# LIFE16 NAT/CZ/000001

# Final Report

## Covering the project activities from 01/09/2017 to 30/06/2024

# 30/09/2024

# CZ-SK SOUTH LIFE

| Data Project | |
|---|---|
| **Project location:** | Czech Republic (25 sites) & Slovak Republic (30+3 sites) |
| **Project start date:** | 01/09/2017 |
| **Project end date:** | 30/06/2024 **Extension date:** N/A |
| **Total budget:** | 7 024 703 € |
| **EU contribution:** | 5 085 000 € |
| **(%) of eligible costs:** | 72,39 |

| Data Beneficiary | |
|---|---|
| **Name Beneficiary:** | Jihočeský kraj (South Bohemian Region) |
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| **Project Website:** | http://south-life.cz |

**This table comprises an essential part of the report and should be filled in before submission**

Please note that the evaluation of your report may only commence if the package complies with all the elements in this receivability check. The evaluation will be stopped if any obligatory elements are missing.

| **Package completeness and correctness check** | |
|---|---|
| **Obligatory elements** | ✓ or N/A |
| Technical report | |
| The correct latest template for the type of project (e.g. traditional) has been followed and all sections have been filled in, in English<br>*In electronic version only* | ✓ |
| Index of deliverables with short description annexed, in English<br>*In electronic version only* | ✓ |
| Mid-term report: Deliverables due in the reporting period (from project start) annexed<br>Final report: Deliverables not already submitted with the MTR annexed including the Layman's report and after-LIFE plan<br>Deliverables in language(s) other than English include a summary in English<br>*In electronic version only* | ✓ |
| Financial report | |
| The reporting period in the financial report (consolidated financial statement **and** financial statement of each Individual Beneficiary) is the same as in the technical report with the exception of any terminated beneficiary for which the end period should be the date of the termination. | ✓ |
| Consolidated Financial Statement with all 5 forms duly filled in and signed and dated<br>*Electronically Q-signed or if paper submission signed and dated originals* and in electronic version (pdfs of signed sheets + full Excel file)* | ✓ |
| Financial Statement(s) of the Coordinating Beneficiary, of each Associated Beneficiary and of each affiliate (if involved), with all forms duly filled in (signed and dated). The Financial Statement(s) of Beneficiaries with affiliate(s) include the total cost of each affiliate in 1 line per cost category.<br>*In electronic version (pdfs of signed sheets + full Excel files) + in the case of the Final report the overall summary forms of each beneficiary electronically Q-signed or if paper submission, signed and dated originals** | ✓ |
| Amounts, names and other data (e.g. bank account) are correct and consistent with the Grant Agreement / across the different forms (e.g. figures from the individual statements are the same as those reported in the consolidated statement) | ✓ |
| Mid-term report (for all projects except IPs): the threshold for the second pre-financing payment has been reached | N/A |
| Beneficiary's certificate for Durable Goods included (if required, i.e. beneficiaries claiming 100% cost for durable goods)<br>*Electronically Q-signed or if paper submission signed and dated originals* and in electronic version (pdfs of signed sheets)* | ✓ |
| Certificate on financial statements (if required, i.e. for beneficiaries with EU contribution ≥750,000 € in the budget)<br>*Electronically Q-signed or if paper submission signed original and in electronic version (pdf)* | ✓ |
| Other checks | |
| Additional information / clarifications and supporting documents requested in previous letters from the Agency (unless already submitted or not yet due)<br>*In electronic version only* | ✓ |
| This table, page 2 of the Mid-term / Final report, is completed - each tick box is filled in<br>*In electronic version only* | ✓ |

**signature by a legal or statutory representative of the beneficiary / affiliate concerned*

***Instructions:***

Please refer to the General Conditions annexed to your grant agreement for the contractual requirements concerning a Mid-term/Final Report.

Both Mid-term and Final Technical Reports shall report on progress from the project start-date. The Final Report must be submitted to the Agency no later than 3 months after the project end date.

Please follow the reporting instructions concerning your technical report, deliverables and financial report that are described in the document Guidance on how to report on your LIFE 2014-2020 project, available on the LIFE website. Please check if you have the latest version of the guidance as it is regularly updated. Additional guidance concerning deliverables, including the layman's report and after-LIFE plan, are given at the end of this reporting template.

Regarding the length of your report, try to adhere to the suggested number of pages while providing all the required information as described in the guidance per section within this template.

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# 2. List of key-words and abbreviations

**Key-words:** *Gentianella Bohemica, Osmoderma eremita, Carabus menetriesi pachoilei*, bog woodland, peat bogs, alluvial forests, grassland habitats, salt marshes, restoration, water regime, grazing, pollarded willows, removal of IAS, planting of native trees, biodiversity, sustainability, habitats, local farmers, South Bohemian region, southern Slovakia

**List of abbreviations:**

| | |
|---|---|
| AB | Associated beneficiary |
| After – LIFE | After-LIFE conservation plan |
| BROZ | Regional Association for Nature Conservation and Sustainable Development |
| CB | Coordinating beneficiary |
| CMP | **Carabus Menetriesi Pachoilei* (target species) |
| CZ, CR | Czech Republic |
| EASME | Executive Agency for Small and Medium-sized Enterprises |
| ER | Expected results |
| ESA | European Space Agency |
| FM | Financial manager |
| GB | **Gentianella praecox ssp. Bohemica* (target species) |
| IAS | Invasive and/or alien species |
| KPI | Key project indicator |
| MoE CR | Ministry of Environment of the Czech Republic |
| MoE SR | Ministry of Environment of the Slovak Republic |
| MTR | Midterm report (of this project) |
| NCA CR | National Conservational Agency |
| OE | **Osmoderma eremita* (target species) |
| PAF | Priority Action Framework for financing of Natura 2000 network |
| PC | Project coordinator |
| PM | Project manager |
| PP | Project proposal |
| PR | Progress report |
| RP | Rescue Programme |
| RSE | Regional School Economy in České Budějovice |
| SBR | South Bohemian Region (project´s coordinating beneficiary) |
| SC | Steering committee |
| SCI | Site of community importance |
| SK, SR | Slovakia |
| SNC | State Nature Conservancy of the Slovak Republic |
| VURV Praha | Research Institute on Plant Production in Prague |

# 3. Executive Summary (maximum 2 pages)

Briefly describe the project objectives, key deliverables and outputs.
Compare in a few paragraphs the activities planned to the progress made. Summarise the achievements, deviations, important problems and difficulties met during the project implementation. This summary should be a stand-alone text.

Project CZ-SK SOUTH LIFE was implemented in regions of South Bohemia and southern Slovakia, by 5 project beneficiaries. Project area included 25 Natura 2000 sites (SCIs) in Czech Republic and 30 SCIs in Slovakia, plus 3 added within the project duration.

The main project objective was to improve the conservation status of 3 target species and 11 target habitats in the project area, by implementing optimized and best-practice management measures.

The preparatory actions included the timely procurement of project machinery, hiring and training of all necessary project staff and delivery of expert studies and technical documentation, which served as basis for implementing the project´s concrete conservation actions (C-actions).

Land purchase was used to acquire 41.6 ha of strategic land parcels in Slovakia, for implementing C-actions. **288.5 ha of land was acquired by land lease**, significantly exceeding the expected results (ER=30 ha).

The main results and achievements of C-actions are discussed for each target species and for target habitats. The comparison with expected results (ER) is given only when there was a significant deviation (positive or negative). Where relevant, this is discussed.

***Gentianella praecox ssp. Bohemica*** – endemic species; the **project sites cover the core of its EU population**. The project demonstrated an optimized management method for the species and applied it on all areas with existing populations of GB in project sites. As a result, the species population trend has changed from negative, to positive, and an **85.1% population increase was achieved**, compared to a 5-year reference period before the start of the management. This significantly exceeded the expected results (ER=10% population increase). Moreover, the area of suitable habitat was enlarged by 8 ha (ER=5.9 ha) and very effective cooperations were established with local stakeholders. The optimized management developed by the project is now recommended as the most suitable for the species by the National management methodology and there are already other regions interested in replicating this best-practice.

***Osmoderma eremita*** – in South Bohemia, the project targeted some of the most important populations of the species on national level, which are located in old veteran trees in parks and alleys. **1,286 old cavity trees were treated** (ER= 1,000 trees), to improve their future prospects and remove the threat of being cut due to safety of visitors.

In Slovakia, **541 old abandoned pollard willows were restored** (ER=500 willows) by reintroduction of pollarding – to improve their health state and future prospects. The habitat quality for the species was improved by removing of dense shrubs in undergrowth of cavity trees (on 27.2 ha) and in Slovakia, also by reintroduction of grazing (29.1 ha). 1,148 trees were planted in CZ and 558 in SK to improve the habitat connectivity and continuity for the species.

A significant increase in share of the habitat trees with suitable microclimate for the species was achieved – from **5% suitable before the project to 90% after implementing the restoration measures** (ER: extension of suitable habitat by 20%).

***Carabus menetriesi pachoilei*** – endemic species, confined to *Shagnum* peat bogs. Its suitable habitat was enlarged by 38.4 ha (ER=20 ha) and the monitoring results show a **population increase of 49.7%, which is significantly more than was expected (ER=15%)**. This was achieved by restoration of water regime, removing of shrubs and pioneer trees and restoration of mowing.

**Habitat *7110** (active raised bogs) was restored by removing shrubs and pioneer trees on 20 ha (ER=45 ha) and by introducing mosaic-like mowing on 75 ha (ER=79 ha). The lesser amount of results is compensated by mosaic-like mowing, which was restored on further 210 ha in vicinity of target site SCI Pohoří na Šumavě (protected as SPA Novohradské hory), in cooperation with local stakeholders.

**Habitat *91D0** (bog woodland) was restored on 125 ha and enlarged by further 20 ha. This was done by **planting of 20,000 seedlings of native *Pinus rotundata*** (with seed material collected from local trees), removing of undesirable shrubs and pioneer trees, and suppressing of dominant grasses by mulching and mosaic mowing. Water regime was improved on 13 ha in SCI Rašelinište Kapličky – which will have a positive effect also on habitat *7110 and species *Carabus menetriesi pachoilei*.

**Habitat *91E0** (ash-alder alluvial forest) was restored by **planting of 30,505 native trees in Slovakia and 1,001 in Czech Republic**. The survival rate of trees and their growth rate was very high, thanks to applying novel knowledge in forest restoration when planting the trees, and effective after-planting care. IAS species were removed on 30.5 ha in SK and 52 ha in CZ (ER = 30 ha in SK and 17 ha in CZ).

**Grassland habitats, salt marshes and sand dune habitats** targeted by the project were: *1340, *1530, *6110, *6120, *6210, *6250, *6260, *91N0. The restoration management was applied on 226 ha in total and consisted of removing shrubs, pioneer trees and/or IAS, to prepare the sites for regular management by grazing or mowing.
In SCI Čenkov, IAS species *Ailanthus altissima* and *Asclepias syriaca* were removed on a total area of 74.1 ha and 254.9 ha, respectively (ER=130 ha for both species). There was a significant delay in implementing of this action, caused by overly complicated procurement and decission making processes on the side of project beneficiary SNC. To solve the situation, BROZ had to take over the activity and implemented it before the end of the project. Although somewhat less area with IAS *Ailanthus altissima* was treated, compared to expectations, this is compensated by a significantly more area, where IAS *Asclepias syriaca* was removed. The effectivity of removal was very high for both species and the monitoring of the treated area will continue also within the After-LIFE period.
**Grazing was restored on 428.8 ha of grassland habitats in Slovakia, which is significantly more than was expected (ER=210 ha)**. This was achieved thanks to a very effective cooperation of BROZ with local stakeholders. The restored grazing generated **significant socio-economic benefits for local farmers and communities**. All necessary grazing infrastructure was created (fences, shelters and watering wells for grazing animals), to secure sustainable grazing regime on project sites.
**Salt marsh habitats** (*1340, *1530) were restored also by improvement of water regime, by removing of 2,490 m of drainage channels (ER=2,000 m) and by removing topsoil layer on 11 patches (total area of 1.8 ha), to create conditions for rare halophyte species with pioneering strategy.
**4 new species of insects for Slovakia were recorded on the restored areas** and a population of critically endangered pioneer halophyte *Crypsis aculeata* has established there – which is a very significant positive achievement.
Monitoring actions were conducted as foreseen, to evaluate the project impact on target species, target habitats, ecosystem services, socio-economic benefits and the KPI indicators.
Dissemination activities consisted of diverse set of communication tools and were directed on general public, cooperating stakeholders and a specific replication toolkit was designed to foster the replications of project´s best practice.
Although some deviations occurred (esp. a travelling exhibition, which was not realised), the amount of results of dissemination actions was very big and in general, the objectives were achieved.
Especially good was the feedback received when presenting the project results on numerous expert events, including an invited speech in LIFE panel on International Congress of Entomology, held in Helsinki.
The cooperations and new ideas initiated on expert events and networkings have led to development or co-development of 3 new LIFE projects (LIFE endemic PANALP, LIFE Metamorphosis, LIFE Diverseed).

**The project has achieved 22 replications of its best-practice methodologies – already within the project duration**. This indicates a very high replication potential and a well implemented set of dissemination actions to promote it.

**The Natura 2000 network was enlarged in 9 SCIs, by an area of almost 240 ha in Slovakia**. This was achieved by initiative of BROZ. Thanks to a very good cooperation with local farmers and land owners, they agreed to include their land in Natura 2000 – to be able to restore sustainable grazing on the overgrown grassland habitats. This was a change of attitude – from seeing Natura 2000 as something posing mainly restrictions to a potential for restoration of nature-friendly grassland management.

**Important policies were approved in Slovakia**, also thanks to a strong communication effort of BROZ project team and coalitions formed with other projects and NGOs, relevant stakeholders and communication with policy makers. Public campaigns, petitions, media work and work in expert workgroups were conducted to increase the support of nature friendly solutions in these policies. Especially important are the **well-developed CAP Ecoschemes, which have mobilised 513 MILLION EUR for actions improving biodiversity in farmland areas** (creation of flowering bands on arable land, mosaic mowing, etc.) and **46 MILLION EUR to better support grazing of grassland habitats**.
The **reform of national parks** was a landmark, shifting the management of state land in NP in Slovakia from State Forestry companies to the Directorates of the national parks, which is inevitable for more nature-friendly management in these large areas.
However, BROZ became a target of a strong anti-campaign from opponents of this reform and especially from populist far-right politicians. The current leaders of MoE in Slovakia have rejected the co-financing of newly approved LIFE projects, which makes our situation even worse, since it is very hard to find sufficient sources of co-financing for these projects.
**In South Bohemian Region, the project was a landmark, initiating a more effective system of care for Natura 2000 sites** under custody of SBR, using machinery procured by the project and own personnel (machine operators, workers, scientific manager) – which will continue also after the end of the project. Moreover, SBR has invested more than 1.2 MILLION EUR in further equipment and infrastructure, which will be used for more effective management of Natura 2000 sites, including the project area. **The project has initiated significantly more ambitious restoration measures in SBR,** on top of the original plan of the proposal – restoration of water regime on 183.8 ha of peat bogs in 4 project sites (ER = 13 ha) and the enlargement of SCI Pohoří na Šumavě, from the current 156 ha to an estimated 1,700 ha.

# 4. Introduction (maximum 2 pages)

- Description of background, problems and objectives (as foreseen in the proposal)
    - For LIFE Nature & Biodiversity:
        - Overall and specific objectives
        - Which sites are involved
        - Which habitat types and/or species are targeted
        - Main conservation issues being targeted (including threats)
        - Socio-economic context

- Expected longer term results (as anticipated at the start of the project)
    - LIFE Nature & Biodiversity: e.g. ha habitat to be protected, increase in population of species from xx to yy individuals, restoration / maintenance of a favourable conservation status for habitat(s) and / or species, replicability and transferability of proposed solution.

The main objective of the project CZ-SK SOUTH LIFE is the improvement of the unfavorable or unfavorable-bad conservation status of seven priority habitats and three priority species (with special focus on endemic species) in 25 SCIs in the South Bohemia Region, Czech Republic and 30 + 3 SCIs in southern Slovakia. The target habitats have all been facing diminishing of their areas, negative changes in the composition of species and overall degradation. Similarly, the target species have been subjected to negative trends in population sizes as well as degradation of their habitats. The main reasons for this were usually: a long-term absence of any management, unsuitable recent management, spreading of undesirable and invasive species, in certain parts of the sites the absence of any management, altered water regime of wetland areas, etc.

The **project objectives** for target species and target habitats:

***Gentianella praecox subsp. Bohemica****
Improvement of species habitat management; Expansion of the species´ habitat; Stabilization and further increase of the species population; ensuring the sustainable after-LIFE management based on the best practice developed by the project
***Carabus Menetriesi subsp. Pacholei****
Improvement of the related and suitable habitat 7110*; Expansion of the species´ habitat, Increase of the species population
***Osmoderma eremita****
Maintenance of the current habitats and their further expansion; Increase of the population/habitat suitability for the species; Ensuring the continuation of the species´ habitat
**Grassland habitats (1340*, 1530*, 6110*, 6120*, 6210*, 6250*, 6260*)**
Restoration and increasing coverage of the habitats; Ensuring an optimal and sustainable management on a long-term basis, establishing long-term cooperation with local stakeholders
**Forest habitats (91D0*, 91E0*, 91N0*)**
Restoration of the habitats, IAS removal; Expansion of some of these habitats

**The list of 55+3 project sites, SCIs**:

1) 25 SCIs in the Czech Republic (South Bohemia Region): Blatná, Borkovická blata, Čistá hora, Háje, Hlubocké hráze, Hlubocké obory, Horní Malše, Hroby, Jaroškov, Kozlovská stráň, Lužnice a Nežárka, Nerestský lom, Opolenec, Pastvina u Přešťovic, Pláničský rybník- Bobovec, Pohoří na Šumavě, Rašeliniště Kapličky, Sokolí hnízdo a bažantnice, Svatý Kříž, Šumava, Tejmlov - Nad Zavírkou, Úbislav, Vlašimská Blanice, Vrbenské rybníky, Zlatý potok v Pošumaví
2) 30 SCIs in the Slovakia (territory of southern Slovakia): Abov, Alúvium starej Nitry, Biele hory Burdov, Čenkov, Čiližské močiare, Číčovské luhy, Devínska kobyla, Drieňová hora, Dunaj, Dunajské trstiny, Gavurky, Chotínske piesky, Jurský Chlm, Kamenínske slaniská, Karáb, Kľúčovské rameno, Modrý vrch, Mostová, Nesvadské piesky, Palárikovské lúky, Panské lúky, Pavelské slanisko, Ploská hora, Seleštianska stráň, Starý vrch, Štokeravská vápenka, Šurianske slaniská, Veľkolélsky ostrov, Zobor. Three project sites were added in the course of project implementing, SCIs: Dunajské luhy, Bokrošské slanisko, Šúr.

***Main conservation issues being targeted (including threats)***
**C1 Management optimization for species *Gentianella praecox* subsp. *bohemica**:**
The decline of GB was a result of changes in land-use. After grazing stopped, the stands became denser and the sites overgrew with tree species. Some sites were afforested. The most important part of the life cycle is germination of seeds and the seed bank survival. For seed germination from the seed bank, the limiting factor is thickening of sods and occurrence of mosses. The project objective was to bring optimalised management for the species – based on light verticulation of topsoil and better timing of mowing.
**C2 Management optimization for *Osmoderma eremita**:**
Threats: removal of old trees (e.g. in parks and forests of its occurrence); disposal of alleys (often from

"safety" reasons); burning out and „remediation“of tree cavities. In southern SR, the core of the populations are found in pollarded willows. Due to abandonment from traditional management (regular pollarding), the willows are gradually dying out and the habitat is getting lost.

**C3 Management optimization for habitat 91D0* - Bog woodland:**

Threats: species composition diminishing, drainage, peat extraction, pest outbreaks

**C4 Management optimization for habitat 7110* - Active raised bogs and for species *Carabus menetriesi pacholei*:**

The accelerated water runoff from the peatbog leading to a disturbance in the natural water hydrological regime; drainage, peat extraction, eutrophication, atmospheric depositions, disruption by heavy machinery.

**C5 Management optimization for habitat 91E0* - Ash - alder alluvial forests:** Inappropriate forest management that causes not only serious habitat alteration but also creates conditions for spreading of invasive species.

**C6 Restoration management of grassland habitats:**

Threats: succession and ruderalization, abandonment from traditional management.

**C7 Restoration of grassland habitats by reintroduction of grazing:**

The biggest threat for these habitats is the abandonment of traditional management (esp. grazing), leading to succession. Ruderal and IAS species develop and the gradual overgrowing with shrubs and trees occurs, leading to gradual loss of the typical species.

**C8 Restoration of hydrological regime of salt marsh habitats**

Besides lack of suitable management (grazing), a significant threat for salt marsh habitats is the alteration of water regime caused by drainage channels. This leads to decreased salt content in the soil, enhancing the succession; the draining of periodical water. Other threats: illegal ploughing, illegal waste dumping, negative eutrophication from surrounding areas.

***Socio-economic context – objectives***

The project is expected to contribute to these changes in the socio-economic situation:

- Increased awareness of the Natura 2000 network, LIFE programme and conservation of target habitats/species – in general public, stakeholders, decision makers, etc.
- Improved cooperation with researchers, improved knowledge of project sites (e.g. insect diversity)
- New management methods developed/optimized and made ready for replication
- Improvement of the knowledge base among university students and other vocational schools – future specialists in the field of natural science
- Enhanced local/regional tourism: increased potential for development of sustainable tourism in the restored project sites
- Support of local communities: strengthened viability and self-sufficiency of at least 10 local communities (by cooperation on introduction of grazing and related benefits).
- Development of healthy society: at least 10 NGOs and research/educational institutions involved in the project.
- Increased interest of public and important stakeholders for nature conservation.

***Expected longer term results (as anticipated at the start of the project)***

**Target species:**

1) *Gentianella praecox* subsp. *bohemica*
   - Improving the conservation status of this endemic species and increasing its population by min. of 10% before the end of the project.
   - Enlarging the species habitat by 8.8 ha - an increase by 50% compared to the present state.
   - The project areas cover more than 50% of the (worldwide) population of this endemic.
   - The optimized management methods developed by the project will be disseminated and replicated in other regions as well.

2) *Osmoderma eremita*
   - Population of species increased by min. 10%, expanding of suitable habitats by 20%.
   - 1000 existing cavity trees stabilised and with improved health conditions, 300 willows with restored pollarding, 1500 new trees planted to ensure habitat continuity. Improved habitat structure by removing of undergrowth (25ha) and reintroduction of grazing (20 ha)
3) *Carabus menetriesi pacholei*
   - Extension of the species habitat by 20 ha and an increase in the population by 15%.

**Target habitats restored on following areas:**

- 7110* on 79 ha by sensitive and nature friendly mowing (with special machinery).
- 91D0* restored on 125 ha and enlarged by 20 ha by restoring the degraded forest stands; water regime improved on 13 ha.
- 91E0* on min. 30 ha, 31 000 native trees planted on suitable spots to restore the degraded areas, invasive plants removed from more than 47 ha of the habitat.
  Conservation status of grassland habitats 1340*, 1530*, 6110*, 6120*, 6210*, 6250*, 6260* and habitat *91N0 improved on 225 ha, sustainable and nature-friendly grazing management restored on 210 ha. Salt marshes: 2000 m of drainage channels removed; 42 ha of salt marsh habitats with restored water regime. Replication of the best practice methods developed by the project achieved on min. 20 other sites or entities.

# 5. Administrative part (maximum 1 page)

Please briefly describe the following issues:

- The project management process, the working method, the problems encountered, the partnerships and their added value, including comments on any significant deviations from the work plan.
- Communication with the Agency and Monitoring team.
- The changes due to amendments to the Grant Agreement.

The Grant Agreement between EASME and the South-Bohemian Region (SBR/CB) was signed on 8th June 2017, followed by signing the contracts between CB and individual ABs on 3rd August 2017.

The core members of the project team (CB: Project manager, Financial manager, ABs: project coordinators) were employed from the start of the project (9/2017) or soon after it. The first project manager of SBR, Zdeněk Brož was replaced by Ms. Eva Ježková in 2018. In 6/2024, Eva Ježková went for maternity leave. Since 7/2024, Mr. Pavol Littera (BROZ) became the official contact person of the project.

The project beneficiaries are fully responsible for implementing of concrete project actions. The overall project implementing was supervised by the Steering Committee (SC). The SC has 9 members, including representatives of all project beneficiaries.

The project team of CB is led by the project manager. The teams of ABs are led by the respective project coordinators. The PCs are responsible to the project manager.

The project consortium includes 5 organizations experienced in nature conservation and management of protected areas – both public bodies (SBR, RSE, SNC) and NGOs (BROZ, ONYX). From the project beneficiaries, BROZ has the most experience in LIFE project management and implementation, therefore, they could share this know-how with other beneficiaries, for the purpose of more effective cooperation and implementing of project actions.

Given the relatively large geographical scope of the project area (South Bohemia, Southern Slovakia), besides personal meetings; telephone, email and online communication was frequently used between the project manager of CB and project coordinators of ABs.

Project management team also attended various meetings with municipality representatives, stakeholders and decision makers to communicate all management activities directly in the region with regional interest groups.

***Communication with the EASME and Monitoring team.***

The project was monitored by external monitor Mrs. Michala Mariňáková – Elmen EEIG. Regular monitoring visits were held. During the monitoring visits the main results and outlook plans of project actions were presented and discussed. When required, the details of solutions that were not elaborated in the project proposal and necessary changes were discussed, too. We consider the communication with the external monitor as highly beneficial for the quality of project implementation. In 17.-18.4.2024 the project was visited by desk officer Mrs. Sylvia Barova, all relevant results and deviations were presented and discussed.

An excursion at our project site SCI Vrbenské rybníky took place as a part of a regular meeting of the monitoring teams from Central & Eastern Europe in 9/2019. We have prepared a programme for monitors which consisted of introduction of the project, the project site, and presentation of the restoration measures implemented, with the use of project machinery.

***The changes due to amendments to the Grant Agreement.***

1) Letter Amendment n.1: Modification of the definition of conditions for natural persons, submission of VAT certificate and threshold for submission of the certificate on the financial statements (09/2018)

2) Letter Amendment n. 2: Change in banking references of coordination beneficiary – change of bank account for payments from European Commission (01/2020)

# 6. Technical part (maximum 25 pages)

## 6.1. Technical progress, per Action

Please describe **what and how** progress has been achieved regarding the different technical/substantial components of the project (such as research, fieldwork, construction, development of communication tools). Indicate what has been done regarding each action (sub-action if appropriate) but avoid describing the objectives and targets as such. The description of the work done has to be sufficient to allow a good understanding of the project without a need to refer to the deliverables. Present and discuss the main findings and results and their implications for other actions and the project as a whole. The technical details, however, should be given in the deliverables.

For each action (the description of which should start on a new page):

- Please indicate:
  Foreseen start date: Actual start date:
  Foreseen end date: Actual (or anticipated) end date:
- Describe the activities undertaken and outputs achieved in quantifiable terms (also indicate by whom they were done).
- Compare with planned output (including the foreseen action description, expected results, deliverables and milestones) and time schedule. Please justify any deviations from the action start and end dates as well as the deliverables' and milestones' dates foreseen in the grant agreement, and discuss the impact on other actions.
- If relevant, clearly indicate how actions were modified, and any correspondence with the Agency approving the changes (in particular this is required if there has been a significant over-spending of the foreseen budget for the action).
- Clearly indicate major problems / drawbacks encountered, delays, including consequences for other actions (technical, legal, financial/economic, market, organisational or environment related problems).
- Mention any complementary action outside LIFE.
- Outline the perspectives for continuing the action after the end of the project.
- Include tables, photographs etc. to illustrate the actions, such as (for LIFE Nature & Biodiversity, as well as LIFE Climate Action) land purchase and non-recurring management activities.

For LIFE Nature & Biodiversity projects, and LIFE Climate Action projects where applicable, the progress description should, in addition, include the following:

- Preparatory actions / management plan preparation
- Land purchase including Land swaps (NB if relevant there are compulsory annexes)
- Natura 2000 site designation (if relevant)
- Recurring biotope management

For the dissemination actions, please also address the following:

- Compare with the planned activity
- Was the objective reached? What reactions and feedback were obtained?

**A.1 Administrative securing of the project, including tenders for machinery & other technical equipment and recruiting staff**

The purpose of action A1 was to procure and put into practice the necessary equipment and employ and train human resources for the project implementation, so that everything would be ready for timely implementation of particular C actions. This was relevant especially for South Bohemian region (beneficiaries SBR and RSE), whose actions were mainly based on establishing the machinery and project staff, which will implement most of the site-based C-actions.

All the necessary equipment and machinery was procured and put to operation on time. See **FR Annex A1a** for a list of machinery and equipment procured by SBR within the project. The list includes also project actions and restoration measures, for which the equipment was used.

**On top of this, project beneficiary SBR has procured several other types of mechanisation within the project period, in order to use them for management of project sites**. Of course, these machines, equipment and infrastructure were used also for management of other protected areas. However, their use in the project sites was significant and also significantly contributed to achieving the project results. The roofed parking place (538 650 €) will increase the working life-time of the machines procured by the project (thus increasing its After-LIFE duration and performance), excavators Doosan DX27Z-7 (88 831 €) and Bobcat E 85 (93 993 €) were used for improving the access roads to working spots in project SCIs, as well as smaller ground works on site (e.g. when building some of the dammings in sub-action C3.3), etc. The complete list of equipment and machinery procured by SBR on top of project budget is in **FR Annex A1b**. The total value of these investments implemented on top of project budget is **1,268,385.83 eur**. All the investments will be used on long term for care of project sites and other Natura 2000 sites in custody of SBR. Therefore, this project was a landmark, which started a new and more effective care for Natura 2000 sites in South Bohemian region, that will continue also in the future.

The Final report on Public tenders on supplies and services (foreseen as Deliverable 2/2020) is attached as **FR Annex A1d**. Comments to the process of tenders applied by project beneficiaries in CR and SR are included in Sheet 3 of this annex, including the Green public procurement policy. The tendering (selection) procedures applied for each item are listed in the Financial statement tables of each beneficiary.

The above described machinery and equipment will be used also for After-LIFE management of project sites. Also, the machine operators and working crew members will remain employd in RSE to continue in the After-LIFE management of project sites.

The Deliverables of action A1 - Reports on: human resources; - results of public tenders; - machinery operation and use were prepared and delivered with project´s MTR report.

<u>A1.1 - Recruitment of project staff, establishing of project management structure</u>

All project staff was recruited on time, the project management structure was established in the first months of the project.

<u>A1.2 Preparing and implementing tenders for procuring major equipment</u>

The tenders were timely and successfully prepared and completed.

<u>A1.3 Acquisition of the special machinery, cars, hardware & software</u>

All the machinery, cars, hardware and software procured by the project beneficiaries was acquired and effectively put into operation.

A1.4 Machinery layout, installation, operator training

All machine operators, technical workers, field workers were trained in safe and effective use of machinery and equipment procured by the project. This included also necessary trainings required by law.

The project staff were trained also in specific features of project sites, target species and habitats, etc. These trainings were supervised by project´s scientific manager and site managers, who also regularly supervised the works in the field.

Necessary permits for implementing of project actions were secured.

**A2 - Expert study on realization of restoration of the *Osmoderma eremita** biotope**

Foreseen start date: 01/01/2018 Actual start date: 01/01/2018

Foreseen end date: 30/06/2019 Actual end date: 30/11/2019

The study was completed and delivered in 11/2019 and was attached as MTR Annex A2_1.
It served as expert basis for implementing of action C2 is sites of South Bohemian region.
It contains the description of targeted project sites, time schedule and description of works focused on treatment of veteran trees, and summarisation and passportisation of veteran trees to be targeted by project action C2 - data on location, tree species, dimensions of trunk and crown, microhabitats, including suitability for **Osmoderma eremita,* health state and recommended treatment measures.

**A3 - Expert studies on restoration of hydrological regime on project sites**

A3.1 - Expert studies for restoration of the hydrological regime of peat-bogs (91D0*)

Foreseen start date: 01/01/2018 Actual start date: 01/01/2018

Foreseen end date: 30/06/2019 Actual end date: 30/11/2019

The studies were completed in 28/11/2019 and were attached as MTR Annex A3_1a-d.

The studies were tendered as one order and all were timely delivered. They serve as expert and technical basis for restoration of water regime on 4 sites of peat bog habitats: SCIs Rašeliniště Kapličky, Borkovická blata, Pláničský rybník – Bobovec and Pohoří na Šumavě – by project action C3.3.

Each study contains identification data, introduction, analytical part (basic characteristics of the area, land use, territorial limits, property rights, climatic conditions, geomorphological and hydrological conditions, geological, pedological and hydrogeological conditions, vegetation of the area, terrain morphology and runoff conditions, photo documentation), outputs part (reference constructions, types of measures, draft measures themselves), cost estimation, conclusions and recommendations.

The proposed restoration measures were completed only in SCI Rašeliniště Kapličky. However, the expected results for the whole action C3.3 were achieved here alone. In the remaining 3 sites, the studies have launched a much more ambitous restoration – in terms of the expected results and impacts on the target habitat. However, this has also meant significantly lengthier processes of negotiations with land owners, permission procedures, technical projects, construction, etc. See action

C3.3 for a more detailed justification, current status and time schedule for finishing of the ambitious restoration targets.

A3.2 - Expert study on restoration of pedo-hydrological regime of salt marsh habitats

Foreseen start date: 01/01/2018 Actual start date: 01/01/2018

Foreseen end date: 30/06/2019 Anticipated end date: 31/3/2021

The study was completed in 3/2021 and has served as basis for implementing of project action C8. It is attached as **FR Annex A3.2**.

The study includes chapters on ecology of salt marsh habitats, including their genesis, pedological and hydrological conditions, taxonomy and ecology of key plant and animal species.

The proposed restoration measures for each project site are based on analysis of geosensing data, LIDAR data, hydrological data from data-loggers installed in project sites and on field measurements and analysis of precise dron sensing. The proposed restoraiton measures include removal of topsoil layer and measures focused on restoration of water regime (removing of drainage channels by backfilling, construction of sluices and dams). English summary and cited literature are included.

**A4 - Expert study on restoration and grazing management of grassland habitats**

Foreseen start date: 01/01/2018 Actual start date: 01/01/2018

Foreseen end date: 30/06/2019 Actual end date: 03/2020

The study was completed soon after the project´s MTR report (in 3/2020). Its recommendations have served as expert basis for implementing of project actions C6 and C7 in Slovakia. It is attached as **FR Annex A4**.

The approaches described in the study served as basis for implementing project actions C6 and C7.

The study contains the description of biotic and abiotic features of project sites, ecology of target habitats, characteristics of project sites, including their historical use and present state, the most important threatening factors and conditions for implementing of restoration management and restoration of grazing. The most suitable areas for implementing actions C6 and C7 are proposed, together with recommended measures. Specific recommendations for removal of shrubs and pioneer trees, mulching, mowing, raking, controlled burning, etc., discussed specifically for each target habitat, or their groups are involved.

Recommendations for sustainable restoration of grazing include the basic features and types of grazing infrastructure, basic features of animal care and appropriate manipulation with animals on the pastures/project sites. Recommendations for parasite prevention are specially focused on dung-beetle friendly methods and substances. Conclusions, English summary and references to used literature are included.

**A5 - Expert study on restoration of habitat 91E0* Ash-alder alluvial forest**

Foreseen start date: 01/01/2018 Actual start date: 01/01/2018

Foreseen end date: 30/06/2019 Actual end date: 30/09/2019

The study was completed in 09/2019 and was attached with priject´c MTR report as **MTR Annex A5_1**. The study has served as expert background for implementing project action C5.

It contains the description of abiotic and biotic features of the project sites, typical plant composition and ecology of target habitat *91E0, with specific focus on the project area. Negative factors, threatening the target habitat are described, including the alteration of water regime, intensive forestry practices, habitat fragmentation and spreading of invasive neophytes. Conservation and restoration measures for the target habitat *91E0 are described and recommended, including the most suitable tree species to be used for planting, their habitat requirements and indication of suitable areas for planting. Special attention is paid to spreading and removal of invasive alien plant species. The most problematic species are described in detail and mechanical, biological and chemical methods of their removal are discussed. Based on a mapping conducted in the project area, a strategy for removal of selected IAS species is proposed. Conclusions, English summary and references to used literature are included.

**B1 Land purchase and long-term lease of land** (SK, BROZ)

Foreseen start date: 01/02/2018 Actual start date: 01/01/2018

Foreseen end date: 30/06/2019 Actual end date: 30/06/2024

**Land purchase: a total of 41.61 ha of land was acquired in 11 project sites** (see Table below). This was achieved by land purchase, land swap and in one case (SCI Ploská hora, cadastral area Bajtava), the purchased land was a subject of official land parcels consolidation process, with all purchased land being placed in one consolidated parcel in the project site.

The acquired land parcels are located in Natura2000 project sites and the land represents some of the most valuable parts of the project sites, with valuable examples of target habitats. The puchase and long-term lease of land was directly linked to the project objectives. In all cases, project restoration actions (C2, C5, C6, C7 or C8) were implemented on the purchased land parcels, leading to significant positive results. The purchase of land was crucial for implementing the project´s key conservation actions. All land acquired by land purchase/swap was privately owned before the project and was not owned by state or public authorities. All land was acquired for standard market prices typical in the project region and the given type and size of land.

