive alien species, which threaten the survival of native flora and fauna as they act as a refuge for several species of threatened fauna, such as amphibians and macroinvertebrates specialized in temporary water availability.

Protecting these fragile environments is a key part of <u>our mission</u>. Through land stewardship agreements, we collaborate with landowners and public administrations to ensure the preservation of these natural habitats. These agreements allow us to carry out habitat restoration and monitoring projects in a coordinated and respectful manner.

A fundamental pillar of our work is environmental volunteering. Thanks to the dedication of dozens of volunteers, we are able to implement practical conservation actions, such as clearing invasive species, improving pond structures, and monitoring biodiversity.

In addition, we rely on public and private grants to fund our projects. Careful management of these resources ensures that every action we take is both effective and sustainable in the long term. Through this combined effort—of volunteers, landowners, institutions, and funders—we can protect the ecological value of the Sant Daniel ponds for generations to come.



One of Mediterranean temporary ponds. Photos by Pau Ortega Colet

Over 135 years of RSPB volunteers – how time and talent helps nature fly

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<u>RSPB</u> volunteers are part of something big – a vast movement of amazing, passionate and dedicated people who give their time, energy, and skills to ensure the natural world recover, during this session we will explore how RSPB Volunteers are not just helping nature survive – they are helping it thrive.

Volunteers are out on our nature reserves undertaking practical conservation work, they protect rare nest sites from egg thieves, they run social media accounts, offer specialist skills such as legal advice, help with administration, attend events, speak to the public, show people birds, take photos, and generally do whatever's needed.

Our over 13,000 volunteers make up 85% of our workforce – and we couldn't do what we do without them. Between them, they donate well over a million hours a year of their incredible time and talents so that together we can save nature.

In this inspiring keynote we will journey through the rich history of volunteering with the RSPB and discover how the landscape of volunteering has evolved in a post Covid World. Using the very latest data from the UK and worldwide we will unpack current trends, barriers, volunteer motivations, and what they mean for the future of conservation.

We will then showcase where and how we currently involve volunteers across the UK, the processes and policies we follow, focusing on some key areas including our nature reserve network, our species volunteering network and volunteers leading and managing other volunteers.

RSPB Volunteers are proving that ordinary people can do extraordinary things.

There's a Greek proverb which, sums up what volunteering for the RSPB is all about. 'A civilisation flourishes when people plant trees under which they will never sit'.

This session is a celebration of those who plant those trees and a call to action for us all, because in a time of climate and nature emergency, the power of people has never mattered more.



Volunteers setting bait stations in Northern Ireland. Photo by Peter McCarron

See-Think-Do-Share concept: Helpful way to define target groups

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"See-Think-Do-Share" is a concept defined and developed by Avinash Kaushik for marketing use. By this concept, we define four different target groups of customers according to their attitude or phase towards purchasing our products. Within this concept, the ultimate goal of our company is a stable and secure business and admiring customers. We can achieve this goal by marketing segmented to the four defined groups of customers.

Kaushik gives an example of a company selling t-shirts. Advertisement based on "Add to cart" would address only the "Do" group. We must target the other groups by other means of communication: publish articles ("See" group), inspiring for microconversions ("Do"), or an affiliate programme ("Share").

Kaushik later replaced the word "Share" with "Care" and "Coddle", which we can find in current articles. By this, he stressed the fact that we should coddle our loyal customers to stay faithful to our brand.

In nature conservation, our ultimate goals can be a secured natural heritage and visitors showing their respect to natural features. This is quite similar to the business mentioned above. Therefore, we can apply the "See-Think-Do-Share" concept to our visitors and fans, too. We can identify the natural heritage to the "See" group; we can explain its uniqueness to the "Think" group. The "Do" group would visit and experience our protected area in person, they would be motivated to respect our rules onsite or they would participate in working events. Those members of the "Share" group would spread our ideas and needs to a broader audience.

Our logical progression would move members of the "See" group into the "Think" group first. Moving them further in one-step would hardly work. In the presentation, I provided another example. The topic of "Number two in nature responsibly" was recovered from the Interpret Europe Conference in Romania (Vítek & Kořínková, 2023). Again, by offering to buy a toilet trowel, we are effectively addressing only that part of hikers that is in the "Do" phase regarding the topic. Since the "See" group can be defined as those visitors who perceive the presence of excrement along tourist trails, it would be appropriate to distinguish another, preceding group. We could label this as "0". As park managers, we need to inspire them to use the toilet trowel, too. But it will take more subsequent steps towards the goal.

Vítek, O., Kořínková, J. (2023): The Sh*t Project – 'Number two' in nature responsibly. In: Interpret Europe (2023): Conference 2023 Creating learning landscapes through heritage interpretation – Proceedings. Potsdam: Interpret Europe, p. 191.



Outdoor toilet scoop

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Category: Outdoor

Why most of people do not click the "Add to cart" button? Because they are not in the "Do" phase. -Ondřej Vítek

The impact of light pollution and mitigation actions to protect seabirds in Macaronesia

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Light pollution is an increasing threat to biodiversity, disrupting natural ecological rhythms and causing shortand medium-term effects, from hormonal imbalances to spatial disorientation. Among the most affected are seabirds, particularly Procellariiformes, which are strongly attracted to artificial light sources. This leads to grounding events, known as fallout, exposing birds to injury and mortality.

Since 2021, in the project <u>LIFE Natura@night</u>, efforts have been focused on key species such as Cory's Shearwater and Bulwer's Petrel, through colony monitoring and the search for new breeding sites in the Madeira, Azores, and Canary archipelagos. Mapping and monitoring light pollution in protected coastal and inland areas has allowed the identification of priority zones for conservation.

A key pillar of the campaign is its strong volunteer network, which plays an essential role in rescue operations during fallout events. Hundreds of citizens, local stakeholders, and community members have been trained, significantly expanding the project's reach and impact. Public participation has not only enhanced data collection efforts but also fostered a collective responsibility for seabird protection.

By integrating scientific research, technological innovation, public policy, and volunteers, LIFE Natura@night is setting the foundation for long-term sustainability. The project is creating public lighting plans, guiding legal frameworks, and promoting energy-saving solutions that benefit both biodiversity and coastal communities.



Seabird Campaign Volunteers, 2024 (Photo Credits: SPEA)

The LIFE RIPARIAS project: Reaching Integrated and Prompt Action in Response to Invasive Alien Species

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Tackling Invasive Alien Species (IAS) requires a coherent approach across administrative boundaries, especially so in continuous aquatic habitats. LIFE RIPARIAS targets a selection of invasive aquatic and riparian plants, and freshwater crayfish (species of Cabomba, Elodea, Hydrocotyle, Lagarosiphon, Ludwigia, Myriophyllum; Heracleum, Impatiens, Lysichiton; Faxonius, Pacifastacus, Procambarus). Its goal is to optimize the management of these IAS at the river basin scale within a multiregional pilot area in Belgium (Dyle, Senne, and Marcq river basins).

LIFE RIPARIAS aims to achieve 1) a data infrastructure for early warning and management reporting on emerging and widespread IAS; 2) decision support for prioritizing management actions by maximizing consistency, efficiency, and resource allocation; 3) an evaluation of management actions; 4) the sharing of expertise and best management practices.

A novel evidence-based workflow for decision making on IAS management at the river basin scale has been developed, translating national management objectives to concrete actions at site level and maximizing cost effectiveness. The decision support tool, also called manalAS, is available to IAS managers across the country and will be to other Member States as well.

Active participation and cooperation between decision makers, field managers, and the public are essential. The ten project partners include public bodies, public research institutes, academia and associations, and are all committed to working together to tackle the many challenges ahead.

Additionally, species identification sheets, booklets, and best practice management guides have been produced to aid identification and management in the field. Information and training sessions contribute to spreading knowledge as widely as possible. Volunteering opportunities have also been organized for citizens who wish to actively contribute to surveillance and management.

This innovative project (2021-2026) is co-funded by the LIFE programme of the European Union and the three Belgian regions for a total budget of about 7 million euros (LIFE19 NAT/BE/000953).



LIFE RIPARIAS project: A water body almost completely invaded by floating pennywort (Hydrocotyle ranunculoides)

Volunteer Contributions for Biodiversity Conservation in Latvia, LIFE-IP LatViaNature

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One of the key volunteer initiatives in Latvia focusing on biodiversity conservation and habitat maintenance is "Let's Do It for Nature", created in 2016 by the Nature Conservation Agency of Latvia and the Pasaules Dabas Fonds (WWF Latvia). This initiative offers the opportunity to contribute meaningfully to nature conservation efforts, gain practical experience, learn from experts, and connect with like-minded individuals.

The initiative merges nature education with hands-on conservation, offering demonstration-based learning events where participants gain both theoretical knowledge and practical skills. Activities are carried out in a variety of habitats and include invasive alien species eradication, bush clearing, meadow mowing and hay collection, removal of fallen trees and beaver dams from rivers, as well as coastal erosion control.

Another innovative educational tool is Latvia's first <u>Mobile Nature Education Class</u> – a specially adapted minibus. It brings modern and engaging nature education to broad audiences at public events, offering an immersive experience in ecosystem dynamics and biodiversity conservation. The mobile class has proven to be an effective tool to raise environmental awareness, address, interest, and encourage exploration of nature, understand environmental issues, and recognize one's personal role in shaping a better nature world.

Under the LIFE-IP LatViaNature project, and as part of the "Let's Do It for Nature" initiative, 34 volunteer learning events have been organised in 48 project months, engaging over 1,200 participants at nine Natura 2000 sites. These events attracted a broad audience: general public (16%), students (25%), nature experts (34%), corporate representatives (23%), and local municipality representatives (2%). The events mainly focus on invasive species eradication and the restoration of grassland and river habitats. A core strength of the initiative is the involvement of experts who guide participants through both the theory and hands-on nature of conservation work.

Especially noteworthy are the efforts in river and fast-flowing stream habitats, particularly in the Narūta and Jaša Rivers, where annual volunteer events are organised by the Nature Conservation Agency's Latgale Regional Administration. These physically challenging activities have fostered strong cooperation with representaives from local municipalities, Latvian National Guard (35th Infantry Battalion), and the Latvian Armed Forces, leading to the restoration of habitat type 3260 – River rapids.

Pasaules Dabas Fonds (WWF Latvia), the LatViaNature project partner, plays a vital role in engaging the private sector. Through corporate volunteering, companies such as Biotherm, L'Oréal Baltic, Pernod Ricard, KPMG, LIDL Latvia, Swedbank, BTA Insurance and others have taken part in conservation work, fostering environmental responsibility and awareness among employees.



Field of Himalayan Balsam (Impatiens glandulifera) During Volunteer Event. Photo by Agnese Rudusāne

Communication about grasslands in the era of global insecurity - Experience of Latvian Fund for Nature

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Semi-natural grassland restoration and sustainable management have been among the priorities of the <u>Latvian Fund for Nature</u> for almost 10 years, as these valuable habitats are rapidly disappearing — today, they cover less than 1% of Latvia's territory.

To protect and restore grasslands, the involvement of landowners is crucial, and rural policies play a major role. At the same time, it has been essential to put grasslands back on the map of public awareness. Therefore, we have deliberately made communication with diverse audiences — beyond our core stakeholders — an integral part of all our grassland-related projects.

This approach not only builds broader societal support for grassland restoration, but also invites people from all walks of life to take part in biodiversity preservation through the lens of grassland conservation.

In my presentation I am sharing key factors to consider when designing communication and engagement initiatives: the essential elements — the "must-dos" — as well as specific tactics the Latvian Fund for Nature has successfully applied in our communication work. Another aspect of my presentation is the role of marketing techniques that have been used to create a Grassland product label. I am also reflecting on the changing communication landscape and the shifting priorities in the media environment — a dynamic that increasingly shapes all nature-related messaging today.



A scene from the Meadow Festival organized by the Latvian Fund for Nature.. Photo by Liene Brizga-Kalnina.

Convivial Conservation in Practice: Balancing Biodiversity, Climate, and Human Well-being

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My approach to nature conservation is grounded in the recognition that humans and nature are part of one interconnected social-ecological system. I do not support fortress conservation, which seeks to isolate nature from people, but instead follow the principles of convivial conservation – emphasising coexistence, reciprocity, and long-term sustainability. In this view, nature is not a passive provider of resources but a living system with intrinsic value and essential functions. I work to balance ecocentric values – respecting nature for its own sake – with a thoughtful anthropocentric perspective that recognises the importance of ecosystem services. These are not "gifts" from nature but processes we must engage with carefully and sustainably.

My experience includes working with complex issues at the intersection of biodiversity conservation, renewable energy development, and climate policy. This involves engaging diverse stakeholders, managing conflicting interests, and addressing the scientific and political tensions between climate change mitigation, adaptation, and environmental protection. I approach these challenges at the landscape level, using ecosystem service frameworks to better understand the spatial and functional impacts of human activity. Throughout my work – whether through research or public engagement – I advocate for a conservation model that places nature at the foundation of all human systems, highlighting its essential role in supporting enterprise, creativity, and the lived experiences of communities.

This text was composed with the help of ChatGPT to summarise my approach and experience.



#Convivial conservation #Social-ecological systems #Ecosystem services #Climate-biodiversity nexus

Creation of the expositions for biodiversity demonstration in the University of Latvia Botanical Garden

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Plant diversity preservation is critical for a sustainable future. To prevent biodiversity loss, it is essential to promote the understanding of its value. Excellent tools for this purpose are botanic gardens as they offer opportunities for communication, education, and raising public awareness using their living plant collections, where the biodiversity is concentrated. For this opportunity, <u>LIFE-IP LatViaNature</u> using the infrastructure and plant collections of the <u>University of Latvia Botanical Garden</u> created two expositions – "Morphological and biological beds" and "Medicinal plants". The creation of both expositions lasted from 2021 to 2023.

Both expositions introduce visitors with plant diversity, including Latvian wild plant species, protected species, as well as indicator species of semi-natural grasslands. The plant bed display is supported by plant labels and information signs. The exposition "Morphological and biological beds" hosts more than 900 species and consists of four parts: adaptation of plants, seeds and fruits, leaves and flowers, and pollination. Plant beds include more than 60 topics and 170 sub-topics. These discover the morphology of flowers, leaves and fruits, dispersal of plants, distribution, and adaptations to survive in various conditions. The exposition helps to understand the peculiarities that influence plant distribution and adaptation, including invasiveness, and the mechanisms behind species diversity in various ecosystems. The exposition "Medicinal plants" hosts almost 300 species used both in traditional and folk medicine. It is a tool to demonstrate the benefits provided by plant diversity, an example of ecosystem service and to promote the recognition of wild species.

The University of Latvia Botanical Garden is located in Riga, and it is easily accessible to many people, so the expositions are a good place where, together in one place, to see many different living plant species and learn about various biodiversity topics.



Expositions – "Morphological and biological beds" and "Medicinal plants", University of Latvia

Ensuring the protection of natural habitats in Bulgaria

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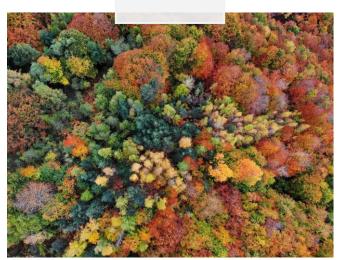
As part of the Global WWF Network, <u>WWF Bulgaria</u> works actively to achieve the main vision and mission of the Organization: a future where people live in harmony with nature. The mission is to stop the degradation of the planet's natural environment and to build a future where humans live in harmony with nature, by conserving biodiversity, ensuring sustainable use of natural resources, and reducing pollution and wasteful consumption.

WWF Bulgaria has one of the leading roles in the conservation of habitats and species in Bulgaria. To this end, over the years, WWF Bulgaria has actively participated on a voluntary basis in the process of building the Natura 2000 Network, which covers over 34% of the country's territory. For the last 10 plus years, WWF Bulgaria has had a particular focus on the conservation of forest types of natural habitats, through their protection, such as the designation of OGF or protected areas. Currently, thanks to the organization's efforts, protected areas in Bulgaria have increased by:

- ➤ 191,000 ha of declared state-own OGF and protected areas
- ➤ 1,552 ha of municipal OGF declared for conservation
- ▶ 40 ha of restored forest habitats

Incentivizing landowners is key to achieving the goals of the Nature Restoration Law, as well as national regulations setting high requirements in Bulgaria regarding the protection of ecosystems and species. For years, WWF Bulgaria has been pleading with the responsible national authorities for more financial resources to compensate forest owners. As part of this work, WWF Bulgaria proposed a forest environmental measure, which is currently included in the national plan under the CAP, and is an active participant in working groups to specify the parameters of 8 forest measures foreseen for the current programming period (worth more than 100 million euros) and proposed to the national authorities and the EC to finance owners guaranteeing the protection of forest landscapes during the next CAP.

Ensuring the sustainable management of forests is one of the main goals, and it can't be achieved without collaboration with diverse partners including governments, communities, other organizations, and stakeholders. WWF Bulgaria is a recognized and valued partner in the organizing and implementing of various workshops, trainings, study tours, and last but not least an active participant in national working groups, all of them related to sustainable forest management.



Autumn Forest in Rhodopes Mountain. Photo by Yana Barzova



Old-Growth Forest, Central Balkan National Park. Photo by Yana Barzova

How do people understand and value nature conservation in Latvia?

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Effective conservation of nature values at the national level requires a comprehensive approach that encompasses management strategies and public education initiatives. Core to this effort is the consideration of diverse perspectives from all stakeholders, ensuring that actions are inclusive, balanced, and sustainable. The project team consists of a team of stakeholders, including Nature Conservation Agency, NGOs, the State Forest stock company, universities, and research units.

Understanding society's existing knowledge, awareness, attitudes, and behaviors regarding nature conservation and the preservation of natural values is one of critical importance. <u>LIFE-IP LatViaNature</u> project has carried out a general society survey: three times (2021, 2024, and 2028). This report summarizes the key insights from the 2024 survey (n=1051) and a comparison from 2021 (n=1064).

The Latvian society largely agrees that caring for nature is important (95,5 %). Overall self-assessment of knowledge about nature is also relatively high (60,5 %), and 61,7 % of respondents believe that their everyday decisions impact nature. A high number (89,4 % of respondents) report efforts to preserve nature values on their homesteads, in forests, or meadows. However, such efforts do not always translate into actions that benefit nature's values, because of different perceptions of actions and approaches to nature conservation.

The issues that concern Latvian residents the most include deforestation, waste and environmental pollution, climate change, loss of biodiversity, and the lack of awareness or irresponsible behavior of fellow citizens. Respondents highlight the introduction of the deposit system, improvements in environmental legislation, and efforts in public education as among the most significant achievements in nature conservation in recent years. Although the number of people engaged in voluntary activities has increased by 17,8 % compared to the 2021 survey (reaching 62,6 %), nearly one in five residents still do not participate in nature conservation efforts because they do not know how to get involved. The survey data shows a difference of opinion between people living in farmsteads and those living in apartments. For example, differences emerge in opinions on whether nature values increase property values, with urban dwellers in apartment blocks more likely to agree with this statement, while those in rural areas less so.

Residents primarily improve their knowledge about Latvian nature and related processes through self-education. However, there is a shared view that this should be done using critical thinking, as greenwashing is increasingly encountered. To enhance public understanding of natural processes and causal relationships, there is a need for more expert-driven, data-based communication. This should include specific examples of what individuals can do to help preserve natural values, along with the expected outcomes, regardless of their place of residence.



#Nature conservation #Society involvement #Aactive and participatory action

Involving land owners and land users in nature conservation

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Nature conservation is not possible without cooperation with land users and land owners. In this conference, we are presenting the Integrated LIFE project called <u>One Nature</u>, which emphasises the importance of communication with land users and land owners in order to involve them in management planning and ensuring its implementation on site. The project goal is collaborative management and sustainable nature conservation.

Within the project, NCA CR staff is trained in communication skills and encouraged in sharing experiences and good practice together. One of the tools for education in communication are the methodological guidelines for communication with land owners and land users in protected areas created in the project. For effective communication, the staff can hand over to the land owners or land users leaflets describing the Bird Directive and Habitat Directive's species and habitats and where to receive subsidies for suitable management of sites where they occur. Thus, land owners and land users are aware of the valuable phenomena on their land and they can contribute to the preservation by providing the management needed.

The One Nature project introduces a novel approach to nature conservation, the adaptive management cycle, in which communication with land users and land owners is just one of the components followed by implementing specific measures in the selected protected areas, then assessment of the target feature's status, further management planning and prioritisation of the management and so on and so forth. Benefits and costs of ecosystem services are changing along this cycle and they are communicated to stakeholders.



Involving stakeholders in natural and historic heritage conservation. Photo by Martina Kobyláková

Landscape Assessment Methodology for Specially Protected Nature Areas in Latvia: Balancing Conservation of Landscape values and Stakeholder Interests

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View of Lake Dziļezers in Istra Nature Park. Photo by Kristīne Vugule

Specially protected nature areas (SPNA) are valuable ecological, social, and economic resources; yet they are increasingly vulnerable to changes that may irreversibly affect their natural and scenic values. In Latvia, there are 658 specially protected nature areas of various types and sizes, not all possessing scenic qualities. In most of these areas, the focus of protection is primarily associated with the ecological and biological values of the territory. However, a number of these areas also possess high scenic, cultural, and historical value, offering considerable tourism potential. In many cases, tourism infrastructure is developed within these protected areas, creating walking routes through the most beautiful landscapes. Often tourism infrastructure is complemented by economic and business activities such as cafés, recreational areas, accommodations, etc. Additionally, SPNAs provide valuable ecosystem services to local communities, including opportunities for recreation, sports, and foraging for mushrooms and berries.