Due to restrictions from the Regional office, Department of Cadastre and specific and more complicated system of ownership and cadastre evidence in Slovakia, we couldn´t include the nature conservation clause in the land registry lists. However, the **nature conservation clause is included in all land purchase and land swap contracts**, clearly stating, that all the land purchased within the project is definitively dedicated to nature conservation, restoration and environmental education purposes. All land purchase contracts, as well as the statutes of BROZ include a clause stating, that in case of dissolution of BROZ or its inability to take care of the land, the land acquired will be tranferred to another body active mainly in nature conservation. All land parcels were purchased by project beneficiary BROZ, which is a well established NGO and they will reamain in its ownership also after the end of the project. **All purchased land parcels were uploaded in the Land purchase database**. See **FR Annexes B1** for related evidence (land purchase, swap and lease contracts, ownership certificates, maps, statutes of BROZ, etc.). The Land parcels overview table includes details of all parcels acquired by land purchase/swap and long-term lease, with reference to concrete conservation actions implemented on them, contracts, ownership certificates, etc.

**Table B1**: Total area of land acquired by land purchase for each project site.

| Project site | Land acquired (ha) |
|---|---|
| SCI Dunajské luhy | 22.63 |
| SCI Kamenínske slaniská | 5.63 |
| SCI Starý vrch | 4.44 |
| SCI Číčovské luhy | 4.07 |
| SCI Modrý vrch | 1.38 |
| SCI Pavelské slanisko | 0.98 |
| SCI Ploská hora | 0.94 |
| SCI Panské lúky | 0.54 |
| SCI Drieňová hora | 0.39 |
| SCI Palárikovské lúky | 0.34 |
| SCI Abov | 0.26 |
| **TOTAL (ha)** | **41.61** |
| Expected results | 40.00 |

**Long-term lease of land:**

In total, **288.54 ha of land was leased in 3 project SCIs**. **The expected results were exceeded significantly, by almost 10-fold (ER=30ha)**. Especially important is the land lease in SCI Čenkov – which is the most valuable site of sand dune habitats *6120, *6260 and *91N0 in Slovakia, and the lease contract allowed us to implement significant restoration actions (C6, C7) on most of it. See also further details below.

SCI Kamenínske slaniská: a total area of 5.99 ha of land was leased from private owners in 6/2020 – to be able to implement conservation actions in this site (esp. action C7). However, this land was subjected to a land swap in 12/2023 and after this time, BROZ became its owner, so it was no longer needed to pay for its leasing. At the moment of signing of the lease contract, we had no other option, since the owner refused to sell the land and at the time of signing of the lease contract, BROZ was not owning suitable arable land, that could be offered to him for swap (and we didn´t know of any opportunity to acquire it). The negotiations concerning the land swap were quite lengthy as well - also because we wanted to reach as good value of the swap for the project as possible.

SCI Šurianské slaniská: a total area of 26.25 ha was leased from Slovak Land Fund for a period of 14.5 years. Since the land concerned is owned by the state, the costs of lease will not be incurred by the project. However, the leased land includes valuable examples of target habitat *1340, and the lease enabled us to implement restoration action C6 on a significant area of the site.

**SCI Čenkov**: **257.22 ha of land was leased** for a period of 23 years from Forests of Slovak Republic, State Enterprise (covering virtually the whole area of the site). The costs of land lease will not be incurred by the project budget, but the result is significant, since SCI Čenkov represents the largest and most valuable area of target habitats *91N0, *6120 and *6260 in Slovakia. The lease of land achieved by the effort of the project team enabled us to implement ambitious project actions (C6, C7) and to restore grazing on most parts of the site – giving it a much better outlook for future.

For both SCI Čenkov and SCI Šurianské slaniská, the costs of lease are relatively low, so they can be covered from own sources of BROZ on long-term, so the results achieved here will be sustainable.

**C. Concrete conservation actions (C1-C8)**

Although the extent of project C-actions was quite large (25 project sites in Czech Republic, 33 in Slovakia), with quite ambitious results, we tried to describe the results of each C-action as concise as possible. The most important results are highlighted in **bold** and compared with expected results of the project (ER). If significant deviations occurred (both positive or negative), these are highlighted and discussed. If relevant, compensatory measures are described (often here, for better context).

Whenever there was extensive information from multiple project sites or sub-activities, we tried to group them in comprehensive tables. Where useful, the detailed results from some project actions are listed in Annexes to these C-actions. The site-based actions are documented by annexed photos and maps. The coding of Annexes is based on number of each C-action; see also **List of Annexes** for a better overview.

Besides the numbers, we focused on **impacts on target species and habitats**, on species rare in national context, or those well indicating the restored target habitats. Where relevant, also socio-economic benefits or good cooperations established with local stakeholders, communities and researchers are outlined. Sustainability of results is described.

**Commitments with land owners** are foreseen in most of the C-actions. Some of the important C-actions were implemented on land owned, long-term leased or long-term managed by project beneficiaries (BROZ, SBR) – esp. planting of native trees (C5) or pollarding of willows (C2). Where we worked on land in other ownership, we signed commitments with the owners or users of the land, that they will not conduct activities leading to compromising of the results achieved by the project, destroying or harming of the restored habitats or habitats of target species. For Slovakia, we made agreements with cooperating farmers, that they will also take care and provide maintenance of the grazing infrastructure created by the project and implement grazing on the restored sites in a nature-friendly way. All such agreements are valid also for the After-LIFE period. Sample agreements for both CR and SR are attached as **FR Annex Ca**.

## C.1 Management optimization for species *Gentianella praecox ssp. bohemica** (CZ, RSE, SBR)

Foreseen start date: 01/03/2019 Actual start date: 01/03/2019

Foreseen end date: 31/12/2022 Actual end date: 30/06/2024

Action C1 was implemented on 11 project sites with populations of *Gentianella praecox ssp. bohemica:* SCIs Čistá hora, Háje, Hroby, Jaroškov, Kozlovská stráň, Opolenec, Svatý Kříž, Šumava, Tejmlov – Nad Zavírkou, Úbislav and Zlatý potok v Pošumaví – basically according to the project plan.

However, **the expected results were significantly exceeded – mainly thanks to a very good cooperation with local stakeholders** (see below).

The restoration management within action C1 was implemented in two ways:

1. Project team, with the use of special machinery purchased by the project:

The management measures were implemented by project personnel of RSE (field workers, machine operators, under supervision of project manager and scientific manager). The mechanisation purchased by the project was used for all the works: Dakr Panther and accessories was used for verticulation of soil surface, mountain tool carrier Reform Metrac was used for mowing, biomass processing and removal (esp. in smaller sites and in areas with more difficult terrain), chipper Junkkari

HJ 250 G was used for chipping the removed biomass and truck Tatra Phoenix with trailers and deck were used for transporting the machinery to project sites and where necessary for transport of the removed biomass from sites. Ford Ranger vehicle with trailer was used for transporting of project personnel and smaller machinery used for mossaic-like mowing (Husqvarna brush cutters and Dakr Panther).

2. Local stakeholders – providing care for additional areas in project sites:

Thanks to the very good cooperation created between SBR and local stakeholders, additional areas for *Gentianella bohemica* (GB) were restored and optimally managed - on top of the original project plan. Cooperating stakeholders could also provide a much more detailed management than the large body of SBR/RSE. For example, in periods of extreme drought, Karel Mašek – a local man, living just next to SCI Úbislav was watering the population of GB to preserve it - since it was just next to his garden. He also started to fence out the population, to protect it from falling gravel and salt from winter road maintenance (later, this measure was adopted by RSE also for another project site). In some sites, it was possible to combine the verticulation and mowing with extensive grazing of sheep and cows, thanks to a very good cooperation with local farmers – forming an even better management setup. In SCIs Opolenec and Jaroškov, we co-developed the optimal management measures with ZO ČSOP Šumava (a local NGO) – leading to several upgrades in optimal management for the species, which were later adopted also by SBR/RSE. See **FR Annex C1e** for photos and short stories of cooperating stakeholders, and their results achieved.

In all cases, the cooperating stakeholders received financial support from project beneficiary SBR, for providing proper and dedicated care for GB. This was secured from own funds of SBR, thus **mobilising further funds on top of the project´s budget**. However, the value of this cooperation is more than simple sub-contracting: SBR and RSE were the main focus points of cooperation – gathering knowledge from top national experts (esp. Dr. Jiří Brabec) and building on their own long-term know-how in management of GB. Subsequently, the scientific manager and site manager of RSE coordinated the work of stakeholders (and also their own project team) on each site - e.g. also to consider weather conditions, which were specific in each project season – and which had a significant impact on species management. They also gathered feedback from the cooperating stakehoders and monitoring reports, to adjust and improve the management each year.

In such a manner, optimal management for *Gentianella bohemica* could be achieved and its population trend much improved. The results are summarized below: a list of restoration measures applied for each sub-action and total areas restored in the project sites. For a detailed list of restored areas in all project sites and specific restoration measures applied on each site, please see **FR Annex C1c**.

C1.1 Introduction of the new best practices in management to support the species at the place it occurs:

**Sub-action C1.1 was implemented on a total area of 16 ha** (ER = 9.54 ha). Of this, 9.6 ha was managed by project team and 6.4 ha by cooperating stakeholders. It consisted of verticulation of soil surface (in early spring or autumn), which created conditions for germination of *G. bohemica* seeds and two cycles of mowing – in summer and autumn. The individuals and groups of *G. bohemica* were left standing and the mown biomass was removed from the sites. In SCIs Čistá hora, Tejmlov – Nad Závirkou, and Šumava, extensive grazing of cattle and sheep was applied as a supplementary management measure, in cooperation with local stakeholders (on top of the project plan).

C1.2 Restoration or enlargement of original habitats in order to restore or expand the species population

**Sub-action C1.2 was implemented on a total area of 8.1 ha** (ER=5.93 ha). Of this, 5.9 ha was restored by project team and 2.2 ha by cooperating stakeholders. The works done were: removal of shrubs and pioneer trees - implemented in a mossaic like manner, in order to create suitable microclimatic conditions (and their gradients) – to create optimal conditions for the species, also in view of the coming climatic change fluctuations (esp. periods of spring and summer droughts). All cleared areas were subsequently managed by mowing to secure control of resprouting shrubs. This will be done also in the After-LIFE period.

C1.3 Elimination of an adverse impact of the surroundings on the species population or biotope

**Sub-action C1.3 was implemented on a total area of 10 ha** (ER=9.8 ha). Besides removal of pioneer trees and shrubs and opening of forest margins, additional measures were implemented to eliminate the adverse impact of surrounding areas on the target species. The measures included: removal of invasive species, creating a flowering band to prevent washing of nutrients from surrounding agricultural fields, construction of fence against wild boar (to eliminate rooting of target species), a temporary fence to stop the flying of gravel and salt from winter road maintenance, etc. A small part of sub-actions C1.2 and C1.3 were implemented also outside the borders of project sites – however, they will contribute to enlarging the habitat of GB or creating buffer zones, which will result in improving the ecological condition on the site. These measures were implemented in the protective zones of these sites, declared and protected in compliance with the national law. These measures will improve the conditions for the species, enlarge its habitat size and improve the integrity of Natura 2000 network for *Gentianella bohemica*.

**The total area restored or improved for *Gentianella Bohemica* by action C1 is 34.1 ha** (ER = 25.27). The improved management measures were conducted on virtually 100% of locations with occurrence of GB in the project sites (ER = 80% of the species area). We enlarged the habitat area suitable for the GB species by 85%, which is significantly more than expected by the project proposal (ER = 50%). Therefore, it can be concluded, that **the results of action C1 were quite significantly exceeded in all aspects**.

**Sustainability of results:** the trained project personnel (field workers, operators, scientific manager) and all the project machinery will continue their work in providing optimal management for target species also within the After-LIFE period. SBR will continue cooperation with all stakeholders on the project sites. SBR has already signed contracts for a next 5-year period of After-LIFE management with all of them.

**Impact on target species**

The original project plan was developed based on species data and experience from years 2004-2015. In this period, we had years with better or worse climate, but with no fatal consequences for the target species. The main problem was the inapropriate management for the species.

However, since 2015, the strong adverse effects of climate change driven spring and summer droughts have caused a significant fall in GB populations in project sites – just before the official start of action C1. For a species with a 2-year life cycle, it was very hard for us to raise the GB populations from ashes of this crush. But thanks to the optimal management measures implemented by the project team, good cooperation with top national experts and cooperating stakeholders, we made it happen. More than that, **we were able to increase the total population of GB in project sites by 85.1%,** compared

to the reference period of 2014-2018 (= before the start of action C1). **This is significantly more than the expected results of the project (ER=10%).** It was achieved even despite the climate change induced droughts, which were having adverse impact on the species also during the project.

We also adjusted the management to this new reality of climate change: the removal of shrubs and pioneer trees was implemented in a mossaic-like manner, to provide partial shade and gradients of microclimatic conditions more suitable for the target species, even in the drought periods.

Also, **we were successful in changing the GB population trend, which was clearly negative before the project – to a clearly positive trend. Most likely, this was a result of implementing the optimalised management for GB under project action C1**. See Fig C1_1 and Fig. C1_2 for comparison of GB population trend - before the project and after start of action C1.

The evaluation of impact of action C1 on GB populations in project sites is included in FR Annex C1d, as well as in monitoring reports under action D1.

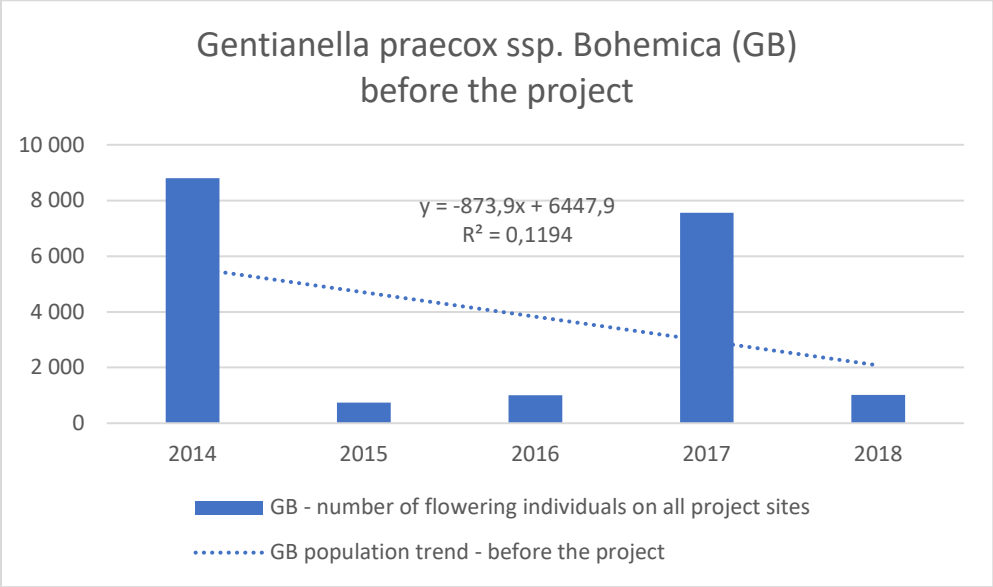



**Fig. C1_1:** Reference period: trend in total number of flowering individuals of GB in all project sites in years 2014-2018. The population trend is clearly negative.

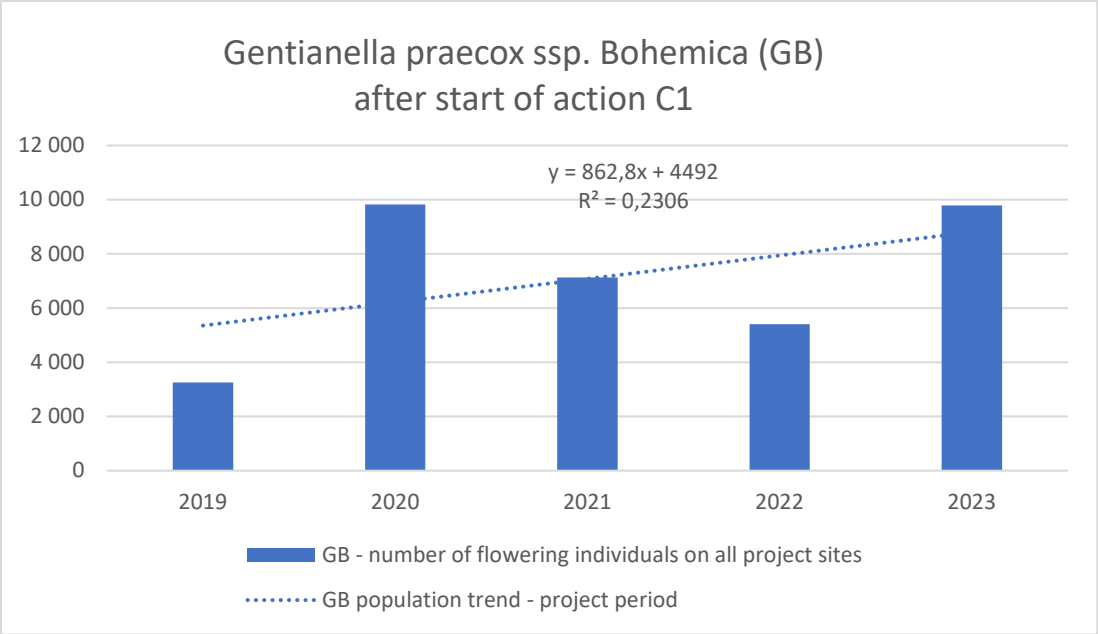



**Fig. C1_2:** Project period: trend in total number of flowering individuals of GB in all project sites in years 2019-2023. The population trend is clearly positive.

**Replicability of results:**

The optimal management for *Gentianella praceox* ssp. *Bohemica* (see sub-action C1.1) was tested and fine-tuned within the project duration. We even established control plots in SCI Háje, where the optimalised management was compared with standard "before the project" management – in terms of impact on target species.

The data from monitoring of these plots and from monitoring trends of GB in all project sites were presented on a **national workshop devoted to evaluation of *Gentianella Bohemica* species rescue plan** - organised by National Conservation Agency of CR (NCA CR) in May 2024. The species management developed by the project was evaluated as very close to being ideal for *Gentianella Bohemica*. Based on this evaluation and on our results, there is a very high interest in adopting this best practice by other organisations and other regions in Czech Republic (who are responsible for management of Natura 2000 sites in their area). In October 2024, this best practice was presented and tested in GB sites of Pardubice region, under the supervision of the project´s scientific manager. We expect, that it will be replicated in this region from season 2025 (originally it was planned for autumn 2024, but due to unsuitable weather conditions it had to be postponed).

Also, we achieved a replication of this best practice on SCI Pastvina u Záhořčic (located in South Bohemian region, but is not a project site). The local farmer and land owner, Ing. Josef Honz has adopted this method for the management of the rare *Gentiana pneumonanthe* (a species with simialar management requirements as *G. praecox ssp. Bohemica*), with positive results.

**The optimal management method developed by the project is now officialy recommended by the workgroup of national experts for species *Gentianella praecox ssp. Bohemica,*** *G. praecox* ssp. *amarella* and *G. obtusifolia ssp. Sturmiana* – all 3 very rare and endangered species in Czech Republic. It was also transposed as the most suitable and recommended method in the newly updated species management plan of GB for the whole Czech Republic - see **FR Annex C1f**.

**C.2 Management optimization for ****Osmoderma eremita***

Foreseen start date: 01/01/2019 Actual start date: 01/03/2018

Foreseen end date: 31/12/2023 Actual end date: 30/6/2024

Action C2 was implemented in project SCIs: Czech Republic: Sokolí hnízdo a bažantnice, Hlubocké obory, Hlubocké hráze, Vrbenské rybníky, Blatná, Vlašimská blanice, Lužnice a Nežárka; Slovakia: SCIs Veľkolélsky ostrov, Dunajské luhy, Gavurky, Dunajské trstiny.

The text below summarizes the complete results of action C2. A more detailed lists of results achieved in each project site is available in **FR Annex C2c**.

C2.1 Tree species treatment (CZ, RSE)

In total, **1286 habitat trees** (mostly old oaks) **were treated** within this sub-action (ER=1 000). Sub-action was implemented in accordance and based on the reccomendations of expert studies elaborated within action A2.

High lift platform mounted on truck chasis (MB Atego) was necessary to provide the tree treatments in heights. The works were conducted by trained personnel of RSE. The machinery purchased within the project and trained personnel of RSE will also continue with providing care and maintenance of the old habitat trees in project SCIs during the After-LIFE period, thus **securing the sustainability of results**. The procured price of the truck-mounted platform was higher, compared to the budgeted cost in the project (244,252€ vs. 100,000€). This was given by the fact, that a heavier vehicle was required to gain sufficient stability for operating the lifted platform safely in higher level of tree crowns and also in narrow alleys and pond banks, where stabilisation by aditional side-supports is not possible (since many of our sites with habitat trees have such character). This was already communicated (and accepted) in PR1 – see Annex PR1 7.15 for more details.

**All treated trees were passportised and a database with their relevant data was created** by SBR (indicating tree species, location, height, crown width, girth, presence of *Osmoderma eremita* or other valuable insect species, types of microhabitats present, health conditions and implemented treatment measures). A database sample is Annexed with this project report (FR Annex C2d). This new system has enabled SBR and RSE (as responsible bodies for management of veteran trees in Natura2000 sites) to plan the necessary care of veteran trees more thoroughly and on long-term. This project was a good kick-start for such a systematic activity.

**Good cooperation was achieved with stakeholder barones Jana Germenis Hildprandt** – the owner of land and castle in SCI Blatná. Thanks to the intensive communication of the project team, baroness changed her attitude from rejecting the planned project actions on her land to wellcoming and appreciating them.

C2.2 Restoration of abandoned pollarded willows (SK, BROZ)

In total, **541 abandoned pollarded willows were restored, significantly exceeding the amount expected by the project (ER=300).** Besides willows, also other tree species were pollarded (e.g. oaks, poplars, maples, elms, mulberries). The pollarding was carefully planned within numerous site visits and workshops, together with professional arborists, entomologists and local stakeholders.

Some of the pollarded willows had huge dimensions – with girth of more than 500 cm. Also, many of them were abandoned for a long time – often 50-70 years. In such conditions, the interventions were

quite risky and if implemented incorrectly, it may have led to dying of trees, instead of rejuvenation (since old trees and branches generally have a much lower rejuvenation rate).

Therefore, virtually **all pollarding works were carried out by professional and experienced arborists**. This, together with carefull planing has led to **rejuvenation rate of cca 98%** (estimated for SCI Veľkolélsky ostrov – but most of the trees were pollarded here).

**Sustainability:** The next rounds of pollarding (in 5-7 year cycles) will be done by trained personnel of BROZ, also using mechanisation purchased by previously finished LIFE project Ostrovné lúky (LIFE12 NAT/SK/001155). When the pollarding cycle is proper (i.e. 5-7 years), it can be done much more easily in terms of working safety and the works are feasible to be done by harvestor/cutter installed on 7m telescopic arm, powered by specially equipped tractor, as we have effectively tested within the project LIFE12 NAT/SK/001155, which will significantly reduce the operating costs and thus improve sustainability. Also, the willow trees willl have new branches with young tissues formed, making their rejuvenation ability much higher, than it was at the start of the project, when they were abandoned for long time.

C2.3 Clearing of undergrowth (SK, BROZ; CZ, RSE)

In total, **the undergrowth was cleared on 27.17 ha of stands with old cavity trees** (ER = 25ha), of this 20.17ha in Slovakia and 7ha in Czech Republic. This was done by manual cutting of shrubs and undesirable pioneer trees (since they were often invasives) in the undergrowth of old cavity trees or pollarded willows, mulching and shredding. The biomass of the cut trees was removed from the sites. **Sustainability**: most of the cleared areas were managed by grazing of cows (restored by sub-action C2.6), which naturally suppress the rejuvenation of removed shrubs and pioneer trees. This was coupled with occassional mulching of ungrazed shoots. In Czech Republic, the shoots were removed manually by cutting.

C2.4 Planting of new trees (CZ, RSE; SK, BROZ)

**CZ: 1148 new trees were planted** (ER=1000), mostly oaks, limes, elms, wild cherry trees, maple.

**SK: 558 new trees were established** (ER=500) by planting of new trees and pollarding of suitable young trees growing on the sites. The necessary after-planting care was provided (both in CZ and SK).

C2.5 Creating of the beetle logger (CZ, RSE)

**2 beetle loggers were created (ER=1)**, by stockpiling of suitable large branches from treatment of old trees, in SCIs Vrbenské rybníky and Hlubocké obory.

C2.6 Grazing reintroduction (SK, BROZ)

**Grazing of cows was reintroduced on 29.1 ha** of areas with pollarded willows in total (ER=20ha). A new pasture was opened in SCI Dunajské trstiny just after the project monitoring mission in 2024. Cows are effective in reducing the thick herbaceous undergrowth, including sturdy plants like reed. This will create better microclimatic conditions and allow more sunlight to reach cavity tree trunks, thus improving habitat conditions for OE. Grazing will also control the resprouting of the removed shrubs and trees (implemented within sub-action C2.3), thus making the results of action C2 more sustainable.

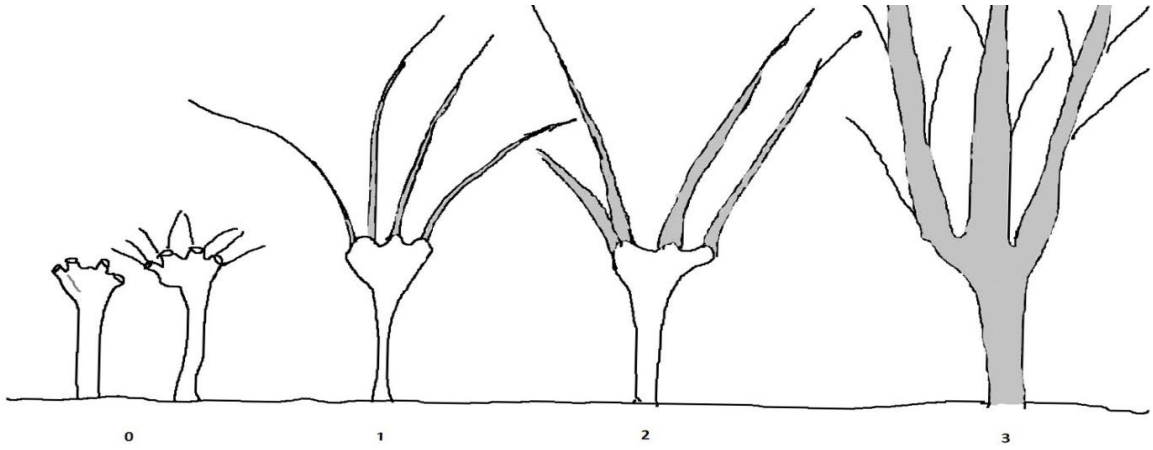
**Sustainability**: most of the area of restored grazing is located in SCI Veľkolélsky ostrov, in vicinity of an ecofarm operated by BROZ. Long-term continuation of grazing will be secured thanks to the grazing infrastructure created by this project (fixed fences, watering well, stable for storing fodder and

wintering of grazing animals, tractor and related equipment to prepare hay for winter feeding of animals). Thus, grazing will be operated sustainably also within the After-LIFE period.

**Synergic effects and impact on **Osmoderma eremita* habitat**

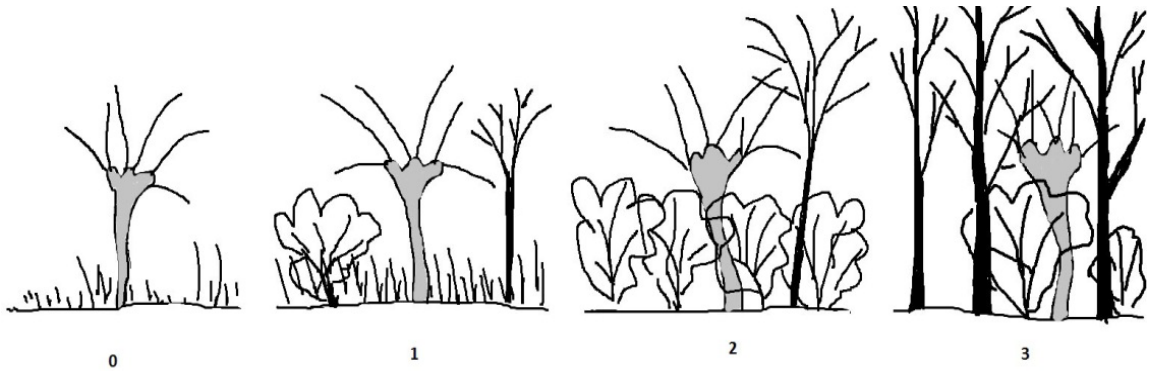
Slovakia: reintroduction of pollarding (C2.2) was combined with clearing of undergrowth (C2.3) and reintroduction of grazing in pollarded willow stands (C2.6) – leading to a synergic effect of improving the habitat conditions for **O. eremita* and also to improved future outlook for the species.

A significant improvement of habitat conditions and outlook was also confirmed by the monitoring reports under action D1. It can be well illustrated by the change of pollarded willows status (Fig. C2_1) and the degree of overgrowing of pollarded willow stands (Fig. C2_2) – before and after the project:




| | | | | |
|---|---|---|---|---|
| **BEFORE, 2018** | 0% | 5% | 10% | **85%** |
| **AFTER, 2024** | **80%** | 5% | 10% | 5% |

**Fig. C2_1**: % share of pollarded willows in different stages of pollarding (SCI Veľkolélsky ostrov – before and after the project actions). **Pictures 0 and 1: optimal state** - freshly pollarded and well rejuvenating willows, **picture 3: undesirable state** – abandoned willows, often with high risk of breaking.




| | | | | |
|---|---|---|---|---|
| **BEFORE, 2018** | 0-1% | 1-4% | 25% | **70%** |
| **AFTER, 2024** | **80%** | 10% | 5% | 5% |

**Fig. C2_2**: % share of pollarded willows in different stages of overgrowing by invasive or pioneer trees (SCI Veľkolélsky ostrov – before and after the project action C2). **Pictures 0 and 1 indicate suitable habitat conditions for **Osmoderma eremita*, picture 3 – unsuitable habitat**.

**Note:** the data in the above figures are taken from **Osmoderma eremita* monitoring reports, conducted by independent experts under action D1. They are relevant to SCI Veľkolélsky ostrov, where most of action C2 was implemented in SK. However, the results from other project sites are similar.

**Note2**: The impact on population of **Osmoderma eremita* cannot be reliably estimated, as the species is very secretive – the larvae spend their whole life deep in the tree cavities and 85% of imagoes do not leave their mother cavities either (they spend their whole life cycle in the cavity, where they hatched – see e.g. Ranius et Hedin, 2001). As monitoring of living individuals would be destructive for the population, we focused on monitoring of the quality of habitat for *OE and its future outlook – as is described above.

**Impact on habitat of **Osmoderma eremita***: based on the monitoring results, it can be concluded, that **before the project,** 70% of cavity trees in the project area were in a negative state, unsuitable for the species and **only 5% were assessed as suitable (Fig. C2_2). After the project, 90% of cavity trees are suitable for **Osmoderma eremita*.** Therefore, a very significant improvement of habitat suitability for the species was achieved, with also improvement of its future outlook, by far exceeding the expected results of the project (ER = improvement of suitable habitat by 20%).

Czech Republic: similarly, clearing of undergrowth (C2.3) was spatially coordinated with treatment of old oak trees (C2.1), leading to synergic effects and significant improvement of OE habitat.

For both countries, planting of new generation of trees (C2.4) has improved the continuity of OE habitat over time. When the old cavity trees will be dying off due to their physiologic age, there will be a new generation of trees, that will replace them.

Important is also the **positive effect of action C2 on other insect species bound to old trees with large cavities** and sun-lit trunks. These are: ***Lucanus cervus, Cerambyx cerdo*** (old oaks, CZ sites, SK: SCI Gavurky), ***Limoniscus violaceus*** (SCI Gavurky), *Elater ferrugineus* (species rare in both countries, indicator of high insect diversity of cavity trees), and many other.

In SCI Veľkolélsky ostrov (SK) a study conducted by cooperating entomologists has found **362 species of beetles** alone living in old pollarded willows here (see action D1 for details).

**Carbon sequestration by the new planted trees (sub-action C2.4) is 19.9 tonsC/year (ER=10 tonsC/year in a 10-year horizon)**. This refers to 1,148 new trees planted, with carbon sequestration estimated for a 10-year horizon after planting. See FR Annex C5d for more exact calculation.

Target species **Osmoderma eremita* was added **into SDF forms** of the project sites SCIs Veľkolélsky ostrov, Dunajské luhy, Dunajské trstiny and Šúr. This was done during the actualisation of national list of Natura2000 sites and the national expert authority SNC has declared, that the species was added in the national list of SDF forms, which was sent to Brussels by the end of 2023. The declaration is annexed as FR Annex C2e.

The change is not yet visible in the Natura2000 viewer, since the latest available version here contains only data from end of 2022. However, the species is already listed in the national database of SDF forms – see links on profiles of Natura 2000 project sites:

| Project site (SCI) | SCI profile in the national database of Natura 2000 sites (link) |
|---|---|
| Veľkolélsky ostrov | https://www.sopsr.sk/natura/index1.php?p=4&sec=5&kod=SKUEV0183 |
| Dunajské luhy | https://www.sopsr.sk/natura/index1.php?p=4&sec=5&kod=SKUEV0090 |
| Dunajské trstiny | https://www.sopsr.sk/natura/index1.php?p=4&sec=5&kod=SKUEV0077 |
| Šúr | https://www.sopsr.sk/natura/index1.php?p=4&sec=5&kod=SKUEV0279 |

## C.3 Management optimization for habitat 91D0* - Bog woodland (CZ; RSE)

Foreseen start date: 30/06/2019 Actual start date: 05/02/2019

Foreseen end date: 31/12/2023 Actual end date: 30/06/2024

Action C3 was implemented on project sites, SCIs Borkovická blata, Pláničský rybník – Bobovec, Pohoří na Šumavě and Rašeliniště Kapličky, by project beneficiary RSE. Virtually all the works were implemented using the machinery purchased by the project and with employing the project personnel (field workers, machine operators, site managers).

C3.1 Restoration of natural tree species composition

In total, **125 ha of target habitat *91D0 was restored** by improving tree species composition and habitat structure - see table below (ER = 125 ha). This was done by selective cutting of pioneer tree and shrub species undesirable to the target habitat (birch, scotch pine, spruce, alder, blackthorn, etc.) and by mowing of dominant grasses (*Calamagrostis* sp.). In SCI Borkovická blata, 5,000 seedlings of genetically pure *Pinus rotundata* were planted in a mossaic-like manner – to improve habitat structure and restore the optimal tree species composition.

**C3.1 Restoration management implemented in project sites**

| Project site (SCI) | Area restored (ha) | Types of restoration management applied |
|---|---|---|
| Borkovická blata | 60 | Removal of shrubs and pioneer trees, mowing, mulching, mossaic-like hand mowing, biomass removal, planting of 5,000 seedlings of genetically pure *Pinus rotundata* |
| Pláničský rybník – Bobovec | 35 | Removal of shrubs and pioneer trees, mowing, mulching, biomass removal |
| Pohoří na Šumavě | 25 | Removal of shrubs and pioneer trees, mowing, mulching, biomass removal |
| Rašeliniště Kapličky | 5 | Removal of shrubs and pioneer trees, mowing, mulching, biomass removal |
| **Total area restored (ha)** | **125** | |
| **Expected results (ha)** | **125** | |

In all cases, the biomass of the felled trees and shrubs and of mown grass was removed from the area of target habitats, to prevent eutrophication. The use of mechanisation procured by the project was crucial for this purpose. Due to varied field conditions (mossaic of drier, wetter and even waterlogged areas), various extent of tree density (more open areas vs. mossaic of scattered trees) and also due to scattered occurrence of rare or desirable plant species (e.g. *Ledum palustre, Vaccinium myrtillus, Pinus rotundata* seedlings), different management approaches were used, with using different types of mechanisation. All of the procured machinery will be used also for After-LIFE management of project sites. The field workers trained within the project will also continue with their work within the After-LIFE period.

For mowing of drier and more open areas, tractor Lamborghini Spark was used, with related equipment (mower, mulcher, equipment for hay processig, front loader and trailers for transporting the grass biomass from project sites).

In wetter areas, the lighter mountain tractor Reform Metrac H7 was used for mowing – with related equipment for mowing and biomass processing and transporting.

In completely waterlogged areas, the use of TRUXOR amphibious tractor was inevitable for mowing and biomass removal (coupled with related equipment – mower, mulcher, etc.).

Hand mowing (using Husqvarna brush cutters) was used in areas with mossaic-like occurrence of rare plant species or where the site-management plans did not allow the use of heavier machinery.

The thinner biomass of removed trees and shrubs was chipped, using Junkkari HJ 250 G chipper (powered by the Lamborghini tractor) and the chipped biomass was transported from the sites using tractor with trailer or using truck Tatra Phoenix with MLČOCH NV S2 deck and trailer.

Part of the woodchips biomass was used for creating the elevated study nature trail in SCI Borkovická blata (see action E2.5).