In order to balance different interests, it is essential to identify the needs of all stakeholders regarding the landscape already at the landscape assessment stage, and to align them with nature and landscape protection objectives.

This study presents a developed methodology for landscape assessment in SPNAs, including Natura 2000 sites, elaborated within the framework of the <u>LIFE-IP LatViaNature</u> project. The methodology incorporates ecological, cultural, and socio-economic dimensions linked to various stakeholder interests and nature protection. It was tested in the Istra Nature Park in 2025. The developed methodology can serve as a document and guidelines for landscape assessment within the framework of a nature protection plan for definite SPNA and for the development of thematic landscape plans in municipalities and planning regions. It can be utilized by territorial planners and landscape architects to conduct landscape assessments in specific areas.

Acknowledgements: This research was supported by LIFE Integrated Project: Optimising the Governance and Management of the Natura 2000 Protected Areas Network in Latvia. LatViaNature (LIFE19 IPE/LV/000010).

#Landscape assessment method #Landscape values #Protected nature areas #Tourism #Influence of stakeholders` interests

Latvia's integrated approach to nature conservation: experience from VARAM

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The Ministry of Smart Administration and Regional Development of the Republic of Latvia (VARAM) plays a central role in shaping national policy for nature conservation. Its approach is grounded in systemic collaboration, strategic planning, and adaptive governance, aligning local action with European Union priorities and global biodiversity agenda. VARAM's experience reflects a dynamic and evolving commitment to protecting biodiversity, ecosystems, and sustainable land use.

One of the Ministry's key ongoing initiatives is its strategic partnership in the EU LIFE Integrated project LIFE-IP LatViaNature "Optimising the Governance and Management of the Natura 2000 Protected Areas Network in Latvia" LIFE19 IPE/LV/000010. Launched in 2020, this comprehensive project seeks to enhance the conservation status of habitats and species protected under the EU Habitats Directive throughout Latvia. VARAM contributes to the project by guiding policy coherence, facilitating cross-sectoral integration, and supporting capacity building among stakeholders.

Latvia's conservation model is defined by an ecosystem-based management approach that balances ecological integrity with the sustainable use of natural resources where possible. VARAM advances this model through regulatory instruments, spatial planning, and land-use guidance to protect high-value habitats. A key element of this approach is the integration of biodiversity considerations into regional and economic development, aligning conservation with climate adaptation, green infrastructure, and circular economy priorities.

Public engagement is central to VARAM's strategy. The Ministry promotes environmental awareness and community involvement through education initiatives, participatory planning, and digital tools, ensuring stakeholder contribution to conservation efforts. Complementing this, VARAM invests in evidence-based policymaking, using research, remote sensing, and biodiversity assessments - such as those under LatViaNature - to support adaptive management and inform strategic planning at the national level. The Ministry also plans to gradually and systematically implement innovative financial instruments, accommodating emerging trends in attracting private financing.

By aligning global and EU policy frameworks with national and local implementation, Latvia demonstrates how smaller member states can contribute meaningfully to the shared goal of safeguarding Europe's natural heritage.



#Nature conservation #Ecosystem-based management #LIFE IP LatViaNature

Let's Meadow Together! – An Inclusive Initiative for Semi-Natural Grassland Restoration in Latvia

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Let's Meadow Together! is a new initiative by the Latvian Fund for Nature project <u>GrassLIFE2</u> that aims to engage farmers, landowners, and activist groups in the restoration of semi-natural grasslands across Latvia. The initiative promotes practical action, awareness-raising, and knowledge exchange to ensure long-term conservation of biologically valuable grassland habitats, particularly those protected under the EU Habitats Directive.

At the heart of this campaign lies a <u>Grant programme</u> designed to financially support habitat restoration efforts. In its first round, 28 applications were received, covering a total of 180.8 ha of grassland area - both within and outside designated Natura 2000 sites. Due to eligibility -criteria, 21 applications (107.9 ha) were rejected, primarily because the sites were not located within the Natura 2000 network. Seven sites were approved for restoration activities, focusing on habitat types 6270* and 6210*. Restoration plans include shrub and root removal, invasive species control, and enhancement of species composition. Initial on-site activities are scheduled for summer 2025 and will be accompanied by long-term photo-monitoring stands to visually document landscape changes over time.

To provide individualized support, the initiative also includes a *Help Desk for Landowners*. This advisory service has already conducted field visits to 11 land parcels (over 100 ha), developed tailored management plans, and registered newly identified habitats or potential habitats. An additional 30 sites are planned for assessment in the summer of 2025.

Complementing both the *Grant programme* and the *Help Desk for Landowners* is the *Grassland Marketplace* - a digital platform that connects landowners with farmers seeking land for mowing or grazing. This innovative tool uses a map-based database and will also include a "Hay Marketplace", allowing users to advertise offers to buy or sell hay depending on its quality and intended use (fodder, bedding, pellets). Importantly, these hay listings are also intended to support the newly launched *LIFE UpcyclingGrass* project, thereby contributing to the shared goals of both initiatives - enhancing grassland management, promoting sustainable biomass use, and supporting circular economy solutions in rural areas.

"Let's Meadow Together!" is an inspiring and ambitious initiative in its early stages. The poster will present a visual overview of its first season of implementation, highlight successes and challenges, and share future plans. By fostering collaboration and providing accessible tools, this initiative demonstrates how coordinated, community-based action can make a tangible impact on biodiversity conservation.



Grassland restoration event in the Protected Landscape Area "Ziemeļgauja": Latvian Fund for Nature volunteers spreading species-rich hay to support the recovery of semi-natural grasslands.. Photo by Līga Gavare

#Grassland restoration #Citizen science #Citizen initiatives #Landowner engagement #Conservation communication

Old Tree Management: A Gateway to Public Awareness of Biodiversity

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Old trees play a crucial role in supporting biodiversity, serving as habitats for a wide range of species - from fungi and insects to birds and mammals. Their unique structures, such as cavities, decaying wood, and large canopies, provide ecological niches that younger trees cannot offer. Despite their importance, old trees are often misunderstood, neglected, or undervalued, leading to unnecessary removal or poor management. Raising awareness about their biological value is essential for their protection and preservation.

To address this, we launched the program "From Tree to Tree," inviting landowners to apply for free evaluations and management advice for their veteran trees. The goal is to provide not only practical support but also to inspire a deeper understanding of tree ecological, cultural, and biodiversity significance.

As part of the programme, we organized a seminar on biodiversity and old tree management, offering insights into why old trees matter and how to care for them. The seminar was recorded and is now available on the Nature Conservation Agency YouTube channel, serving as a long-term educational resource.

We also run regular "<u>Let's Do It for Nature</u>" clean-up events, which combine hands-on conservation work with public education. Each event begins with a short educational session on biodiversity and veteran tree care, followed by practical activities such as clearing competing vegetation. These sessions allow participants to directly engage with tree management practices.

To enhance public awareness, we developed a clear and recognizable educational sign titled "Biologically Valuable Tree". This sign can be installed on trees in parks and other public green spaces. It features a house pictogram, symbolizing the idea that trees give a home to nature. Additionally, the sign includes a QR code that directs visitors to easy-to-understand information about biodiversity on trees: https://www.daba.gov.lv/en/biologically-valuable-tree. This combination helps communicate the importance of old trees in a clear and accessible way.

With these activities, we aim to shift public perception of old trees. Rather than viewing them as dangers or just old "leftovers", we want people to understand that old trees are important parts of nature, especially in urban environments. Inviting people to learn and participate in caring for these trees creates a closer connection to nature and promotes support for its future protection.

In summary, when thoughtfully implemented, old tree management is not just a conservation task - it is a powerful way to communicate nature's value, inspire care, and protect biodiversity for future generations.



#Old trees #Biodiversity #Conservation #Education #Community engagement

Plant smartly! A LIFE medCLIFFS' spin-off to avoid the trade and use of invasive plant species.

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As part of the EU-funded <u>LIFE medCLIFFS</u>, "Plant smartly!" is a practical spin-off of the project's Code of Conduct. This initiative promotes informed and responsible gardening practices by encouraging the use of safe, non-invasive alternatives to invasive or potentially invasive plants. This practical guide targets gardeners, landscapers, plant sellers, and educators, offering clear, science-based recommendations that contribute to biodiversity conservation and sustainable ecosystem management.

Invasive alien plant species pose a growing threat to Mediterranean coastal ecosystems, particularly along the Costa Brava (NE Spain), where unique habitats like HIC 1240 - Vegetated sea cliffs of the Mediterranean coasts with endemic *Limonium spp.* are at risk. Recognizing the urgent need for preventative action, LIFE medCLIFFS integrates monitoring, risk assessment, and eradication protocols for key invaders such as *Carpobrotus* aff. *acinaciformis, Opuntia ficus-indica, O. stricta,* and *Gazania rigens.* Alongside these actions, the "Plant smartly!" initiative provides a forward-looking tool for change.

The guide offers detailed alternative planting options for species commonly used in gardens and landscaping that have high invasion risks. Focusing on native plants, it also recommends allochthonous species with a low risk of invasion. In doing so, it bridges the gap between biodiversity protection and practical horticultural needs. Structured around accessibility and relevance, the resource supports stakeholders in making environmentally sound choices without compromising aesthetics or functionality.

"Plant smartly!" complements the project's Code of Conduct but it is also conceived as an educational resource. It encourages best practices such as plant identification and traceability, removal of invasive species from circulation, client and community engagement, and promotion of sustainable alternatives. The initiative is rooted in the regional context, drawing on consensus-based lists and expert knowledge tailored to the Catalan flora and landscape.

By highlighting viable alternatives, gathering information through public opinion surveys, and making the transition to safe gardening both approachable and appealing, "Plant smartly!" promotes awareness and cooperation among plant users and suppliers. It represents a practical step toward halting the spread of invasive species and protecting Mediterranean coastal biodiversity through everyday decisions made at nurseries, schools, and home gardens.



Gazania rigens (invasive) next to Pallenis maritima (autochthonous), both grown in Torredembarra (Tarragona), Spain. Photos by Edgard Mestre

Promoting cooperation with landowners for better management of invasive alien species in Latvia – LIFE-IP LatViaNature experience

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Invasive alien species (IAS) are a significant and growing threat to biodiversity worldwide, and in Latvia. It is well known that the control of IAS requires the active involvement of landowners. A survey of landowners conducted by the project <u>LIFE-IP LatViaNature</u> showed that most landowners consider the spread of IAS a serious problem (75%), but assess their knowledge of IAS as insufficient. Half of the landowners acknowledged that the management of IAS is largely their responsibility, and among the motivational tools for eradication indicated the availability of information about methods (74%), examples of good practice from other landowners (80%), and specialist consultations (80%). Thus, several actions in the LatViaNature project were linked to these motivational tools.