The larger tree trunks were transported from project sites using truck Tatra Phoenix with hydraulic arm Palfinger PK12 and trailers or with tractor coupled with hydraulic arm Stepa FKL 6285 and trailer for wood trunks (PTR). Part of the tree trunks was used for constructing the corduroy nature trail in SCI Borkovická blata (action E2.5).

The re-sprouting of the removed broad-leaved trees and shrubs was controlled in the subsequent seasons by mulching. The special mulcher Peruzzo Elephant 2000 Super was used for this purpose, since it also collects the mulched biomass, so that it could be removed from the project sites (to prevent eutrophication).

The vehicle FORD Ranger with related equipment (winch, etc.) and trailer BG CA3 T was used for transporting lighter machinery (brush cutters, chainsaws, TRUXOR carrries), or smaller amounts of biomass. It was also used to move project personnel (field workers) to parts of project sites with harder access.

Note: the use of mechanisation was used in a similar manner in sub-actions C3.2, C3.3 and C4, since these actions are applied in similar habitat conditions.

C3.2 Restoration of habitat 91D0 on degraded areas

**Sub-action C3.2 was implemented in SCI Borkovická blata, on a total area of 20 ha** (ER=20 ha). The target habitat *91D0 was restored and its suitable area enlarged by removing and selective thinning of undiserable trees and shrubs (birch, spruce, scotch pine, alder, etc.) and by **planting of 15,000 seedlings of genetically pure *Pinus rotundata*** (ER=15,000). *Pinus rotundata* was planted in a mossaic-like manner, so that the optimal spatial structure of target habitat *91D0 could be achieved.

C3.3 Improving the water regime of bog woodland habitat

In total, **water regime of bog woodland habitat was improved on 13 ha in SCI Rašelinište Kapličky** (ER=13 ha). This was **done by constructing 59 small dams from project SOUTH LIFE** (ER=55 dams) and 38 additional dams, which were built from funds of project INTERREG ConNat AT-CZ (these costs were not incurred by the SOUTH LIFE project, but the activity contributed to improving of the water regime in the site and meeting the objectives of this project). One additional dam was built by a beaver, free of charge :). The height of the constructed small dams varies from 0.5 m to 1.5 m above the bottom of drainage channels. We estimate, that this resulted in a total increase of water retention capacity by 10 cm on average (including the water holded in the sponge-like peat with improved flooding – after

damming of the drainage channels was implemented). Based on this, it is estimated, that the **water retention capacity of the peat bogs with improved water regime has increased by 13,000 m3**.

Moreover, the beneficiary SBR decided to finance the preparing of hydrological study and technical documentation for restoration of neighbouring areas in SCI Rašeliniště Kapličky. This was covered by own funds of SBR – on top of the expected results of the project. The documentation was delivered and adopted into yearly management plans of Forests of Czech Republic, who agreed to implement this further phase of restoration (estimated implementing in 2024/2025). When implemented, the water regime will be restored on additional 21.5 ha of taget habitat 91D0 in SCI Rašeliniště Kapličky – thus restoring thoroughly more than half of the site´s total area. Such restoration of peat bog areas is unique in conditions of Czech Republic (outside of National parks).

**Note1**: the original plan of the project was to construct 55 overflows (dams) on 4 project sites. However, based on the expert hydrological study (A3.1), it was decided to construct a denser network of dams on 1 project site (Rašeliniště Kapličky) – leading to more thorough and appropriate restoration of target habitat *91D0. If the dams were built on 4 sites, their density would be too low and the effect on the bog area would not be as appropriate.

Another reason was an improved cooperation with stakeholder Forests of Czech Republic, the owner of strategic lands in project sites. Within their new internal programme "Bringing water back to forests", they started to intensively focus on restoration of natural habitats and improving adaptations to climate change – mainly by restoration of hydrologic regime of selected sites. We used this cooperation for a more ambitious restoration of the remaining three project sites.

**Note2**: there was a delay in implementing of action C3.3. This was caused by unexpected lengthy and complicated administrative procedure connected with technical documentation, building permits, agreements from user of land and managing body of water courses (see communication of project´s 5. monitoring mission from 6/2022). This was also one of the reasons, why the restoration of water regime was not conducted within the project period in SCIs Borkovická blata, Pláničský rybník – Bobovec and Pohoří na Šumavě. However, the expected results of the project (13 ha of peat bogs with improved water regime) were achieved before the end of the project, leading to positive impact on the target habitat - although the whole restored area is located only in SCI Rašeliniště Kapličky.

However, SBR has initiated process that will lead to restoration of water regime in the remaining 3 sites, with crucial agreements with relevant stakeholders already achieved:

For all 3 remaining sites (SCIs Borkovická blata, Pláničský rybník – Bobovec, Pohoří na Šumavě), a hydrological study with a restoration plan was elaborated and delivered also to Forests of Czech Republic, the main land user. It will serve as basis for restoration of wyter regime of these 3 sites.

**SCI Borkovická blata:** the stabilisation of water regime in the core area of the site is secured by 2 objects constructed on the main drainage channels already in 2004. During the whole period, SBR was seecuring their maintenance, however at the start of the project, they were in a state requiring larger reconctruction and modification, therefore, their restoration was included in the project. During the preparation of technical documentation it came up, that a larger type of damming objects will be necessary for sustainable and impactful improvement of water regime in the site. This requires a building investment, which is subjected to a lengthy and more complicated permission procedure. Since the targeted land is in ownership of Forests of CR, an agreement was made, that they will secure the construction of these 2 objects and after the stabilisation of water level, SBR will continue, with building of smaller dammings further upstream, which will improve the water regime in the area upstream of these 2 larger dammings.

Forests of CR have already completed the permission procedure and the construction itself is planned to start in winter 2024/2025. The follow-up construction of smaller upstream dammings will be implmented in 2026-2027. These works will be done by SBR, using their own funds, with using the machinery procured within the project as well as the machines purchased on top of project budget – similarly as it was done in SCI Rašeliniště Kapličky.

In total, the water regime will be restored on 59.95 ha of this site – of this 39.69 in Phase 1 and 20.26 in Phase 2.

**SCI Pláničský rybník – Bobovec, SCI Pohoří na Šumavě:** in both sites, an inventoring of habitats and species is currently underway, to be completed in 2025. This inventory is secured outside the frame of this project, from own funds of SBR, and its objective is the inventory of areas located outside of the SCIs borders, with the objective to include them into Natura2000 network of protected areas. Since we didn´t want the results of this inventory to be affected by the restoration works, these were postponed to the After-LIFE period. In 2026 we plan to start the procedure of obtaining building permissions for main water management objects. The construction works are expected to start in 2027-2028, with finishing in 2028-2029. These works will be financed from own funds of SBR, or with support of other financial instruments, if these will be available. We will use the machinery purchased by the project, for a more effective use of funds and higher value for money reached.

Expected results for these sites: SCI Pláničský rybník – Bobovec: water regime restored on a total area of 39.77 ha. SCI Pohoří na Šumavě: water regime restored on a total area of 49.62 ha.

As can be seen from above, SBR has adopted a more thorough approach to restoration of these sites. Although more lengthy in implementing, it will lead to much bigger, more impactful and more sustainable results, than was foreseen in the project – see Table C3 for a complete overview.

**Table_C3**: Restoration of water regime completed and planned on Natura2000 sites subjected to project action C3.

| Project site (SCI) | Area with water regime restored (ha) | Planned implementing (est. time and organisation responsible) |
|---|---|---|
| Rašelište Kapličky | 13 | Phase 1: completed by the project (SBR, RSE) |
| Rašelište Kapličky | 21.5 | Phase 2: works started on 16.12.2024, to be finished by spring 2025, Forests of Czech Republic (FCR), SBR, RSE |
| Borkovická blata | 59.95 | Phase 1: 2024-2025 (FCR); Phase 2: 2026-2027 (SBR) |
| Pláničský rybník – Bobovec | 39.77 | 2026: permission procedure, 2027-2029: construction works (SBR) |
| Pohoří na Šumavě | 49.62 | 2026: permission procedure, 2027-2029: construction works (SBR) |
| **Total area with water regime restored (ha)** | **183.84** | |
| **Expected results (ha)** | **13** | |

## C.4 Management optimization for habitat 7110* - Active raised bogs and for species *Carabus menetriesi pacholei**

Foreseen start date: 30/06/2019 Actual start date: 01/07/2019

Foreseen end date: 31/12/2023 Actual end date: 30/06/2024

The action was implemented in project sites, SCIs Rašeliniště Kapličky and Pohoří na Šumavě. The total achieved results are:

**Shrubs and pioneer trees were removed on a total area of 20 ha** (10 ha in each project site). The expected results in this activity were not fully met (ER=45 ha), but please see the justification and implemented compensatory measures below.

**Mossaic-like mowing was implemented on a total area of 77 ha** (ER = 79 ha). Of this, 38.4 ha was implemented by the project team, and in coopeation with local land users on further 38.6 ha in SCI Pohoří na Šumavě – where an improved mowing management regime was introduced.

The above results were achieved by two ways:

1) by work of project personnel of RSE - field workers and machine operators, under supervision of site manager and scientific manager, with using the project machinery.

The project team focused on more demanding works (all works of removing shrubs and pioneer trees) and mowing of less accessible or more sensitive areas – especially waterlogged areas of peat bogs. In the waterlogged areas, the use of special machinery purchased by the project was crucial (esp. TRUXOR amphibious crawler tractor and Metrac light mountain tool carrier). The pattern of use of other project mechanisation was similar as for action C3.1 (see description therein). Besides this, also Dakr Panther machine with accessories was used for removing of dead biomass and mowing.

The project team will continue with mowing the restored areas also within the after-LIFE period (with using the project machinery).

2) in cooperation with local stakeholders - by improving the regime of mowing management in **SCI Pohoří na Šumavě**. Here, the grassland areas are managed by 3 private companies (Pohoří CD s.r.o., Přibrání s.r.o. and Farma Pivonice s.r.o.) and before the project, the grasslands were mown in a large-scale manner, with inapropriate timing for the target species and habitats. Thanks to the good coopeation between the project team, local stakeholders and NCA CR, this management was changed to a mossaic-like mowing with timing of each block adjusted to the target species and habitats. Each year, these management works are conducted in cooperation and under supervision of project team and NCA CR. This will help not only *Carabus Menetriesi Pacholei*, but also other rare butterfly and plant species, present on the site, as well as target habitat. All cooperating companies entered the agri-environmental scheme specifically designed for this habitat type and have declared their will to continue with the improved moowing management also within the After-LIFE period.

**Note:** there is a discrepancy in results presented for action C4 in the monitoring visit of 4/2024 and the results presented in this report. It was caused mainly by internal misunderstandings between the field teams and the project manager, due to which, only part of the results were presented on the monitoring mission. The correct numbers and results are in this report.

**Compensatory and additional measures implemented:**

We couldn´t achieve the expected results for removing of shrubs and pioneer trees within this action (achieved 20 ha out of 45 ha expected). This was due to change of attitude of Forests of Czech Republic,

State Enterprise, who are responsible for management of forest land parcels on most areas where this intervention was planned. At the time of project preparation, they supported the planned project actions. However, in the course of its implementing, they reduced their agreement only to part of the actions intended. They agreed and finally cooperated with constructing dams for restoration of water regime (action C3.3), but they eventually withdrew to allow the removal of pioneer trees and shrubs on land in their custody.

For **SCI Rašeliniště Kapličky**, this will be balanced by a more thorough implementing of action C3.3 (restoration of water regime), which was conducted on a larger area and in a more precise manner than expected for this site. Also, SBR has prepared technical documentation for restoring water regime on further 21.5 ha of peatland habitats on this site (see action C3.3 for details). When this will be implemented (expected in seasons 2024/2025), it will lead to a significant improvement in ecological conditions of habitat of *C. m. pacholei* and habitat *7110 on long-term. Draining and improper water regime is the main trigger of habitat deterioration for peatland habitats – leading to increased succession of pioneer trees, dominant grassess and decreased coverage of *Sphagnum* mosses. These processes can be partly slowed down by mowing of grass and removing of pioneer trees – however these measures cannot fully compensate the altered water regime – since the drained peat will still decompose, emitting large quantities of nutrients on long-term. Therefore, the proper and more generous restoration of water regime can solve the main cause of peatland habitats deterioration on this site – with a more sustainable effect and in a more natural way. It will also contribute to improved ecosystem services (carbon sequestration, improved water retention, increased resilience to climate change), than only mowing and removal of pioneer trees. Therefore, it will benefit both habitat *7110 and *C. menetriesi pacholei* on this site in a more thorough and natural way and with a more sustainable effect.

**SCI Pohoří na Šumavě**: the site is part of a large landscape of peatlands, natural watercourses and bog woodlands – covering an area of approximately 1,700 ha. It is one of the most valuable natural areas in the South Bohemian region. **The project team has achieved an improved mossaic-like mowing regime of high nature value boggy grasslands on an aditional area of 210 ha of it**. This was achieved in cooperation with local stakeholders – in a similar manner as is described above (point 2)). Although this land is located just next to the borders of the SCI itself, it is included in Natura2000 network as a Special Protection Area (SPA) Novohradské hory. Presently, there are ongoing habitat and species inventarisations and it is planned, that all of this 1,700ha large area will be covered by a newly declared protected site – estimated from 2026 (SBR is the main responsible authority). Subsequently, this site will be proposed to be declared as a SCI, to include it also in the network of the EU´s Habitats Directive.

**Impact on *_Carabus menetriesi pachoilei_*** (“CMP”, target species):

The impact of restoration measures on population of CMP was evaluated by a standardized method of pitfall traps, placed on permanent monitoring transects established in project sites. The numbers of CMP individuals caught before and after implementing of project measures was compared. **The data indicate an increase of CMP population by 49.7% on the restored sites, which is significantly more than foreseen in the project** (ER = min. 15%). The habitat of the species was enlarged by 38.4 ha (ER = min. 20 ha). The target habitat *7110 was enlarged by 20 ha, which is less than planned in the PP (ER = min. 30 ha). However, in terms of enlarging the habitat of the target species *Carabus menetriesi pachoilei*, we reached significantly higher results than foreseen in the PP. This is also correlated with a significantly higher increase in the CMP population in the restored project sites, compared to the foreseen results. Considering the endemic nature of **Carabus menetriesi pachoilei* and its restriction only to a handful of sites in Europe, this is a considerable success.

## C.5 Management optimization for habitat 91E0*: Ash-alder aluvial forests (SK BROZ; CZ, RSE)

Foreseen start date: 01/08/2018 Actual start date: 01/08/2018

Foreseen end date: 31/12/2023 Actual end date: 30/6/2024

Action C5 was implemented in project SCIs: Veľkolélsky ostrov, Dunajské luhy, Číčovské luhy, Dunaj (SK) and Pláničský rybník – Bobovec, Zlatý potok, Horní Malše, Šumava (CZ).

In Slovakia, most of the works (tree planting, mowing of creepers, fencing of trees to provide protection from game, IAS removal) were implemented by external assistance (due to a relatively high amount of works, and usually limited time for their implementing – due to seasonal character). Project mechanisation (tractor with mulcher) and also with earth borer was used to prepare areas for planting. Project personnel (site managers, field workers) prepared the overall logic of implementing (e.g. mapping of IAS in project sites, planning of interventions, control of planting results and planning of after-planting care). In Czech Republic, most of the field works were conducted by project personnel of RSE (working crew members and machine operators), with use of project mechanisation for preparing of areas for planting, boring holes for seedlings, transport of material, etc.. Site manager and Scientific manager were responsible for planning and supervising of field works.

The achieved results of the action are as follows:

**30,505 native tree species were plated in Slovakia** (ER=30,000),

**1,001 native tree species were planted in Czech Republic** (ER=1,000)

**Sustainability and Impact on target habitat:** The platning of native trees was implemented on land owned or long-term leased by project beneficiaries BROZ in Slovakia and managed on long-term by RSE and SBR in South Bohemia. Therefore, long-term continuation of the achieved results is secured. For this purpose, the adding of SCI Dunajské luhy as a project site was crucial, since a significant part of action C5 was implemented on land acquired by land purchase on this site (action B1).

Wherever possible, the **planting was carried out in small patches**. This will result in greater spatial heterogeneity of the created forest stands and their higher stability, as well as diversity. This was done in line with recommendations of expert study A5. The positive impact of this approach on target habitat *91E0 can be seen on the **fast growth, high survival rate and good health condition of the planted trees**. Many of trees planted at the start of the project are now 8m+ tall. Also, the monitoring under action D1 has shown the improvement of species composition in the planted native forest stands. Species typical for target habitat *91E0 have increased their coverage also in shrub and herbaceous layer – indicating a successful path to target habitat restoration.

**After planting care** for the planted seedlings was provided, where necessary. Mowing of weeds and creepers was done in 2 seasons after the planting (usually 2 times per season) and in sites with high game pressure, robust fences were constructed around the planted areas. The fences will be deconstructed after the trees will reach safe size and used for other new seedlings, where needed (esp. in Natura2000 areas), to secure sustainable use of the invested funds. A **synergic effect** with project LIFE Microtus II was achieved: this project has improved the water regime of Istragov area in SCI Dunajské luhy. The restoration of water regime in this generally dry area has improved conditions for growth of seedlings planted within this project and has improved the ecological conditions more in favour of target habitat *91E0. This will increase the sustainability of the SOUTH LIFE project results in a natural way.

**IAS species were removed on a total area of 30.5 ha in SK** (ER=30ha) **and on 52 ha in CZ** (ER=17ha). Of the 52 ha treated in South Bohemian region, the tree species composition was improved on 45 ha by selective removing of IAS or species not typical for target habitat *91E0 (*Robinia pseudoaccacia, Acer Negundo, Prunus spinosa, Picea abies*) and by planting of 1001 trees native to the habitat (see above). On further 7 ha, outbreaks of IAS species were removed (*Lupinus polyphyllus, Impatiens glandulifera*)

In Slovakia, we focused the IAS removal mainly to suppress the outbreaks of most problematic species, which have a high risk of spreading. Prior to removal, initial field mapping of IAS distribution was carried out, to be able to implement the removal as effective as possible. After selecting the areas for interventions, and species to be treated (mainly *Ailanthus altissima, Asclepias syriaca and Amorpha fruticosa*), the interventions were carried out by 2 repeated treatments, using the stem-injection method. Mapping of remaining individuals was carried out in 2 seasons after the removal and surviving individuals were removed, to prevent re-invasion of the cleared areas.

The IAS species removed were: *Ailanthus altissima, Amorpha fruticosa, Asclepias syriaca, Robinia pseudoaccacia,* ***Negundo aceroides,*** *Fraxinus pennsylvanica, Lupinus polyphyllus* and *Impatiens glandulifera* (Underlined: species removed in SK only; **Bold**: species removed both in CZ and SK, *Italics only*: species removed in CZ).

**Maintenance and restoration plans** were developed and approved, based on national law act no. 114/1992 Coll., by the project beneficiary SBR, for the following areas/project sites: SCI Zlatý potok v Pošumaví (for the period 2022-2031), SCI Šumava, part Hadce u Dobročkova (period 2021-2030) and for SCI Horní Malše (the original plan valid for 2014-2024 was subjected to ammendment for period 2024-2027. Currently an actualisation is being prepared by external contractor Beleco s.r.o., to be valid for period 2028+; to be delivered by 11/2027). The above plans serve as a basis for other planning documents, such as Forest management plans, Landscape planning documents. They serve also as expert basis for planning of restoration measures to be conducted in these areas and for their future management. All these plans were prepared in line with long-term objectives of conservation and restoration of softwood alluvial forest habitats present in these sites (habitat *91E0).

**Carbon sequestration** by the trees planted within action C5 was calculated to increase by **211.4 tonsC/year** – in a 10-year horizon from planting. See FR Annex C5d for baseline data and methodology of calculation. This is somewhat less than was estimated in the project proposal (ER=325 tonsC/year in a 10-year horizon)

However, other significant amounts of carbon sequestration have resulted from planting of trees and improving of water regime of peat bogs and salt marshes (project actions C2, C3 and C8). Together with these results, **the carbon sequestration of the project is 341.3 tonsC/year**. This is more than is anticipated in the LIFE performance indicator table for the project (ER=335 tonsC/year).

**C.6 Restoration management of grassland habitats**

Foreseen start date: 01/01/2019 Actual start date: 01/12/2018

Foreseen end date: 31/12/2022 Actual end date: 30/06/2024

Actions C6 and C7 were implemented with using the recommendations of Expert study A4, as well as based on experience and lessons learned from previous LIFE projects (e.g. LIFE PANNONICSK)

The purpose of action C6 was to provide the initial restoration management of target grassland habitats and especially to prepare the sites for sustainable long-term management, which is in most cases grazing (action C7). Therefore, actions C6 and C7 are closely connected and their implementing was carefully coordinated, so that their synergic effects could be maximised, to increase the sustainability of achieved results and for effective use of project funds.

C6.1 Restoration management of grassland habitats (SK, BROZ; CZ, SBR)

**Sub-action C6.1 was implemented on a total area of 226 ha** (ER=225 ha).

Several restoration measures were implemented, depending on the initial state of the particular project sites and objectives of grassland habitats restoration: removing of shrubs and pioneer trees, removing of plantations of non-native tree species (e.g. *Pinus nigra, Fraxinus ornus*), mulching of dead biomass and dominant grasses, removal of invasive plant species (IAS), mowing, raking of litter, **controlled burning** and **returfing of arable land**. We also removed 8 illegal waste dumps in 4 project sites.

The exact list of project sites, where sub-action C6.1 was implemented in listed in Table C6_1 – together with informations on particular management measures used and total area, where this sub-action was implemented on each site.

In both Slovakia and Czech Republic, **the use of machinery procured by the project was crucial** for implementing of this action. In both countries, tractor and related equipment (mowers, mulchers, chipper, raking machine, trailers, compactor for hay balls, etc.) were used both for management of overgrown habitats and for processing and removing of the biomass of shrubs, trees and hay. In Slovakia, the hay was used for winter feeding of the animals of the mobile herd, which were used for grazing in project sites within actions C2.6 and C7. All the machinery procured by the project will be used for this purpose also during the **After-LIFE management period** – thus securing the sustainability of the project´s results.

**Highlight: in Slovakia, controlled burning was made legal as a management tool for grassland habitats in Natura 2000 sites**. Controlled burning is an effective and cheap management tool for abandoned grassland habitats, heathlands, etc. – and is widely used in various European countries. However, it was completely illegal in Slovakia before this project. During novelisation of Nature Conservation Act (Law no. 543/2002 Coll.) and thanks to the initiative of BROZ, this management measure was made legal for purposes of managing selected habitats in Natura 2000 sites.

After this, we cooperated with employees of SNC to make this practice used in areas where it is needed (e.g. SCI Devínska Kobyla). Also, we shared the knowledge with other LIFE projects implemented in Slovakia (e.g. LIFE SUB-PANNONIC), where they adopted this practice too and disseminated the results and lessons learned on various conferences (esp. in Slovakia and Czech Republic).

**Highlight 2: very good rejuvenation of critically endangered plant *Ononis pusilla* was recorded** on areas restored by sub-action C6.1 in SCI Devínska Kobyla. In Slovakia, this species occurs only here, in

relatively small populations. Many new individuals of this species occurred on areas, where we implemented removal of non-native *Pinus nigra*, coupled with removal of tree biomass and raking of litter. Also, we recorded a very good restoration of target grassland habitat *6210, and an increasee in diversity of plant species per 4x4m relevé from 27 species before the project action to 54 species after the restoration.

C6.2 Removing of invasive plant species in SCI Čenkov (SK, originally SNC, replaced by BROZ)

The sub-action was originally assigned to SNC, but since this beneficiary has failed to procure the external assistance for the IAS removal (even though they were re-assuring us that they would do it), the sub-action was taken over by BROZ in the last months of the project.

Invasive species *Ailanthus altissima* and *Asclepias syriaca* were removed in SCI Čenkov, by external assistance procured by BROZ. Project staff of BROZ were also responsible for supervising the works in the field and controlling of the results.

***Ailanthus altissima*** **was removed on 74.1 ha** in total, by careful application of stem-injection method. This method was previously tested by preceding LIFE and INTERREG projects in this region and was shown as effective, with high efficiency. ***Asclepias syriaca*** **was removed on 254.9 ha** in total – on the whole area of SCI Čenkov. For both species, two repeated treatments were applied, with a total efficiency of cca 99% against the species targeted. The second treatment was applied in cca 2 weeks after the first round and only to the surviving individuals. Careful, yet effective use of herbicide was conducted, to prevent its falling on the ground and surrounding vegetation. Although there are more invasive species present in SCI Čenkov, *Ailanthus altissima* and *Asclepais syriaca* are the most problematic, with the latter having a high potential to spread. Therefore, their removal on the area targeted will provide an improved outlook for the habitats targeted in this site.
**Future outlook:** BROZ will conduct monitoring of the area restored by sub-action C6.2 also during the After-LIFE period. The remaining or possibly rejuvenating individuals of *A. altissima* and *A. syriaca* recorded on the areas restored by action C6.2 will be subsequently removed by the same method (although we expect this will be only in a smaller extent, based on our previous experience with similar IAS managements and on the already visible results of action C6.2). The presence of BROZ staff on this site will be continuous, since we will control also the grazing regime restored by action C7 on this site.

C6.3 Eliminating stealing of valuable plant species in SCI Devínska Kobyla (SK, SNC)

The monitoring system in SCI Devínska Kobyla (10 phototraps) was installed in spring 2020 and was kept in service till the end of the project. Field ranger Mr. Peter Brňák was employed by beneficiary SNC to provide guarding of SCI Devínska Kobyla, so that stealing of rare plant species (esp. orchids) would be prevented. We have not recorded any new case of stealing of orchids since this time. The ranger, Mr. Brňák has become a core employee of SNC and he will be employed also after the end of this project, thus also securing the sustainability of this sub-action.

**Table C6_1: Restoration measures implemented on project sites in Slovakia a Czech Republic within sub-action C6.1 and area restored**

| Project site (SCI) | area restored (ha) | Restoration measures implemented | IAS/non-native species removed |
|---|---|---|---|
| Devínska Kobyla | 2.4 | removal of non-native tree stands, removal of shrubs and pioneer trees, removal of tree litter by raking, mowing, IAS removal. All done by hand work due to hardly accessible terrain (mostly project personnel of BROZ + help of volunteers), **controlled burning** | *Pinus nigra, Fraxinus ornus, Ailanthus altissima, Robinia pseudoaccacia* |
| Abov | 18.2 | IAS removal | *Ailanthus altissima, Asclepias syriaca* |
| Burdov | 7.2 | IAS removal in the most valuable parts of grassland habitats | *Robinia pseudoaccacia, Ailanthus altissima* |
| Modrý vrch | 9.7 | IAS removal, local removal of shrubs and pioneer trees | *Ailanthus altissima, Robinia pseudoaccacia* |
| Starý vrch* | 17.7 | IAS removal, mulching of dead biomass and smaller shrubs (in a mossaic-like manner), illegal waste dump removed | *Ailanthus altissima, Asclepias syriaca* |
| Kamenínske slaniská* | 23.3 | IAS removal, local removal of shrubs and pioneer trees, 2 illegal waste dumps removed | *Ailanthus altissima, Asclepias syriaca, Negundo aceroides, Phytolacca americana* |
| Panské lúky | 0.3 | IAS removal | *Asclepias syriaca* |
| Šurianské slaniská | 18 | IAS removal, harrowing | *Asclepias syriaca* |
| Nesvadské piesky* | 9.4 | IAS removal | *Asclepias syriaca* |
| Seleštianska stráň | 2.5 | IAS removal, hand mowing | *Robinia pseudoaccacia, Ailanthus altissima, Asclepias syriaca* |
| Zobor | 32 | IAS removal, removal of non-native trees | *Ailanthus altissima, Fraxinus ornus, Pinus nigra* |
| Biele hory | 2.5 | removal of non-native trees, local removal of shrubs and pioneer trees | *Pinus nigra* |
| Karáb | 0.5 | IAS removal | *Ailanthus altissima* |
| Drieňová hora | 1.9 | IAS removal | *Ailanthus altissima* |
| Ploská hora* | 74.4 | IAS removal, **returfing of arable land**, mulching | *Ailanthus altissima, Asclepias syriaca* |
| Pavelské slanisko | 0.1 | 2 illegal waste dumps removed | |
| Mostová | 0.1 | 3 illegal waste dumps removed | |

| | | | |
|---|---|---|---|
| Nerestský lom (CZ) | 5 | Removing of shrubs and pioneer trees, IAS removal, mowing, **grazing of sheep and goats** | *Robinia pseudoacacia, Lupinus polyphyllus* |
| Pastvina u Přešťovic (CZ) | 0.5 | IAS removal, selecitve removal of undesirable pine tree plantations, removal of shrubs and pioneer trees, mowing, clearing of rocky slopes | *Robinia pseudoacacia, Lupinus polyphyllus, Symphoricarpos albus* |
| Oplolenec (CZ) | 0.3 | IAS removal, removal of shrubs, selective removal of pioneer trees, | *Lupinus polyphyllus, Impatiens glandulifera* |
| **TOTAL area restored (ha)** | **226** | | |
| **Expected results (ha)** | **225** | | |

***Note**: the sites marked by *asterisk were subjected to change of their size during the implementing of the project (the process of consolidation of Natura 2000 borders in Slovakia, officialy finished and approved in 10/2023).

## C.7 Restoration of grassland habitats by reintroduction of grazing (SK, BROZ)

Foreseen start date: 30/06/2019 Actual start date: 30/06/2018

Foreseen end date: 30/09/2022 Actual end date: 30/06/2024

Grazing, as the most suitable management for grassland habitats was restored on 11 project sites. **All grassland habitats included in the project were targeted by this action** (*1340, *1530, *6120, *6210, *6250, *6260). Besides them, also the habitat Pannonic inland sand dune thicket (*Junipero-Populetum albae*), *91N0 was targeted – on practically all area of its occurrence in Slovakia, since it is created and dependent on grazing and its restoration and long-term management is not possible without it.

The effect of grazing is long-lasting – and if applied properly, its positive effect on target habitats increases with time. Generally, the **reintroduction of grazing brings a change in trend of grassland habitats from negative** (overgrowing, IAS spread, reduction of occurrence of indicator species) **to positive development** (suppression of most IAS species, halting or reversing of succession, spread of rare and indicative species). It also increases the mossaic character of vegetation, since the grazing and trampling of animals tends to be unevenly distributed – thus creating gradients of various microhabitats (taller and shorter swards, bare ground created by trampling, animal dung, etc.), which is especially important for insect biodiversity, but also for plants. It´s not possible to create this diverse mossaic by any type of machine. Therefore, we have put a significant effort to this action, focusing much of our energy and time on it, to restore as many valuable areas as possible and to make the grazing regime sustainable.

**Grazing was reintroduced on a total area of 428.8 ha – which is significantly more than the expected results of the project** (ER=210 ha).

In most areas, grazing was restored in close cooperation with local farmers (see Table C7_1). We conducted many personal meetings to choose the right farmers, with the appropriate motivation and responsible enough. We discussed their baseline situation thoroughly and usually planned the reintroduction of grazing together. Where required, we helped them to obtain necessary permissions, sort out the land ownership (action B1), with communicating the idea in local communities and with local authorities or stakeholders. In some cases, we helped also with clearing the overgrown areas (action C6) and with applying for the more advanced, yet better paid agri-environmental schemes. Many times, we were ready to help, when the farmers were facing unexpected difficulties and often, we found the solution together.

The project provided necessary infrastructure for each farmer specifically, based on their individual needs and on the specific character of each site. Usually it was **fixed fences, shelters or watering wells** for grazing animals. We used durable solutions and robust materials, that can last for 20+ years – so that the farmers will be able to stand on their own and continue with grazing on restored areas on long-term. The cooperating farmers have signed written agreements to secure nature-friendly grazing on the restored areas - also during the **After-LIFE period**. They are commited to take proper care of the grazing infrastructure created by the project and target habitats restored. The agreements typically contain also limits for grazing intensity, so that suitable extensive grazing can be implemented, where necessary.

**Table C7_1:** Reintroduction of grazing in particular project sites in SW Slovakia (area restored, types of animals grazed, grazing infrastructure created and names of cooperating farmers)

| Project site (SCI) | Grazing restored (ha) | animals grazed | infrastructure created | Local farmer cooperating |
|---|---|---|---|---|
| Modrý vrch | 16.3 | sheep, goats, cows | fixed fence, mobile fencing | Peter Kósa |
| Starý vrch | 28.7 | cows, sheep, goats, horse, donkeys | fixed fence, mobile fencing, watering well, shelter | Peter Kósa |
| Biele hory | 9.6 | goats, sheep | fixed fence, water source, shelter | Martin Hartiník |
| Kamenínske slaniská 1 | 3 | cows, horses | fixed fence | Patáč Association |
| Kamenínske slaniská 2 | 1 | cows, horses | fixed fence | Balázs Grman |
| Devínska Kobyla (2 sites) | 3.4 | goats, sheep | fixed fence, shelter, water source | BROZ |
| Chotínske piesky | 0.7 | sheep | fixed fence | Ľudovít Jávorka |
| Ploská hora 1 | 67.2 | cows, goats, sheep, donkey | fixed fence, watering well, shelters | Attila Tóth |
| Ploská hora 2 | 31.9 | cows, goats, sheep, donkey | fixed fence, watering well, shelters | Attila Tóth |
| Čenkov 1 | 165 | cows | fixed fence, watering well | Rudolf Práznovský |
| Čenkov 2 - Kravany | 17.5 | donkeys | fixed fence | Rudolf Práznovský |
| Panské lúky - Eva Szabó | 6.2 | horses | fixed fence, watering well | Eva Szabó |
| Panské lúky - Attila Tóth | 55 | cows | fixed fence, shelter, watering well | Attila Tóth |
| Panské lúky - Ráczovo jazero | 2.3 | sheep, cows | fixed fence, shelter | Attila Tóth |
| Palárikovské lúky | 13.7 | cows | fixed fence, watering wells | Attila Tóth |
| Drieňová hora | 7.3 | sheep | fixed fence, water source, shelter | András Mátyás |
| **TOTAL area with grazing restored (ha)** | **428.8** | | | |
| **Expected results (ha)** | **210** | | | |

**Note**: There are some corrections compared to the data presented on monitoring mission in april 2024: there, we forgot to include the restored grazing in sites Kamenínske slaniská 2 and Palárikovské lúky. Also, for some of the sites, we corrected the size of restored areas (ha) based on actual data from more precise maps. The table above contains the revised data.

In total, **more than 25,000 m of fixed fences were constructed, 10 shelters for grazing animals, 11 watering wells - and cooperation was established with 9 different farmers**. Most of the works were conducted by external assistance, with supervision of project staff of BROZ (site manager, project coordinator). In some cases, only the fencing material was procured and the fences were constructed by BROZ project personnel (e.g. SCI Devínska Kobyla).

**Impacts on biodiversity:**

On most of the sites, the postive impact of grazing reintroduction was soon visible. The positive impact on target habitats was also documented by the conclusions of the expert monitoring of grassland habitats (action D1). When there were reccomendations from the annual monitoring reports or other cooperating experts for adjusting the grazing regime in particular sites, we did our best to do it.

**Dung beetle diversity**: we motivated our cooperating farmers to use dung-beetle friendly parasite prevention. Together with 2 other LIFE projects in Slovakia, we tested and developed a special methodology for this purpose and subsequently disseminated it by various channels. Most of our cooperating farmers agreed with this nature-friendly parasite prevention. As a result, exceptional biodiversity of dung-beetle species was found on many of the grazed project sites, e.g. SCI Veľkolélsky ostrov: 64 species of dung beetles, SCI Modrý vrch: 58 species, SCI Kamenínske slaniská: 57 species. A large proportion of the identified species were rare or endangered (16.6% very rare), indicating healthy pastures with a good nutrient regime.

The diverse and rich dung-beetle fauna provides very important ecosystem services – playing a key role in decomposition of animal dung, increasing soil fertility, biodiversity of soil fauna and completing of nutrient cycles in grasslands (important also for carbon sequestration). Also, dung beetles are an important and abundant food source for many bird species.

**Salt marsh habitats**: intensive grazing restored in salt marsh habitats (*1340, *1530) has improved the natural processes of soil salinisation – which is fundamental for proper functioning of this habitat. The intensive grazing has significantly decreased the amount of grass biomass, leading to decreased amount of plant transpiration. Simultaneously, it increased the proportion of exposed bare graound (by intensive grazing and trampling) – thus increasing the proportion of soil humidity evaporating from soil surface, leading to higher salinity. This is proved also by enlarging the area of the salt marsh vegetation and patches with salt efflorescence on soil surface. Also, **in SCI Panské lúky, the critically endangered halophyte *Camphorosma annua* has increased its total coverage by cca 200%**. The plant indicates areas with the highest soil salinity and is probably the best indicator of well preserved salt marsh habitats in Slovakia.

**Synergic effects**: optimal grazing regime will greatly increase the sustainability of results of project´s other restoration actions - C6 and C8. When combined with grazing, these actions have a much bigger positive effect on biodiversity, than if implemented alone. Therefore, we paid great attention to coordinate the implementing of actions C6 and C8 with grazing reintroduction (C7). In such a manner, the value for money of the project can be much bigger, especially on long-term.