To promote public involvement in obtaining data on the spread of IAS, the Invasive Species Manager website has been developed, which also provides descriptions of 50 IAS and their eradication methods. The number of observations reported on the website grew from 556 in the first year (2021) to 1016 and 1005 observations in the last two, bringing valuable information to the competent authorities and scientists. The survey revealed that some landowners have either tried innovative methods for eradicating IAS or have ideas for such methods, but lack resources, or sometimes only expert advice. Therefore, within the Project's small grant programme, any interested person could apply for funding to test such innovative ideas - a total of 7 small grant projects were implemented, for example, the creation of a mobile duck flock and various mechanical barriers to limit the spread of *Arion vulgaris*.

The project implementers also received advisory support from the project experts. While in the 24hour ideas marathon "Let's Catch Alien Species in Latvian Nature!" interested persons could improve their ideas in cooperation with experts from various agriculture, invasive species, communication, and economics. The best methods developed in the ideas marathon are now being tested in the pilot territories of the LatViaNature project, where more suitable methods are being sought and guidelines are being prepared for the eradication of Rosa rugosa, Amelanchier spicata, Impatiens glandulifera, Solidago canadensis, and Acer negundo. To promote cooperation between landowners of various legal forms, pilot territories for this action were deliberately selected on state, municipal, corporate, and private lands. Additionally, public workshops and demonstration seminars on IAS eradication in pilot territories were organized, as communication campaign implemented to increase wider public knowledge about IAS.



Japanese rose (Rosa rugosa) in the Ķemeri National Park. Photo by Agnese Rudusāne

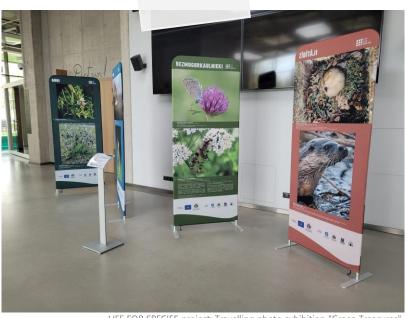
Public engagement in practice: lessons from the LIFE FOR SPECIES project

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Species protection brings together differing and sometimes conflicting interests, such as nature conservation, business development, land use, and public administration. Through the LIFE FOR SPECIES project, opportunities were created for diverse groups - including experts, NGOs, policymakers, businesses, and landowners - to engage in dialogue, share perspectives, and seek common ground. These constructive exchanges not only created a more united, science-based understanding of species protection, but also contributed to informing the wider public.

While public engagement is often a secondary focus in biodiversity projects, the LIFE FOR SPECIES team recognizes its vital role and is committed to exploring diverse communication strategies - both traditional and, in the Latvian context, relatively novel.



LIFE FOR SPECIES project: Travelling photo exhibition "Green Treasures"

The project uses social media to amplify the message of species protection. Public involvement has been fostered through interactive tools such as quizzes, contests, a traveling photo exhibition featuring citizensubmitted images, and a recurring "Species of the Month" campaign. These activities often take on a life of their own, enabling society to build upon them independently - for example, the traveling exhibition inspired youth artist groups to come together and recreate protected species through their own paintings.

At the same time, traditional tools like the project brochure and poster-booklet were designed to ensure long-term use.

To engage younger audiences and educators, the project developed species-themed activity sheets for children and fact sheets for schools, designed to support formal and informal learning. These free educational resources made species conservation more relatable and accessible to families, students, and teachers.

In addition, the project organized a nationwide event series on less known endangered species and groups of species, which allowed participants to explore different species groups in natural habitats alongside experts. In total 32 events were organised about grasshoppers, spiders, mosses, amphibians, plants and other groups.

One of the most important activities of the project is the development of the Red Book. To make information about endangered species more accessible to anyone interested, the project has developed a Red Book website and map browser.

By presenting these communication approaches, the LIFE FOR SPECIES project seeks to demonstrate how public involvement, when approached creatively, can become an important part of species conservation.

Acknowledgements: The work was done in the framework of LIFE project "Threatened species in Latvia: improved knowledge, capacity, data and awareness" (LIFE FOR SPECIES, LIFE19 GIE/LV/000857) with financial support of European Commission and the State Regional Development Agency, Republic of Latvia.

Restoration and sustainable management of dry coniferous forests in four pilot areas of Latvia

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During the "LIFE-IP LatViaNature" project (2021-2028), JSC "Latvia's State Forests" will carry out restoration works of three different forest habitats of European Union importance and test nature-friendly forestry methods in a total area of more than 100 hectares in four pilot territories of disturbed forests. Three of these territories are *Natura 2000* sites. The three types of biotopes which are being restored during LIFE-IP «LatViaNature» project: Wooded Dunes, Lichen-Rich Pine Forests, and Sand Ridge Fores in total area 100 ha.

The structural and species diversity in these habitats highly depend on active management and/or mimicking the disturbances to maintain the biodiversity. If a dry coniferous forest lacks these natural disturbances – it gradually overgrows and the living conditions necessary for a number of plant and animal species disappear.

The aim of the project activity is to test the forest habitat restoration methods with a focus on dry coniferous forest habitats where the diversity depends on periodic natural disturbances – such us the effects of fire and wind.

The quality of some forest habitats can be improved by active doing, rather than prevention.



Demo site "Grebļukalns". Photo by Agnese Rudusāne

Stakeholder Engagement in the Context of Results-Based Agri-Environment Payment Schemes – the Experience of Ireland

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Wild Atlantic Nature Results-Based agri-environment Payment Scheme (RBPS) pilot was implemented in 2021-2022 to develop capacity among participating farmers, farm advisors, policy-makers and scientists for delivering improved ecosystem services – including water quality, biodiversity and climate regulation – in a way that works for landowners and the environment. The RBPS approach directly links farmers' agri-environment payments to the ecological condition of their land, thereby rewarding good environmental management and incentivizing improvement on lower scoring lands. 823 farmers across 63,000ha of Natura 2000 and contiguous land participated in the Wild Atlantic Nature RBPS. All participants received training in environmental assessment and land management. Results-based payments of €3m were made to farmers. 52 farm advisors and more than 100 scientists, policy-makers and government officials participated in RBPS training and capacity-building workshops. The project team continue to provide financial and technical supports to more than 200 farmers who are undertaking actions to improve ecological condition. The learnings from the pilot informed the development of the Department of Agriculture's results-based ACRES CP programme, which is currently being delivered for 20,000 farmers in the Common Agricultural Policy Strategic Plan for Ireland (2023-2027), with a budget of €750m.

Further social and environmental benefits accrue through the complementary Natura Communities programme developed by LIFE IP Wild Atlantic Nature. Natura Communities is a community-embedded nature restoration programme with a focus on building capacity, providing employment and generating 'buy-in' of local communities for improving the conservation status of Ireland's Natura 2000 network. There is currently more than €15m committed to the programme, which is supporting more than 40 full-time jobs in nature conservation in rural areas. This will be further scaled in 2026 and beyond.



Field visit to peatland restoration site. Photo by Gary Goggins

#Hybrid results-based payment schemes (RBPS) #Agri-environmental policy #Agriculture #Peatlands #Stakeholder engagement

Stakeholder Engagement in Wallonia through Collective Agri-Environmental Measures

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The Agri-Environmental and Climate Measure (AECM) system in Wallonia, Belgium, plays a key role in promoting biodiversity through sustainable farming practices. Structured within the region's decentralized Common Agricultural Policy (CAP), it combines voluntary participation with financial incentives to support environmentally friendly agriculture. As part of the <u>LIFE B4B</u> project, new collective AECMs are being developed to guide the future evolution of the Walloon CAP. These collective approaches aim to improve the coordination and impact of biodiversity efforts across the landscape.

The Walloon AECM system has two levels: entry-level measures that are simple and open to many farmers, and more advanced targeted measures that require support from Natagriwal advisors. These contracts last five years and offer financial rewards that are attractive for farmers. Natagriwal plays a key role by helping farmers design and follow up on their measures. So far, 24% of farmers have joined entry-level AECMs, and 20% are involved in targeted ones. However, the measures are spread out across the region, and many important areas for biodiversity are not well covered. This shows there is room to improve coordination across the landscape.

To address this, the LIFE B4B project is testing a *collective AECM approach*. This new model is based on three main elements: (1) local coordination and support to build cooperation, (2) shared actions planned and carried out by groups of farmers, and (3) a financial bonus added to existing AECMs to encourage more participation. These tools are meant to bring farmers together and focus their actions in key areas, creating strong local benefits for biodiversity.

The first two pilot areas, each 1000 hectares and chosen for their importance to farmland birds, will start in 2026. The experience and lessons from these pilots will be used to help improve the next version of the Walloon CAP and promote more sustainable and nature-friendly agriculture.



Pierre Raulier: Lanscape with Agri-Environmental and Climate Measure

#Agri-Environmental and Climate Measures (AECM) #Collective AECM #Stakeholder Engagement #Pilot Project

The LIFE Integrated Project Atlantic Region DE – added values concerning public support for investment-based conservation actions

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The LIFE Integrated Project 'Atlantic Region DE' is a joint project of the German federal states North Rhine-Westphalia and Lower Saxony. The Ministry of the Environment, Nature and Transport of the State of North Rhine-Westphalia (MUNV) is the project's lead partner and the Ministry for the Environment, Energy and Climate Protection of Lower Saxony (MUNI) its associated beneficiary. MUNV delegated the project administration to the District Government of Münster, which is supported by the State Agency for Nature, Environment and Climate (LANUK). MUNI delegated the project to the Lower Saxony Water Management, Coastal and Nature Protection Agency (NLWKN).

The project pursues two main objectives. Objective one is to develop a methodological approach to implement the national Prioritized Action Framework (PAF) and the EU Biodiversity Strategy 2020 with focus on oligotrophic habitats on sand in the Atlantic region of Germany. For the elaboration of this overall concept, the project works together with all federal states of the Atlantic region and the results shall finally be summarized in an overall concept for the Atlantic region of Germany. The second objective is the implementation of concrete habitat and species conservation measures that focus on 15 habitat types and 10 species which are typical for the sandy landscapes of the Atlantic region. These are inland dunes and heathlands, *Nardus* grasslands, freshwater and peatland habitats, amphibian and reptile species, dragonfly and plant species listed in the Habitats Directive.

The project's duration of ten years consists of four project phases of 2.5 years each. At the end of each project phase, conservation measures for the subsequent project phase were elaborated with the corresponding local partners of the project and reported within a project amendment. For the implementation of conservation measures, the project works together with local partners. They usually plan and implement the conservation measures, while the project team is responsible for prioritizing actions, contracting, accounting, and monitoring of success.

An advantage of the LIFE IP is seen in the mixture of both a top-down and a bottom-up approach of identifying needs and developing plans for conservation actions. A systematic evaluation of the needs and potential within the federal states is added to precise planning and implementation by local experts (e.g. biological field stations). As a result, local conservation networks could be strengthened or established at various project sites.