**Socio-economic benefits**

With the kick-starting support of this project several of our cooperating farmers have started their own businesses, which are based on animal production and restored natural beauty in the restored project sites. To introduce a few:

**Eva Szabó (SCI Panské lúky)**: as a young local farmer and keen horse breeder, she has long dreamed to have her own ranch and horse riding school, but she was lacking funds and suitable area to do it. With the support of this LIFE project, we provided her 8 ha of new pasture, where her horses could roam freely, with necessary fences and a watering well. All of the remaining was done by hard work of hers and her boyfriends. Next to the site, they constructed small shelters for horses, a small and safe training ground and all other necessary infrastructure (on land that they purchased).

**Her Navajo Ranch** is now visited daily by young kids and families from the neighbouring village – to learn how to ride and how to take care of horses – as she once did. In this age of social networks and new technology, it gives them a space to understand the connection with animals and nature.

**Fig. C7_1:** SCI Panské lúky – the restored pasture, and a small greeting from Eva Szabó and the team of her newly established Navajo Ranch. Her dream was made possible thanks to the LIFE Programme. **Note:** 3 new species of insects for Slovakia were found in the small periodic salt marsh on the picture, and also a critically endangered halophyte *Crypsis aculeata*. The wetland was created by action C8 and is maintained by grazing of Eva´s horses.

**Martin Hartiník (SCI Biele hory)**: partly inspired by the restored grazing in SCI Biele hory, he established a small family business called "Gazdovstvo v ohrade" (Farm in pasture), selling his home-made goat cheese.

**Peter Kósa (SCIs Starý vrch, Modrý vrch)**: before the project, he had no animals. Also thanks to the pastures restored by the project, he has created a small eco-farm next to the sites. Now he is selling his beef with a nice ECO-story to some of the best restaurants in Budapest. Currently, he is preparing 10 small challets to provide accomodation for visitors to the farm. The natural beauty of the restored project sites is one of the key assets of his plan for eco-tourism.

**Attila Tóth (SCI Ploská hora)** – as a young kid, he was skiing on the slopes of the site, dreaming that once he would graze his animals here. Although starting virtually from zero, he has grown to be a big farmer, managing hundreds of hectares of land. Prior to the project, SCI Ploská hora had an area of 27 ha and consisted of 4 isolated fragments. In such conditions, it was not possible to restore sustainable grazing here. After several discussions with BROZ managers, he agreed to returf the surrounding arable land ("it was not very fertile anyway", he said) - and connect the four fragments into a 90ha

pasture! He has even agreed and officialy asked the State Nature Conservancy to include this land into Natura2000 network. As a result, the area of this Natura 2000 site was enlarged from 27 ha to 112 ha – with suitable management already restored on most of it. We will use project LIFE Diverseed (starting in 6/2024) to increase the diversity of the returfed land and for introducing some rare plant species typical for the target habitat *6250 here.

We presented the story of Attila Tóth and SCI Ploská hora on an international conference dedicated to Nature Restoration Law (NRL), held under Czech Chairmanship of the EU (Prague, 12.10.2022) – as an example, how this bottom-up approach can be effectively used for meeting the ambitious objectives of NRL. This voluntary and bottom-up approach – powered by good and flexible cooperation with civic NGOs and with initial support of a dedicated and flexible programme (LIFE is a very good example) could prevent many of the potential conflicts resulting from disagreement of farmers and land-users, when they would be forced to restore their land by official authorities. Similarly, we presented this approach and case study in International Land Conservation Network magazine (issued in September 2024).

**Change of attitude:**

Successful cooperations as described above have changed attitude of many farmers and land owners in the project region in Slovakia to nature conservation (or restoration) and to Natura 2000 network. Before, they saw Natura2000 as mainly posing obstacles for their work. However, when they saw that they are encouraged to restore grazing on abandoned grassland habitats, or even can be supported by programmes such as LIFE, many of them have agreed to enlarge Natura 2000 sites on their land (similarly as the example above). This change of attitude, together with the initiative of BROZ site managers and good cooperations with local stakeholders has led to **enlarging of 9 Natura 2000 sites by a total area of 239.3 ha**! See table C7_2 for details. Typically, this required communication with land owners and acquiring their agreement with including their land into N2000 network. Subsequently, a request was submitted to SNC for enlargement of the site. In some cases, we also conducted a field mapping of target habitats (by expert botanists), to prove their occurrence in the areas targeted.

**Table C7_2** The enlarging of Natura2000 network in SW Slovakia – reached based on the initiative of BROZ project team (in cooperation with SNC)

| | Site total area | | |
|---|---|---|---|
| **Natura2000 site code and name** | **BEFORE** | **AFTER** | **Site enlarged by (ha)** |
| SKUEV0098 Nesvadské piesky | 17.08 | 35.32 | 18.24 |
| SKUEV0091 Ploská hora | 26.63 | 112.26 | 85.63 |
| SKUEV4023 Slanisko pri Dive* | --- | 9.45 | 9.45 |
| SKUEV0066 Kamenínske slaniská | 119.44 | 120.44 | 1 |
| SKUEV0157 Starý vrch | 13.39 | 34.57 | 21.18 |
| SKUEV0184 Burdov** | 1680.72 | | 20 |
| SKUEV3393 Dunaj** | | | 6 |
| SKUEV0822 Malý Dunaj** | | | 70 |
| SKUEV0088 Síky | 32.51 | 40.34 | 7.83 |
| **TOTAL increase in N2000 area (ha)** | | | **239.33** |

* Slanisko pri Dive: a newly declared N2000 sites (based on BROZ initiative)

** there were more enlargements in SCIs Burdov, Dunaj and Malý Dunaj. In this table, we included only the enlargements made based on the initiative of BROZ.

Here, we are very thankful for the flexible approach of the LIFE Programme (and the project´s monitor and desk officer) – which enabled us to tailor the required solution specifically for the needs of each farmer - and to make them last on long-term. Without their positive approach, much of this would not be possible.

## C.8 Restoration of hydrological regime of salt marsh habitats (SK, BROZ)

Foreseen start date: 01/12/2019 Actual start date: 01/08/2021

Foreseen end date: 31/12/2021 Actual end date: 30/04/2022

The action was implemented based on recommendations of Expert study A3.2.

The exact areas for implementing sub-actions C8.1 and C8.2 were selected based on analysis of LIDAR geo-sensing data and additional field measurements with precise GPS device (accuracy +/-2cm). Most of the restoration measures were consulted and planned directly in the field with leading experts in botany and ecology of salt marsh habitats (Dr. Daniel Dítě), pedology (Dr. Mikuláš Madaras) and hydrology (Dr. Katarína Holubová).

We also learned from the results of a previous project LIFE PANNONICSK, which implemented similar actions.

One of the main targets of the action was to restore habitat *1530, which is on the verge of extinction in Slovakia. Due to its rare occurrence and unfavourable conservation status, **a crucial element was networking and sharing of knowledge** with restoration team of Zoltán Ecsedi, who implemented several successful LIFE projects focused on large-scale restorations of this habitat in Hortobágy NP, Hungary (e.g. LIFE SODIC LAKES). Here, we could much better understand the ecology of this habitat and important principles of its restoration.

In the final phase of this project, we shared our lessons learned and best-practice approaches with project team of LIFE IN SALT MARSHES, who are pioneering with this type of actions in Czech Republic.

The works were implemented in project sites, SCIs **Pavelské slanisko, Panské lúky, Mostové, Kamenínske slaniská and Bokrošské slanisko** by external assistance, under close supervision of site managers of BROZ.

C8.1 Removing of drainage channels

In total, **2 490m of drainage channels were removed** by backfilling with clayey soil or by creating sluices or shallow dikes. In all cases, the soil was compacted by using a 30 ton bulldozer, to secure the sustainability of results. (ER: 2000 m of drainage channels removed).

The removing of drainage channels resulted in **improving of water regime of salt marsh habitats on a total area of 32.6 ha**. This is somewhat lower than anticipated by the project proposal (ER=42 ha), since due to regulation of small river course in vicinity of SCI Kamenínske slaniská, it could not be used for restoration of water regime in the western part the site (the regulation was done by the State water management company and it was beyound our influence to affect it). The water retention capacity was increased by 32 620 m3. The water regime of salt marsh habitats was improved also in terms of time duration of flooding on the sites (in days/year). On most of the restored areas, there was usually no water at all, or only for a few days during spring flood events. After implementing action C8.1, the flooding duration increased to up to 93 days per year.

Also, the monitoring of salt-marsh habitats has shown a good rejuvenation of rare halophytic plant *Heleochloa schoenoides* - which well indicates the periodically flooded salt marsh habitats.

C8.2 Restoration of pioneer salt marsh habitats

**Sub-action C8.2 was implemented on a total area of 17 703 m$^2$, on 11 patches** with various size and shape, in SCIs Panské lúky, Pavelské slanisko and Mostové. Although the number of patches was lower than expected results of the project (ER=20 patches), their total area was significantly higher than anticipated (ER = 8 000 m$^2$), which is more important.

Topsoil layer was removed and in most cases transported away from the sites and the created surface of bare soil was compacted by a 30t buldozer. This created patches of bare soil with no vegetation cover, where salinisation processes were improved (see report from pedological monitoring, action D1).

**IMPACTs on biodiversity**

The results were very positive: in some patches created by topsoil removal, the salinity on soil surface increased very soon - it was even visible with the naked eye. We created part of the patches in local depressions, thus creating periodically flooded saline pools – which formed ecological conditions typical for target habitat *1530.

These shallow and saline muddy banks provided a very exotic environment, which was almost extinct in Slovakia in this form, prior to the project (since our sites are located on the northern border of its areal in Pannonia). After implementing action C8, several very rare or critically endangered species of halophytic plants, insects and birds occurred on the restored plots. Encouraged by the positive outlook of these restored habitat patches, we invited our cooperating experts in entomology and botany, to study these areas. As a result, **several new species for Slovakia were discovered – directly on the patches created by this project**:

***Ilybius pseudoneglectus*** (Coleoptera) – SCI Panské lúky - new species for Slovakia. A ripicolous beetle species, inhabiting shallow saline waters and muddy banks. Area includes mediteranean coast and salt marshes in Balkans, up to central Hungary. SCI Panské lúky is the northernmost site of its occurrence. Found on a patch restored by action C8.2.

***Calomera littoralis ssp. nemoralis*** (Coleoptera) – last record in Slovakia from 1947, since this time regarded as missing. Recorded after 75 years on saline muddy banks restored by action C8.2 in SCI Pavelské slanisko (by Dr. Stanislav Benedikt).

***Enochrus hamifer*** (Coleoptera) – SCI Pavelské slanisko – found on saline muddy banks restored by action C8.2, the only site of occurrence in Slovakia (Dr. Roman Cséfalvay).

***Enochrus ater*** (Coleoptera) – SCI Panské lúky – new species for Slovakia. Found on plots restored by action C8.2.

***Camptopoeum friesei*** (Hymenoptera) – SCI Panské lúky - new species for Slovakia. A small nesting colony found on patch of bare saline soil created by action C8.2. A stenobiotic solitary bee species, inhabiting bare saline soil (often periodically flooded), very rare also on Europe-wide level.

***Enochrus hamifer*** and ***Calomera littoralis ssp. nemoralis*** – these Coleoptera species are recently known only from SCI Pavelské slanisko in Slovakia. Their microhabitat (right) was created by action C8.2 – by restoration of overgrown banks of an abandoned clay pit.

***Camptopoeum friesei*** – a new species for Slovakia – picture taken in SCI Panské lúky, on site restored by action C8.2.

*Martin Linhart and Jiří Vávra – leading experts on Coleoptera species, happy after a fruitful study of restored areas in SCI Panské lúky*

The expert team of Dr. Roman Cséfalvay, Martin Linhrat and Jiří Vávra conducted a **3-year research of areas restored by action C8** in SCIs Pavelské slanisko, Panské lúky, Mostová (and additionaly in SCI Veľkolélsky ostrov). They identified **216 beetle species in SCI Panské lúky and 151 species in SCI Pavelské slanisko and Mostová**. More importantly – a large portion of them (more than 11%) were rare species, indicative of salt marsh habitats (*1530, *1340). The study concludes a very positive impact of the restoration actions implemented within this project (C8 + reintroduction of grazing) on the targeted salt marsh habitats and the biodiversity of rare halophilic/halobiont species. The summary report from this research is Annexed with action D1. The results will also be published in peer-reviewed scientific paper (currently in preparation).

**Rare bird species**: periodic saline pools with open muddy banks are also an important feeding and nesting habitats for rare bird species. The combination of intensive grazing (action C7) and these saline pools created by action C8 has significantly improved conditions especially for waders.

**Table C_8:** The postive changes in nesting of rare shorebird species, which indicate the improved improved water regime of salt marshes.

| Project site (SCI) | Bird species | BEFORE restoration | AFTER action C8 (+C7) |
|---|---|---|---|
| **Pavelské slanisko** | ***Himantopus himantopus*** | no nesting | **3 pairs (2024)** |
| | *Tringa totanus* | no nesting | 1-2 pairs (since 2022) |
| | *Vanellus vanellus* | occasional nesting | 3-5 pairs, every year |
| **Panské lúky** | *Tringa totanus* | occasional nesting | 1-2 pairs |
| | *Vanellus vanellus* | occasional nesting | 3-5 pairs |

We observed a positive change also in SCI Kamenínske slaniská, but here, we don´t have enough exact data for such a comparison.

Black winged stilt (*Himantopus himantopus*), SCI Pavelské slanisko: in 2024, 3 pairs were successfully breeding on the restored site.

**Spin-off:** We will further build on the best practice developed by this project (esp. actions C7 and C8) within a new project **LIFE 4 Steppe Birds**, which is implemented since 2023 in Southern Slovakia.

**Rare plant species:**

***Crypsis aculeata*** (CR) – a very rare halophytic plant, strictly bound to periodically flooded muddy banks with high salinity. Before the project, it was very close to extinction in Slovakia, with only several tens of inds. surviving on a few m2 area in SCI Panské lúky – with a declining trend, due to absence of grazing and overgowing of its microhabitat.

We collected the seeds from remaining individuals and spread them on patches of suitable habitat - bare muddy banks, created by action C8.2 in the larger northern fragment of SCI Panské lúky.

This new population is now well established, with 100+ individuals – and still growing.

We will build upon the experience and best practice gained by this action in project **LIFE DIVERSEED**, which started in 2024. Parts of its design were inspired by the positive results of this action. The new project will further develop the conservation of the rarest plant species, bound to habitat *1530, e.g. *Spergularia media (CR), S. marina (EN), Crypsis aculeata (CR)*.

**SUSTAINABILITY of results**

Actions based on removal of topsoil layer often have limited duration of results – due to fast overgrowing and plant succession. Especially the periodically flooded salt marshes can become fast overgrown by reed, bullrush and other dominant plants, thus erasing the habitat of rare plant, insect and bird species – which generally require bare mud/soil with only sparse or no vegetation.

Therefore, we carefully located most of the restored patches to sites, where intensive grazing of cows or horses is secured on long-term. These large herbivores have a high affinity to water, strong trampling and are very effective in suppressing tall litoral vegetation (reed, bullrush, etc.). Therefore, this grazing regime will preserve much of the conditions created by action C8.2 on long-term.

The combination of grazing and restored periodic flooding (action C8.1) will also have a synergic positive effect on target species and habitats – which will likely further improve with time.

**D. Monitoring and evaluation of project results**

The monitoring in all D-actions was conducted by independent external experts, specialized on the monitored phenomena. Standardized methods of monitoring were used. Permanent monitoring plots/areas were established, where data was collected before and after the project management measures were implemented – to be able to evaluate their impact. Their position was marked by GPS coordinates and where reasonable, also marked in the field (by geoharpons or marks on trees). In this way, the monitoring can be repeated also several years after the end of the project – to evaluate the long-term trends.

**All data from biological monitorings were uploaded to national monitoring databases**:

- Czech Republic: Observation Database of Nature Conservation (managed by NCA CR);

- Slovakia: KIMS biomonitoring system (managed by SNC).

In this way, they will enrich the data of national databases and will be available to evaluate the larger-scale/long-term trends in Natura2000 network in both countries. Therefore, it was not needed to create a separate project database of monitoring data – as was originally foreseen by action D1.

**D.1 Monitoring of project impact on target species and habitats and monitoring of dissemination actions**

| | |
|---|---|
| Foreseen start date: 01/01/2018 | Actual start date: 01/01/2018 |
| Foreseen end date: 30/06/2024 | Actual end date: 30/06/2024 |

**For monitorings under action D1, annual monitoring reports** were compiled and delivered to the project team (they are attached also to this final report). Besides the evaluation of up-to-date impact of project´s C-actions, they included also the evaluation of the management measures implemented, and where necessary, also feedback for suitable improvements/adjustments. **For all D-actions, a final monitoring report was delivered, with evaluation of project impact on reported phenomena for the whole project period**, for both Czech Republic and Slovakia (see **FR Annexes D**).

D1.1 Monitoring of target species was carried out as follows:

*Gentianella praecox ssp. Bohemica*: manual counting of all flowering individuals in project sites (each season).

*Osmoderma eremita*: manual counting of individuals is not possible and would be destructive for the species and its habitat. Therefore, the suitability of the species habitat was evaluated based on standardised methodology – before and after implementing of restoration measures.

*Carabus menetriesi Pacholei*: number of inds. collected in pitfall traps in reference transects in project sites - before and after the restoration actions was evaluated.

D1.2 Monitoring of target habitats: standardised phytocenological relevés collected on permanent monitoring plots accordding to Braun-Blanquet´s scale. Dominance of indicative species and less desirable species (e.g. IAS, ruderals) was evaluated before and after the management measures.

D1.3 Hydrological monitoring: data on water table was collected by dataloggers installed on selected areas in project sites. The data were correlated with geo-sensing data from ESA SENTINEL-2 satellite imaginery, LIDAR and high-resolution drone imaginery, as well as data from geobotanical and pedological monitoring. The sets of data before and after implementing action C8 were evaluated.

D1.3 Pedological monitoring: soil salinity was measured in field conditions by different analytic devices. Their performance and accuracy was compared and evaluated by research team of Dr. Mikuláš Madaras (Research Institute on Plant Production Praha). **The data collected in this project were used to develop a methodology for field measurements of salinity by different electronic devices, that can be more widely used and replicated**. Soil samples were analysed in laboratory to evaluate the accuracy of field measurements. Results of soil salinity before and after the restoration management were evaluated (for action C8.2).

D1.4 Monitoring of impact of project´s dissemination actions: the results of project´s dissemination actions and their impact on target audiences were evaluted. The evaluation is included in summarizing tables Annexed for each relevant dissemination activity (summary of media outputs, public events, conferences, workshops, seminars, networking events, excursions for stakeholders, etc.), where type of event, location, target audience and detailed numbers of participants are all listed. The qualitative results are best indicated by the feedback from participants, improved cooperations with local stakeholders and communities, as well as initiated international cooperations and new projects. The most important results in these fields are highlighted in chapter E. Communication and dissemination actions; Overall assessment.

**D.2 LIFE Performance indicators monitoring**

| | |
|---|---|
| Foreseen start date: 01/01/2018 | Actual start date: 01/01/2018 |
| Foreseen end date: 30/06/2024 | Actual end date: 30/06/2024 |

The results of this action were evaluated mostly based on assessing of the achieved results of the project and based on results of expert monitorings and assessments under actions D1, D3 and D4. The data were uploaded to the online KPI webtool. The annual results of LIFE performance inidicators monitoring were reported, delivered and reported with project´s Progress and Midterm reports as well as during regular monitoring visits.

**D.3 Assessment of ecosystem functions (services)**

| | |
|---|---|
| Foreseen start date: 01/01/2018 | Actual start date: 01/01/2018 |
| Foreseen end date: 30/06/2024 | Actual end date: 30/06/2024 |

The assessment was conducted based on the methodology „Mapping and Assessing Ecosystems and their Services“ (MAES). The data before and after implementing of project actions were gathered and evaluated. The ecosystem services evaluated include: production of wood biomass, production of animal products on areas with restored grazing, support of habitats and biodiversity, values for recreation and education, cultural values of old and veteran trees, etc.

**D.4 Assessment of projects socio-economic impacts**

| | |
|---|---|
| Foreseen start date: 01/01/2018 | Actual start date: 01/01/2018 |
| Foreseen end date: 30/06/2024 | Actual end date: 30/06/2024 |

The project´s impact on socio-economy was evaluated, mostly on a local level in communities in vicinity of project sites, that were likely affected by the project measures. The data before and after implementing the project actions was gathered and evaluated (e.g. by questionaires, data on employment, nature-based tourism, etc.). The monitored phenomena included: perception of project sites, target species and target habitats by local communities, perception of Natura 2000 network and nature conservation priorities, local employment in different professions, nature-based tourism, etc.

The experts reponsible for all monitorings are listed in Table D_1. Wherever possible, **we cooperated with top national experts on the given topic** (these are highlighted by **bold** in the Table). This gave us the possibility to **develop the best practice and optimize the management actions C1-C8 as best as possible**. Besides the basic monitoring, we often met together with them in project sites, to discuss the optimal design of project´s C-actions, the restoration measures planned and those already implemented. We listened to their feedback and where possible and reasonable, we used it to adjust and optimize the restoration management of project sites. In many cases, the restoration management was conducted based on their proposals or hints.

**Table D_1:** List of experts responsible for the monitoring of target species, target habitats, habitat attributes, and monitoring under actions D2, D3 and D4. Monitoring actions in Czech Republic are highlighted in blue, monitoring in Slovakia by green colour.

| Monitoring (sub)action | Monitoring team responsible |
|---|---|
| D1 Monitoring of target species and habitats | |
| D1.1 Target species: | |
| *Gentianella praecox ssp. Bohemica* | **Dr. Jiří Brabec**, Ing. Alexandra Čumová |
| **Osmoderma eremita* | Naturaservis, s.r.o. |
| **Osmoderma eremita* | **Dr. Roman Cséfalvay, Dr. Tomáš Olšovský** |
| *Carabus menetresi pacholei* | **Dr. Jaroslav Boháč** |
| D1.2 Target habitats | |
| • Grassland habitats (*1340, *1530, *6120, *6210, *6250, *6260) | **Dr. Daniel Dítě, Dr. Zuzana Dítě, Assoc. Prof. Pavol Eliáš** |
| • Grassland habitats/non-forest habitats (*6110, *6210, *7110)<br>• Forest habitats (*91D0, *91E0) | Dr. Petr Blažek<br>Naturaservis, s.r.o. |
| • Forest habitats (*91E0, *91N0) | **Dr. Mária Šibíková** |
| D1.3 Habitat attributes | |
| • Hydrological monitoring | Naturaservis, s.r.o. |
| • Hydrological monitoring<br>• Pedological monitoring | **Dr. Katarína Holubová, Dr. Katarína Mravcová (VUVH),** Geobotany, s.r.o.<br>**Dr. Mikuláš Madaras (VURV Praha)** |
| D1.4 Monitoring of impact of project´s dissemination actions | BROZ and SBR teams, Dr. Katarína Goffová |
| D2 LIFE Performance indicators monitoring | BROZ and SBR teams + experts responsible for monitoring actions D1, D3 and D4 |
| D3 Assessment of ecosystem functions (services) | **Dr. David Pitthart** |
| | Dr. Katarína Goffová |
| D4 Assessment of projects socio-economic impacts | Dr. Zuzana Dvořáková-Líšková (Faculty of Economy of South Bohemian University in České Budějovice) |
| | Dr. Katarína Goffová |

**Added values:**

In many cases, we did significantly more, than the basic monitoring foreseen by the project.

We invited also other experts in different fields (entomology, ornitology, botany, hydrology, ecology) to study the resotored areas in project sites. Many of them are leading experts in their field and they often know the sites and project regions very well – e.g. visiting them regularly since 1980´s. Usually,

their help was provided free of charge and often their most important motivation was the passion for their subject, combined with ours for restoring the natural values of the sites. We helped them with accomodation in our grounds, support with permissions for biological research in protected areas and provided advice on actual state of project sites - level of flooding in salt marsh habitats, pictures of newly restored or grazed sites, etc.. This could improve the efficiency of their work and chance of success, i.e. being on the right place in the right time – to find the rare/indicative species. Often they travelled several hundreds of km to do several-day surveys on project sites and timing of their visit and picking the right sites to survey was crucial for success. Some of the entomologists spent nights on the sites, using UV-light to survey the flying insects cenoses and subsequently many days in the lab to analyze the collected material.

**The results of this additional work were:**

*** 4 new species for Slovakia**, discovered on the newly restored areas in project sites (see action C.8 for details). All of them are strict habitat specialists – without the implemented restoration measures (actions C7 and C8), they would not occur here.

*** Study of insect diversity in salt marsh habitats** (Dr. Roman Cséfalvay, Martin Linhart, Jiří Vávra; 3-year study with several visits to project sites each year). See action C8 for details; the reports from all these studies are annexed.

*** Study of insect diversity of pollarded willows** (Dr. Tomáš Olšovský, Dr. Roman Cséfalvay, 2-year research). In total, **362 species of beetles** only were discovered in old pollarded willows in SCI Veľkolélsky ostrov. We used the study very much in communication with local people, stakeholders and media (actions E1, E2, E3). It helped us for replication purposes as well.

*** Study of dung beetle biodiversity in grazed project sites** (Dr. Tomáš Olšovský, Dr. Roman Cséfalvay, 2-year research). The study compared sites with different size, types of grassland habitats and grazing regime. It found a very high diversity of dung beetle fauna on most of the project sites where grazing was reintroduced – including many rare and indicative species. This indicates a good and nature-friendly grazing regime on most of the surveyed sites. The study was largely used for communication and replication purposes - both with public and to cooperating farmers. Some of the farmers used its results also for marketing and better selling of their farm products. The study was conducted in cooperation with projects LIFE SUB-PANNONIC and LIFE endemic PANALP – and these projects are building on its results significantly - by their own and much more extensive communication and replication campaign.

**Other cooperating experts**, who conducted independent surveys on the restored project sites are:

**Entomology:** Martin Škorpík, Lukáš Čížek, Lucie Ambrožová, Pavel Šebek, Michal Platek, David Číp, Martin Linhart, Honza Horák, Pavel Prudek, Jiří Tomčík, Ladislav Roller, Dušan Žitňan, Petr Bogusch, Jan Macek, Milada Holecová, Ondřej Sabol**,** Stanislav Benedikt

**Botany:** Kryštof Chytrý, Helena Prokešová, Mário Duchoň, Martin Kolník, Marián Jasík, Dušan Senko, Jaroslav Kučera, Tomáš Hurai, Iveta Škodová, Katarína Devánová

**Ornitology, habitat restoration:** Gašpar Čamlík, Kristián Bacsa

Most of them shared their observations and feedback with the project team, which resulted in better planing of restoration management, better evaluation of results and their communication to stekholders and public. With most of them, we visited the project sites together, to discuss and better understand their feedback and ideas in the field.

**E. Communication and dissemination actions**

**Overall assessment:**

The dissemination actions E1, E2 and E3 are each focused on different target audience.

Action E1 is mainly focusing on general public. Already in the revision phase of the project, it was evaluated as "overly ambitious" by the reviewers. We fully agree with that. It was designed by the first PR manager of the project, who left the team cca 2 years after the project start. Although there are some shortcomings in meeting a small part of the expected results and sub-action E1.7 was not implemented at all, we were very successful in the major communication action of media campaign – where we reached **178 media outputs** and exceeded the already ambitious expected results by cca 300%. Therefore, in terms of the overall impact and reach to the target audience, this action has generally met its main objectives.

Actions E2 and E3 are focusing mainly on cooperating stakeholders – local farmers, land owners, local authorities, decision makers, experts in nature conservation, etc. Although their expected results were quite ambitious too, they were generally met and often exceeded.

**Information on LIFE Programme and Natura 2000 network** was communicated wherever possible and reasonable. The logos were included in dissemination materials, noticeboards, websites, project film, videos, presented on project events etc.

The **Covid-19 restrictions** have hampered the implementing of most dissemination actions for a significant period of time (esp. "live" meetings and public events). We adapted to this situation by organizing some of the events online (where possible) and focusing more e.g. on media outputs, which shown to be an effective way of communication esp. to public.

**Positive feedback and new cooperations:**

We are proud especially on a very good presentation of the project on expert level – on national and international conferences and workshops (sub-action E2.2), incl. a **keynote presentation on International congress on entomology in Helsinki** (within the LIFE Programme panel, 7/2022) and several other high-level EU events. In many of these events, the presentations of the project reached very good feedback, high interest and appreciation from the professional audience. E.g. in a Conference "Large-scale restoration of nature", held by Czech Botanical Society in Brno (2.-3. 4. 2022), cca 10 people came and said, it was the best lecture of this event. There were cca 200 participants altogether, including top experts in botany and habitat restoration from Czech Republic and Slovakia. As a result of such events, several valuable cooperations were initiated.

We presented the project on **EU Biogeographic seminar in Strasbourg** (16.-18. 10. 2018). During a break in poster session, Frank Wassen (EC, DG ENV) connected us with Matthias Dolek, a leading expert on *Colias myrmidone* – with a plea to do something for this Natura2000 species, the most endangered day butterfly in EU, with a long-term declining trend. Based on this idea, we developed a new project LIFE Metamorphosis, which is bringing significant actions to save this species on long-term for EU (implemented by BROZ in Slovakia together with Fundatia ADEPT in Romania).

The best proof of effective communication towards stakeholders is the **very good cooperations developed with local land owners, farmers, land trusts and municipalities**. This resulted in a much more effective implementing of actions C1, C2, C3 and C7. It enabled us to exceed the results of these actions significantly – not only in terms of numbers, but especially in their quality, impact,

sustainability and their use and appreciation by local players and communities. The set of communication tools in actions E2 and E3 played a key role here.

Another successful story is the **22 replications** – reached already during the project period. They ranged from small actions carried out by local actvists to a new 42 ha pasture restored by a local farmer, partly inspired by our activities and using our advice (he also added his land to Natura 2000 network). Many LIFE projects are focused on developing their potential for replication (which can often stay only in the phase of potential). We went further and achieved many replications already in the project period.

A very significant success story is the **several important policies**, where the very active involvement of the project team played an important role for their success (see **section 6.4 "Policy impacts")** for more details).

**E.1 Awareness raising regarding to public and stakeholders; CZ+SK, ONYX, SBR, RSE, BROZ**

Foreseen start date: 30/09/2017 Actual start date: 30/09/2017

Foreseen end date: 30/06/2024 Actual end date: 30/06/2024

**E1.1 Creation of communication plan**: the project´s communication plan was created in the initial stage of project implementing, it was shared with all project partners and followed with implementing of project´s dissemination actions. Its first version was delivered with Progress report 1 (Annex 7.4) and an updated version with the Midterm report (MTR Annex E1.1). Within this report, an After-LIFE Communication plan is delivered, as a separate chapter of the overall After-LIFE plan – see **FR Annex F3** (After-LIFE plan) for details.

**E1.2 Project website**: was created in the first months of project duration and is regularly updated by project´s coordinating beneficiary SBR, with contents supplied also by other project partners. The website has reached **6,700 active unique visitors** within the project period (ER = 5,000). Slovak version of the website is run as a subsite on BROZ main site. The website will be available min. 5 years after the end of the project.

**E1.3 Social networks**: project´s Facebook site was created shortly after the project start and is regularly updated, with content from project areas in Czech Republic and Slovakia. The **FB site has 1,100 followers** (ER = 500). In total, we organised **42 contests to promote the project**, its results and objectives (ER = 40) – see FR Annex E1.3 for details.

**E1.4 Media campaign**: we consider media campaign as the most important and most impactful sub-action for reaching the target audience of action E1 (mainly general public, but also local communities, experts, farmers etc…).
In total, **10 press releases were published** (ER = 10) and **178 media outputs were released** together in Czech Republic and Slovakia. **This is significantly more, than the anticipated plan of the project** (ER = 60 outputs). The ouputs include wide variety of media of different type (TV, radio, press, internet portals), coverage – local, regional, national, EU and world-wide. Also, the target groups reached varied from inhabitants of local villages neighbouring with project sites, public in local regions or on country-wide levels, professsionals in nature conservation, scientists, farmers, decision makers, etc. See **FR Annex E1.4** for detailed lists.

**Highlights, feedback:**

“Doma v záhrade” – the most favourite and most read monthly periodic in Slovakia, focusing on hobby farmers (16,000 readers monthly) - several larger articles published, promoting the restoration of pollarding (action C2) and reintroduction of grazing (C7). This has led to several successful replications conducted by the inspired readers.

Article “Vygumovaná krajina” in Pravda magazine: reached 2400 “likes” on the FB site of the magazine.

Several outputs in the most popular national TV and radio stations, including reports in prime-time evening news (e.g. Česká televize and RTVS evening news).

**E1.5 Noticeboards**: the noticeboards were prepared and installed on project sites, where important restoration measures were implemented. This included both simple informational notice boards and also bigger ones, informing also on natural values of the given site. Information on the project, its actions and LIFE Programme and Natura 2000 network was included.

**E1.6 Printed materials, promotional items**: all items were prepared and disseminated to target audience, basically as planned in the project (see **FR Annexes E1.6a-e** for photodocumentation). The materials were disseminated on project events (excursions, workshops, conferences), to local schools, municipalities and offices in vicinity of project sites, to cooperating organisations, etc. In Slovakia, a leaflet promoting the restoration of pollarding willows (related to action C2) appeared to be more useful than leaflets informing on some less visited project sites, therefore, it was produced in larger quantity instead of these 8 sites. It had a very good success among stakeholders and public and several re-prints were made by other projects dealing with this topic. **Layman report** was produced in Czech and English language versions (24 pages, A4). It is attached as **FR Annex E1.6d, e**.

**E1.7 Creation and presenting of travelling exhibition:** unfortunately, the exhibition was not prepared, due to excessive byreacratic procedurs in their management, changing of top managers in their directorate, change of general directors after the elections, etc. However, we consider this sub-action as less important compared e.g. to media campaign. The desired impact in dissemination to public was reached by other varied sub-actions of action E1. In more of them, the expected results were significantly exceeded and the impact and feedback from the target audience was good. Please see the Overall assessment of E-actions above.

**E1.8 Film and video streaming**: the project film (deliverables: **FR Annex E1.8**, available also online on youtube) was prepared and presented in two regional events in 2024 and was broadcasted 3 times in a regional television of South Bohemian region (FR Annex E1.8b). It is prepared in Czech and Slovak language and it presents the project objectives, restoration measures implemented and their results in project areas in both countries. 19 video streams were prepared and disseminated on social media of the project (ER = 50 streams).

**Bonus:** interactive nature trail „Devínska Kobyla – ostrov Slnka v mori času“ („Devínska Kobyla – the island of sun in the sea of time“) was prepared and made widely available to public. The trail presents the natural values of this precious site, together with actions taken by the project to preserve it. It also explains the role of Natura 2000 and LIFE programme. The site is located just next to the capital city of Bratislava and is very popular with visitors. The trail was developed together with Erik Baláž – a leading Slovak ecologist and nature conservation activist and is presented by Lea Kurpasová and Pavol Littera.

**E.2 Transferring of know-how and the results to key stakeholders (SBR, RSE, BROZ, ONYX, SNC)**

Foreseen start date: 30/09/2017 Actual start date: 01/10/2017

Foreseen end date: 30/06/2024 Actual end date: 30/06/2024

**E2.1 Community engagements, etc.**

**67 public events were organised, in total for 3,072 participants**, where the project was presented (ER=80 events, 1,200 participants in total). The total number of events was somewhat lower than the expected results (also due to COVID-19 restrictions and related quaranteen measures). However, the total number of participants of these events was significantly higher, thus imrpoving the overall result of this sub-action. The events were mostly excursions in project sites, lectures, presentation on local events and similar – mostly for local people, school children, students, etc. Some of the excursions and lectures contributed to education of university students in nature conservation (future experts). Many of them participated in volunteer events organised by the project - e.g. in restoration actions in some of the project sites. Participants in some of the events were interested in replication of project´s best practice (e.g. Farmers participating in event "Gazdovská obnova" (Reneval of farming), where the project was presented).

**E2.2 Communication with regional, national key stakeholders**

**76 national and international events** were attended by the project team members, mostly SBR and BROZ (ER=50 events). On most of them, we actively presented or discussed the project objectives, actions, results and best practice (presentation, poster, active participation in work groups, infodesks, etc.). The events included experts conferences, seminars, workshops, but also public events, such as festivals. The target groups were mostly experts in nature conservation, LIFE project beneficiaries, botanists, entomologists, ornitologists, PR managers, and public. The feedback to presentations at many of the events was very positive – see the Overall assesment of E-dissemination actions for more details (section "Positive feedback and new cooperations").

**E2.3 Networking**

**58 networking events** were conducted, mainly by project partners SBR and BROZ, significantly more than anticipated in the project (ER = 30). We exchanged knowledge and shared our best practice with multiple LIFE and Interreg project teams in countries of central Europe, Sweden, Italy, Romania and others. The exchange of knowledge was conducted also with researchers, policy makers and experts in restoration ecology.

**During the networking trips, we discussed ideas, activities and initiated partnerships for 3 new LIFE projects** (LIFE endemic PANALP – with Duna-Ipoly National park Directorate, HU; LIFE Metamorphosis and LIFE Diverseed - with Fundatia ADEPT, RO).

We learned crucial know-how for restoration of salt marsh habitats – based on results of 2 big LIFE projects implemented in Hortobágy NP, Hungary (thanks to Zoli Ecsedi, Hortobágy Environmental Association). We used it for effective implementing of actions C8 and C7.

We shared our experience and best practice with starting LIFE projects (e.g. LIFE in Salt marshes, CR).

**E2.4 Final International Conference**

The Final Conference of the project was held on 28.-29.5.2024 in Haklovy Dvory, near České Budějovice (organised and procured by SBR, see also chapter 6.2 Deviations). It was opened by the vice-governor of SBR. The best practice and main results of project´s C, D and E actions were presented

by their coordinators and by monitoring experts from Czech Republic and Slovakia. We invited also our cooperating stakeholders, to pay tribute to their dedicated work in conservation of target species, as well as other professionals and organisations active in nature conservation (e.g. NCA CR, MoE CR, other LIFE projects coordinators) and media reporters. The conference was coupled with a PR workshop presenting the project´s dissemination materials and a field excursion. There were 43 participants in total (ER=80/35 participants).

**E2.5 Corduroy nature trail**

**500 m of elevated nature trail was built** in SCI Borkovická blata (ER = 500 m). Of this, the first section (235 m), leading through a waterlogged part of the site was built by external assistance procured by SBR, from impregnated timber for higher durability. For the remaining part (265 m) leading through a drier terrain, we used a thick layer of chips made of wood biomass from the pioneer trees and shrubs removed locally within actions C3 and C4. This part was built by the project staff of RSE. By this means, the biomass was well utilised and project funds were saved. The trail is widely used by visitors of the site – with **10,641 visitors annually** – average from sesons 2021-2023, according to data from the installed infrared traffic monitors.

**E.3 Replicability toolkit**

Foreseen start date: 30/06/2019 Actual start date: 30/06/2018

Foreseen end date: 30/06/2024 Actual end date: 30/06/2024

**E3.1 Workshops for key stakeholders**

Following workshops and excursions were organised by the project team (see **FR Annex E3.1a** for a detailed list of events, including dates, locations, numbers of participants, photos, etc.):

***Gentianella praecox* ssp. *Bohemica*** (SBR, CZ): **two 2-day workshops**, with 56 participants in total (ER= 2 workshops, min. 40 participants). The participants were mostly experts in restoration of GB habitat, cooperating stakeholders, etc. Both workshops were coupled with excursion to project sites, where optimal management for the target species was discussed.

***Carabus Menetriesi Pacholei* and *Osmoderma eremita*** (SBR, CZ): **one 2-day workshop**, with 28 participants (ER= 1 workshop, min. 20 participants). Similarly as above, workshop focused on optimal management of cavity tree habitats for OE and peat bogs for CMP.

**IAS removal** (SNC, BROZ, SK): **1 workshop was organised**, with 30 participants, mainly for representatives of SNC - regional directorates of Landscape Protected Areas, responsible for nature conservation, and IAS control in their area of competence. ER = 1 workshop, 25 participants.

**Pollarded willows** (BROZ, SK): **8 workshops were organised**, with 153 participants in total (ER= 6 workshops, min. 90 participants in total). The participants were connected by their interest in nature and restoration of pollarded willows. Their background and professions were varied: foresters, arborists, managers of lands under electric lines, experts in nature conservation, environmental education, media reporters, local people, activits and volunteers. Most of the workshops were conducted in the field, and besides interesting lectures on the natural and cultural values of pollarded willows, the participants were invited to join the restoration process and help with works on

restoration of pollarding, according to their individual capability. Some helped with pollarding, others with sorting out the pollarded branches, etc. Many of them were very satisfied and motivated after these events and came back the next year, even with their families. Some started with pollarding of willows or planting of new ones in their own grounds.

**Grazing reintroduction** (BROZ, SK): **two 3-day excursions for stakeholders were organised**, with 42 participants in total (ER = two 2-day excursions, min. 40 participants). Both excursions were organised in Hortogágy NP in Hungary, where the results of large-scale restoration projects focused on salt marsh and grassland habitats were presented, as well as positive examples of involving local farmers in nature conservation grazing.

The participants were mostly farmers, who cooperate on grazing reintroduction on our project sites (action C7), or were considering their cooperation with us. Also, we invited farmers interested in replication, as well as mayors, representatives of local offices responsible for issuing permits, SNC and similar. The feedback from participants was very good and resulted in increased interest in their cooperation. E.g. as a result of the presented best practice methods in grazing management, 3 of our farmers have involved donkeys in their herds, as a measure to suppress weeds and IAS – a more natural way of control than using mulching or chemicals.
Also, these events worked as "ice-breakers" – forming better connections between farmers, mayors, SNC, NGOs and regional offices. In this way, they could better understand the positions, specific situation and needs of their partners. This has created a much better position for cooperations in the project region also for future.

**E3.2 Individual communication with key stakeholders**

Hundreds of meetings with stakeholders were conducted by the project team (mostly BROZ, SBR and RSE). Most of them were held in the field – directly at the project sites, or in their vicinity, at offices of local mayors, regional authorities and similar. We were meeting mostly with local land owners, land users, cooperating farmers, mayors, local authorities, etc. FR Annex E3.2 contains a detailed list of some of the meetings (187), however, there were much more of them and not all were recorded here (ER=80 meetings in total). The meetings were held mostly in person - in small groups or individually, which enabled us to discuss the specific situation of each site or stakeholder and to find together the most suitable and most sustainable solutions, that would work for both partner sides.

**E3.3 Work groups for best practice methods**

**5 expert work groups were established, with 57 members in total** (ER= 4 workgroups, 40 members). Besides the 4 work groups foreseen by the project, we established another one dedicated to restoration of peat bog habitats, including the habitat of *Carabus Menetriesi Pacholei*. The workgroups are composed of experts in various fields, related to the given best practice topic. See FR Annex E3.3 for their complete list and topics, where their expertise was useful. We used the professional help of these experts to develop and optimise the project´s best practice, discuss problems arising during project implementing and also to enlarge our network of contacts on the expert level. In some cases, this has led to successful replications of the project´s best practice (e.g. the use of stem-injection method for IAS removal in NP Podyjí). The consultations were held by phone, email or personally at the project sites.

**E3.4 Information focal points (IFPs)**

IFPs for all 5 best-practice methods developed by the project were established. The contact points were: Pavol Littera, BROZ, SR (topics: Restoration of pollarded willows, Reintroduction of grazing, IAS

removal) and Milena Vlášková, RSE, CR (topics: Habitat restoration for 1. *Gentianella bohemica*, 2. peat bogs and *Carabus Menetriesi Pacholei*). They were active during the whole project period and they are staying in the core team of BROZ and RSE also after the end of the project.

IFPs worked as focal points for dissemination of project´s best practice to interested entities (e.g. other organisations responsible for nature conservation, farmers, land owners or users, public bodies, media, local activists and volunteers). The consultations were given by phone, email, or personally and when reasonable, we visited the grounds of the entities interested in replication, to see their specific baseline situation and discuss with them the possible solutions. FR Annex E3.4 includes a sample list of 76 consultations given by BROZ (date, best-practice methodology discussed and particular solutions discussed/reccomended and person/institution with whom we discussed). The list is not exhaustive, as there were more consultations, but not all were recorded. In total, we expect there more than a hundred of them. ER=100 consultations.

**Replications achieved:** altogether, **we achieved 22 replications of project´s best practice.** See FR Annex E3.5a for their complete list, location, persons/organisations responsible for implementing and other details. ER=20 replications (although we now consider this ER as quite ambitious, still, it was achieved).

**How this was achieved:** most of the replications (15) were achieved in the topic "Restoration of pollarded willows". This was thanks to a broad and thorough campaign. It started with gaining important knowledge on the topic and many field discussions with entomologists, arborists and local people, who remember this tradition (see E3.3). After testing and fine-tuning the best practice on our project sites (action C2), we prepared an online how-to Manual for pollarding willows – and promoted it on our website and social media. Also we promoted it on project workshops, which we organised for volunteers and those interested in this topic (E3.1), as well as in media (E1.4), especially those dedicated to hobby farmers and gardeners, together with contact to the Manual and to our organisation. The manual was quite popular and we even received an offer from a local NGO in the project region, to traslate it to Hungarian language (this is quite important, since many locals in the project region speak primarily Hungarian). When we received phone calls or emails from local people or organisations inspired by the campaign, or interested in replication, we gave them the know-how and recommendations required to conduct successful pollarding (E3.4). Some of them sent us pictures afterwards – of their pollarded willows (see FR Annex E3.5b for pictures).

**F1 - Project management, organization and audit**

Foreseen start date: 01/09/2017 Actual start date: 01/09/2017

Foreseen end date: 30/06/2024 Actual end date: 30/06/2024

All the key project employees were hired on time, in the early beginning of the project. Soon after that, all of them were introduced to their project roles and responsibilities. All of them have access to an electronic version of the PP, as well as the contingency plan of the whole project since its beginning (see MTR Annex F1_1). PCs were encouraged to elaborate more detailed contingency plans suitable for them, their subordinates and their specific needs. Partnership agreements were signed between the coordinating beneficiary (SBR) and all associated beneficiaries and project´s management structure was established.

Project staff was hired by all project beneficiaries, basically according to the project plan and made aware on their responsibilities and duties.

Considering the international nature of the project, two headquarters were established – in České Budějovice (Czech Republic) and in Bratislava (Slovakia). Partners from the individual states meet more or less regularly in both of them (separately). The everyday communication between CB and ABs and all the partners among themselves was being realized via phone calls, e-mails, online meets and other common means.

The unofficial list of project´s steering commitee (SC) was put together already in 10/2017, the SC was officialy established on a meeting in České Budějovice in 4/2018 and its subsequent meetings followed in live and online form.

Project´s monitoring reports were prepared and delivered to project monitor and EASME (PR1, MTR, PR2, PR3). Besides this, the project results were regularly presented and discussed on visits of the external monitor of the project.

The **Open issues** raised within the previous project reports are addressed in detail in **FR Annex F1.**

There were two changes of project manager/contact person: Zdeněk Brož (SBR), who was the first project manager was replaced by Eva Ježková (SBR), who took this role almost until the end of the project. Just before the end of project period, she went for maternity leave. After this, the role of project´s contact person was taken by Pavol Littera (BROZ), who also coordinated the compilation of the final report.

**F2 - Project bookkeeping, financial management and auditing**

Foreseen start date: 01/09/2017 Actual start date: 01/09/2017

Foreseen end date: 30/06/2024 Actual end date: 30/06/2024

**F2.1 Project bookkeeping and financial management.** The project´s financial manager was employed from the early stage of the project (SBR). He was responsible for an ongoing contact with all ABs (and their accountants) and the overall financial management of the project. Project´s financial reports were prepared and delivered with its technical reports (esp. MTR and FR). In late 2018, the first financial manager Lukáš Machát was replaced by Ms. Pavla Šanderová Sovová.

Important public tenders were implemented in the early stages of the project. In accordance with our commitments, an increased emphasis has been put on the implementation of the responsible procuring (especially the green public procurement).

Accounting systems were established within all beneficiary organisations at the beginning of the project. Project bookkeeping was implemented throughout the whole project period on a daily basis including financial management and accounting. All project expenditures and incomes were transparently and duly recorded.

**F2.2 Project auditing.** The project audit was implemented by independent auditing company BDO Audit s.r.o., by certified auditor Ing. Ondřej Šnejdar, auditor license no. 1987 and Ing. Jan Macháč, auditor license no. 2231. The audit was implemented in two stages – in 2022 and after the end of project in 2024, where the Final audit report was issued in the form of Certificate on Financial Statements. The Final audit report is attached as **FR Annex F2**.

**F.3 After-LIFE plan**

Foreseen start date: 01/04/2024 Actual start date: 01/04/2024

Foreseen end date: 30/06/2024 Actual end date: 30/06/2024

The After-LIFE plan was prepared and delivered as **FR Annex F3** with this Final report. It contains an analysis of activities, that will be carried out in the After-LIFE period, following the end of the project – in order to secure the continuity of project results and the positive state of the restored species and habitats in the project sites. Besides the descriptions of the management measures, also the responsible organisations and their relevant core staff are described, together with technical and financial means required for the successful implementing, indicating also the expected sources of financing. It also contains an indication of how the cooperation with crucial stakeholders will be continued (e.g. local farmers for grazing activities, Forests of Czech Republic for restoration of peat bogs, etc.). It also contains a brief plan for continuation of activities started within project action C3.3 (restoration of water regime on peat bog habitats) as well as control of IAS removed by the project, especially by sub-action C6.2 in SCI Čenkov.

An After-LIFE dissemination and communication plan is an intergral part, describing the communication channels, that will remain open or active after the project end and responsible organisations and/or their core staff. These include channels focusing on general public (project website, social media, contacts to be available for media reporters); expert audience (dissemination of project´s results and best practice on conferences, networkings, expert workgroups, University lectures, etc.) and for stakeholders and entities interested in replications of the best-practice developed by the project.

The After-LIFE plan is prepared in Czech and Slovak languages, for project areas and beneficiaries in CR and SR, respectively, with a comprehensive summary in English.

## 6.2. Main deviations, problems and corrective actions implemented

Describe the main problems or difficulties encountered in the project duration. These may be issues of a technical nature (equipment delivery delayed, construction of infrastructure took longer than anticipated), or financial (the costs did not correspond with the budgeted amounts) or organisational (change of partnership). Provide an assessment of the impact of these deviations on the outcomes of the project and describe the measures taken / to be taken to overcome or alleviate the problems in question.
If the project seems likely to become/stay behind schedule, please indicate this clearly. Signal any changes to the baseline implementation programme.

**PROJECT SITES**

**Addition of new project sites:**

3 SCIs were added as new project sites: **SCI Dunajské luhy** – accepted by official letter from EC (Nov 2020, Issue 15). Project actions implemented: B1, C2, C5; **SCI Bokrošské slanisko** – accepted by official letter from EC (May 2021, Issue 26). Project action implemented: C8; **SCI Šúr** (no project action was implemented in this site, due to complicated permission procedures resulting from forestry law)

**Enlarging the areas of existing project sites:** this concerns project sites in Slovakia, namely:

SCIs Ploská hora, Dunaj, Kamenínske slaniská, Starý vrch, Burdov, Nesvadské piesky.

The boundaries of these sites have changed as a result of Natura 2000 network consolidation process, finished by approving of new borders in 10/2023 by the Government of SR. All the annexed maps and results calculated for C-actions in Slovakia refer to these new borders (actions C6, C7).

**Note:** in some of the project sites (e.g. Ploská hora, Starý vrch, Burdov), a significant increase in their area size was achieved – thanks to initiative of project staff of BROZ. We directly proposed these enalrgements to the respective expert body (SNC), provided evidence on presence of target habitats and often also agreements from crucial land owners/land users. This was a good contribution to an improvement of Natura 2000 network integrity in Slovakia and an important step for achieving more ambitious and more sustainable results of this project.

**IMPLEMENTING OF PROJECT ACTIONS**

**Site-based actions (C-actions) were not implemented in project sites, SCIs**: Jurský Chlm, Štokeravská vápenka, Alúvium Starej Nitry, Karáb, Čiližzské močiare, Kľúčovské rameno, Šúr – in total on 7 out of 33 project sites in Slovakia. This was mostly due to disagreement from land owners, or in some sites, it was not feasible to establish a sustainable grazing or other management regime – therefore, we focused more on the sites, where the long-term perspective of sustainable management was higher and sufficient enough. However, the project objectives and expected results were reached (or exceeded) altogether on other project sites in Slovakia. Therefore, the general restoration objectives of the project can be considered as achieved. In Czech Republic, all project sites were subjected to restoration measures.

**Sub-action C3.3 – Improving the water regime of bog woodland habitat:** although the expected results of this sub-action were met (i.e. water regime of peat bog habitats restored on 13 ha), this was achieved only on 1 project site, instead of the planned 4. The main reason was the significantly more complicated and lengthy permission procedures, inlcuding the necessary technical projects and building permits required for constructing of water management structures needed for restoration of the water regime. This was not foreseen at the time of project preparation (as it was expected that only simple earthen or wooden dams would do the job) and basically it came out when the expert studies for restorartion of peat bogs (A3.1) were delivered. The beneficiaries SBR and RSE decided to implement a more thorough and ambitious restoration of the 4 targeted project sites, which will result in a multifold larger, more ambitious and more sustainable restoration of 183.8 ha of peat bog habitats

in these 4 project sites. This was already agreed by the key stakeholders and land-users and it should be implemented in the first years of After-LIFE project period. The first phase was already completed within this project - restoration of 13 ha in SCI Rašeliniště Kapličky. See action C3.3 for more details, time schedule of the planned restorations and context.

**Action C4: Restoration of bog woodland habitats:** The removal of shrubs and pioneer trees was implemented on a smaller area than anticipated (ER = 45 ha; achieved: 20 ha). This was mainly due to disagreement of the key land users. See also description of action C4 for more details and compensatory measures, which will significantly improve the protection and water regime of peat bog habitats on project sites Rašeliniště Kapličky and Pohoří na Šumavě, generally on much larger areas. Especially the more thorough restoration of water regime in SCI Rašeliniště Kapličky, conducted within action C3.3 and its planned follow up, which will lead to a much more ambitous restoration of water regime of peat bog habitats in both sites (see also above and in description of action C3.3). The restored water regime (more thorough and on a larger area) will naturally decrease the rate of succession, which is a problem especially in degraded and drained peat bogs. Thanks to good cooperation with stakeholders in SCI Pohoří na Šumavě, the management regime was improved by introducing mossaic-like mowing on a further 210 ha of peat bog habitats in the surrounding of this site. Since this area is also very valuable – both in terms of the target habitat and the target endemic species *Carabus Menetriesi Pachoilei*, SBR has decided to significantly enlarge this site to an estimated 1,700 ha protected area, which will be also included into Natura 2000 network as a SCI. Currently, there are already inventories of target habitats and species ongoing in this area. This will radically improve the outlook of the endemic species CMP on long-term.

**Dissemination actions:**

**Long lasting COVID restrictions** – the outbreak of the COVID 19 pandemic in March 2020 significantly impacted the implementation of many project actions. From this date a series of restrictions including hard lockdowns caused delays in the implementation of various project actions.

Especially affected were the dissemination actions (E-actions), where organising of public events and meetings was severely complicated or even impossible in some periods – e.g. Community gatherings, excursions for public (E2.1). We tried to cope with this situation by organising or attending some of the events online (but this was possible only for some types of events), focusing more on media communication and social networks - here, very good results were achieved. However, even with these restrictions, most of the expected results and impacts of the E-actions can be considered as achieved.

**Action E1.6 Leaflets – Slovakia:** see the section „Deviations in deliverables“

**Action E1.7 Creation of travelling exhibition (SNC):** the exhibition was not prepared at all, due to overly complicated procurement procedures, complicated multi-stage decission making and approval process and due to changing of general directors of project beneficiary SNC. However, since several of the dissemination actions focused on general public significantly exceeded the foreseen results and impact (media outputs, social networks), the overall objectives of dissemination actions can be considered as achieved (see also Technical part, Actions E – overall assessment).

**DEVIATIONS FROM TIME SCHEDULE**

**Preparatory actions (A-actions):**

The procurement of project machinery was generally implemented on time and almost all of the machinery was procured, delivered and put into operation as foreseen by the project. Some small delays concerned only individual and less important items, which had no negative effect on implementing of project´s conservation actions. Also, the project staff was hired generally according to the time plan, with early hiring and training of project managers, coordinators, site managers, the scientific manager, etc., as well as working crew members, and machine operators.

**Expert studies:** Minor delays occurred with delivery of some expert studies (A2, A3.1, A4 and A5) – these were in an extent of cca 3-6 months and had no negative effect on implementing of project´s concrete conservation actions.

**Restoration of salt marsh habitats (actions A3.2 and C8)**

The expert study A3.2 was delayed more significantly (21 months). The study provides baseline to implementing of action C8, focused on restoration of salt marsh habitats. Compared to other C-actions, this was rather a one-off action, which was implemented in a short period from 8/2021 to 4/2022 -also with a time shift of 18 months. However, these shifts were justified, communicated in MTR report and approved by EASME.

We used the additional time for more precise planning, numerous field meetings with relevant experts in botany, hydrology, pedology, zoology – to discuss their view and ideas for restoration of target salt-marsh habitats, directly at the project sites. We also gained crucial know-how and understanding of these habitats during networking meetings in Horotbágy NP (HU) – from well experienced colleagues. This all enabled a more precise implementing of action C8, reaching very positive impacts on biodiversity and restoration of target salt-marsh habitats (see action C8 for results). Still, we had 2 seasons for monitoring of the positive changes.

**B.1 Land purchase and long-term lease of land**

The action started ahead of time schedule and was implemented gradually until the end of the project (although the expected end date in the project proposal was sooner). This was communicated in MTR report and approved by EASME. BROZ has established active contacts with the key land owners, built a good reputation and gained agreements for land management in the target areas. The management/restoration of the land parcels has often been allowed provided that we promised to buy the land. In some cases, this was not possible instantly, due to reasons on the side of the owners (e.g. the parcels were subject of bank pledge, ongoing heritage processes, court trials, parcel rearrangement processes, etc.), or there were lengthy negotiations concerning the land swaps (where we always tried to negotiate the best value for money possible). Due to the above reasons, the lengthier implementing had no negative effect on implementing of project´s C-actions (all important objectives were met and often exceeded). On the contrary – it enabled us to acquire significantly more land for nature conservation purposes than foreseen by the project (esp. long-term lease: ER=30 ha, Achieved results = 289.5ha), with a good value for money.

Implementing of all **concrete conservation actions** (C) started on time, or ahead of time. For actions C2 and C7, it was even cca 1 year ahead. The only exception is action C8, as is discussed above.

The implementing of actions C6 and C7 started before the official delivery of Expert study A4. However, this had no negative effect on the quality of achieved results, as we were discussing the recommendations for restoration management and grazing with authors of the study already before its delivery and we could build on solid experience from preceding LIFE projects implemented in these types of habitats.

The end date for actions C6 and C7 was later than expected. However, the core of the restoration work, with a major part of the results were achieved in the foreseen date.

Basically, all C-actions have achieved their expected results on time, as foreseen by the project – in terms of areas of habitats restored, trees planted, etc... However, usually we continued with the species/habitat management until the end of the project (e.g. the planted trees needed after-planting care, *Gentianella Bohemica* needs mowing and verticulation to be done properly every year, invasives need subsequent monitoring, the pastures need occasional cutting or mulching of re-sprouting vegetation and weeds, etc.). Therefore, we marked the finishing date for actions C1-C7 as 30/06/2024 to reflect this, although their expected results were achieved sooner and generally in line with the expected time schedule of the project.

The main exception was **sub-action C6.2, where there was a significant delay** caused by project beneficiary SNC´s inability to procure the larger scale of external assistance works focused on removal of IAS in SCI Čenkov. On all project meetings and in numerous communications and reminders, they were reassuring us that they would do it and they are willing to do so. They informed us only a few months before the project end, that they will actually not make it (due to overly complicated procurement procedures, multi-stage decision approval process, changing of general directors after the elections etc.).

To cope with the situation and to meet the project objectives of action C6.2, BROZ agreed to take over this sub-action and promptly procured external subcontractor for this task. This was consulted and agreed also during the project´s monitoring mission in 4/2024, with the projects monitor and desk officer. The sub-action was duly completed in required extent of two repeated treatments, where all surviving individuals were subjected to a second round of treatment, with very good results achieved (cca 99% effectivity of removal). Therefore, we can consider this action as successful (see also description of action C6.2 in the Technical part).

One of the results of this situation is a significant over-spending of total budget assigned to project beneficiary BROZ – by approx. 150 000 €, which is caused by „saving" this situation and taking over the responsibility for implementing of action C6.2, instead of SNC. As we didn´t expect this situation, we could not adjust our total spending to this and as a result, the total budget of BROZ was exceeded. However, the total costs incurred by SNC are significantly lower (by much more than this sum), therefore, the total budget of the project was not exceeded.

Therefore, we expect, that the project beneficiary SNC will return the unspent amount of the first and second pre-financing payments to coordinating beneficiary SBR and SBR will refund these elidgible costs to BROZ, who used them for implementing action C6.2, instead of SNC.

All **monitoring (D) and dissemination (E) actions** have started and were completed basically on time.

The project management and financial management actions (F) started on time and were completed with the end of the project, with the exception of the **Final report delivery, which was delayed** (3 months) due to a huge amount of work (58 project sites, 5 partner organisations in 2 countries) and a maternity leave of project manager just before the closing of the project. Although she did her best to hand over all the necessary agenda, it was very difficult and time consuming, to sort out all the results, prepare accompanying documentation, all the annexes and the text of report.

**DEVIATIONS IN DELIVERABLES**

**E1: 55 types of leaflets for the SCI**

In Czech Republic, 25 leaflets on project sites were produced, as expected. In Slovakia, 22 leaflets were produced for project sites (instead of the originally planned 30), plus a leaflet - **Manual for pollarding of willows**. The leaflet Manual... was prepared and issued in Slovak and Hungarian language, instead of leaflets for 8 of project sites, where involvement of public and stakeholders was less important. The **Manual had a very good success among stakeholders and public and several re-prints were made** by other projects dealing with topic of pollarded willows, including a 18,000 pcs. reprint, which was distributed together with „Doma v záhrade" („At home in the garden") – a monthly periodic for hobby farmers – the most popular monthly read in Slovakia. It also helped to reach numerous replications in restoration of pollarding. This change was approved by official letter from EASME as of 19. October 2020.

**Deliverables:**

E2: Publication Project "Optimization…"

E2: Publication Natura 2000 in South Bohemia Region

E2: Publication Species and Habitats of Natura 2000 in the South Bohemia Region

E1: brochure Species, Habitats, Sites, Project Information

Instead of printed versions of these items, we decided to use the project website, as a more comprehensive, up-to-date and more easily reachable source of this information (The project, Natura 2000 sites in South Bohemian region, target species and habitats, etc). We prepared also a printed leaflet with basic information on the above topics, but with a **clearly visible QR code, which provides the reader with a connection to the project website** – where a more thorough and up-to-date information on all these topics can be found. The leaflet is prepared in Czech and English language and was distributed in the project events targeting general public (excursions, public gatherings, workshops, conferences, etc.).

This is a more actual and in present days more preferred way of communication by most of the general public, to which the above-mentioned deliverables were targeted. It is also a more nature-friendly way than producing hundreds of printed copies of different brochures, when this information can be easily found online.

The above-mentioned Deliverables have no connection to the expected results of the project – no such activities or expected results are mentioned in Project action E2, nor E1. In fact, they were included in the list of deliverables by the original project PR manager and in the rush before submission deadline, we didn't ´t check and erase these erroneous items. The expected results of project´s dissemination action are already „overly ambitious "– and were evaluated as such already in the revision phase of the project. Therefore, we decided to adapt the project´s communication strategy and put more emphasis and content on the project website – where more thorough and vivid information on the above listed topics can be found. This can be far more easily promoted and distributed by project ´s social media, promoted during media outputs and similar.

## 6.3. Evaluation of Project Implementation

Please evaluate the following aspects of the project:

- Methodology applied: discuss the successes and failures of the methodology applied, the results of the actions conducted and the cost-efficiency of actions.

There are several specific features or methodologies, that were applied by this project:

**1. Project partnership** – a mix of well-experienced partners (BROZ) and newcomers (e.g. SBR, RSE). This was a good move, since BROZ could share their know-how in project implementing, systematic evidence of achieved results and reporting. The help of experienced BROZ team was crucial, when the project manager of SBR went for maternity leave at the end of the project (and there was lack of sufficiently experienced managers in SBR team) – so that the Final report could still be completed in sufficient quality.

**2. South Bohemian Region – investment in equipment, machinery and project staff**. The core part of the project and its budget in CZ (cca 1.2 MIL €) was focused on purchase of machinery by CB SBR, required for implementing of specific management tasks for target species and habitats.

Before the project, most of the managements of Natura2000 sites were conducted by external suppliers, procured by SBR from its budget. However, this system was quite rigid and less effective. It could not cope well with specific climatic situation of each season, which is important to consider for *Gentianella Bohemica* (the management must be correctly timed, according to climatic conditions of the given year) or it was not possible to cope with more challenging environments (e.g. the waterlogged peat bogs, less accessible cavity trees).

Therefore, SBR and its "daughter organisation" RSE used this project to shift into a management secured by their own staff, led by trained scientific managers and with the use of machinery procured by the project. This has resulted in a systematic and much better care for target species and habitats, including the less accessible or more demanding ones. The results of this new approach are best indicated by the very positive impacts on populations of *Gentianella Bohemica* (action C1)*, Carabus menetriesi pachoilei* (action C4) or some of the target habitats.

**Moreover, this project has triggered several other large investments – including other machinery and infrastructure, which will be used for proper management of Natura 2000 sites under custody of SBR. The value of these investments is 1,268,385.83 eur**. These were covered by own funds of SBR, on top of the project budget.

**Investment in nature conservation**: this is another added value. SBR has started a process of enlarging some of the protected areas in its governance – e.g. **to significantly enlarge the area of SCI Pohoří na Šumavě – from the current 156 ha to cca 1,700 ha**. The enlargement will allow a landscape-scale approach in conservation and restoration of valuable peat bog habitats, including the habitat of endemic *Carabus menetriesi pachoilei*.

This will be further supported by the **more ambitious and thorough approach in restoration of water regime of peat bogs in 4 project SCIs**. It has started by action C3.3, which has restored the water regime on 13 ha of peat bogs, but the planned continuation will lead to restoring water regime on a total area of 183.84 ha of peat bogs – thus mobilising more funds and leading to much more significant results.

Overall it can be concluded, that **for SBR, this project was a landmark - bringing not only a better management for the targeted species, habitats and project sites, but triggering a much more ambitious approach to restoration and management of Natura 2000 sites in its custody**. By this means, SBR can become an example also for other regions in Czech Republic.

**3. Intensive cooperation with experts**: this has allowed for a better preparation of expert studies (A actions) and better implementing of concrete conservation actions. Especially for actions C1, C2, C5, C7 and C8, the field consultations with numerous experts were a crucial for reaching the desired positive impact on target species and habitats. The presenting of project results on expert conferences and workshops helped to disseminate the results on expert level.

**4. Very good cooperation with local farmers and stakeholders**: this was crucial especially for creating sustainable grazing regimes on project sites (action C7), which are designed to last far after the end of

the project. Our key for success was intensive communication with local farmers, including dozens of meetings, where we tried to listen to them, understand their baseline situation, and typically developed the solution for grazing reintroduction together with them. Also, we were ready to help them, when some unexpected problems occurred. Building a robust grazing infrastructure was a necessity, that has helped to decrease the operating costs of grazing to an acceptable level. Often, we helped the cooperating farmers with including the restored land to LPIS land blocks and applying for the better paid agri-environmental schemes. This altogether has helped to build as sustainable grazing regime as possible. Moreover, the restored grazing and good cooperation with local farmers and communities has generated significant socio-economic benefits. See **FR Annex C7.c** for some examples and the stories of cooperating farmers.

Very good cooperation with local farmers and land owners was established also within actions C1, C2.

**5. More thorough approach to implementing of restoration actions**: within action C3.3, it was originally planned to restore water regime on 13 ha of peat bogs, in 4 project sites. The technical documentation prepared by action A3.1 has shown, that a more thorough approach should be applied for sustainable restoration of peat bogs. SBR and RSE have decided to apply this more ambitious, yet also more demanding approach for restoration of water regime. As a result, the restoration process will take more time, but in the end, there will be almost 184 ha of peat bogs with more thoroughly restored water regime, instead of the originally planned 13 ha. Although only a first phase was completed within the project period (restoring 13 ha in SCI Rašeliniště Kapličky), a second phase has already started in 12/2024 and others will follow, so that the ambitious target of restoration can be achieved. Here, a fruitful cooperation with Forests of Czech Republic was established, mobilizing further funds for restoration from their allocation.

**6. Learning from the more experienced:** this was crucial especially for restoration of water regime of salt marsh habitats (action C8). Prior to this project, there was little experience with this type of restoration in Slovakia. Therefore, we sought and learned the crucial knowledge and understanding of these habitats and their restoration in Hortobágy NP, especially from the Hortobágy Environmental Association and the team of Zoltán Ecsedi, who has developed and lead several restoration LIFE projects with outstanding results. The results were great – see action C.8 for details.

**7. Flexible communication tools, flexible approach in management setup on project sites** – flexible approach was crucial especially in cooperation with local farmers and stakeholders. Each farmer and each site is different, with unique conditions and unique baseline situation. Therefore, we had to tailor the restoration solutions (including the types of grazing infrastructure created by the project) specifically for each cooperating farmer.

Also, for replication purposes, we had to reach different target audience for replication of each type of project´s best practice. Being flexible and able to use and combine different communication tools (within action E3) was crucial for success. Here, the flexible approach of LIFE programme was essential. If we would have to stick to some rigid path to reach the project results or objectives, we could hardly be as effective.

**Some drawbacks**: generally, we consider the setup of project consortium as good. The combination of public bodies, who are responsible for management of Natura 2000 sites and issuing permits and NGOs, who are the pioneers, able to bring new ideas and connect different stakeholders was very effective.

In case of SNC, the overly complicated public procurement procedures, with multiple stage approval of decisions has led to failure in procuring some of the project actions. Although the assigned project coordinator of SNC did her best to prepare all the necessary background documents, due to overly bureaucratic structure, some of the processes were not finished. Some of these actions taken over by project beneficiary BROZ (action C6.2), while action E1.7 (travelling exhibition) was not created at all. However, the intensive communication campaign with diverse communication tools implemented in action E1 could compensate for this drawback.