Glen Keen Farm: Blackface Mountain Sheep flock in Ireland

Two Approaches To Integrated Communication Campaigns – Which Is More Effective?

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Integrated communication campaigns are effective in communicating nature protection and conservation issues to the public in general or to specific stakeholder groups. They are characterized by clearly defined messages, which are adapted in different formats and distributed through different channels in a short specific period of time with the aim of conveying the messages as widely as possible and encouraging the audience to take action. This way, the audience member (individual) receives them from multiple channels several times during the specific period; this attracts more attention and promotes higher awareness of the topic and action.

The <u>LIFE-IP LatViaNature</u> project has implemented two integrated communication campaigns at the national level in Latvia:

- 1. The campaign "Let's Catch Invasive Species in Latvia's Nature" about the recognition and eradication of invasive species, with the goal of promoting citizen science report on an invasive species using LatViaNature's system *The Invasive Species Manager* (www.invazivs.lv) (2023);
- 2. The campaign "For Looks or for Life. The Biodiversity in Your Garden, Backyard and on Your Windowsill" on the promotion of the concept of *Everybody's Biodiversity* in Latvia, raising awareness and promoting the recommendations in the LatViaNature's *Green Brochure* (2025).

Although the duration, budget and audience reached by both campaigns were similar, for example, 4 million total campaign audience (520k unique audience) for the first campaign and 4.2 million total audience (568k unique audience) for the second campaign, each campaign had different implementation steps, elements and media channels. However, the most significant difference was that each campaign used a different approach to conveying information: the invasive species campaign was an information-first campaign while the biodiversity promotion campaign was an action-first campaign with *info-shortcuts*. If we imagine information as a pyramid with a call to specific action at the top, then the first campaign was an inverted pyramid while the second campaign was the right way up. That is to say, the priority of the first campaign was to inform and educate, and the priority of the second campaign was to encourage practical action right away.

The invasive species campaign was an information-first campaign: materials describing the topic in-depth from different aspects were created and distributed through various channels. In the second campaign promoting biodiversity, we used a completely opposite approach – from the existing plethora of information, we cherry-picked from biodiversity topics, which had been compiled by project experts in the "Green Brochure". Through highlighting the most interesting, previously less heard topics to the public and creating info shortcuts about them we showed, in the shortest possible way, what we can all practically do to promote biodiversity.





Insight into communication campaign visuals

"When in Nature, take everything you brought!!" – Public Engagement Campaign Summary

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The campaign "When in Nature, take everything you brought!" (Latvian: "Dabā ejot. Ko atnesi, to aiznes!") is a nationwide public engagement initiative launched by the Nature Conservation Agency of Latvia in collaboration with WWF Latvia. Its core message is simple, yet powerful: everyone visiting nature must take responsibility for their waste and carry it out with them, helping to protect both fauna and Latvia's natural beauty for future generations.

A key aim of the campaign is to encourage behavioural change, reducing the amount of litter left in nature and promoting conscious, sustainable habits. With the friendly and memorable visual of a badger — a symbol of nature and care — the campaign invites people to think twice before leaving waste behind.

To reach a broad audience, a wide range of publicly available materials was developed and distributed across Latvia. These include:

- **Posters and infographics** featuring the badger and key messages, placed in over 2,000 locations including nature trails, parks, and visitor centres.
- **Educational materials and toolkits** for teachers and environmental educators, offering lesson plans, activity ideas, and practical tips to help children and young people understand the impact of waste on nature.
- ➤ An awareness-raising video, which vividly illustrates the issue and shares simple steps everyone can take to be part of the solution.
- ➤ A badger character (costume) was created that attractively reminds and teaches the principles of non-leakage to visitors of various public events.

All campaign materials are available both in print and digital formats, making them accessible to individuals, schools, municipalities, and organizations looking to support nature protection.

Early results show a positive shift in public attitudes — more people are now aware of their role in protecting nature and are actively engaging in responsible behaviour when visiting nature sites. The campaign stands as a strong example of how well-designed, visually engaging, and educational outreach can lead to meaningful environmental change.

For more information and access to materials, visit: tiekamiesdaba.lv



Nature Conservation Agency of Latvia: When in Nature, take everything you brought

#Public engagement #Campaign #Litter prevention

Introduction to the Attractive Funding Schemes Map

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The interactive investment map Attractive Funding Schemes illustrates the wide range of financial instruments available to support nature conservation and restoration, showing how financing can take the form of **public**, **blended**, **or private sources**.

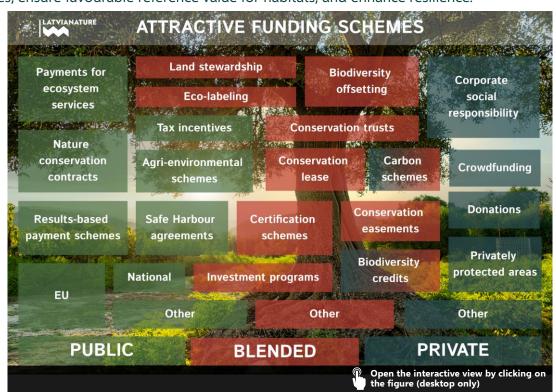
Public schemes (map left) include EU and national level instruments such as agri-environmental schemes, results-based payments, and nature conservation contracts. These mechanisms remain crucial for supporting landowners and managers in adopting practices that safeguard biodiversity. Importantly, they are already applied in practice - for example, the <u>Forest Biodiversity Programme in Finland</u> and <u>Living Forest in Latvia LIFE-IP LatViaNature</u> under nature conservation contracts, or results-based payment schemes such as the <u>Wild Atlantic Nature LIFE project</u> in Ireland and <u>Blooming Meadows (LIFE-IP LatViaNature)</u>.

Blended instruments are a potentially powerful tool in nature restoration because they combine public or philantropic capital with private investments to de-risk projects and make them attractive to commercial investors. Budgets are sizeable and include investment programmes like <u>Moringa Fund (Agroforestry and Restoration)</u>, <u>Natural Capital Financing Facility</u> (biodiversity and ecosystems) and <u>Rewilding Europe Capital</u> (restoration) which are specifically designed to mobilise both public and private capital for nature restoration. Other blended options include certification and eco-labelling systems

Private mechanisms (map right) encompass corporate social responsibility initiatives, philantropic donations, crowdfunding, carbon and biodiversity credit markets, private equity and impact funds, private land acquisition and land stewardship. These instruments are increasingly recognised as complementary to public financing and essential for building a resilient funding base. New approaches are notably strengthened by the <u>European Commission's newly adopted Nature Credits Roadmap</u> aiming to reward nature-positive action and channel private finance into restoration. <u>LIFE2Cork project</u> in Spain illustrate how crediting mechanisms can channel private finance into measurable biodiversity outcomes.

The map underscores a key message of the <u>EU Biodiversity Strategy for 2030</u> and the <u>Nature Restoration Law</u>: ensuring long-term biodiversity outcomes require **adequate and complementary public and private investments**. The European Commission's <u>latest synthesis</u> estimates total biodiversity needs at around €48 billion/yr with current spending at €29 billion/yr – leaving an annual funding gap of €19 billion/yr to meet the EU Biodiversity Strategy but not including the Nature Restoration Law. Financially attractive schemes are essential to incentivise landowners, farmers, foresters, and other land managers to adopt practices that maintain ecosystem services, ensure favourable reference value for habitats, and enhance resilience.

combining By these diverse funding sources, Member States stakeholders can create a diversified financing landscape that supports innovation, reduces risks, and mobilises society at large for restoration. This integrated approach is essential to meeting the ambitious targets set by the EU, while ensuring conservation that both measures are economically viable and socially inclusive.



A Collaborative Wetland Restoration Project in Comino, Malta

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A major wetland restoration project has been carried out in Comino, a designated Natura 2000 site in Malta. This collaborative project brought together multiple stakeholders, including local government entities (Environment and Resources Authority and Ambjent Malta), PAP/RAC, the NGO BirdLife Malta and environmental consultants.

The project aimed to restore a severely degraded wetland ecosystem, historically impacted by incompatible practices – most notably agriculture and camping activities. These practices led to the deterioration of vital habitats, including the loss of extensive *Phragmites* reedbeds, a drastic decline in *Vitex agnus-castus* populations, and the spread of invasive species such as *Ailanthus altissima* (Tree-of-Heaven).

The restoration works focused on several key interventions including the re-establishment of a native marshland environment through engineering works, to recreate a brackish coastal lagoon designed to attract migratory bird species. This involved the removal of makeshift stone barbecues and other structures, as well as the removal of invasive alien species, and replacing them with the planting of indigenous species. Two characteristic species of the wetland habitat were also introduced: *Aphanius fasciatus* (Mediterranean Killifish), which is endemic to the Mediterranean region and *Ruppia maritima* (Beaked Tassel Pondweed), which is widespread globally in brackish water bodies and protected by law in Malta. These efforts aimed to restore the water cycle and re-establish ecological connectivity between the sea, valley, dunes, and the coastal wetland itself.

The project has successfully revitalised the wetland ecosystem within this protected area, which is now showing strong signs of recovery and ecological resilience.



Comino Wetland restoration Project. Photo by Marita Galea

Addressing the Challenge of Public Goods in Nature-Based Tourism

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Human activities such as tourism and recreation rely mostly on natural resources. Infrastructure developments, such as observation towers, hiking trails, roads, information centers, etc., are often established by governments to support these activities. These elements can be considered as public goods, especially when they are freely accessible in Nordic and Baltic countries. However, in the absence of an alternative mechanism, it becomes harder to generate revenue from visitors who directly use such resources. This situation raises critical concerns about how to sustainably finance public goods in nature-based tourism.

As part of the <u>VIMAS</u> project (Visitor monitoring and management in protected and recreational areas: new challenges, novel solutions for the Anthropocene), I am conducting research in Latvia to develop sustainable financing tools and models for public goods in nature-based tourism. Parallel to this primary purpose, my research aims to identify existing financing strategies, evaluate current strategies and situations, and develop sustainable financing strategies in the end.

To date, my studies have led to initial findings showing that the financing of public goods in nature-based tourism is also directly related to the types of goods. Classifying goods such as public goods, common-pool goods, and club-like goods has significant implications for access, use rights, and ownership. Nature-based tourism involves a wide variety of public goods, including forests, hiking trails, observation platforms, soundscapes, and scenic views. This variety makes it harder to identify what public goods mean in nature-based tourism. To address this problem, we conducted a systematic literature review with thematic analysis synthesis in the nature-based tourism literature. Our findings offer a conceptual framework and typology to identify these goods via the approach of tourism.

Our findings and model illustrate two main origins of goods: nature, which produces sources that can shift between common and club-like goods; and state and private initiative, which often results in goods with a public character, blurring the lines of private ownership. State and private initiatives are mostly market-oriented. Another conclusion we reached is that even though the lines are blurred among goods, it is possible to categorize them whether more locally oriented, tourism-oriented, or nature-oriented. These conclusions are crucial for developing effective collaborative governance and sustainable funding models for nature.



Winter View of the Mežmuiža Springs. Photo by Ilker Gul

#Nature-based tourism #Framework #Typology

Blooming Meadows: Results-based Pilot Program for Grassland Biodiversity Conservation in Latvia

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Blooming Meadows is a pilot programme for grassland biodiversity conservation on private land outside Natura 2000 territories. Participants manage perennial grasslands and receive individual advisory support, financial assistance, and training to promote biodiversity. The programme focuses on perennial grasslands, with the aim that over time they achieve the status of grassland habitats of EU importance. In total, 65 participants from across Latvia are involved, managing 678 hectares of perennial grasslands (meadows and pastures ranging in size from 0.6 to 30 hectares). Blooming Meadows runs from 2023 to 2026.

Annual monitoring is carried out in the grasslands to assess biodiversity quality. Monitoring is conducted both by certified grassland experts and by programme participants. As part of this process, the biodiversity quality level of each grassland is assessed, which determines the amount of financial support. In this way, participants are motivated to enhance biodiversity in their grasslands. Within each *Blooming Meadows* site, plant species diversity is evaluated along with several structural features of the grassland, such as tree and shrub cover, litter, and the presence of expansive or invasive species. Grassland biodiversity is assessed using a point-based system that defines the grassland's quality level. A maximum of 100 points can be awarded: 50 for grassland structure and 50 for plant species diversity.

Programme participants are required to attend annual training sessions on improving grassland biodiversity. Each participant also has access to consultations with grassland habitat experts, who provide guidance on selecting the most suitable management measures.

Blooming Meadows includes two modes of participation: a results-based approach and a hybrid approach. For each approach, biodiversity benefits as well as social and administrative aspects are being tested. In the results-based approach, only the outcomes achieved by the participant are assessed, and the support payment depends directly on those results. Under the hybrid approach, an annual grassland management plan is prepared, setting out the minimum mandatory measures. For implementing these measures, the grassland owner receives a guaranteed payment component, regardless of the biodiversity results achieved.

The results of *Blooming Meadows* are expected to be incorporated into national policy. In addition, these results could serve as a solid basis for adapting this approach and establishing relevant monitoring of Annex I grassland habitats in the coming years, thus also contributing to closer engagement of private landowners in nature management.

Blooming Meadows runs within the LIFE-IP LatViaNature project and is coordinated by the Nature Conservation Agency of Latvia. The programme was developed in broad partnership with nature conservation and agricultural experts, universities, and non-governmental organizations. LIFE-IP LatViaNature is implemented with the financial support of the LIFE Programme of the European Union and Ministry of Smart Administration and Regional Development.



Blooming Meadows in Latvia, Latgale region. Photo by Maija Medne

Carbon credit markets to attract private investments to Forest restoration

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Mixed forest of Oaks and Cork Oaks in Andalusia, Parque Natural Alcornocales. Photo by Miguel Gil

The establishment of emission trading systems has promoted ambitious GHG reductions by creating economic incentives to reduce CO_2 emissions from many activities. Outside this control system are the diffuse sectors, less intensive in energy use (residential, transport, waste, agriculture, fluorinated gases, and other industries) but responsible for around 40% of EU GHG emissions.

Regulation (EU) 2018/842 of the European Parliament and of the Council shows the interest of the EU in promoting the reduction of emissions from these sectors. To do this, it is necessary to develop regulatory and operational frameworks at the National or Regional level that channel the compensation interest of these sectors towards actions capable of sequestering additional Carbon to that fixed by the natural environment.

<u>LIFE CO2RK</u> develops a battery of integrated actions in Spain, Portugal, and Italy, at both a national and regional level, with different starting points in terms of political, legal, and operational maturity. The goal is to complete the design and development of legal, administrative, financial, and technical tools that allow the certification and registration of the carbon sequestered by forest management practices, enabling its exchange in compensation and channel investments from diffuse sectors in exchange for offset carbon.

This private financial flow that can be essential for sustaining the *Phagaceae* forests in the EU, which due to their slow growth are not being used in CO₂ capture policies, despite scientific evidence ensuring that the complex ecosystems they generate have a high capacity for CO₂ fixation. The project is being developed in Cork Oak and Beech forests, whose products do not emit CO₂ but fixes it for a long useful life (cork in industries, wood in construction). The results can be extrapolated to the family of *Phagaceae* with a large distribution throughout the EU, in complementary habitats in the Natura2000 Net, with a great impact on biodiversity and the socio-economy.

Enhancing Compensation Schemes for Natura 2000 Private Forests in Estonia

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This study, conducted under Action A.5.1 of the <u>LIFE-IP ForEst&FarmLand</u> project (LIFE18 IPE/EE/000007), aimed to critically evaluate and update Estonia's compensation system for Natura 2000 private forest owners. Since 2008, Estonian forest owners have been eligible for annual compensation for restricted forest use due to nature protection, yet the system has been criticized for inadequately reflecting actual economic losses.

Through stakeholder engagement, statistical analysis, and two comprehensive studies by the Estonian University of Life Sciences, the project developed a more equitable framework that better captures the value of standing forests and the severity of restrictions. A new methodology categorizes 14 different levels of restricted-use zones, each with varying restrictions. In strict conservation zones where logging is entirely prohibited, the modelled fair payments range from €0 to over €600 per hectare annually.

Key findings indicate that the existing flat-rate compensation model (€160/ha in strict zones, €60/ha in limited zones from 2025) fails to account for the diverse productivity and economic potential of forest plots. Furthermore, compensation does not cover lost value from years prior to protection designation, which can exceed €10,000/ha in mature stands. To address these gaps, the study proposes a dual compensation model: a one-time payment for standing forest value upon protection designation and continued annual compensation for lost growth potential.

The report recommends upgrading digital systems to improve mapping, automate eligibility, and improve transparency. It also evaluates legal and financial frameworks for acquiring forest usage rights or full land ownership, noting increasing interest in alternatives that allow owners to retain land while transferring management rights. The potential new measures require not only amendments to regulations related to compensations, but also extensive IT developments and additional tasks for Environmental Investment Centre and Environmental Board.

The analysis benchmarks Estonia's system against practices in Latvia and Lithuania and proposes a staged implementation pathway to balance fairness and fiscal feasibility. The proposed reforms aim to strengthen biodiversity conservation while maintaining landowner trust and participation in Natura 2000 goals.

This work lays the foundation for a more scientifically grounded and socially just compensation policy, aligning nature protection with economic sustainability in Estonia's private forest sector.



Piusa floodplain and forest. Photo by Andres Orula

Experience in achieving nature conservation goals using Rural development interventions (EAFRD funding)

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I. Rural development interventions (EAFRD funding)

In order to promote more sustainable farming, as well as to address the ever-increasing challenges of climate, environment, and biodiversity, the Latvian CAP Strategic Plan provides financial support for a total of 48% of total EU funding, and 43.6% directly from rural development funding. In the CAP Strategic Plan, there are 6 agri-environment measures and 2 non-profit environmental investments, the most important of which are the following two, which contribute to halting and restoring biodiversity loss, improving ecosystem services, and preserving habitats and landscapes:

- ▶ LA4.6. Restoration of biologically valuable grasslands, where intensive work is still underway to polish the regulatory frameworks in order to start the adoption of the first projects in autumn 2025. Following the restoration of these areas, it is envisaged to provide them with support under the next agri-environmental intervention mentioned, ensuring a complementarity of measures. The total planned area under renovation is at least 2,000 ha.
- ▶ LA10.5. Management of grassland habitats, which has already been successfully implemented for the third season, but is, in fact, maintaining the continuity of the management support of these areas from previous programming periods. The objective of the aid is to maintain biologically valuable grasslands and bird habitats of European Union importance dependent on agricultural activity in permanent grassland, NATURA 2000 sites and beyond, by ensuring their appropriate management and promoting the conservation of these special natural values. For 2023 applications, the disbursement of financing was made in the amount of EUR 39.3 million. EUR, as in 2023 6 068 applicants applied for intervention on their holdings, declaring 44 219 ha for support, while in 2024 the absorption of funding will be higher, as 7 010 applicants have already submitted their applications, declaring 48 166 ha for support. This area is the sum total of the area occupied by botanical and bird habitats, and not the unique hectares of grassland habitats, as they may overlap partially or completely in places. The claimed area of unique grassland habitats is more than 40,000 hectares. The target area set for the aid is 69 114 ha, so we can conclude that interest is high (70%) and the reserved funding will be absorbed.

No less important is the payment of compensation for restrictions on economic nature in forest lands, which is implemented until December 2025 from the funding of the previous programming period (M12.2), while in 2026 and 2027 from the CAP SP (LA12):

- ➤ M12.2. Compensation payment for Natura 2000 forest areas; The target area set for the aid is 60 000ha, so we can conclude that interest is high (83%), and the reserved funding will be absorbed.
- ▶ LA12. Natura 2000 payment for forests. Not only does the area eligible for aid increase every year, but also the number of beneficiaries and the area applied for. In 2023, they amounted to 3 303 persons and 50 016 ha, while in 2024 already 3 349 persons and 50 837 ha.



Ministry of Agriculture: Meeting at the Ministry of Agriculture Republic of Latvia

Experience in achieving nature conservation goals using Ecoschemes interventions (EAGF funding)

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Eco-schemes are a new component of the CAP 2023–2027 green architecture, designed to incentivize farmers to adopt agricultural practices that benefit the environment and the climate. Within the direct payments section of the CAP Strategic Plan, Member States are required to offer voluntary eco-schemes aimed at enhancing the environmental and climate performance of the CAP. These schemes promote sustainability in agriculture, while supporting food security and rural development.

Eco-schemes must be designed to go beyond the minimum requirements set by the conditionality system, providing added value in terms of environmental and climate benefits.

Latvia offers seven eco-schemes under the CAP Strategic Plan. Farmers can voluntarily choose and apply for the eco-schemes that correspond to the environmentally and climate-friendly practices implemented on their farms.

Additional to already implemented eco-schemes, new eco-scheme support for setting-up and maintaining landscape features on at least 1% of arable land introduced in 2025 to replace GAEC8 standard requirement for mandatory maintenance of non-productive areas in arable land.

Following activities and practices are included in each of 6 eco-schemes in Latvia, the most important of which are the following three:

- **EKO1:** Eco-scheme support for agricultural practices beneficial for the environment and the climate: crop diversification in arable land, soil cover in the winter period. Take-up of funding in 2024 225 %.
- **EKO4:** Eco-scheme support for conservation agricultural practices: Take-up of funding in 2024 135 %.
- **EKO7:** Eco-scheme for agroecology practices in organic holdings: Take-up of funding in 2024 89 %.