– Compare the results achieved against the objectives and expected results foreseen in the proposal and described in section 4: clearly assess whether the objectives were met and describe the successes and lessons learned. This could be presented in a table, which compares through quantitative and qualitative information the actions implemented in the frame of the project with the objectives and expected results in the revised proposal:

| Action | Foreseen in the revised proposal | Achieved | Evaluation |
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| **A.1** | Objectives + Expected results (ER):<br>Key project machinery procured, delivered and put into operation on time – to be ready for timely implementing of C-actions<br><br>Key personnel hired and trained | Achieved on time | All key project machinery required for implementing of C-actions was procured and put to operation on time<br>All key project personnel, including the machine operators and workers hired and trained on time for implementing of C-actions<br>The core trained personnel and procured machinery will continue in their work also during After-LIFE, thus securing the sustainability of the established management measures |
| **A.2** | Elaboration of expert studies for treatment of veteran trees – habitat of *Osmoderma eremita.* Prosposal for treatment of min. 1,000 cavity trees. | Achieved and exceeded | The study was delivered in desired extent. Additional study for treatment of more trees followed (see Evaluation of action C.2) |
| **A3.1** | Elaboration of expert studies for restoration of water regime on 4 project sites (peat bog habitats) – expert basis for action C3.3. | Achieved on time | The 4 expert studies were timely delivered. |
| **A3.2** | Elaboration of expert study for restoration of pedo-hydrological regime of salt marsh habitats (expert basis for implementing action C8) | Achieved with delay | Achieved with delay, but additional time was used for better planning, leading to better implementing of action C8 (leading to more impactful results). |
| **A.4** | Elaboration of Expert study on restoration and grazing management of grassland habitats – expert basis for implementing actions C6 and C7 in Slovakia | Achieved with delay | The delay had no negative effect on implementing of actions C6 and C7 (all necessary information was consulted and shared with the project team even before its delivery) |
| **A.5** | Elaboration of Expert study on restoration of habitat 91E0* Ash-alder alluvial forest – expert basis for action C5 in Slovakia | Achieved on time | The study was delivered on time and served as basis for implementing of action C.5. |
| **B.1** | Objective:<br>Acquiring crucial land for implementing of key project actions in Slovakia and securing the sustainability of results.<br>ER:<br>40 ha of land purchased<br>30 ha long-term leased | Achieved:<br>41.61 ha of land acquired by land purchase and swap<br>**288.54 ha of land long-term leased** | **Expected results exceeded significantly** – especially for land lease. Areas with some of the most valuable target habitats were acquired, securing long-term sustainability of project actions. Esp. in SCI Čenkov – the most valuable site with target habitats *6120, *6260 and *91N0 in Slovakia. All of it was long-term leased to allow sustainable implementing of project actions. |

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| **C.1** | Objective:<br>***Gentianella Bohemica:***<br>**10% increase** of the GB population.<br><br>Best-practice management methodology established on 80% of area of GB within project sites<br><br>min. 50% increase in area of suitable habitat for GB<br><br>improve cooperation with stakeholders for better species management<br><br>min. 1 replication reached | Achieved:<br>Negative population trend before implementing of action C1 was changed to positive.<br><br>**85.1% increase** of the GB populations<br><br>**100% of areas with GB occurrence in project sites with best-practice management established** (this will be kept on long-term, also including After-LIFE)<br><br>**84.9% increase in area of suitable habitat for GB**<br><br>1 replication achieved | **Very significant positive impact of the project.**<br>• The negative (decreasing) population trend of GB was changed to positive (increase).<br>• Achieved population increase of target species was far bigger than expectations.<br>• The management methodology developed by the project was recommended as the most suitable management measure on a national level – also in the official guidelines for GB management<br>• Crucial machinery for long-term management of GB purchased by the project, personnel employed and successfully trained (operators, workers, scientific manager), good cooperation with national experts on GB established – all this will be maintained also within After-LIFE period<br>• Very good cooperation with stakeholders established (this will continue also within the After-LIFE)<br>• **The project sites host the core of Czech and global population of this endemic species – which makes the results even more relevant** |
| **C1.1** | ER: Introduction of best-practice management on areas with GB on project sites, **min. 9.54 ha** | Achieved results (AR):<br>Best-practice management established on **16ha** | **Expected results exceeded significantly** |
| **C1.2** | ER: enlargement of habitats of GB by 5.93 ha | AR: Enlargement of suitable habitat by 8 ha | ER exceeded |
| **C1.3** | ER: Elimination of an adverse impact of the surroundings on the species population or biotope – on area of 9.8 ha | AR: Sub-action implemented on a total area of 10 ha | ER achieved |
| **C.2** | Objectives<br>*Osmoderma eremita* (OE) population increased by min. 10%<br>Extension of suitable habitat for OE by min. 20%<br><br>Improve the habitat continuity in time by planting of new trees (C2.4)<br><br>Preserve the aesthetic values of the project sites (by preserving old veteran trees and restoration of pollarded willows) | Achieved objectives<br>OE population not possible to evaluate, due to specific ecology of the species (but an improvement in trend is expected, as a result of improved habitat conditions)<br><br>**Share of habitat trees with suitable microclimate for OE increased from 5%** | **Objectives were exceeded significantly,**<br>**high sustainability of results**<br>**high replication potential**<br>• Increase in suitable habitat *for Osmoderma eremita* exceeded significantly<br>• Improved future outlook of habitat trees (by treatment of old trees in SBR and reintroduction of pollarding in SK)<br>• Improved habitat connectivity and continuity in time (by planting of new trees) |

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| | | **before the project to 90% after it** | • Aesthetic values of project sites preserved and improved (by treatment of old veteran trees and restoration of pollarding), risk of tree cutting from safety reasons decreased, life-span of many trees increased<br>• New system of care for old cavity trees in SBR established, crucial machinery purchased and personnel trained – all will be continued also in After-LIFE period; it will be used also for treatment of further habitat trees in Natura2000 sites in SBR – thus enlarging the project results<br>• Slovakia: very good potential for replications developed; 15 replications of pollarding willows achieved already within the project<br>• BONUS: significantly increased knowledge on biodiversity of pollarded willows in Slovakia (362 species of Coleoptera discovered in old pollarded willows) |
| **C2.1** | ER: 1,000 old habitat trees treated | 1,286 habitat trees treated | ER exceeded |
| **C2.2** | ER: min. **300 abandoned willows treated** by reintroduction of pollarding | **541 abandoned willows treated** by reintroduction of pollarding | **ER exceeded significantly** |
| **C2.3** | ER: Clearing of undergrowth implemented on min. 25 ha | Clearing of undergrowth implemented on 27.17 ha | ER achieved<br>Long-term sustainability secured by nature-friendly grazing |
| **C2.4** | ER:<br>CZ: min. 1000 new trees planted<br>SK: min. 500 pollarded willows established | CZ: 1,148 new trees planted<br>SK: 558 new willows established | ER achieved + slightly exceeded |
| **C2.5** | Creating of a beetle logger | 2 beetle loggers created | ER achieved |
| **C2.6** | Grazing reintroduced in areas with pollarded willow stands – on min. 25 ha | Grazing reintroduced on 29.1 ha of areas with PW stands | **ER exceeded**<br>Sustainable grazing regime introduced (will be kept also during After-LIFE) – this will preserve suitable microclimate for OE also on long-term |
| **C.3** | Objective:<br>Habitat *91D0 restored on 4 project sites, on total area of 125 ha + enlarged by 20 ha<br>To be done by (ER):<br>Improving of trees species composition (125ha + 20 ha)<br>Planting of 20,000 native trees (*Pinus rotundata*)<br>Restoration of water regime of peat bogs on 13 ha | Habitat *91D0 restored on 125 ha, in 4 project sites<br>+ enlarged by 20 ha<br>Water regime restored on 13 ha of peat bogs in 1 project site (instead of 4, but size of restored area is as expected)<br>All sub-actions were implemented according | Objectives and expected results were generally met<br><br>More significant impact is expected in near future:<br>**SBR and RSE decided for a more ambitious and thorough approach, which will lead to restoration of water regime on a total area of 183.84 ha (ER=13 ha)** |

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| | | to plan, with minor deviation in C3.3 | Of this, 13 ha was achieved by the project (1 project site), the remaining part will be done within the After-LIFE period, on all 4 project sites<br>All technical documentation is prepared and crucial agreements with stakeholders achieved<br>The more thorough restoration of water regime will improve the ecological conditions of peat bogs on long-term, thus reducing the need for subsequent management due to reduced rate of succession and reduced need of mowing of dominant grasses, etc. It will also improve ecosystem services (e.g. carbon sequestration)<br>Planting of *Pinus rotundata* will continue also after the project end (thus improving the project impact) |
| **C3.1** | 125 ha of habitat 91D0* restored | 125 ha restored by removing of undesirable trees, mowing, mulching, planting of native *Pinus rotundata* | ER achieved |
| **C3.2** | Area of habitat *91D0 enlarged by 20 ha – by restoration of degraded areas | 20 ha enlargement achieved – by removing of undesirable trees, planting of *Pinus rotundata*, mowing, mulching | ER achieved |
| **C3.3** | 13 ha of peat bogs with water regime improved, on 4 project sites | 13 ha of peat bogs, with more thorough and sustainable improvement of water regime, but in 1 project site | ER generally achieved, with small deviation<br>SBR and RSE prepared a plan for a much more ambitious and thorough restoration of all 4 project sites – leading to a total area with restored water regime of 183.84 ha<br>The restoration works will be done in After-LIFE period (starting from 16/12/2024, gradually implemented until cca 2029)<br>All necessary technical documentation is prepared, all crucial agreements with stakeholders achieved |
| **C.4** | <u>Objectives:</u><br>1) improve the conservation status of **habitat *7110** by halting the undesirable vegetation succession and restoring natural species composition.<br>Habitat *7110 enlarged by 30 ha<br>2) Improve the conservation status of **endemic species *Carabus*** | <u>Achieved objectives</u><br>Habitat *7110: conservation status improved; habitat enlarged by 20 ha<br><br>*Carabus menetriesi pachoilei :* | **Objectives exceeded significantly for *Carabus menetriesi pachoilei***<br>**- both in terms of restored habitat area (38.4 ha vs. 20 ha expected)**<br>**- and in increase of population (49.7% vs. 15% expected)**<br>This is a significant impact of the project, given the endemic nature of CMP |

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| | ***menetriesi pachoilei*** by enlarging its habitat by 20 ha,<br>Increase the population by 15%<br><br><u>Expected results:</u><br>- Shrubs and pioneer trees removed on 45 ha in total<br>- Mossaic mowing restored on 79 ha in total | - suitable habitat enlarged by 38.4 ha<br>- population in project sites increased by 49.7%<br><br><u>Achieved results</u><br>- shrubs and pioneer trees removed on a total area of 20 ha<br>- mosaic mowing restored on 75 ha in total<br>+ on further 210 ha of peat bog habitats in vicinity of project site SCI Pohoří na Šumavě (achieved thanks to good cooperation with land owners/users) | Objectives not fully achieved for habitat *7110 (due to disagreement of some land owners)<br>But ambitious compensatory measures implemented and planned:<br>1) mosaic mowing restored on 210 ha of peat bog habitats in vicinity of project site Pohoří na Šumavě (part of SPA Novohradské hory)<br>2) significant enlargement of this protected area is planned – cca 1,700 ha – to be included also in Natura 2000 as a SCI (in cca 5-year horizon, habitat inventories already underway, SBR is responsible)<br>3) more thorough improvement of water regime is planned in both project sites targeted by this action (see action C3.3 for more details) – thus ecological conditions of habitat *7110 will be improved significantly, leading to decrease rate of succession in a natural way |
| **C.5** | <u>Objective:</u><br>Improve the conservation status of **target habitat *91E0** – by planting of native trees and removing of IAS and undesirable plant species<br><br><u>Expected results</u><br>Planting of native trees:<br>SK: 30,000<br>CZ: 1,000<br>After-planting care secured<br><br>IAS removal:<br>SK: 30 ha<br>CZ: 17 ha | <u>Achieved Objectives (AO):</u><br>Conservation status of target habitat *91E0 improved (improved species composition)<br><br><u>Achieved results (AR)</u><br>Planting of native trees:<br>SK: 30,505<br>CZ: 1,001<br>After-planting care was secured (game protection, mowing)<br><br>IAS removal:<br>SK: 30.5 ha<br>CZ: 52 ha | Objectives and expected results were achieved<br><br>**High survival rate of planted trees was achieved (cca 98%), with very good growth**, thanks to applying of novel knowledge in nature-friendly forest restoration + robust game protection and suitable after planting management (mowing of weeds/creepers)<br><br>Good habitat structure and species composition achieved on restored areas (indicated by results of botanical monitoring) |
| **C.6** | <u>Objective:</u><br>Restore target grassland habitats *1340, *1530, *6110, *6120, *6210, *6250, *6260, *91N0 and prepare them for subsequent management by grazing or mowing | <u>AO:</u><br>Target grassland habitats restored and prepared for subsequent long-term management | Objectives were achieved<br><br>Good coordination with reintroduction of grazing (action C7) has resulted in more sustainable results and synergic effects (sub-actions C6.1 and C6.2)<br><br>**Controlled burning made legal** in Slovakia as a new management method of grassland habitats in N2000 sites + tested in project sites |

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| **C6.1** | ER: restoration management implemented on 225 ha of grassland habitats | AR: restoration management implemented on 226 ha of grassland habitats (by mowing, mulching, removing of IAS, removing of shrubs and pioneer trees) | Expected results were achieved |
| **C6.2** | ER: IAS removed on 130 ha in SCI Čenkov (*Ailanthus altissima, Asclepias syriaca*) | AR:<br>*Ailanthus altissima*: removed on 74.1 ha<br>*Asclepias syriaca*: removed on 254.9 ha in SCI Čenkov | ER generally achieved, although with deviations caused by delay due to inability of SNC. The restoration works were taken over by BROZ and implemented within the project duration.<br>High success rate of IAS removal was achieved (cca 99% against the species targeted). Monitoring will continue also during after-LIFE. |
| **C6.3** | ER: Establishing of monitoring system to prevent stealing of rare orchids in SCI Devínska Kobyla | AR: Monitoring system established cca as planned – 10 phototraps installed and operated, ranger employed full-time | ER were achieved<br>Monitoring system will continue its |
| **C.7** | Objective:<br>Establish sustainable grazing management on areas of restored grassland habitats (SK only)<br><br>Expected results:<br>**210 ha of grassland habitats with restored grazing**<br>Grazing infrastructure on project sites established (fixed fences, shelters and watering places for grazing animals, etc.)<br>Animals for grazing purchased<br>Commitments on long-term continuation of grazing signed | Achieved objectives:<br>Sustainable grazing management established<br><br>Achieved results<br>**428.8 ha of grassland habitats with restored grazing**<br>Durable and robust grazing infrastructure created (in higher extent than anticipated)<br>Very good cooperation with local farmers established, commitments signed<br>Animal purchase was not that necessary | **Objectives and expected results significantly exceeded**<br>(428.8 ha of restored grazing vs. 210 ha anticipated)<br><br>**Very positive impact on target grassland habitats, that is likely to further improve with time (also after the end of project)**<br><br>Sustainable grazing systems created on project sites<br><br>Very good cooperation with local farmers established<br><br>Significant values of socio-economic benefits generated |
| **C.8** | Objectives:<br>Improve water regime of salt marsh habitats (C8.1)<br>Create conditions for initial halophytic species, including habitat *1530 (C8.2)<br><br>Expected results<br>C8.1: | Achieved objectives:<br>Water regime improved<br><br>Conditions for initial halophytic plants created, with very positive impact<br><br>Achieved results: | Objectives and expected results generally achieved<br><br>**Very significant positive impact on target habitats, especially on habitat *1530**, which is on the verge of extinction in Slovakia (the project significantly contributed to saving it) |

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| | 42 ha of salt marshes with improved water regime<br>2,000 m of drainage channels removed<br>Water retention capacity increased by 42,000 m3<br><br>C8.2:<br>20 plots of 20x20m with topsoil layer removed – to create conditions for rare pioneer halophytic plants (total area of 0.8 ha) | 32.6 ha of salt marsh habitats with improved water regime<br>2,490 m of drainage channels removed<br>Water retention capacity increased by 32,600 m3<br><br>11 plots with topsoil layer removed, but on a significantly larger total area (1.77 ha) | Very significant positive effect on critically endangered halophytic species *Crypsis aculeata*<br><br>**4 new species of insects for Slovakia discovered directly on habitat plots created by action C8.2**<br><br>Breeding of rare bird species indicative of target habitats *1530 and *1340 recorded on 2 project sites (*Tringa totanus, Himantopus himantopus, Vanellus vanellus*)<br><br>**Sustainability of results significantly increased** by intensive grazing regime (restored by action C7) |
| **D.1** | <u>Objectives:</u><br>Monitoring on restored project sites implemented, to evaluate the impact of project actions on target species and habitats<br>Impact of dissemination actions on target audience evaluated<br><br><u>Expected results:</u><br>D1.1: Monitoring of 3 target species implemented<br>D1.2: Monitoring of 3 forest and 8 Non-forest habitats implemented<br>D1.3: Monitoring of habitat attributes implemented (hydrology, pedology)<br><br>Annual monitoring reports elaborated and delivered + Final monitoring and evaluation reports<br>Database of monitoring results established | <u>Achieved objectives:</u><br>Monitoring of all target species and habitats implemented generally as planned<br>Impact of dissemination activities on target audience was evaluated (both quantitative and qualitative) – general public, cooperating stakeholders, experts<br><br>Annual monitoring reports and final monitoring reports/evaluations elaborated and delivered, generally as planned<br><br>Monitoring results on target species and habitats were uploaded in relevant national databases in Czech Republic and Slovakia | Objectives and expected results achieved<br><br>**BONUS:** very good cooperation with researchers established, dozens of them focused on studying rare plant, insect and bird species on project sites (mostly in their free time), discovering e.g. 4 new insect species in Slovakia on the restored plots (= more effort mobilised than anticipated by the project, higher value for money)<br><br>3 studies prepared on top of the expected results:<br>• Diversity of beetle fauna in pollarded willows (362 species discovered)<br>• Diversity of ripicolous beetles in restored salt marsh habitats<br>• Diversity of dung beetle fauna on project pastures |
| **E.1** | <u>Objective:</u><br>Dissemination of project topics, objectives and results to general public<br><br><u>Expected results:</u><br>E1.1: Creation of communication plan<br>E1.2: Project website created and updated,<br>min. 5,000 unique visitors | <u>Achieved:</u><br>Dissemination of project to general public implemented<br><br><u>Achieved results:</u><br>E1.1: Project´s communication plan was created and shared with all project partners | <u>Evaluation</u><br>Although the expected results of dissemination actions to general public were overly ambitious, generally, the objectives of communicating the project to general public were met.<br>This was achieved especially by significantly more intensive media campaign – with 178 outputs in local, regional and nation-wide media, |

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| | E1.3: Social networks:<br>Project´s Facebook site created, min. 500 followers, 40 competitions organised<br>E1.4 Media campaign<br>- 60 media outputs<br>- 10 press releases<br>E1.5 Noticeboards:<br>- created on project sites in CR (25 pcs.) and SK (33 pcs)<br>E1.6 Printed materials, promotional items created:<br>Leaflets on project sites (55 versions)<br>Leaflets on habitats and species<br>Maps of Natura 2000 sites in CZ and SK area<br>Ecological textile bags<br>Notebooks<br>pens, chocolates, memory games: match-match, quartet<br>Layman reports<br>E1.7 Travelling exhibition created and presented (8 sites, min. 800 visitors)<br>E1.8 Project film created, presented on min. 4 festivals/events, min. 2 TV broadcastings<br>50 video streams created | E1.2 Project website was created, regularly updated, 6,700 unique visitors<br>E1.3 Facebook site created+updated, **1,100 followers**<br>E1.4 Media campaign:<br>178 media outputs<br>10 press releases<br>E1.5 Noticeboards created and placed on project sites<br>E1.6 Printed and promotional materials prepared and disseminated (generally as planned, with minor deviations)<br>**E1.7 Travelling exhibition was not created**<br>E1.8 Project film was created and presented on 2 events + broadcasted 3 times in TV<br>19 video streams created (but in longer times than originally anticipated) | including prime-time evening news on most viewed TV channels in CZ and SK (ER=60 media outputs)<br>Also, the website and social media campaign reached more audience than expected. The project website includes very extensive information and photos of project sites, project actions, target species and habitats – therefore, it could be used as a more effective communication channel than e.g. the old-fashioned leaflets and printed materials.<br>Due to exceeded results and diversity of media and social media campaign, we could reach audience at both nation-wide level and also on regional/local level, including the vicinity of project sites.<br>Publication in specific media (magazines for hobby farmers, experts, students, etc.) could effectively reach also relevant stakeholders, experts, etc.<br>This could compensate for sub-action E1.7, which was not implemented (Travelling exhibition) |
| **E.2** | <u>Objective:</u><br>Dissemination of project topics, objectives and results to key stakeholders and experts<br><br><u>Expected results:</u><br>E1.1: 80 community engagements, with min, 1200 participants (excursions, lectures, round tables, etc.)<br>E2.2: Presenting the project on min. 50 expert events (seminars, conferences, workshops, etc.)<br>E2.3 min. 30 networking events implemented<br>E2.4 Final international conference organised<br>E2.5 Corduroy nature trail in SCI Borkovická blata constructed, 500m long | <u>Achieved:</u><br>Dissemination of project to key stakeholders and experts implemented, with very good results<br><br><u>Achieved results:</u><br>E2.1: 67 public events organised, with **3,072 participants in total**<br>**E2.2 Project presented on 76 expert events – on national and EU level, with very good feedback**<br>E2.3: 58 networking events implemented,<br>E2.4 Final conference organised<br>E2.5 Corduroy nature trail in SCI Borkovická blata created, **10,641 annual visitors** | <u>Evaluation:</u><br>**Objectives and expected results significantly exceeded, significant impact**<br><br>Project was presented on high-level international events targeting experts in biodiversity and nature conservation: incl. a **keynote presentation on International congress on entomology in Helsinki** (within the LIFE Programme panel, 7/2022), or **EU Biogeographic seminar in Strasbourg** (16.-18. 10. 2018) – with very positive feedback<br><br>Important cooperations were initiated on **networking events – leading to development of 3 new LIFE projects** |

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| **E.3** | Objective:<br>Increase the replication potential of the project<br><br>Expected results:<br>20 replications reached already within the project duration<br><br>E3.1: 12 workshops and excursions for key experts and stakeholders organised, min. 215 participants in total<br><br>E3.2: min. 80 personal meetings with stakeholders<br><br>E3.3: min. 4 expert workgroups created for project´s best-practice methods, min. 40 total partic.<br>E3.4: 4 focal points established for sharing projects best-practice methods, min. 100 consultations to entities interested in replications | Achieved objectives:<br>Replication potential increased significantly<br><br>Achieved results:<br>**22 replications achieved** – already during the project period<br>E3.1 **17 workshops and excursions for experts** and key stakeholders organised**, 350 participants in total**<br>E3.2: **Hundreds of meetings with stakeholders**<br>E3.3: 5 expert workgroups created, with 57 members in total<br>E3.4: 5 information focal points established, 76+ consultations realised by BROZ only (others were not listed in detail) | Evaluation:<br>**Objectives and expected results of this action were very ambitious, but were achieved and even exceeded**<br><br>Most projects discuss only the potential for replication of their best-practice (which often stays only in this phase, with no real replications achieved)<br><br>**Achieving 22 replications of project´s best practice methodologies is a very significant result** (with very good contribution of this action)<br>This was thanks to thorough development and testing of project´s best practice management methodologies, e.g. for pollarding of willows (15 replications achieved), *Gentianella Bohemica* habitat management, etc. + thanks to intensive work with stakeholders and experts (action E.3), media work, developing manuals for optimal management, etc.<br><br>**Very significant policy implications achieved** (esp. in Slovakia) – see below, in the chapter Policies |
| **F.1** | Objective:<br>Project management established and running<br>Expected results:<br>Partnership agreements signed<br>Project staff appointed and trained<br>Reports on project progress prepared and delivered | Achieved:<br>Project management effectively established<br>Achieved results:<br>Partnership agreements signed<br>Project staff appointed and trained<br>Reports on project progress prepared and delivered | Evaluation:<br>Objectives and expected results achieved generally as planned<br><br>Two changes of project manager/contact person occurred during the project period (last in 6/2024 – just at the project end, leading also to more time required for delivering of project´s Final report) |
| **F.2** | Objective + expected results:<br>F2.1: Project´s financial management and bookkeeping established<br>F2.2: Audit of project expenditures implemented | Achieved results:<br>Project´s financial management and bookkeeping established<br>Audit of project expenditures implemented | Evaluation:<br>Objectives and expected results achieved generally as planned |
| **F.3** | After-LIFE plan: prepared and delivered with project´s Final report | After-LIFE plan was prepared and is annexed with Final report | Achieved generally as planned |

- Indicate which project results have been immediately visible and which results will only become apparent after a certain time period.

Results of most project actions were immediately visible. This was confirmed also by monitorings of project impacts on target species and habitats (action D.1), where significant positive impacts were documented, especially for endemic species *Gentianella Bohemica* and *Carabus menetriesi pachoilei* (see also above table – actions C.1 and C.4). The impact on population of *Osmoderma eremita* could not be directly measured, due to specific ecology of the species. However, impact on its habitat was very positive, therefore, an improvement of its trend can be expected in short and medium-term. This is also due to a longer life-cycle of the species (up to 4 years).

Although the results of restoration of water regime (peat bogs – action C3.3, salt marshes – C8.1) were immediately visible, they have launched a change in ecological conditions, that will trigger further positive impacts with time. This is also the case of tree planting (action C2, C5), where further positive effects are expected with time - as the trees will grow, the target habitats will further develop.

Grazing regime: although positive effects on target grassland habitats are already visible (documented also by habitat monitoring), we expect positive trends and further improvements, that will continue also after the end of this project, thanks to sustainable and nature-friendly grazing regime that was established on project sites. This is indicated also by our experience from former previously finished LIFE projects, where the state of grassland habitats continues to improve even 10 years after the reintroduction of grazing (e.g. LIFE PANNONIC_SK, LIFE Natura 2000 BA).

The results of dissemination actions were visible not only in terms of numbers of media outputs, organised events and their participants (etc.), but especially on the positive feedback received from the participants, by very effective cooperations with local farmers and experts, that were established and last until now (see the section “effectiveness of the dissemination actions for more information).

- If relevant, clearly indicate how a project amendment led to the results achieved and what would have been different if the amendment had not been agreed upon.

Not relevant in our case: the 2 grant amendments where targeting only minor changes in project administration.

- Describe the results of the replication efforts.

**22 replications of project´s best practice methodologies were achieved already within the project duration**. This is a very significant result, since most projects discuss only their potential for replication, which can often stay only in this phase, with no real replications achieved. We went significantly further and achieved a high number of replications already within the project.
See **FR Annex E3.5a** for a detailed list of all 22 replications achieved, their results, how and by whom they were achieved. **FR Annex E3.5b** provides a nice photo documentation, with a few stories behind.
Replications achieved include:

- **Reintroduction of pollarding: 15 replications were achieved**.
  Altogether, **118 abandoned willows were pollarded and 94 willows were newly established.** These are significant numbers, even compared to results of action C2.
  All of this was achieved by work of local land owners/users in different regions of Slovakia, local activists, hobby farmers, etc. – **with practically no costs to the project** (only the working time of project staff for expert advice and consultations). In this way, the project generated more value for money and its replication campaign will likely bring more results in this field also in future.
  **How this was achieved**: BROZ has implemented a thorough and diversified communication campaign to promote the replication of this practice. The tools included a "Manual for pollarding of willows" – prepared in SK and HU language and disseminated both in printed version and online. We have promoted the topic, including this manual on social media and in project´s media outputs (E1) - especially by interesting articles in magazine "Doma v záhrade" ("At home in the garden") – which is focusing on hobby farmers, an important target group. Those who were interested to apply replications of this practice in their areas could contact the project´s Information focal point (IFP, action E3.4), from which they received more detailed advice or even contacts to experienced arborists, who helped them with implementing. Another group of replications came from the participants of workshops for pollarding of willows (E3.1), organised every year by BROZ.
- **IAS removal – 1 replication, but very important**: Dr. Robert Stejskal, a site manager in Podyjí National Park has adopted the method of stem-injection for the removal of problematic woody IAS species (e.g. *Robinia pseudoaccacia, Ailanthus altissima*) – after recommending this method and its effectivity from Pavol Littera (project coordinator of BROZ). Since then, he has used it in large extent for IAS removal, both in the national park itself, and also, he has "spread the word" and the use of this method to further areas in Czech Republic. "It was the best discovery in my professional career", he said, during a field visit, when he presented the results of his work, using this method.
- **Grazing reintroduction**: **5 replications achieved, with 53.3 ha of restored grazing in total**. Most of the replications are located in naturally valuable areas, and one of the farmers who implemented his replication included his land in Natura 2000 site - as an extension of SCI Malý Dunaj. BROZ provided the necessary advice and connection with responsible authorities and administrative advice, to make this happen.
- ***Gentianella Bohemica***: the best-practice management methodology developed by the project served as a basis for the actualisation of national management methodology for GB (elaborated in 1/2024) – and is now recommended as the most suitable method for management of GB populations in the whole country.

So far, 2 other regions in CZ are interested in replications of this practice. In Vysočina region, the replication of this methodology is planned to start from 2025.
The method was already replicated by Ing. Josef Honz, for management of the rare *Gentiana pneumonathe* in SCI Pastvina u Záhořčic.

- Indicate the effectiveness of the dissemination activities and comment on any major drawbacks.

The results of dissemination action were visible not only in terms of numbers of media outputs, organised events and their participants (etc.), but especially on the positive feedback received from the target audiences and the practical involvement of different audience groups in project cooperations, different spin-offs, replications and socio-economic benefits created thanks to successful cooperations with local farmers, etc. This was a result of successful implementing of communication and dissemination actions. Below listed are some of the most valuable results, together with communication tools (project sub-actions), that were used to reach them:

- **very good cooperation with experts, researchers and environmentalists was established** – this brought a much more thorough research of the restored sites in Slovakia, discovery of 4 new insect species in Slovakia, preparation of 3 monitoring assessments on insect biodiversity (on top of action D.1, increasing the "value for money of the project") and allowed a much better setup of restoration actions - esp. C2, C5, C6, C7 and C8, yielding more impactful results. Also, it aided in replication of best-practice management methods (esp. for *Gentianella bohemica*)
  Here, the main tools that helped were the presenting of project results and best practice on expert conferences (E2.2), networking, expert workgroups and meetings with experts directly at the project sites.
- **new cooperations initiated on networking events – leading to development of 3 new LIFE projects** (LIFE endemic PANALP, LIFE Metamorphosis, LIFE Diverseed)
- **very effective cooperations with stakeholders and local farmers**, which brought very impactful and sustainable results of actions C1, C2 and C7, as well as valuable socio-economic benefits to the cooperating farmers and communities. See FR Annex C.7c and FR Annex C1.e for photos and stories of cooperating farmers and stakeholders and the values generated in this way. Here, the main tool were personal meetings with stakeholders, directly in the field, as well as being flexible to find solutions, that the farmers and stakeholders need for sustainable grazing on project sites (here, the flexible and result-oriented approach of the LIFE programme was crucial)
- **Very significant results of replications and policies** – see the above chapter for details.
- Very important was also the previous **experience of key project beneficiaries BROZ and SBR** in this field and their recognition among public and local stakeholders. In this way, it was important that the project could build on successful results already achieved by the previous projects (e.g. LIFE PANNONIC_SK, LIFE Natura 2000 BA) and initiatives (SBR region).

**What was less effective (drawbacks):**
In general, we think that **the expected results of action E.1 were overly ambitious - especially the very high number of different types of printed leaflets, brochures, etc** (this was also stated by the project´s reviewers in the Evaluation synthesis). Presently, most people communicate on-line. Therefore, we tried to put more effort and more content on project website, social media and classical media outputs – where we achieved significantly better results and could reach much bigger audience – both on nation-wide, but also on local level (e.g. local and regional magazines in villages and towns near to project sites). Due to this, we prepared some of the deliverables originally expected in actions E1 and E2 only as a QR code, with a link to the well-developed project website (see section "Deviations" for more details). Also, instead of leaflets of some less visited project sites, we prepared a Manual for pollarding of willows – a leaflet in SK and HU language version, available both in printed form and

online. The manual was very successful and together with intensive media campaign and workshops, it has led to 15 replications in pollarding of willows. We are thankful for helpful approach of project monitor and desk officer, that has allowed this modification, leading to much more effective results.
Also, we prepared outputs in magazines targeting specific groups of stakeholders – hobby farmers, researchers, nature conservationists, etc. By this means, we could reach also these specific groups, which has led also to several replications of project´s best-practice. This varied pallet of communication actions and positive effects reached could also compensate for the travelling exhibition, which was not organised at all, due to a rigid and overly bureaucratic management structure of SNC (E1.7).
The overall evaluation of impact of project´s dissemination actions is summarized in part 6.1, under actions E. Communication and dissemination actions - Overall assessment.

- **Policy impact**
    - Describe project achievements which supported legislation (regional, national, EU)
    - Indicate the main barriers identified and the action(s) undertaken to overcome them
    - Describe any policy developments that resulted from your project activities
    - Describe how the project delivered the results foreseen in the Grant Agreement form B3 "EU ADDED VALUE OF THE PROJECT AND ITS ACTIONS". In addition, if in the Grant Agreement Form B1, the project has been labelled as significantly climate related and/or biodiversity related, cover these elements as well.

**Policy developments – new or improved policies (in terms of nature conservation):**

In Slovakia, BROZ made significant effort for improving policies related to the objectives of the project. The most important results of this effort, together with their impact and the contribution of the project team are described below. The biggest successes (CAP Ecoschemes, Reform of national parks) were a result of cooperation and support of more project teams (CZ-SK SOUTH LIFE, LIFE SUB-PANNONIC, LIFE endemic PANALP, DEAR Game On!), and more NGOs (BROZ, SOS/Birdlife Slovakia, My Sme Les), but the results are definitely worth it:

**1. Ecoschemes 2023-2027, Slovakia**

**What was achieved:**

**Ecoschemes** – very ambitious setting of Ecoschemes was achieved, mobilizing more than 500 million eur for well targeted measures to increase biodiversity of farmland areas**. In Slovakia, the setting of Ecoschemes for the CAP period 2023-2027 was evaluated as one of the most ambitious in EU, by an independent assessment conducted by WWF and Birdlife Europe.** This assessment compared the settings of Ecoschemes in all EU member states in terms of their expected impact on farmland biodiversity. Two Ecoschemes are the most important:

**A. Whole-farm ecoscheme** – with a total allocation of **513 MILLION EUR**. The main objective was to increase the biodiversity of intensive farmland, especially in lowlands, which suffer from most intensive farming use – and where most of the CZ-SK SOUTH LIFE project area is situated.

The main feature is **creating flowering bands – min. 12 m wide**, which have divided the large and uniform blocks of arable land to blocks of maximum size of 50 ha in unprotected land and max. 20 ha in protected areas (e.g. SPAs).

**Why this is important**: before this Ecoscheme, Slovakia had the worst structure of arable land of all EU member states – with average size of farming block being 12 ha. However, in lowlands, where the soil is most fertile, the size of uniform arable land blocks was often 100-200 ha, or even more. In such conditions, the conditions for biodiversity were extremely poor.

**The impact on landscape**: in 2023, 88.3 % of all eligible agricultural land in Slovakia was subjected to the Whole-farm Ecoscheme, thus making its impact on the farmland biodiversity in Slovakia very significant. To illustrate the extent of results is numbers:

- **1,533,292 ha** was the total area of land, that was subjected to this Ecoscheme (data for 2023).
- **7,518 flowering bands were created**, with a total area of 8,188 ha (data for 2023). In the previous CAP period (2014-2020), the total area of flowering bands in Slovakia was only 255 ha – thus, a 32-fold increase was achieved by this measure.

Most of the flowering bands were created in lowlands – exactly where they are most needed, since here the use of farmland is most intensive and blocks of arable land were the largest.

**How it works**: illustrated on a map (Fig. 1, Fig. 2), with the farmland in vicinity of project site SCI Dunajské trstiny used as an example, BEFORE and AFTER the applying of the ecoscheme.

**The impact on biodiversity**: the flowering bands have created a finer landscape mosaic, with increased proportion of grassy-flowery bands. This is visible especially in lowlands, where most of these bands were created. Together with SOS/Birdlife Slovakia, we already developed a **spin-off project LIFE 4 Steppe birds**, which has the advocacy for Ecoschemes and monitoring of their impact on biodiversity as one of its objectives. So far, **the data from 2023 and 2024 monitoring seasons indicate a very positive impact on pollinators (bees, butterflies, Diptera, Orthoptera) and also on farmland birds**. We intend to continue in this monitoring and use the data for advocacy for optimal setting of Ecoschemes also for the CAP period 2028-2035.

**B**. **Ecosheme: Animal welfare – grazing**, with a **total allocation of 46 MILLION EUR**.

The ecoscheme is supporting farmers, who graze their animals outside, on pastures (instead of keeping them indoor - as intensive farm breeding typically does). Grazing of animals is often very labour-demanding and many farmers are struggling to make living from grazing, which can often lead to quitting and abandonment of grasslands. This ecoscheme will bring a much-needed support for grazing – as a key management method of grassland habitats in Slovakia. However, much more still needs to be done, to address the largescale problem of abandonment of grassland habitats in our country.

**Fig. 1: BEFORE the Ecoscheme**, 6/2021. Arable land in vicinity of project site SCI Dunajské trstiny. The borders of the site are indicated by blue line. The uniform blocks of arable land on the picture have a size of up to 120 ha. (Cadastral area Veľké Kosihy, Komárno district, SW Slovakia).

**Fig. 2: AFTER applying the Ecoscheme** (10/2023) – the same view, same scale. Flowering bands, 12m wide have divided the large blocks of arable land to significantly smaller ones. This creates a much finer landscape mosaic, more suitable for bird and insect diversity, including pollinators. At least 13 flowering bands can be seen on the picture (south, west and north of the site), with a length ranging from cca 400 to 1,100 m. The flowering bands form also important biocorridors in the intensively used farmland.

**2. Reform of National parks**
The objective of the Reform was the better management of State-owned land in National parks of Slovakia. The total area of 9 national parks in Slovakia is more than 295,000 ha, with state-owned land covering a major part of it. Before the reform, this land was managed by State foresters, which was not the ideal state for nature conservation, often leading to logging and destruction of Natura 2000 habitats, including the habitats of the rare Capercaille, which is now significantly endangered as a result of this.
The reform has shifted the management of the state-owned land to the National park directorates, which by definition have a higher motivation to manage the land in a more nature-friendly way.

**3. Agro-environmental schemes: higher support for management of salt marsh habitats.** Since the CAP period 2023-2027, salt marsh habitats were moved to a higher and better paid A-category of grassland habitats. Before this change, the farmers, who were grazing on salt marsh habitats received +70 eur/ha/year additional support (thorugh the Agro-environmental scheme). Now, it is +200 eur/ha/year - thus securing more support and improving conditions for sustainable grazing of target habitats *1340 and *1530, not only on project sites, but in whole Slovakia. This was achieved thanks to initiative of BROZ coordinator of the SOUTH LIFE project.

**4. Increased degree of protection in SCIs Kamenínske slaniská and Mostové:** a higher 4. grade of protection (according to National law – Act No. 543/2002 Coll.) was declared, instead of the originally planned 3. degree. This was thanks to the initiative of BROZ – resulting in improved long-term conservation for both of these project sites (cca 135 ha in total).

**5. Nature reserve Pramene Vydrice:** BROZ was involved in preparation of the Project of conservation for NR Pramene Vydrice. The NR was declared on an area of 483 ha, on land owned by Bratislava municipality, with non-intervention regime valid on most of it. The NR will secure the conservation of target habitat *91E0 on a significant area. The site hosts the biggest population of species of EU importance *Austropotamobius torrentinum* in Slovakia and preservation of the Vydrica stream, including the forests in its catchment area is the most crucial step for its long-term conservation.

**6. Priority action framework for financing of NATURA 2000 in Slovakia for the period 2021-2027:** BROZ has proposed more effective measures for restoration and sustainable grazing management of salt marsh (*1340, *1530) and grassland habitats. This was mainly based on practical experience gained from this and preceding LIFE projects. Many of the proposed measures have been included in the final approved PAF document.

**7. Enlarging of Natura 2000 network:** thanks to the initiative of BROZ (the SOUTH LIFE project coordinator), **a total enlargment of almost 240 ha was achieved, in 9 Natura 2000 sites**. These cover mostly salt-marshes, sand dune and grassland habitats. BROZ helped in obtaining the permissions from land owners and land users, mapping of presence of target habitats, and with necessary communication with SNC experts (the responsible public body in Slovakia). Thanks to very good cooperations established within this project, many cooperating farmers were willing to add their land into Natura 2000 – to gain more support for its restoration. The **improved perception of Natura 2000 network among local farmers and stakeholders** is definitely a very good result of this project (see action C.7 for more details on this topic).