#Eco-schemes #Sustainability #Agriculture

Farmer Involvement in Designing the Assessment Methodology for a Results-Based Grassland Biodiversity Scheme

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Grasslands are complex socio-ecological systems, and land managers play a key role in achieving biodiversity outcomes. For results-based agri-environment schemes (RBAES) to be successful, managers need a deep understanding of grasslands comparable to that of biodiversity experts. Such schemes engage land managers more effectively than action-based ones, helping them to view grasslands not only as productive land but also as ecosystems. Scheme design and the choice of biodiversity indicators and their monitoring approach should not only target ecological goals but also support social objectives such as farmer involvement and learning.

In Latvia, the pilot scheme for grassland biodiversity, "Blooming Meadows", has been developed under the integrated LIFE programme project "LatViaNature". The pilot aims to support an RBAES for permanent grasslands to enhance floristic diversity. Our approach acknowledged the interconnection between ecological and social systems by implementing a participatory process that actively engaged farmers. The goal was to codevelop, together with the farmers who would carry out the monitoring, a concise set of plant and structural indicators that (I) reflect improvements in floristic diversity, (II) are easy for non-specialists to identify, (III) support learning about grassland ecology, and (IV) are acceptable, motivating, and manageable for farmers.

An initial list of plant indicators, including both positive and negative species – mainly forbs due to their recognizability – was developed by experts. Structural indicators were adapted from Ireland's Burren Programme and included grazing intensity, sward structural diversity, litter layer presence, and visible impacts such as feeding sites. Unlike the Burren Programme, where advisors perform the scoring, we tested farmer-led assessments to evaluate feasibility. The participatory process followed five phases: (1) farmer engagement and training; (2) biodiversity assessments by farmers and experts using expert-developed scoring cards; (3) collecting farmer feedback on indicators and their experiences; (4) data analysis and finalization of scoring cards; (5) testing of co-developed indicators.

A total of 69 farms joined the pilot programme, all of which participated in the monitoring. Initial results revealed significant discrepancies between farmer and expert assessments. Farmers reported that structural indicators were more difficult to assess than species-based indicators, yet acknowledged their relevance in reflecting management outcomes. Further analysis of the reasons behind assessment differences, farmer learning outcomes, and the final indicator set will be presented and discussed at the conference.



LatViaNature project: Farmers in meadow

#Monitoring #Structure indicators #Species indicators #Social-ecological system #Scoring card

From forest side streams to market value: Biolat's CEforestry journey in circular bioeconomy

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When we joined the Baltic Sea Region <u>CEforestry</u> project - "Innovation in forestry biomass residue processing: towards circular forestry with added-value products", our starting question was simple: *is there a real market for products made from what the forest industry usually leaves behind - needles, bark, and sawdust?* As a Latvian company working with bioactive extracts, "Biolat" set out to answer this with evidence.

We designed and carried out a market study that combined stakeholder interviews, a structured survey, and secondary research. Findings reveal that the strongest pull for forest-derived ingredients comes from cosmetics (~25%), food supplements (~21 %), and pharmaceuticals (~17 %), alongside emerging interest in bioenergy and industrial waste treatment. At the same time, companies point to three main barriers - cost, regulation, and technological readiness - but also to clear opportunities in certification-led branding, green extraction, and integrated biorefineries. By integrating market research with proactive engagement, **CEforestry** has developed a communication framework that accelerates technology adoption and policy uptake. This approach enables stakeholders to co-design business models, such as localized extraction hubs co-located with sawmills, reducing logistics emissions by up to 80 % and creating 5–10 jobs per 10 000 t processed.

For JSC "Biolat", this work changed how we talk to stakeholders. Rather than promoting a generic "green potential," we now approach SMEs, sawmills, and policy actors with concrete numbers, product ideas and regulatory checklists. This has helped us position Latvia as a serious player in value-added forestry bioproducts - without increasing harvesting pressure on forests. Using what is already cut is, in our view, a quiet but effective form of nature protection: it reduces waste, lengthens the cascade of wood use, and supports rural jobs around existing mills.

Our experience shows that market intelligence can be a powerful engagement tool. Clear demand insights turn "stakeholders" into collaborators and accelerates the shift from residue to resource.



Ilona Vanaga: A forest near Cēsis.

Living Forest: A Pilot Program for Forest Biodiversity Conservation in Latvia

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Living Forest is a pilot programme for forest biodiversity conservation in private forests in Latvia outside Natura 2000 territories.

The programme provides advisory and financial support to private forest owners who commit to maintaining a higher standard of biodiversity conservation than required by law.

Participation in the *Living Forest* programme is voluntary. This initiative is the first time that voluntary mechanisms for biodiversity conservation have been put into practice for private lands in Latvia. A four-year contract is concluded with each forest owner, specifying the biodiversity conservation measures to be implemented. Priority is given to forest areas with high biodiversity potential, particularly those with trees exceeding 25 cm in diameter.

In total, 70 participants from across Latvia are involved, managing 365 hectares of forest ranging in size from 0.6 to 15 hectares. *Living Forest* runs from 2023 to 2026. The programme consists of three sub-programmes: forest habitat conservation, forest habitat creation, and nature-friendly forestry.

Forest owners actively participate in training on nature-friendly forestry practices and in monitoring conservation outcomes. Monitoring is conducted both by certified forest experts and by programme participants. As part of this process, the following key ecological structures are assessed: biologically old, large-diameter trees; various types of deadwood; canopy openings; trees with microhabitats; woodpecker trees; and trees with polypores.

For each forest, the financial support rate is individually adjusted according to the composition of tree species and the productivity of the forest stand.

Living Forest runs within the LIFE-IP LatViaNature project and is coordinated by the Nature Conservation Agency of Latvia. The programme was developed in broad partnership with nature conservation and forestry experts, universities, and non-governmental organizations. LIFE-IP LatViaNature is implemented with the financial support of the LIFE Programme of the European Union and Ministry of Smart Administration and Regional Development.



Living Forest participants in a seminar. Photo by Girts Baranovskis

"Grassland Product" brand: innovative solution to preserve semi-natural grasslands in Latvia

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In the search for innovative solutions to preserve semi-natural grasslands, the creation of the "Grassland Product" brand in Latvia stands as a pioneering example. Developed by the Latvian Fund for Nature within the LIFE-IP LatViaNature project, the brand links nature conservation with entrepreneurship offering a practical response to the alarming decline of semi-natural grasslands. By adding economic value to sustainable land use, the label turns conservation into a viable livelihood strategy for rural communities.

The "Grassland Product" label is awarded to producers who manage species-rich semi-natural grasslands using traditional, environmentally responsible practices and who offer products or services directly linked to these landscapes. The brand's visual identity - a vibrant meadow flower cradled in human hands - symbolizes the deep interconnection between people and nature. It reflects core values of sustainability, care, and stewardship. Since the brand's official launch in January 2024, when the first 17 producers were awarded the label, the initiative has steadily gained visibility and impact across Latvia.

A range of outreach activities supports the brand's mission. Educational seminars have introduced farmers to biodiversity-friendly livestock management, grassland restoration techniques, seed collection practices, and the use of local grassland resources in business development. Culinary masterclasses held in collaboration with chefs at vocational schools have introduced aspiring chefs to grassland products and their potential uses in modern cuisine. Public events such as the Meadow Festival have showcased the products and raised awareness among consumers. These efforts help build connections between producers, conservationists, and the broader public.

The brand's broader mission is to inspire society to value semi-natural grasslands and support their restoration through responsible consumption. It highlights the essential role of local producers in maintaining one of Europe's most threatened habitats and encourages consumers to contribute to conservation through their everyday choices.

The "Grassland Product" brand demonstrates that biodiversity protection and business development can go hand in hand. By combining thoughtful branding, public engagement, and sustainable land use, it presents an innovative model for preserving Latvia's natural heritage while empowering rural communities.



Latvian Fund for Nature: "Grassland Product" label - meadow flower cradled in human hands

Partnership with landowners and land users: advising for grassland biodiversity

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LIFE IP project "ForEst&FarmLand" has set up an <u>advisory service</u> to find new landowners for managing seminatural grasslands, biodiversity hotspots of Estonia. We help landowners to discover and estimate the ecological value of their meadows, offer advice for restoration and management as well as assist them to navigate between different institutional and financial support schemes, subsidies and tenders

At the beginning of the twentieth century, seminatural habitats were estimated to have covered up to 40% of Estonia's territory, or 1.8 million hectares. Due to a change in land use, this area has decreased and there are currently only 40,000 hectares being managed each year. As meadows form the core area of Estonian biodiversity, their management is very important and therefore beyond individual meadows, the project aims to increase landowner participation, improve the efficiency of restoring and managing semi-natural meadows, and ensure biodiversity-rich grassland areas do not simply survive on paper but are sustained in practice.

The advisory service combines targeted communication, knowledge sharing, and recognition of people to foster sustainable grassland management.

- ➤ Direct outreach: monthly emails to 30–50 new potential landowners, followed by personal calls and meetings
- ➤ Knowledge sharing: thematic e-newsletter 2-3 times per year to 6000+ landowners who own at least one hectare of valuable semi-natural meadow
- ➤ Facilitation of cooperation: web-based platform for sharing land rental opportunities between owners and potential lessees
- ➤ Capacity building: hands-on trainings for landowners and managers to assess the values of their lands



Training for landowners to assess the value of their grasslands. Author: Kaidi Tingas



Award ceremony to recognise the best managers of the semi-natural grasslands. Author: Heikki Avent

- **Financing guidance**: an overview of available subsidies and procurements opportunities
- > Recognition: award ceremony to honour most outstanding grassland managers in every second year

More information about LIFE IP "ForEst&FarmLand" project at www.loodusrikaseesti.ee/en

Private Landowners and Forest Biodiversity Conservation – the METSO Programme in Finland

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The primary goal of the Forest Biodiversity Programme for Southern Finland (METSO) 2008-2025 is to halt the decline of forest habitats and species and to ensure favorable trends for biodiversity. Based on a Finnish government resolution, the programme contains 14 measures to achieve its main aims. These measures include improving the network of protected areas, enhancing habitat management in commercially managed forests and promoting collaboration between forestry- and environmental authorities and other stakeholders. METSO also aims to improve communication and training regarding biodiversity, and it includes monitoring, research, and development projects.

METSO is based on the voluntary participation of forest owners, who receive compensation for protecting their forest sites. METSO has selection criteria that list ten important forest habitats that are eligible for protection under the programme. These criteria also include desirable structural features, such as decaying wood, and large deciduous trees and consider the presence of endangered species. A site's recreational and cultural values can also increase its significance if they support biodiversity.

Forest owners can contact the forest or environmental authority to offer their forest site for the METSO Programme. The programme offers options for permanent and temporary protection, as well as nature management. The implementation method is discussed with the forest owner.

Forest owners appreciate the programmes's voluntary approach, the autonomy in decision-making, compensation, and the opportunity to retain property rights. Voluntary participation is a key factor in ensuring programme's acceptability among forest owners. Non-governmental organizations, forest companies, and authorities have also expressed strong support for METSO. Forest owners are clearly interested in offering forest sites for protection. However, there are some regional differences in the supply of sites.