**Project achievements supporting local, national and EU legislation**

**EU´s environmental and climate policies: EU Green deal, EU Biodiversity strategy 2030**

- The project has significantly **improved the conservation of 2 endemic species**: *Gentianella Bohemica* and *Carabus menetriesi pachoilei*. For GB, the core of species EU population was restored and population trend changed from negative to positive – thanks to improved management measures. For CMP, the monitoring indicates a significant population increase in the project site targeted.
- The project has restored hundreds of hectares of areas with target habitats, and secured their sustainable management. See actions C1-C8 for details. The restored sites represent some of the most valuable examples of target habitats in Slovakia (esp. habitats *91N0, *6260, *1340, *1530, *6250) and in Czech Republic (habitats of GB, CMP, *O. eremita,* *91D0)
- Significant carbon sequestration will be achieved as a result of project activities – an estimated 342.6 tonsC/year. This will be reached by 50,000+ trees planted by the project (actions C2, C3, C5) and 13 ha of peat bogs and 32.6 ha of salt marshes with improved water regime. The number is calculated for a 10 year horizon after the project end – see FR Annex C5d for the detailed calculation.
- Improving the quality and connectivity of Natura 2000 network – by restoring almost 50 Natura 2000 sites in Czech Republic and Slovakia
- Enlarging the Natura 2000 network by almost 240 ha, by enlarging 9 Natura 2000 sites in Slovakia.
- In South Bohemian Region, this project has triggered significantly bigger investments and future plans in nature restoration than it was used before. SBR invested more than 1.2 Million eur in equipment on top of the project budget, which will be used for sustainable management of Natura 2000 network in its custody.
  SBR has launched a significantly more ambitious process of restoration of peat bogs (see action C3.3) and is working on a significant enlargement of SCI Pohoří na Šumavě, which will increase its area from the present 156 ha to cca 1,700 ha, enabling the conservation and restoration of peat bogs and the habitat of endemic *Carabus menetriesi pacholei* on a landscape-scale level.

**Farm to Fork Strategy**

- By restoring grazing on 428 ha (action C7), we contributed to sustainable and nature-friendly food production – especially the meat, milk and dairy products from the grazing animals. The prodiced food will improve the food security of local community and improve the economic situation of local farmers. The project has developed sustainable grazing regime on project sites, that is expected to last also in After-LIFE period.
- More sustainable farming will also be a result of nature-friendly Ecoschemes developed in Slovakia (see the previous chapter – "Development of new policies" for details).

**Europe, the world's No 1 tourist destination (Com. 352, 2010)**

- Improving sustainable tourism: the restored sites have created conditions for sustainable nature-based tourism. This was already used by cooperating local farmers in 3 project sites, for development of their sustaianable tourism businesses.

**EU Landscape convention**

- By restoring hudreds of hectares of grassland habitats, forest habitats, veteran trees and pollarded willows, the project has improved the protection of valuable landscapes – both for nature and people. By restoring the traditional land use, the results will be preserved on long-term.

**National level:**

**Priority Action Framework for financing of Natura 2000 network (PAF):** the project has contributed to filling the objectives of PAF in restoration and improved management of the target habitats and habitats of target species in Czech Republic and Slovakia.

**EU Added value of the project and its actions** (evaluation of the fullifilment of expectations)

We can consider, that the expectations set in form B3 of the project proposal wre generally achieved and in many cases exceeded (both in numbers, sustainability and impacts of results). This includes:

The optimized management methods were established for target species and target habitats in Czech Republic. The results and impacts achieved for endemic species *Gentianella Bohemica* and *Carabus menetriesi* exceeded our expectations. The best practice management for GB developed by the project has been recommended as most suitable on national level. SBR has invested significant funds and capacities on top of project budget and has initiated ambitious restorations of peat bogs, far exceeding the original project plan.

Significant results in conservation of target species and habitats were achieved also in Slovakia, in many of them exceeding the expected project results and impacts.

The conservation of target species and target habitats was solved on a comprehensive basis and the sustainable management of the restored habitats was secured.

Monitoring actions were conducted as expected in the project plan. Very efficient cooperations with researchers were established, leading to more impactful implementing of project actions (C1, C2, C5, C7 and C8) and a more thorough research of biodiversity in the project sites. 4 new species of insects were discovered on patches of target habitat *1530 restored by action C8 – also thanks to great cooperation with researchers.

Replication potential of the project was significantly developed. This included testing and developing best practices in the 4 management methods (Optimal management for Gentianella Bohemica, Pollarding of abandoned willows, IAS removal and Grazing reintroduction) and increasing the potential for replication, especially by a wide set of dissemination tools within action E3 (Replicability toolkit). The 22 replications of project´s best practice methods, achieved already in the project duration can be considered as best proof of the effectiveness of the project´s replication efforts.

Networking was used intensively to learn new methods of habitat restoration. It was very useful esp. for implementing of action C8 and restoration of salt marsh habitats in Slovakia. We used networking also to share our knowledge and best practice with interested organisations and projects. The achieved results of networking actions exceeded the expectations, both in numbers and in their impact.

We used novel knowledge, including that from EU research projects, e.g. for effective IAS removal and control and restoration of alluvial forest habitats.

The project significantly improved the conservation status of species rare or critically endangered on national levels - e.g. increasing the population of *Crypsis aculeata* – a critically endangered halophyte in Slovakia and creating new breeding habitats for *Tringa totanus* by project actions C7 and C8 in Slovakia. The impact on agricultural practice was best done by the newly developed Ecoschemes – see chapter “Development of new policies” for more details.

EU tourism policy – the veteran trees and pollarded willows restored by action C2 and restored grassland habitats, with sustainable grazing introduced by action C7 have resulted in more valuable

and more attractive landscapes, which are already used for development of sustainable and nature-friendly tourism.

Green public procurement principles were followed in tendering of project equipment and services, eco-labelled products were preferred e.g. in daily use of project offices, etc.

Best-practice PR activities, including a diverse variety of communication tools was used to disseminate the project results and reach the target audience of general public, experts, cooperating stakeholders and decision makers, as well as to increase the project´s potential for replication. See the description of E-actions, part "Overall assessment" for results and impacts of dissemination actions achieved.

**Climate related project**

- Significant carbon sequestration will be achieved as a result of project activities – an estimated 342.6 tonsC/year. This will be reached by 50,000+ trees planted by the project (actions C2, C3, C5) and 13 ha of peat bogs and 32.6 ha of salt marshes with improved water regime. The number is calculated for a 10 year horizon after the project end – see FR Annex C5d for the detailed calculation.
- The biomass from the removed trees and shrubs was chipped and locally used – for construction of corduroy nature trail (action E2.5), or energetically used. The hay from mowing of grasslands was used as fodder for grazing animals.
- Green public procurement principles were followed in tendering of project equipment and services, eco-labelled products were preferred e.g. in daily use of project offices, public transport and shared car rides were preferred by the project staff, the use of project machinery was optimized to reduce the unneccessary carbon emissions.

**Biodiversity related project**

- The project has restored 11 target habitats and habitats of 3 target species – all listed in EU habitats directive, in Natura 2000 sites designed for their conservation in Czech Republic and in Slovakia. The restored habitats will host significant biodiversity (esp. the salt marshes, sand dunes, dry grasslands and peat bogs).
  Before the project, the conservation status of all species and habitats targeted was evaluated as Unfavourable (U1) or Unfavourable-bad (U2), in the member state targeted.
  The project has significantly contributed to strenghtening and supporting of Natura 2000 network – by restoring multiple Natura 2000 sites and even enlarging areas of 9 SCIs.
- The project actions are in compliance with PAF documents in both project CZ and SK and contribute to filling of its objectives
- For *Gentianella praecox ssp. Bohemica*, the project was in line with the conservation objectives set in the Preservation Programme approved for this species. It has even led to improvement of the officially recommended management methodology within this programme.
- The project actions C5 and C6 have contributed to removal and control of invasive species in alluvial forest and grassland habitats.

## 6.4. Analysis of benefits

In this section please discuss the project's progress focusing on the results achieved. Justify any anticipated significant deviations from the targets set initially, and comment on targets already met or exceeded. In the case of the Final report, where relevant, refer to the final actual values of the Key Project-level Indicators(KPIs).:

1. Environmental benefits
   a. Direct / quantitative environmental benefits:
      i. LIFE Nature & Biodiversity: e.g. conservation benefits for Natura 2000 (SCI/SPA) and species/habitat type(s) targeted. Highlight briefly issues that may have important policy implications on Natura 2000 also in relation to other EU policies if relevant (e.g. new management techniques and procedures, pump priming agri-environment, links with the water framework directive, etc.). Please also address incentive/pump priming effects (both in financial and policy terms).

The direct environmental benefits of the project are summarized and evaluated for each target species and target habitats separately. The grassland habitats are grouped together, where reasonable. For all target species and for some of the target habitats (esp. grassland habitats), the achieved results and benefits have significantly exceeded the expectations in the project proposal. For comparison with the results expected by the project, see section 6.3. For more clarity and better context, some qualitative environmental benefits are discussed already in this section, usually where relevant for the given target species or habitat.

**Natura 2000 sites:**

- **51 Natura 2000 sites (SCIs), where target habitats/species have been restored and project actions implemented**. Sustainable management (including After-LIFE) has been secured, to ensure sustainability of results.

**Target species:**

- ***Gentianella Bohemica****:
  **Impact: the core of EU population has been restored**. Core of GB population is located in South Bohemian region and the project sites cover the most important populations of the species in this region.
  **85.1% population increase was achieved** in the project sites, thanks to the optimized management established by action C1.
  **84.9% increase in size of suitable habitat**, thanks to restoration of overgrown areas and other restoration measures implemented
  **100% of the species habitat in project sites with optimized management secured**
  **Change in trend:** before the project, the species had a fluctuating, but negative population trend – mainly due to improper management and adverse effects of climate change (spring droughts). The project achieved to change this trend to positive – especially thanks to the optimized management developed and introduced.
  **New management method developed**: the optimized management for GB developed by the project is now recommended as the most suitable in the National management methodology for GB (see FR Annex C1f).
  **We expect replications** of this best-practice also in other regions in CZ, starting from 2025.
  **Change in management approach**: the management approach chosen by SBR in this project was crucial - i.e. shifting from being dependent on external contractors, with

rigid contracts and complicated procurement procedures, to implementing the restoration management by own employees, using own machinery and to coordinate the works by own scientific managers. In this way, SBR can much more effectively reflect to climatic conditions of each season, adjust the GB management in more detail for each site, better combine the works of own employees with local stakeholders, etc.
**Outlook**: SBR and RSE will continue with the optimized management for GB on all project sites, including the areas of enlarged species habitat. The restoration management on the sites was adapted also to expected (negative) effects of climate change (e.g. by leaving solitary trees or shrubs to provide partial shading and creating a more diverse microclimate). The cooperation with local stakeholders is planned to continue, contracts for another 5-year period of cooperation were already signed.

- ***Carabus menetriesi pachoilei****:
  **49.7% population increase was achieved** in the 2 project sites targeted, thanks to implemented restoration measures, improvement of water regime and enlargement of suitable habitat
  **38.4 ha – an increase in size of suitable habitat for CMP**, thanks to restoration actions implemented by actions C.4 and C3.3
  **Improved outlook:** the population increase can most likely be attributed to improvement of water regime, implemented in SCI Rašelinište Kapličky. Further and much more ambitious restorations of water regime are to be implemented in horizon of cca 5 years after the end of project, especially in SCI Pohoří na Šumavě, where the species also occurs. SBR has already launched a process leading to enlargement of this protected area – from the present 156 ha to 1,700 ha – which will enable the restoration and conservation of the species habitat on a landscape-scale.
  Restoration of water regime is the most crucial measure, since it shifts the ecological conditions of peat bogs from unsuitable (leading to increased overgrowing and peat decomposition) to suitable (leading to stabilization of peat and naturally halting the succession). This is also a relevant change for target habitats *7110 and *91D0.
- ***Osmoderma eremita****
  It is not possible to monitor the species population size directly (due to specific ecology), therefore only the impact on species habitat can be evaluated. However, we expect positive change in the species population, due to improvements in habitat quality achieved. Due to long life-cycle (4 years) and low dispersality of the species, the improvement in the trend of species population is expected to take longer time.
  **Habitat suitability increased** from 5% before the project to 90% after it (monitoring data from SK sites) – especially as a result of improved microclimate of cavity trees, by removing of undergrowth and reintroduction of grazing in groves of cavity trees.
  1,286 veteran trees were treated in CZ and 541 abandoned willows with pollarding restored in SK
  **Improved outlook** was achieved by improving the health state of old cavity trees and removing the threats resulting from conflicts with visitor safety (CZ sites). Habitat continuity and connectivity was improved by planting a new generation of trees in suitable areas. All relevant management measures are expected to be continued, thanks to special machinery (elevated platform) purchased from the project by SBR and own people trained; in Slovakia, BROZ will secure future pollarding cycles and grazing will continue thanks to established grazing regime and machinery and infrastructure (tractor, stables), created by the project.

**Significant replication potential:** 15 replications were achieved already within the project period – thanks to a well-developed best practice method of pollarding of willows and a good set of communication tools for its promotion (mainly by action E3).

**Target habitats:**

- **91D0* (Bog woodland)**
  **125 ha of habitat restored and its enlargement on further 20 ha was achieved**, in 4 project sites. This was done by removing the undesirable tree species, planting of 20,000 inds. of genetically pure *Pinus rotundata* (a species native to this habitat in SBR) and improving the water regime on 13 ha
  **Future outlook:** the planting of *Pinus rotundata* will continue in suitable areas also after the end of project – also thanks to the well-established regime of seedlings preparation and improved cooperation with Forest Nursery Cikar, which can now produce the seedlings in reasonable numbers.
  The **ambitious restoration of water regime planned** as continuation of action C3.3 will improve the ecological condition of peat bogs, which is crucial also for this habitat.
  Significant enlargement of SCI Pohoří na Šumavě (from 156 ha to 1,700 ha) will improve the legislative conditions and conditions for future restorations also for this habitat.
- **7110* (Active raised bogs)**
  75 ha of areas with target habitat restored by removing of trees and shrubs (20 ha) and by introducing mosaic-like mowing management
  210 ha of areas with this habitat in vicinity of SCI Pohoří na Šumavě with improved management, mosaic-like mowing introduced in cooperation with local land-users and using the support of agri-environmental schemes targeted for this habitat
  **Future outlook improved** thanks to continuation of the established management (also in After-LIFE) and especially thanks to ambitious restorations of water regime planned in both project sites and significant enlargement of SCI Pohoří na Šumavě (see the above text for habitat 91D0*)
- **91E0* (Ash-alder alluvial forests)**
  30.5 ha of alluvial forests restored by planting of native tree species, 31,506 native trees were planted in total
  IAS were removed on 30.5 ha in SK and on 52 ha in CZ
  **Future outlook**: the planted seedlings had a high survival rate, thanks to planting in smaller patches (according to novel knowledge in forest restoration) and effective after-planting care (mowing of weeds, game protection, where needed). The growth rate of the planted seedlings was very fast (in many areas, they are already 6-8 m tall). The forming of the target alluvial habitat is on a good path (as indicated by the results of habitat monitoring), however, it will take decades to form mature alluvial forests.
- **Grassland habitats**
  The target habitats *1340, *1530, *6110, *6120, *6210, *6250, *6260 and *91N0 are discussed here. Most of the restoration actions were implemented in Slovakia.
  **428.8 ha of target grassland habitats were restored**, by implementing restoration management (action C6) on 226 ha and especially by reintroduction of grazing (C7)
  **Sustainable grazing regime was established** on project sites, thanks to a very good cooperation with local farmers, experienced approach of BROZ managers, robust grazing infrastructure created on project sites (fixed fences, shelters and watering places for grazing animals), and mobile herd of BROZ created, with necessary

infrastructure (stables) and machinery (tractor, with equipment for hay-making) procured by the project. Long-term commitments with cooperating farmers were signed (see FR Annex Ca for examples), to secure nature-friendly grazing also within the After-LIFE period.

Grazing regime will also significantly improve the sustainability of results of restoration management (action C6), including the removal of IAS and restoration of initial halophytic habitats (particularly *1530), achieved by action C8.

**Most suitable management:** grazing is the most suitable management method for grassland habitats. It creates a diverse and fine mosaic of patches with different microclimatic conditions (patches of bare ground, short and longer sward, shrubs and solitary trees, dung). This cannot be achieved by any machine or any other type of approach.

**Change in trend of grassland habitats:** before the project, most of the habitats in project sites were long-term abandoned and the trend of the grassland habitats was negative and deteriorating. Ongoing spreading of dominant grasses, IAS and overgrowing by shrubs was their typical state.

The restoration of grazing brought a change of this trend from negative, to positive. It is important, that the effect of grazing is long-term. Therefore, we expect that on most sites, the quality of target grassland habitats will further improve with time. This is also indicated by long-term research conducted since 2013 on SCI Devínska Kobyla (on patches restored by project LIFE NATURA 2000 BA) by Slovak Academy of Sciences. The results clearly show a long-term positive trend of the restored habitats, mainly thanks to continuation of nature-friendly grazing.

**Change in conditions for sustainable management**: The long-term abandonment of project sites and lack of any suitable grazing infrastructure was another challenge that we had to cope with. Luckily, we could build on results and cooperations started within the previous LIFE projects (esp. LIFE PANNONIC_SK). Therefore, many local farmers and stakeholders in the region already knew us, and we could build on the recognition of our previous work.

**Change in attitude of local farmers and land owners**: thanks to successful cooperations between the BROZ team and local farmers, we could create win-win solutions - both for nature and for local farmers. This generated significant benefits for the cooperating farmers and turned their land from abandoned and no-go areas to grasslands, where they could breed their animals and generate benefits.

**Change in perception of Natura 2000**: thanks to successful cooperations established by the project, many of the farmers (and land owners) changed their view of N2000 from something that is posing restrictions and obstacles to seeing a potential of establishing nature-friendly farming. This resulted into many of them wanting to enlarge Natura 2000 sites on their land. We actively helped them with this – e.g. by helping with necessary paperwork, providing justification towards State Nature Conservancy and mapping the presence and quality of target habitats.

The result was **enlarging of 9 Natura 2000 sites, by a total area of almost 240 ha**. An important thing is – that this was done by a **bottom-up approach**.

**Incentive/pump priming effects**:

We used the experience and knowledge gathered in this (and also other) LIFE project for development and support of crucial policies – especially the effective CAP Ecoschemes in Slovakia and agri-environmental schemes – see section 6.3, "Policy impacts" for more details. The bottom-up approach in establishment and restoration of new Natura 2000 areas can be well used to achieve the ambitious targets of the new **Nature Restoration Law**. The increased push for declaring and restoration of new protected areas can easily trigger tensions and anger among farmers and land owners – especially if TOP-TO-BOTTOM (TTB) approach is used for declaring new protected areas. We could see in large-scale protests of farmers across Europe and opposition of local people against declaring new N2000 sites, especially when the TTB approach was used by state officials and SNC. Using the bottom-up approach, as is described above can be a very good way to avoid or overcome such conflicts and disagreement of land owners/land users.
BROZ effectively tested this method in the field and it works. The key elements of its success are: 1) flexible source of funding – to kick-start the site restorations and establish the sustainable management methods (e.g. grazing). This can be a one-off investment, with sustainable results, 2) result oriented approach, 3) good cooperations "on the ground" – these are best mediated by active and flexible organisations (NGOs), with good knowledge of the area, who can facilitate contact between different interest groups (farmers/land owners/state nature conservancy/MoE/EU/media) and tailor solutions suitable for each site/stakeholder.
We actively presented this approach on a conference dedicated to NRL in Prague (within the Czech Presidency of EU, on 12.10.2022) and also shared it in the International Landscape Conservation Network News. Currently, we don´t see much interest from MoE in Slovakia to listen or use this best practice, but should there be interest from other states, or EU, we will be happy to share it.

b. Qualitative environmental benefits
   i. LIFE Nature & Biodiversity: What is the outlook for the targeted habitat type and/or species? Have trends already been established? How do you plan to continue and to develop the actions that were initiated in the LIFE project in the years that follow the end of the project and how will the longer term management of the site(s) be assured? Did the project eliminate the threats defined in Form B2d of the Grant Agreement? What are the remaining/new threats? Details should be given regarding what actions should be carried out, when, by whom and using what source(s) of finance.

The future outlook for the target species and habitats in the restored project sites has mostly been described in the previous chapter, including the established/expected trends – where relevant. We also addressed the sustainability of the achieved results and expected continuation of the restoration measures started by the project. For more information, please refer to **FR Annex F3 After-LIFE plan**, where these questions are addressed in more detail, also regarding what actions should be carried out, when, by whom and using what source(s) of finance. At this place, it is suitable to address the **threats defined in Form B2d** – those which were effectively addressed by the project and the remaining/new ones.

**Threats** addressed by the project actions and new threats/challenges are discussed for each target species/habitat (or their groups) in Table C6.4. For simplicity, we used a 4-colour scheme to indicate the level, to which has each threat been addressed or solved by project´s restoration actions:

green: addressed effectively enough – especially regarding to the expected results and ambitions of this project;
orange – solved only partially (in some cases – e.g. climate change, we can prepare for the negative consequence, but not solve the problem itself);
yellow – solved effectively, in terms and extent of the expected results, but more can be done in the future
red – not solved by this project

| Target species/ habitat | Threat | Proj. action | Restoration measures implemented to adress the threat |
|---|---|---|---|
| *Gentianella Bohemica* | abandonment; improper management | C1 | optimized management restored on all project sites, on all areas of species occurence |
| | climate change (spring droughts) | | adapted management, leaving solitary trees/shrubs on site, to create more diverse microclimate |
| *Osmoderma eremita* | CZ: removal of old veteran trees and alleys (from safety reasons) | C2.1 | 1,286 veteran trees treated; high-lift platform and trained personnel established by the project will be used to treat further trees |
| | CZ, SK: overgrowing by competing trees, altered microclimate | C2.3 | Undergrowth cleared, in SK, the continuity will be secured by grazing reintroduction (C2.6) |
| | SK: abandonment of traditional management: pollarding and abandonment of grazing in pollarded willow stands | C2.2 | 541 abandoned willows with pollarding restored; 15 replications in pollarding achieved (thus spreading the best practice management further), grazing restored |
| | fragmentation of cavity tree habitats | C2.4 | CZ: 1,148 new trees planted, 558 new pollarded willows established - to improve habitat connectivity and continuity |
| *Carabus menetriesi pachoilei,* 7110, 91D0 | peat extraction, altered water regime | C3.3 | water regime restored on 13 ha in SCI Rašeliniště Kapličky + furhter ambitious restorations will be implemented in cca 5-year horizon, leading to improved water regime on 183.8 ha! |
| | | | Enlargement of SCI Pohoří na Šumavě from 156 ha to cca 1,700 ha is planned - will lead to a much more effective conservation + improved potential for restoration |
| | overgrowing by competitive species (grasses, shrubs, trees) | C3, C4 | adressed by removal of shrubs/trees, mossaic-like mowing and mulching |
| | | | but best solution is the ambitious improvement of water regime (see row above) |
| 91D0 | altered species compositions | C3 | planting of native 20,000 inds. of native *Pinus rotundata* (the activity will continue also after the end of project) |
| 91E0 | altered groundwater regime/flood regime | N/A | was not targeted by this project, requires more ambitious approach. But was adressed in some parts by synergic project Microtus II, which restored water regime in Istragov area of SCI Dunajské luhy - thus helping also to habitat *91E0 |

| | | | |
|---|---|---|---|
| | intensive forestry, non-native hybrid poplar plantations | C5 | 31,506 native tree species planted in SK and CZ (on 30.5 ha in total), after planting care secured |
| | IAS species spreading | C5 | IAS species (selected) removed on 30.5 ha in Sk and 52 ha in CZ |
| 91N0 (SCI Čenkov) | IAS spreading | C6.2 | SCI Čenkov: IAS *Ailanthus altissima* removed on 74.1 ha, *Aslepias syriaca* removed on 254.9 ha. Removal of other species (*Eleagnus angustifolia, Prunus serotina, Robinia pseudoaccacia, Gleditschia triacanthos, Celtis occidentalis*) is required too - but was not targeted by this project. |
| | intensive forestry | N/A | Significant threat. It is needed to lease the forestry rights on the whole area of SCI Čenkov, to establish more suitable forest management (and removal of *Pinus sylvestris* plantations). More funds are needed for this, but the site is definitely worth it. |
| | absence of grazing | C7 | grazing was restored on almost the whole area of SCI Čenkov (action C7) |
| Grassland habitats (*1340, *1530, *6110, *6120, *6210, *6250, *6260) | abandonment of traditional management - especially grazing | C7 | sustainable grazing regime restored on 428.8 ha in project sites (more than expected) |
| | overgrowing by trees, shrubs and IAS | C6 | restoration management implemented on 226 ha (removal of shrubs, trees, IAS, etc.) |
| Salt marsh habitats (*1530, *1340) | alteration of water regime | C8.1 | partly adressed by removing 2490 m of shallow drainage channel, but more ambitious restoration measures are still needed (e.g. removal of deeper channels). This will be a long run, but its worth doing it. |
| | illegal ploughing, waste dumping, eutrophication | C7 | the problem was mainly a result of abandonment of project sites and insufficient marking of site borders in the field. This was effectively adressed by restoration of grazing, which mostly included also creation of fixed fences (for grazing), which effectively restrict these activities. |
| *1530 | Extremely small area of habitat *1530 in Slovakia, small populations of indicator species | N/A | The project has brought significant measures to preserve/save this habitat in Slovakia (actions C7 and C8 – see therein), but more is needed to be done. Project LIFE DIVERSEED (a partial spin-off of this project) will bring additional restoration measures for this habitat and its indicator species. |

2. Economic benefits (e.g. cost savings and/or business opportunities with new technology etc., regional development, cost reductions or revenues in other sectors); state the number of full time equivalent (FTE) jobs created, showing a breakdown in qualified/non-qualified staff.

**SBR:** mobilising additional funds for better management of Natura 2000 sites. SBR has invested a further more than 1.2 MILLION EUR in equipment and infrastructure, which will be used for better management of Natura 2000 sites in its custody. This investment is on top of the original project budget – see FR Annex A1b for a detailed list of these items and the project sites and activities, for which they were already used.

The trained project personnel of SBR/RSE (scientific manager, machine operators, workers) will remain employed by RSE and SBR. This will be another "investment" resulting from the project. Overall, the project has triggered significantly more investments from SBR and RSE directed to better management of Natura 2000 sites in its custody, more personal capacities and has triggered more ambitious restoration/conservation efforts (e.g. more ambitious restoration of water regime, enlargement of SCI Pohoří na Šumavě).

**Slovakia**: sustainable grazing reintroduced on 428.8 ha, with grazing infrastructure created on project sites - this will allow for more effective and sustainable operation of grazing management – especially by reduction of operation costs (e.g. less funds are required for shepherding, more safety of animals)

**New jobs created**: 11 FTE jobs were created within the project period (as reported in KPI webtool, according to the prescribed methodology); 10 FTE jobs are expected to be sustained after the end of the project.

3. Social benefits (e.g. positive effects on employment, health, ethnic integration, equality and other socio-economic impact etc.).

The project has generated significant socio-economic benefits – especially for the farmers and local communities, who are cooperating on grazing reintroduced by the project. In total, there are **9 cooperating farmers**, who are benefiting from the grazing regime restored by the project. For some of them, the project has allowed the start of their dream business – e.g. by establishing their own ranch, ecofarm or creating new pastures. See **FR Annex C7c** for photos, short stories and benefits generated for the cooperating farmers/communities, as well as description of action C7.

4. Replicability, transferability, cooperation: Potential for technical and commercial application (transferability, economic feasibility - bankability, limiting factors, suitability for additional funding from other streams e.g. structural funds, EIB financial instruments, venture capitals, pension funds, responsible investors) including cost-effectiveness compared to other solutions, benefits for stakeholders, drivers and obstacles for transfer, market conditions, pressure from the public, potential degree of geographical dispersion, specific target group information, high project visibility (eye-catchers), potential for replication in same and other sectors at the local and EU levels, etc. State the project's likelihood of replication (high/low/zero), and if its replication is market-driven or policy-dependant. Specification of potential market/replication vehicles. Possibilities for complementarity with existing market players and/or other solutions/projects (bundling). Those projects who have completed the C2M checklist or engaged in the Close-2-Market (C2M) Initiative should elaborate here on all the relevant C2M aspects. Those projects should also complete, by the Final Report submission stage, the final C2M checklist provided to thm by the C2M experts.

**The project has reached 22 replications of its 4 best-practice methodologies already within the project duration**, which is a very significant result.
Please refer to section 6.3 "Describe the results of the replication efforts.", where these topics are addressed in detail.
We further see the potential to replicate the best practice of grazing reintroduction to restore areas with degraded grassland habitats – especially the very effective approaches in cooperation with local farmers/land owners and using a bottom-up approach for establishing of new protected areas. This can be useful especially for achieving the ambitious objectives of the **Nature Restoration Law** – to prevent conflicts or disagreements of farmers/land owners. See section 6.4 "Incentive/pump priming effects" for more details and context.

5. Best Practice lessons: briefly describe the best practice measures used and if any changes in the strategy employed could lead to possible adjustment of the best practices.

The project has developed and replicated 4 best-practice methodologies, related to management of the target species and habitats:

**Restoration of pollarding of abandoned willows** – numerous field meetings and consultations with experts (arborists, entomologists) were used to fine-tune the method. After thorough testing, we used varied communication channels to disseminate this method and promote its replication. A Manual for pollarding of willows was prepared in Slovak and Hungarian language. We used numerous media outputs and social networks, to promote the manual and the method. 8 workshops were organised for those who were interested to see and learn the method, etc. Thanks to this intensive campaign, **we achieved 15 replications of this best-practice methodology already within the project duration**. This is probably the best proof on the feasibility of this method and effectivity of the replication efforts implemented.

**Grazing reintroduction** – the method was building on know-how and experience of BROZ managers acquired in previous LIFE projects (LIFE PANNONICSK) and was further developed in this project, by numerous field visits and consultations with experts (other LIFE project managers, botanists, entomologists, ornithologists, etc.). **5 replications of this best practice were achieved within the project duration**, we also disseminated the effective parts of this methodology to other LIFE projects (E.g. LIFE in Salt Marshes).

**Removal of IAS** – especially the removal of woody IAS species, using the stem injection method. The method was effectively used to remove IAS species in multiple project sites, but especially to remove *Ailanthus altissima* in SCI Čenkov, with very high effectivity. It was also disseminated to other site managers and experts, in Slovakia and Czech Republic.

6. Innovation and demonstration value: Describe the level of innovation, demonstration value added by EU funding at the national and international levels (including technology, processes, methods & tools, nature management methods, models for stakeholder involvement, land stewardship models, organisational & co-operational aspects).

**New management methodology for *Gentianella Bohemica*** was developed and successfully demonstrated by the project. It consists of spring verticulation, to create patches of bare ground suitable for the germination of GB seedlings and two cycles of mowing. Permanent monitoring plots were established to compare the effectivity of the optimized method with standard "before the project" management. The results clearly indicate the very high suitability of the method for GB.

The method is now recommended as the most suitable in the National standard methodology for GB management (FR Annex C1f) and is regularly consulted with national expert group for the species. SBR has presented its results to representatives of other regions in CZ, NCA CR and MoE and there is a high interest to adopt and replicate this methodology. First replications are expected from 2025 (e.g. by Vysočina region).

**New approach to management of Natura 2000 sites by the South Bohemian Region**. Before the project, most managements in Natura 2000 sites in SBR were conducted by external contractors. However, this setting was not satisfactory – due to complicated procurement procedures, it was not possible to fine-tune the management for species like *Gentianella Bohemica* (e.g. to adapt to specific weather conditions of each season), or implement management in more complicated environments (waterlogged parts of peat bogs, systematic treatment of tall veteran trees on narrow dams, etc.).

SBR used this project to establish own management teams, equipped with machinery required for all the specific managements, own trained operators and working crew members, which are led by scientific managers and supervisors. In this way, a much more systematic care for Natura 2000 sites is provided, with more fine-tuned management for target species. The best proof of effectivity of this method is the positive impacts of this project on target species and habitats.

Moreover, this allowed a more systematic approach to conservation and restoration of Natura 2000 sites in SBR, including larger-scale restoration of water regime of peat bogs, declaration of new larger protected areas, development of new restoration projects and more investments in equipment, infrastructure and personnel related to management of Natura 2000 sites. The good state of the natural sites, attractivity for tourists and for citizens of the region is the best visit card for the SBR representatives. We believe, that this novel approach can be a role model also for other regions in CZ, which are responsible for management of Natura 2000 sites in their area.

## 7. Policy implications: Indicate any important achieved targets contributing to the future implementation, design or take-up of regional, national or European legislation. Please highlight any potential unintended impacts, bottlenecks or barriers to the implementation of your project due to regional, national or European legislation including recommended actions further to actions already taken to overcome these barriers.

Please refer to section 6.3, “Policy impacts” and section 6.4, “Incentive/pump priming effects” (Nature Restoration Law), where this topic is addressed in detail.

**Bottlenecks/barriers**: especially the co-financing from MoE of Slovak Republic, which was rejected for the already running projects (LIFE Metamorphosis, LIFE 4 Steppe Birds) and the call for co-financing was not announced (and most likely will not be) for the newer projects LIFE Diverseed and LIFE Resistance. This is a change of rules in the middle of the game, since during all previous government regimes, there was a well-established mechanism of co-financing, which has led to successful implementing of LIFE projects in Slovakia. In the time of submitting of the above-mentioned projects, the co-financing mechanism was still working, but with the change of the government and changes in MoE, the new minister has rejected the co-financing, or he rejected it only for NGOs. In such conditions, it is very hard to find the sufficient amount of co-financing and we must struggle very hard to find suitable source of co-financing or suitable donors.

# 7. Key Project-level Indicators

Assess the project's progress towards achieving the Key Project-level Indicator (KPI) targets.
If this report is the first report prepared during the project implementation, please ensure that you have finalised the inclusion of data into the KPI database webtool https://webgate.ec.europa.eu/eproposalWeb/kpi/module.
In the case of the Mid-term report, justify any anticipated significant deviations from the targets set initially, and comment on targets already met or exceeded.
In the case of the Final report, please enter the final actual values of the KPIs for your project in the online KPI database (https://webgate.ec.europa.eu/eproposalWeb/kpi) making sure that values reported are justified and consistent with the environmental, economic and social benefits reported in the preceding section. In this section please provide an analytical comparison with the targets at the beginning of the project.
In all the above cases, you will receive instructions and guidance from a KPI Expert from the external monitoring team before you fill in the information, well in advance of your report due date. Please allow sufficient time for the KPI expert to provide comments and verify the snapshot, before the submission of your report.

Analytical comparison with the targets at the beginning of the project is provided in the table as part 6.3 Evaluation of Project Implementation. Some of the originally set data and selected indicators included in the KPI database web tool were modified or excluded from the evaluation. The modification was necessary due to the change in the KPI database itself during the project implementation and also due to the adjustment of input data according to the project results. The change concerns the originally selected ecosystem services relevant to the project with regard to D-actions, the specific contexts but also the selected indicators for the evaluation. Some of the selected indicators were assessed as irrelevant or we cannot quantify them because they were not measured / monitored (or could not be). All relevant information on the project's finances is included in indicators 14.1 Running cost/operating costs during the project and expected in case of continuation/replication/transfer after the project period and 14.3 Future funding, for this reason, other indicators regarding finances were not filled in (they do not provide information value, such as 14.2 Capital cost expected in case of continuation/replication/transfer after the project and others). For these reasons, compared to the original data setting, the following were not assessed in the final evaluation of the indicators in the KPI database web tool:

4 Resource efficiency (including soil, forests and green circular economy)

4.2 Resource efficiency - Forest

4.2.1. Sustainable Forest Management

6.1 Air - emissions

7.5.2. Other threats

8.1.1 CO2

14.2 Capital cost expected in case of continuation/replication/transfer after the project

14.2.1 Capital expenditure expected in case of continuation/replication/transfer after the project period

14.2.2 Operating expenses expected in case of continuation/replication/transfer after the project period

14.2.4 Cost reduction expected in case of continuation/replication/transfer after the project end

14.4.1 Entry into new entities/projects

# 8. Comments on the financial report

The financial statements (available in the LIFE reporting section on the LIFE website) must be used and completed to prepare the financial report as explained in the How to report on your LIFE project guidance document. You may also consult the Q&A on financial statements. This part of the technical report must include the following points:

- an overview of the costs incurred
- information about the accounting system and relevant issues from the partnership agreements
- allocation of costs per action

This information should include sufficient detail to establish a clear link between the technical activities on the one hand and costs declared in the financial forms on the other. Please note that – as set out in the General Conditions on the eligibility of costs – only costs that are necessary for and clearly linked to the activities carried out, are eligible. This section should justify and explain extraordinary cases, e.g. necessary costs not foreseen in the budget, persons changing status during the project from external consultants to employed staff (or vice versa), etc.

## 8.1. Summary of Costs Incurred

### Accounting system

Include among other aspects:

- Brief presentation of the accounting system(s) employed and the code(s) identifying the project costs in the analytical accounting system

The accounting system of all beneficiaries is running from the beginning of the project according to their national legislation in accordance with the Accounting Act. CB and ABs have their own accounting/economic departments that are dealing with this agenda. According to partnership agreements the ABs have sent their financial and technical reports to BROZ once a year. The financial manager checked up all documentation and consulted it with beneficiaries´ accountants if necessary. Project team (manager, assistants and project supervisors of beneficiaries) ensured that clear reference to the project is included in all contracts, time sheets, invoices etc. This was double-checked by the project financial manager during check-ups of beneficiaries' reports.