Protected METSO sites have generally been found to have high biodiversity value. METSO has markedly enhanced collaboration among forest authorities, environmental authorities, forest owners, and other stakeholders. While increasing dialogue and cooperation is important, it requires resources and time. Ensuring adequate resources for implementation and improving connectivity between sites are both challenges.



METSO forest site in southern Finland. Photo by Kimmo Syrjänen.

Restoring Veteran Tree Habitats for the Hermit Beetle in Privately Owned Forests: Collaborative Conservation Under LIFE Open Woods

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The <u>LIFE Open Woods</u> project is a nationwide Danish initiative targeting biodiversity enhancement in forest ecosystems. As part of this effort, we are working to restore and secure habitats for the endangered hermit beetle (*Osmoderma eremita*), a species critically dependent on old, hollow, sun-exposed deciduous trees—primarily oaks. This abstract highlights our integrated habitat restoration work across three Natura 2000 sites: Sorø Sønderskov, Bognæs Storskov, and Lekkende Dyrehave.

These project sites are privately owned forests, each with unique conservation challenges and ecological dynamics. Common threats include habitat fragmentation, the decline of veteran trees due to senescence, and lack of recruitment of future habitat trees. The hermit beetle's limited dispersal ability—typically only 50–100 meters—further exacerbates the vulnerability of small, isolated populations.

Our actions are grounded in voluntary agreements with landowners and executed under the framework of Denmark's forest action plans. In total, we are:

- ➤ Securing over 290 veteran trees through light enhancement and veteranization,
- Thinning more than 30 hectares of dense forest stands to support habitat tree development,
- ➤ Establishing approximately 40 artificial habitat units ("mould boxes") to bridge generational gaps,
- ▶ Planting oaks over ~10 hectares to ensure long-term continuity of suitable habitat structures.

All interventions are implemented in alignment with the LIFE Open Woods "Best Practice Management Catalogue" and supported by funding from the EU LIFE Programme. Additionally, we engage landowners through compensation mechanisms and stewardship incentives, and ensure local awareness through information signs and educational outreach.

The project represents a model of collaborative conservation, demonstrating how public funding and private ownership can merge to safeguard species under both national and EU biodiversity targets. We are also contributing to the monitoring of population responses through the national NOVANA programme, integrating habitat and species data.

Our experience may serve as a transferable model for other regions striving to meet the ambitions of the new EU Nature Restoration Law, particularly in landscapes where private landowners play a pivotal role.



Osmoderma eremita. Photo by Gerta Nurk

#Voluntary Conservation Agreements #Private Landowner Incentives

#Veteran Trees and Species Protection #Private-public partnership

Small Grants Programme for Invasive Species Management under the LIFE-IP LatViaNature Project

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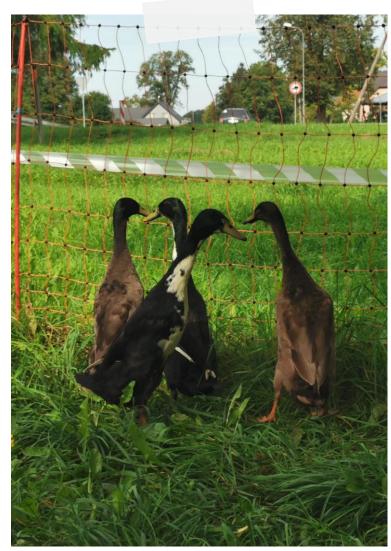
As part of the <u>LIFE-IP LatViaNature</u> project, a small grants programme was developed to support innovative and practical solutions for managing invasive alien species (IAS) in Latvia. The programme was designed to provide financial, educational, and informational support to local actors - private landowners, legal land managers, and collaborative groups (including municipalities) - to test new, environmentally friendly, repeatable, and cost-effective IAS control methods, while fostering local and public engagement in biodiversity conservation. It also aimed to raise awareness among landowners and stakeholders while promoting collaboration and knowledge exchange at the community level.

The grant programme set clear priorities - focusing on high-risk species and ecologically sensitive areas such as riparian zones and protected habitats. Importantly, it provided a practical framework for analysing ideas that had not previously been tested in Latvia.

The competition was carried out in two rounds as well as an additional supplementary round, receiving 17 project proposals targeting various invasive species such as the Spanish slug (*Arion vulgaris*), Canadian goldenrod (*Solidago canadensis*), Himalayan balsam (*Impatiens glandulifera*), Dwarf serviceberry (*Amelanchier spicata*), and Sosnowsky's hogweed (*Heracleum sosnowskyi*). Seven projects were selected for implementation - five in the first round and two in the second.

The supported projects tested diverse methods tailored to specific species and local conditions. Methods for the Spanish slug eradication included the use of Indian Runner ducks, limacides, installation of electric fencing, drowning traps, mechanical collection, regular mowing, and at the municipal level - composting management, incorporating chemical, and thermal control measures. In tackling Canadian goldenrod, project implementers applied various combinations of mulching, ploughing, sowing grass mixtures, mowing, biomass harvesting for herbal tea production, and root system drying. Himalayan balsam was managed through regular trimming and removal.

Overall, the small grants programme proved to be a valuable tool in advancing IAS management at the local level. It enabled stakeholders to test practical approaches, adapt methods to real-world conditions, and build a stronger foundation for future collaboration between stakeholders. The experience gained is an important contribution to national efforts in biodiversity protection and provides replicable models for other regions facing similar challenges.



LatViaNature project: Mobile flock of Indian Runner ducks

#Invasive alien species #Community-based collaboration #Small grants
#Innovative control methods #Public engagement

The successful restoration of grassland habitat 6210 on private property in Latvia.

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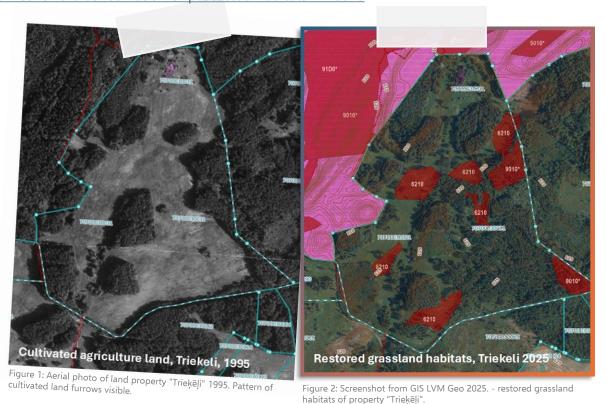
Grasslands are disappearing fast from the Latvian landscape, becoming an even more crucial part of biodiversity. Redressing the losses of grassland biodiversity and restore the seminatural grasslands in Latvia is increasingly important in the light of Nature Restoration Regulation (EU) 2024/1991. This abstract outlines the successful restoration example of how once ploughed hills are turned into diverse grassland with representative presence of EU protected habitat Nr 6210.

The land property "Trieķēļi" is a mosaic of 18 ha of forested hills and 15.4 ha of grasslands, including tiny wetlands, with a total area of 33.4 ha, situated in Ļaudona municipality, eastern Latvia. The north – west part of the property borders the Krustkalni nature reserve (NATURA 2000 site).

A part of the property has been arable land from 1905. - 1992. Figure 1 shows that the land was ploughed and abandoned, without further processing – the pattern of furrows visible on the aerial photo from 1995.

The last ploughing I remember was in the spring of 1992. After 1997, natural forestation occurred - forests were let to grow on suitable grounds managed by gradual thinning of the new birch stands. Grasslands were moved yearly starting from the middle of July to August, allowing most plants to bloom and ripen seeds. Most of the hay produced, was removed from grasslands yearly or at least once in two years. Additionally, grasslands were broadened, replacing bushland and less productive forests. The national inventory of habitats (2017 – 2021) revealed 11,4 ha biodiverse grasslands restored, including 3,3 hectares of EU protected habitat Nr 6210 created in 25 years, on area previously ploughed and cultivated nearly 90 years. (See Figure 2)

When re-creating meadows from the tree stands and bushland, I left the largest single trees and shaped tree rows by deliberately creating a landscape that resembles forest pastures. Even though such a mosaic landscape requires more time and technical resources to manage, the result is an increase of biodiversity in my property, and it looks even more beautiful! Finally, this farming approach revealed significant benefits. We have collected tons of naturally grown herbs to produce herbal tea for human health and beauty, more than 1000 m³ of pulpwood and firewood were sold over 25 years. Since 2004, suitable financial support was received from the EU for the management of grassland habitats. To restore or create grassland habitats we advise to follow the "Guidelines for the conservation of protected habitats in Latvia"



#Restoration #Grassland habitats #Biodiversity #Private property #Sustainability

Working together to see Latvia's nature flourish

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Blooming Meadows: Signing of the First Agreement (LatViaNature project)

Being an ambitious nature project, <u>LIFE-IP LatViaNature</u> has set aims that align with the highest standards. The main objective is to ensure the implementation of the Habitats Directive and its Priority Action Framework (PAF) for 2021-2027. The project encompasses such tasks as improving the conservation status of habitats and species, developing effective motivating mechanisms to support nature conservation on private lands, developing a robust system for the control and management of invasive alien species, and many more. Our work is divided into 51 separate actions, resulting in a comprehensive project. Throughout all actions, we aim to build a stronger nature conservation system, where the focus lies on working together.

Working together to build a powerful project partnership that includes: public bodies, which have the tools and legislative grounds to implement nature protection policy; leading universities, which provide a scientific background to our work; state enterprises, which reach target groups well beyond typical nature projects; and leading non-governmental organizations, which work to find novel approaches in the project thematic areas.

Working together with private landowners by creating constructive and effective understanding of opportunities for nature conservation on private lands. 140 private landowners are participating in the four-year long pilot-programmes Blooming Meadows and Living Forest. The interest from private landowners to participate far exceeded our expectations, which, on the one hand, indicates the necessity to continue the development of more and more effective motivating mechanisms, and, on the other hand, clearly affirms that there is a part of society who cares and wants to protect our nature.

To increase the part of society who is committed to lending a hand towards nature conservation, we also work with awareness rising as well as increasing knowledge and voluntary involvement in biodiversity conservation. This includes volunteer hands-on conservation events, demonstration of sustainable forest management on private lands, as well as the demonstration of forest habitat and invasive alien species management, where landowners and managers can witness the results of nature-friendly management, exchange knowledge, and find inspiration. We have even created a mobile nature education class to bring nature education to the audience.

We believe that joining hands is a crucial component in the various tiers of nature conservation, and we do hope that our initiatives are leaving a visible mark and will be continued, shared, and upscaled in the future.

#Habitats Directive #Working together #Awareness raising #Compensation mechanisms #Pilot-programmes

We hope you found these insights interesting and useful!

All information regarding this conference is available on LIFE-IP LatViaNature website: latvianature.daba.gov.lv/en/conference-2025