The expenses during the project period were incurred in CZK and in EUR. For the conversion of CZK to EUR, the monthly exchange rate was used in accordance with financial guidelines.

**SBR**

An entity is a self-governing unit. Accounting is conducted comprehensively using the GINIS software from GORDIC spol. s r.o. Distinct numeric series are assigned to different types of accounting documents for each accounting period. This ensures clear and consistent separation of project costs within the accounting system. Accounting entries must be categorized according to the budget structure (section, item, ORG, ORJ). Costs are recorded under ORJ 7 (organizational unit of the region), ORG 1211001900001 (direct costs) and 1211001900002 (indirect costs), and further broken down into individual items based on the organization's internal procedure codebook.

The project receives co-funding from the Ministry of Environment, which, based on the subsidy decision, has committed a grant of up to 15% of the project budget, with a maximum limit of CZK 10 million. Funding is exclusively allocated to activities carried out within the Czech Republic by beneficiaries with registered offices solely in the Czech Republic. Furthermore, the coordinating

beneficiary must demonstrate that the subsidy is utilized for non-investment budget lines. Accounting records also categorize costs into individual items according to the organization's internal procedure codebook. The organization has established two separate bank accounts for this project – one in Czech Koruna (CZK) and another in Euros with Československá obchodní banka a. s. All payments are made in CZK. Some payments are made through a bank account managed by the South Bohemian Region (SBR), and funds are transferred between the organization's accounts based on re-invoicing.

**RSE**

The accounting unit is a contributory organization established by the South Bohemian Region. Accounting methods are based on Act No. 563/1991 Coll., as amended, Decree 410/2009 Coll., as amended, ČÚS 701-710 for selected entities as amended, the founder's methodological instruction MP / 84 / OEKO, and internal directives. The organization utilizes Helios Orange economic software from Asseco Solutions a.s. Internal accounting records are maintained separately for each department. Project costs are clearly and consistently identified and recorded under department number 60000403. Accounting also tracks individual cost types according to the project budget structure within designated cost headings. Project cost reports and reports for individual cost types can be generated at any time. Overhead costs are allocated separately to cost heading 43.

The project organization maintains two separate bank accounts in Czech Koruna (CZK) and Euros with Československá obchodní banka a. s. Payments of liabilities are not exclusively made from these accounts. Funds are transferred between the organization's accounts based on invoicing.

**BROZ**

The accounting system has been operational since the beginning of the project and adheres to Slovak national legislation. BROZ has a dedicated economic department that handles this task on a daily basis. The associated beneficiary, BROZ, maintains an analytical accounting system using software developed by V-SOFT, s.r.o. at the beginning of the project. We currently use the KROS accounting system and our entire accounting is conducted electronically. This cost center-based system allows for the separate tracking of financing for each project (including the SOUTH LIFE project), including costs, expenditures, and income. All expenses included in the financial report have been paid and properly recorded in BROZ's LIFE project accounting system. To ensure traceability and transparent evidence, cost center accounting was used for all activities, following the principle of one project equaling one cost center.

**ONYX**

Accounting records are maintained using the Ekonom system. The project is managed under center number 27. All accounting transactions are recorded using analytical accounts 270.

**SNC**

The State Nature Protection agency utilizes the Softip PROFIT accounting system to record all accounting entries. The project is registered in the accounting system using the assigned contract numbers (21141, 21142). The procurement of items is governed by a public procurement plan approved according to the internal procedures of the SNC Office. Subsequently, the public procurement process will be conducted in accordance with the internal rules of the SNP Office, which require public procurement for any amount exceeding €100, excluding VAT.

- Brief presentation of the procedure of approving costs
- Brief explanation on how it is ensured that invoices contain a clear reference to the LIFE project showing how invoices are marked in order to show the link to the LIFE project

The spending of budget items took place according to standard procedures for all partners, in accordance with their internal rules and budgetary rules. Expenditure approval was in line with standard processes practised by both CB and ABs, while legal obligations were complied with. The partners submitted a summary of their expenses in a financial statement every year in accordance with the terms of the partnership agreement. The statement was supported by relevant documents for individual budget categories. The relevant personnel in SBR (mainly project manager in cooperation with the financial manager) reviewed the financial documents. Any ambiguities and errors were consulted with the AB's responsible departments and employees. Administrative errors and typos were regularly corrected. The allocation of items to budget categories was frequently consulted. Personnel costs and their reporting methods were frequently consulted. All significant budget shift requests were consulted with the CB. The project manager coordinated and approved the changes after consulting with the project's financial manager. Budget shifts were preliminarily consulted with CB and were approved in the interest of maintaining project financial efficiency. The budget was used in accordance with the rule of best value for money in accordance with the financial and administrative rules for the implementation of LIFE projects contained in Annex X of the Grant Agreement. All the invoices have been marked with the text written directly by the supplier or with the project stamp from the beneficiary's project manager both containing the official LIFE code of the project and in most cases also the name or acronym of the project and project action. Orders and contracts with suppliers require a declaration referencing the LIFE project. If a supplier issues an invoice without this designation, they are requested to complete the required information before payment is processed. Small expenses (receipts) are marked with a stamp indicating the project acronym and number.

**SBR**

Financial control processes (including ex-ante, ongoing, and ex-post management controls during the execution of financial operations), as well as accounting and tax records, are governed by the SBR's internal procedures. When purchasing items, the organization adheres to Act No. 134/2016 Coll., On Public Procurement, as amended, and Directive SM / 18 / RK (Principles for Public Procurement by the South Bohemian Region and its contributory organizations and established companies) and any subsequent amendments. Each expense incurred within the project requires approval from the relevant responsible person in accordance with the organization's guidelines. In 2022, electronic financial control was implemented in the GINIS system. This involved the transition of all operations to an electronic format. Documents are no longer physically signed by responsible individuals but are electronically signed in the appropriate signature book. The circulation of accounting documents within the organization is governed by the Director's Decision No. RR/75/REDI on the Circulation of Accounting Documents. On October 18, 2021, the South Bohemian Region received a notification to initiate a joint verification control. The aim of the control was to verify the fulfilment of the coordinating beneficiary's obligations in co-financing the project, to verify the progress of the project implementation, i.e., that the project activities were carried out in accordance with the approved project, that the requested funds were actually spent, and that compliance with the relevant national rules and rules for drawing down financial resources from the Environment Sub-programme and the Climate Sub-programme of the EU LIFE programme was ensured, to verify that the project inputs and outputs are used in accordance with the purpose of the legal act and the field control of the project implementation and outputs.

Along with the notification, a Control List was attached, which SBR filled out electronically. A Nextcloud folder named "LIFE Control List Jižní Čechy" was created where the scanned original documents were stored. The controlled period was from 1.9.2017 to 18.10.2021.

Following the electronic control, an on-site control took place at both SBR and RSE. The control team checked all project-related documents, such as administration procedures, timesheets, documents for

purchasing, partner contracts, employee contracts, travel orders, and administrative procedures for all project activities. The control also focused on both direct and indirect costs. The on-site control at the coordinating beneficiary took place on January 9, 2023.

On August 15, 2022, the Ministry of the Environment received a notification from the Ministry of Finance regarding the postponement of a case by the European Anti-Fraud Office (OLAF). On June 20, 2022, the Ministry of Finance received a complaint about non-compliance with the rules during the project implementation. OLAF postponed this complaint due to the ongoing project. As part of its regular monitoring and control activities, OLAF provided the Czech side with information for the Ministry of the Environment to consider and potentially strengthen the monitoring of project implementation. Since a standard control had already been initiated, it was decided that the allegations made in the anonymous complaint submitted to OLAF would also be verified within the framework of this control.

Subsequently, on March 24, 2023, a control was also conducted at the partner RSE. The subject of the control was to verify and clarify the information from OLAF's submission. The control of equipment and documents was carried out at the Polesí Hůrky site in Smrkovice, where RSE has a technical base. In April 2023, the Ministry of the Environment requested additional information from the partner RSE, which was promptly sent.

**BROZ**

Any significant project expenditure is discussed in advance with the project manager from the Coordinating beneficiary. Staff members in charge are obliged to make sure that clear reference to the project is included in all contracts, timesheets, invoices etc. This is double-checked by the project coordinator. BROZ is ultimately responsible for the eligibility of incurred costs and the accuracy of time spent working on the project, as recorded in timesheets. For specific tasks, responsibility may be delegated to team members.

1. Planned expenditures must be approved by the individual assigned responsibility for the given task.
2. Following approval in step 1, procurement procedures are initiated based on the value of the direct order:
    - For smaller orders, market research (multiple bids) may be conducted.
    - For larger orders, procurement will be conducted through the Slovak Electronic Contracting System (SECS) or via open tender through the Journal of Public Procurement.
3. The supplier is selected by the assigned individual, or through the selection process in SECS or the Journal of Public Procurement.
4. An order or contract is prepared for the selected supplier. These documents explicitly require a clear reference to the project with the specified wording on the invoice issued by the supplier. The contract must be signed by a statutory representative of the organization.
5. Invoices, accompanied by dispatch notes or delivery protocols, are received. The subject of billing, formal correctness, and the amount must be approved by the assigned individual. This approval is indicated by a signature on the invoice/cash bill and a project stamp.
6. Payment orders or cash payments are processed by the (administrative) assistant or financial department.
7. Accounting entries are recorded on a monthly basis by the (administrative) assistant or financial department.

8. Monthly and year-end checks are conducted on accounting books and cost center records by the project coordinator, (administrative) assistant, or financial department.
9. An audit is conducted within the associated beneficiary BROZ.

**SNC**

A reference to the project is included in the Request for Offer (RO) specifications, as well as in orders and invoices. Invoices are accompanied by a closing letter, which includes, among other things, the project order, project code and acronym, and the signatures of the Project Manager, their supervisor, and the Director of the Economy and Economic Administration Section. Financial transactions exceeding €3,000 (excluding VAT) require the signature of the Statutory Director (General Director of SNC SR).

- Type of time recording system used, i.e. electronic or manually completed timesheets
- Brief presentation of the registration, submission and approval procedure/routines of the time registration system
-

Beneficiaries used the default value of 1720 total annual productive hours exempted from keeping timesheets using Method 1- Hourly rate times actual hours worked complied with Article II.19 of the General Conditions. Beneficiaries also recorded their time and activities carried out on a daily basis using model timesheets for LIFE projects. The hours worked, public holidays, annual holidays, sick leave or other absence is recorded as well. In cases where the percentage changed, they proceeded to fill in timesheets.

**SBR**

The financial manager prepares the timesheet. This timesheet is then printed, signed by the employee, and submitted to the supervisor for their signature. Effective January 1, 2019, the Project Manager is no longer responsible for filling out the timesheet. The employment contract dated August 14, 2018, and the job description dated September 3, 2018, explicitly state that the employee's allocation to the project is 100%. The attendance system is governed by Director's Decision No. RŘ/89/REDI on the Rules for Recording Employee Working Hours Using the Electronic Attendance System. The attendance of each employee is recorded electronically. Each employee has a chip card, which logs every passage on a terminal. Additionally, employees fill out a timesheet, which is signed by the relevant supervisor according to the given rules. Timesheets were not filled out by Zdeněk Brož, Lukáš Machát, and Eva Dvořáková Ježková.

**RSE**

For the duration of the project, an electronic system and timesheets were used to track employee hours.

**BROZ**

An electronic system is used to register time. Attendance records are processed into pay slips. Timesheets for the project were used. The Commission's model timesheets were used to record the actual working hours for the project (monthly timesheets with "hour" as the time unit) for all personnel employed on the project. These timesheets were used daily to record working hours dedicated to the LIFE project, other projects, public holidays, annual leave, sick leave, and other absences. Timesheets were printed and signed by an authorized person on the last working day of the month they pertain to or at the latest, on the first day of the following month. Part-time personnel (working part-time on this project and part-time on other projects) clearly distinguished between

hours worked for the CZ-SK SOUTH LIFE project and other projects in their timesheets. Based on the timesheets, eligible costs for each project were determined and recorded in the appropriate cost center within the analytical accounting records.

Eligible personnel costs were calculated based on the average annual hourly rate and the actual number of working hours spent on the project as recorded in the timesheets. The average annual hourly rate was calculated by dividing the annual personnel costs (annual gross salary plus mandatory social charges, excluding any other costs) by the annual number of working time units (excluding non-productive time, such as weekends, holidays, sick leave,

**ONYX**

Electronic attendance system and timesheets. The timesheet is completed electronically, then printed, signed by the employee, and dated. ZO ČSOP Onyx adheres to the recommendations of the European Commission. Each employee maintains a monthly timesheet that records the time spent on each activity each day. If an employee works on multiple projects, the time spent on the CZ-SK SOUTH LIFE project is clearly distinguished from time spent on other projects. All time is recorded in hours. The timesheets also track vacations, public holidays, and sick days. At the end of each month, the timesheet is submitted to a competent person for review and signature. The employee also submits the travel order along with the timesheet, which is then reviewed and signed by the competent person.

**SNC**

An electronic attendance system and timesheets were used. Lower personnel utilization due to unfulfilled activities; the activities were transferred to other partners (SBR and BROZ). Timesheets are filled out by hand, then printed, signed by the employee, and signed by their supervisor. If the vendor's system allows, a reference to the project is included directly within the invoice body. If this is not possible, the invoice is manually stamped with the project stamp

In the case of timesheets, they were reviewed by the supervisor, who signed them on a monthly basis. Template timesheets were used.

## 8.2. Partnership arrangements (if relevant)

Please briefly explain how financial transactions between the coordinating beneficiary and the associated beneficiaries have taken place. How is financial reporting implemented by each beneficiary and how is the consolidated cost statement prepared?

The SBR, as the coordinating beneficiary, has made all relevant payments to the associated beneficiaries without undue delay in accordance with the partnership agreements. Associated beneficiaries submit reports as per the schedule outlined in the partnership agreements. They also submit ongoing technical reports according to the established timetable, which include descriptions of individual activities related to project objectives and an action plan for the implementation of project activities. The financial report is submitted annually, covering the preceding calendar year. These financial reports are supported by documentation, including timesheets and copies of all accounting documents related to individual payments, both in printed and electronic form.

The coordinating beneficiary, SBR, has entered into partnership agreements with all associated beneficiaries. All mutual relationships are governed by these agreements.

- Partnership agreement with BROZ No. SON/OZZL/002/17 including addendum No. 1.
- Partnership agreement with SNC No. SON/OZZL/003/17 including addendum No. 1.
- Partnership agreement with RSE No. SON/OZZL/004/17 including addendum No. 1.

- Partnership agreement with ONYX No. SON/OZZL/005/17 including addendum No. 1.

Financial transactions between the coordinating beneficiary and the associated beneficiaries were carried out based on the partnership agreements and the internal regulations of the SBR organization. A transfer of funds to the partners was executed on 5/7/2020. Due to a modification of the bank account request by RSE during the disbursement voucher generation process, the funds were received by KSH with a delay. An initial erroneous transfer was made, which RSE returned to JČK, followed by a subsequent correct disbursement to RSE's specified account.

**EU payment:** 21.12.2017, €1,525,500

**EU payment:** 08.04.2020, €2,034,000

**Ministry of Environment payment:** 10.07.2017, CZK 5,994,000

Only one payment from the Ministry of Environment (MŽP) was made, amounting to CZK 5,994,000. The second advance payment was not executed due to an ongoing project audit. The audit was concluded with a letter from the MŽP received on April 3, 2024, which subsequently required confirmation from the Governor of the South Bohemian Region. Given that the project concluded on June 30, 2024, it was decided to combine the second payment from the MŽP with the third and final payment, also for administrative reasons. Consolidated financial statement was created based on Financial statements of partners for continuous monitoring of budget variance.

## 8.3. Certificate on the financial statement

For the LIFE14-16 projects, in accordance with Art. II.24.2, the official registration number, organisation, full name and address of the approved auditor or competent and independent public officer who are to establish the certificate for the payment of the balance, shall be included in this section of the mid-term report. For the LIFE17 onwards projects, provision of the auditor's details is not required with the mid-term report. The auditor's report (to be included with the final financial report) must follow the format of the 'Terms of reference for the certificate on the financial statements' available on the LIFE website under the LIFE Reporting / Templates section.

**Audit report**

A contract for an audit was signed with BDO Audit s.r.o., contract no. SDL/OZZL/202/21.

The project audit was implemented by independent auditing company BDO Audit s.r.o., by certified auditor Ing. Ondřej Šnejdar, auditor license no. 1987 and Ing. Jan Macháč, auditor license no. 2231. Based on a tender, the project audit was divided into two audit reports. The first audit report was submitted in 2022, as per the contractual terms. The second audit report was submitted in 2024, where the Final audit report was issued in the form of Certificate on Financial Statements. The Final audit report is attached as **FR Annex F2**. The audited entities were the organizations - SBR, RSE, and BROZ.

## 8.4. Estimation of person-days used per action

In order to have an overview of the use of budgeted person-days by group of actions, it is **recommended to fill in the following additional table**. Please provide estimates of % of person-days spent compared to the budgeted numbers[1]. This table will allow you and the

[1] As we are only requesting estimations, those figures are not meant to be used for the financial reporting.

Agency to monitor the actual absorption of budgeted time and will highlight any major deviations that should then be explained. When compiling the information, you may refer to the number of days referred to in Form R2 of the proposal:

| Action type | Budgeted person-days | Estimated % of person-days spent |
|---|---|---|
| All projects when applicable<br>Action A: Preparatory actions | 514 | 100 |
| NAT and CLIMA projects<br>Action B: Purchase/lease of land and/or compensation payment for payment rights | 400 | 74 |
| ENV projects<br>Action B: Implementation actions | | |
| GIE projects<br>Action B: Core actions | | |
| NAT projects<br>Action C – Concrete conservation actions | 19,215 | 92 |
| CLIMA projects<br>Action C: Implementation actions | | |
| ENV and GIE projects<br>Action C: Monitoring of the impact of the project action | | |
| NAT and CLIMA projects<br>Action D: Monitoring and impact assessment | 288 | 103 |
| ENV and GIE projects<br>Action D: Public awareness/ommunication and dissemination of results | | |
| NAT and CLIMA projects<br>Action E: Communication and Dissemination of results | 3,177 | 94 |
| ENV and GIE projects<br>Action E: Project management | | |
| NAT and CLIMA projects<br>Action F: Project management (and progress) | 4,141 | 90 |
| **TOTAL** | 27,735 | 92 |

**Comments on budget cost categories - description of significant budget changes**

**Personnel**

**SBR**

The positions of project manager and financial manager were filled; no other position was created. Employees are assigned to positions based on Director's Decision No. RŘ/57/REDI on the Structure of Job Positions and its amendments under the jurisdiction of the South Bohemian Regional Office. Individual employees are placed into a salary table according to their job description and years of service within the organization. Salary conditions are governed by Act No. 262/2006 Coll., the Labor Code, and Government Regulation No. 341/2017 Coll. on the salary conditions of employees in public services and administration, as amended, and related government regulations. The government regulation was amended with effect from September 1, 2022, and January 1, 2024. The higher daily rate for the financial manager is due to the fact that he was already employed by the SBR organization

before the start of the project, and during the project's implementation, the government regulation was amended several times, significantly increasing the daily rate. The financial manager incurs wage costs even after the project's end (July and August 2024) due to preparing materials for the final report. The project manager did not draw a salary for the entire duration of the project because of taking maternity leave at the end of the project. From June 13, 2024, to June 30, 2024, the project manager's salary was not drawn.

**RSE**

Change in the number of field workers. The original project assumption was ten workers. Due to competitiveness in the area of employee financial compensation, the number of employees was reduced to three operators and five field workers. The number of field workers was already addressed in Progress Report No. 1. 01/2020 – 12/2020 – FS personnel employees – Lukáš Zahradník – high daily rate for 2020 due to illness and taking regular vacation.

**BROZ**

The personnel costs budget for BROZ was planned at €692,850. Project roles were continuously staffed in accordance with the planned budget, including:

Project Coordinator

Administrative Assistant

PR Assistant

Site Manager

Field Worker

Technical Worker

In addition to the original project roles, a new role of Junior Project Coordinator was added.

Actual personnel costs amounted to €620,163.98, which did not exceed the planned budget. However, there was an increase in hourly rates for the positions of Administrative Assistant, Field Worker, and Technical Worker due to the project's duration and inflation. This resulted in a slight overage compared to the initial budget estimates.

The higher hourly rate for the position of Project Coordinator, held by Pavol Littera, was justified by his extensive experience as a senior project manager for LIFE projects, over 20 years of expertise in nature conservation, and substantial experience in managing national and international projects. This hourly rate is standard for this position, reflecting a 6.41% increase over the reporting period.

Two additional positions were hired:

Site Manager 2

Field Worker 2

This was necessary to address the increased workload associated with actions B1, C2, C5, C6, and C7, and to accelerate the implementation of action B1. These additional positions have not caused the project budget to be exceeded.

**ONYX**

Two employees worked on the project: PR Manager and a PR Assistant. The PR Manager worked for the entire duration of the project, i.e., until June 30, 2024. The PR Assistant ended their role on December 31, 2023. Starting January 1, 2024, salaries across the entire company were increased by 10%. Therefore, the PR Manager's salary was also raised. The negative balance in the employee budget was compensated by the remaining funds from travel expenses.

**Other cost categories**

**SBR**

**Travel costs** within the organization include costs for employees, accommodation, and transportation. The rates for meal allowances during domestic business trips are determined by the range specified in Section 176 of the Labor Code. Travel allowances are regulated within the organization by the Director's Decision No. RŘ/2/REDI, and the corresponding rates for the respective periods are specified in the annex to RŘ/2/REDI. The amount of meal allowance changed during the project. Meal allowances are calculated based on an electronic travel order. The travel order must be completed before departing for a business trip. The entitlement to a meal allowance arises after the business trip, when the employee completes the travel order and submits it for approval to their supervisor. The procedure for completing a travel order is specified in the Director's Decision No. RR/2/REDI. For business trips, a personal Suzuki car purchased from the CZ-SK SOUTH LIFE project was used. Fuel was paid for from the SBR budget.

Individual studies are described in more detail in the technical part of the report. All monitoring studies were delivered in accordance with contractual terms and on time. **Monitoring of target species *Carabus menetriesi pachoilei*:** In November 2023, supplier Mr. Boháč submitted a report on the monitoring of the *Carabus menetriesi pachoilei*. Unfortunately, Mr. Boháč passed away suddenly in December 2023. The project manager took over the monitoring report, which contained all the necessary elements stipulated in the contract with the supplier. Subsequently, inheritance proceedings took place, with the deceased's wife, Dr. Olga Boháčová, as the sole heir. Based on decision no. 31 D 2145/2023-84, the full amount was paid into Mrs. Boháčová's account in May 2024. Therefore, there is a change in the supplier's name in the financial statement for the supply contract no. SDL/OZZL/053/18.

***Osmoderma eremita*:** From the South Bohemian Region budget, two additional expert studies were commissioned and monitoring of the target species *Osmoderma eremita* (OE) was ensured. One study (contract no. SDL/OZZL/112/22) analyzes the habitats of OE at SCI Vrbenské Rybníky. The study builds on previous expert studies funded by the CZ-SK SOUTH LIFE project. This study describes further trees suitable for treatments, specifically on the embankment of the Černiš pond. Approximately 200 deciduous trees were assessed in the SCI, which, due to their location and parameters, represent currently or potentially suitable individuals for the occurrence of *Osmoderma eremita*. Of these, 91 pedunculate oaks were selected in which the occurrence of the species was currently or previously proven or is probable, possible, or can be expected in the future. These are trees that require safety and health pruning or appropriate silvicultural measures for their further development and as habitats for the target species. The second study (contract no. SDL/OZZL/302/20). In 2022, a total of 1100 deciduous trees were mapped at SCIs Sokolí hnízdo a Bažantnice, Vrbenské Rybníky, Vlašimská Blanice, Hlubocké hráze, Hlubocké obory, Blatná, and Lužnice a Nežárka.

**E2.4 Final international conference:** Originally, the conference was in the budget of SNC (External assistance). However, due to the overly complicated procurement procedures of SNC, the related external assistance (e.g. accommodation, room renting, catering) was not procured in time by this beneficiary. To cope with this situation, the conference was prepared and paid by the beneficiary SBR – therefore, the project costs of the conference are incurred by this beneficiary. Simultaneously with the final conference, a workshop focused on project PR activities also took place. Media activities, posters, and printed materials of this, as well as other LIFE projects were presented and discussed. The workshop also offered networking with other LIFE projects and presentations of other projects related to environmental protection.

**Noticeboards (SBR, E1.5):** This item was not drawn upon. A large number of information boards have already been installed at some locations from the implementation of other projects. Therefore, it was

decided to use the existing boards at the project locations, which were installed in 2020. These are small information boards with a QR code and information about the implementation of the CZ-SK SOUTH LIFE project.

**Equipment: project machinery** - all machinery and equipment items purchased by the project were used for management of project sites, as foreseen in project actions C1, C2, C3, C4, C5 and C6. Without the procurement of the machinery, the implementation of specific management tasks within these actions would not be possible, or it would not be possible to achieve the foreseen results in full scale. The costs of the high-lift platform mounted on chassis (244 870,41 eur incl. VAT) significantly exceeded the budgeted amount (100,000 eur). Due to safety reasons a bigger and heavier vehicle had to be purchased, to provide more stability for work in narrow tree alleys and on narrow fishpond dams, because in these places the side-supports cannot be used. Therefore a bigger and heavier vehicle was the only feasible option to provide sufficient stability for works with elevated platform in the crowns of veteran oak trees in these areas. Also, in the invoices and financial statement, some equipment items were grouped together (e.g. the Tatra Phoenix vehicle grouped with trailer and other items), making their total price look bigger, but this is only a small formal deviation, since the sum is more or less in correlation with the originally budgeted amounts for individual items. All these issues were described and justified in more detail in the project´s MTR report.

**Equipment Loan Agreement:** Equipment purchased by SBR has been loaned to RSE under the Borrowing Agreement SV/OHMS/257/18 and its subsequent amendments. All movable assets are exclusively used for project purposes and are provided on a temporary, no-cost basis. RSE is responsible for the maintenance, operation, repairs, and insurance of the borrowed equipment, with SBR covering the insurance costs. This agreement is set to expire on 31 December 2023.

**Suzuki SUV Acquisition:** A Suzuki SUV was purchased. Operating costs, including fuel, servicing, and insurance, are covered by the SBR budget.

**Visitor Counters:** Visitor counters were installed and data is regularly downloaded. Regular inspections are conducted to check for any damage caused by visitors. Data from the counters is collected twice a year and subsequently analyzed. Visitor counters are located at SCI Borkovická blata project site.

**Data Loggers:** Four data loggers for measuring water levels (at peat-bog sites) were purchased as part of the project. In 2019, an additional four data loggers were purchased from the SBR budget, totaling eight data loggers. These are located at SCIs Borkovická blata, Pohoří na Šumavě, Pláničský rybník - Bobobec, and Rašeliniště Kapličky - two data loggers at each location.

During the sustainability phase, all eight water level loggers will remain in operation, and data services will continue to be funded by the SBR budget.

**Additional Equipment:** SBR acquired additional equipment not originally planned for the project. This was on top of the project budget and covered by additional investments of SBR. The items include further machinery - e.g. a small excavator, that was needed to build dams on drainage channels to restore peat bog habitats (action C3.3), a covered parking place, that is used daily to safely park the machinery purchased by the project, etc. The total value of this equipment, procured by SBR on top of project budget is 1,268,385.83 eur, and it will contribute to better management of Natura 2000 sites under custody of SBR - thus even more improving the project results and its value. This equipment was subsequently loaned to RSE under a loan agreement. This equipment is used for management of the project sites at various locations.

**Asset Management:** Asset management, accounting, depreciation, and inventory are governed by Director's Decision No. RŘ/90/REDI and Director's Decision No. RŘ/28/REDI, respectively.

All equipment purchased by SBR (except for the personal vehicle, data loggers, and visitor counters) was loaned to RSE partner under a loan agreement for field use.

**Reform Metrac H7 RX:** Purchased on 19.10.2018, the Reform Metrac H7 RX is listed in the financial statement. On 11.8.2020, a fire damaged the machine. The machine was insured, and the insurance claim was reported to the police. The insurance claim was deemed a total loss. The vehicle was deregistered, and the insurance was canceled. The machine was loaned under a loan agreement no. SV/OHMS/257/18. Following the damage, the machine was removed from the loan agreement based on the Regional Council Resolution No. 1217/2021/RK-27 dated 27.10.2021.

In 2020, the burned machine was replaced with a new Reform Metrac from the South Bohemian Region own budget. Based on addendum no. 1 to the loan agreement no. SV/OHMS/106/20 dated 11.6.2021, it was loaned to RSE.

The budgeted item for property insurance was not drawn upon from the project. This is because SBR, as an organization, has existing fleet insurance policies in place, covering both compulsory third-party liability insurance and comprehensive insurance, as well as additional optional insurances. If insurance had been arranged outside of these fleet policies, it would have exceeded the project budget. Therefore, the decision was made to insure the property within the framework of SBR's organization.

All equipment is covered by compulsory third-party liability insurance, and depending on the type of machine, may also have comprehensive insurance, machinery breakdown insurance, and personal accident insurance. The "Other costs" item also includes administrative fees for vehicle registration. These are fees for registration plates, which were not included in the project budget but are related to the acquisition of equipment and its operation on public roads.

**RSE**

**Consumables:** During the project implementation, the name of the company that won the tender for the supply of Scots pine seedlings changed. The original company name was WOTAN forest. In 2022, the seedlings were already supplied by UNILES, a.s. (the successor of WOTAN forest). This category included personal protective equipment for employees, spare parts for all equipment, tires for vehicles, and also consumables such as canisters, nails, nets, mesh, timber, and the storage of biowaste. These items were also not included in the original project budget but arose from the project implementation.

**External assistance:** This category included, in particular, repairs and service inspections of equipment and geodetic work at the SCI Rašeliniště Kapličky site. These works were not included in the project budget but were all related to the operation of the equipment and were therefore part of the project.

Furthermore, the planting of Scots pine seedlings was planned according to the project. The planting was eventually carried out by the RSE employees themselves and the service was not outsourced. By having the RSE employees plant the Scots pine seedlings themselves, financial resources were saved.

**BROZ**

**External assistance (EA):** E3.1 Excursion for stakeholders in Hortobágy NP - (with topic of grazing reintroduction), on 11.-13.10.2023 was organised jointly with an excursion of project LIFE SUB-PANNONIC. Double financing or double reporting of results/participants was strictly avoided: both projects invited their own participants, who signed the participants list only for their project. However, organising the event for 2 projects together enabled us to save funds for transport and guiding and also, to share best practice and motivation among participants of both projects (since in both of them, reintroduction of grazing is an important activity and local farmers were the main target group).

**Consumables:** Fuel for tractor – higher spending was incurred, due to a significantly higher amount of work related to management of the project sites, than was foreseen by the project (actions C2, C5, C6, C7). This was also communicated in the MTR report.

**Other costs**: Tractor regular services controls – significantly higher spending was incurred in this item. This is due to an overall higher amount of works related to management of the project sites (actions C2, C5, C6, C7) – which however resulted in better overall achievements of the project results, compared to the expected results (esp. for actions C7 and C2). Other reasons were more intensive wear and tear, since many of the sites were overgrown, with remnants of waste or rocks hidden in the tall grassy vegetation, with difficult terrain, etc. Although the operators were careful during machine operation, this type of terrain is naturally more demanding and brings more intensive wear and tear to the used machines. Also, the budgeted costs of this item were most likely underrated during the project preparation.

Higher costs for construction of fixed fences, shelters for grazing animals and equipment for grazing were incurred. This is mainly due to a more significant focus on action C7 (Restoration of grassland habitats by reintroduction of grazing), which is the key action for long-term restoration of grassland habitats. Overall, we achieved significantly more results than was foreseen in the project (cca by 200% compared to expected results). We also had to cope with very difficult terrain conditions in some of the project sites – e.g. steep and rocky terrain, waterlogged marshy terrain, overgrown sections of grasslands that had to be cleared before building of fences, etc. Another factor was the overall rise of prices of materials and services, triggered by the COVID-19 pandemic and war in Ukraine. Still, we wanted to create all the grazing infrastructure as robust and durable as possible – which naturally resulted in much higher overall costs incurred in related budget items: EA: construction of fixed fences, creation of shelters for grazing animals, EQ: equipment for grazing. However, this will result in much more sustainable results of grazing reintroduction, better cooperations with local farmers, their more efficient use of the restored pastures and higher socio-economic benefits on the local level.

**Equipment:** Equipment for grazing **-** overall, the highest costs for reintroduction of grazing is the construction of fixed fences. In some cases, we procured all the construction materials (robust black locust wooden poles, electric wires, isolators, impulsators, solar panels, batteries, etc.) for the construction – which was included in this budget item and the external assistance covered only the costs of construction works. This solution enabled us to save funds compared to a situation, when material+construction works would be procured as one package. Naturally, the result of this approach was significantly higher spending in the budget item "Equipment for grazing". However, the overall result was lower budget spending for the project as a whole and higher value for money achieved.

Grazing animals – sheep, goats, horses: actions C7, C2 (reintroduction of grazing): lower number of animals was purchased compared to the numbers foreseen by the project. Thanks to a very good cooperation with local farmers, the purchase of new animals was not necessary - as a major part of project sites will be sustainably grazed by them, using their own animals and their offsprings. When we created durable grazing infrastructure (fixed fences, shelters, watering places) – the local farmers could create a sustainable grazing system using their own animals.

On sites grazed by BROZ, we mostly use the offsprings from animals purchased by the previously finished LIFE projects (e.g. LIFE Danube Birds, LIFE Natura 2000 BA). Therefore, only purchase of a smaller number of animals was necessary (2 stud male goats for reproduction of new offsprings, for grazing in SCI Devínska Kobyla). This allowed us to save significant amounts of funds, which could be used for constructing more durable infrastructure for grazing, resulting in more sustainable project results.

**Accidents in cars and machinery:**

BROZ: Project car Suzuki Ignis BL 670 SF had a demolishing car crash on 24.9.2021. Until this accident, the car was used for 3.5 years for project purposes, with more than 80,000 km of field trips covered. The amount of damage and costs of reparation were higher than the remaining value of the car. Therefore, we decided to replace the car with an equivalent personal car Suzuki JIMNY (BL 484 OR), which was in the ownership of BROZ. This car was assigned to the SOUTH LIFE project and continued

to be used for the project tasks until the end of this project. No costs for purchasing a new car were incurred by the project.

**ONYX**

Travel costs were drawn continuously throughout the project, managed by the PR manager. The positive balance covers the negative balance in employee expenses. External assistance was drawn according to the budget, no deviations from the plan were found. Other costs are drawn according to the budget. Based on an agreement with the project monitor, the printing of 4 brochures was not carried out due to the availability of the information on the project website and the website of the South Bohemian Region Department of the Environment.

**SNC**

**Equipment:** Personal car (budgeted 17 000 €) was not procured. Instead, 2 electronic bikes were procured, to provide a better value for money. The bikes were used on a daily basis by the project staff of SNC for controlling of project site SCI Devínska Kobyla – sub-action C6.3 Eliminating stealing of valuable plant species in SCI Devínska Kobyla (see FR Annex C6b for photos).

**External assistance:** C6.2 Removing of IAS in SCI Čenkov: this action was originally assigned to SNC, but due to their inability to procure the larger external assistance, it was taken over by BROZ, procured and completed before the end of the project. Therefore, the costs of this action (154 900 eur in total), were incurred by BROZ and not by SNC. Please see also Section 6.2, part deviations in time schedule for details and action C6.2 for context and justification. Reasons behind: there was a significant delay caused by project beneficiary SNC´s inability to procure the larger scale of external assistance works focused on removal of IAS in SCI Čenkov. On all project meetings and in numerous communications and reminders, they were reassuring us that they would do it and they are willing to do so. They informed us only a few months before the end of project, that they will actually not make it (due to overly complicated procurement procedures, multistage decision approval process, changing of general directors after the elections etc.). To cope with the situation and to meet the project objectives of action C6.2, BROZ agreed to take over this sub-action and promptly procured an external subcontractor for this task. This was consulted and agreed also during the project´s monitoring mission in 4/2024, with the project´s monitor and desk officer. The sub-action was duly completed to the required extent of two repeated treatments, where all surviving individuals were subjected to a second round of treatment, with very good results achieved (cca 99% effectiveness of removal). Therefore, we can consider this action as successful (see also description of action C6.2 in the Technical part). One of the results of this situation is a significant over-spending of the total budget assigned to project beneficiary BROZ – by approx. 150 000 €, which is caused by „saving“ this situation and taking over the responsibility for implementing action C6.2, instead of SNC. As we didn't expect this situation, we could not adjust our total spending to this and as a result, the total budget of BROZ was exceeded. However, the total costs incurred by SNC are significantly lower (by much more than this sum), therefore, the total budget of the project was not exceeded. Therefore, we expect that the project beneficiary SNC will return the unspent amount of the first and second pre-financing payments to coordinating beneficiary SBR and SBR will refund these eligible costs to BROZ, who used them for implementing action C6.2, instead of SNC.