

LIFE Project Number
<LIFE13 NAT/HU/000183>

Final Report
Covering the project activities from 01/07/2014 to 31/12/2018

Reporting Date
<17/04/2019>

LIFE+ PROJECT NAME or Acronym
<RAPTORSPREYLIFE>

Project Data

Project location	Hungary and N-NW-Romania
Project start date:	<01/07/2014>
Project end date:	<31/12/2018>
Total Project duration (in months)	<54> months
Total budget	€ 2 881 243
Total eligible budget	€ 2 881 243
EU contribution:	€ 2 160 932
(%) of total costs	75,00
(%) of eligible costs	75,00

Beneficiary Data

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2. Executive Summary

2.1. Project objectives:

1. It aims to strengthen the European core populations of *Aquila heliaca* and *Falco cherrug*, by stopping the decline of their main food sources, the small mammals (*Spermophilus citellus*, *Cricetus cricetus*, and *Lepus europeus*).
2. The project aims to increase public awareness towards the birds of preys and especially their small mammals prey too.
3. The project also aims to demonstrate how to adjust different nature conservation priorities when we carefully consider the life style and habitat demand of *Sicista subtilis trizona* and *Nannospalax montanosyrmiensis*.

2.2. Deliverable and outputs:

Up-to-date distribution maps of *S. citellus*, *C. cricetus*, *N. montanosyrmiensis* and *S. trizona* were prepared for the entire area of Hungary, habitat suitability and the trend of target species were analysed (A1). Evaluation of the genetic status of the fragmented populations of *S. citellus* in Hungary and NE-Romania (A2). *S. citellus* welfare plan was developed by surveying the stress status of *S. citellus* colonies (A3). Land Stewardship Advisory Service established (A4). 500 copies of Airport management guidelines prepared and distributed among the airports, home of *S. citellus* and the responsible nature conservation personnels (A5). An up to date digital Reintroduction Protocol for *S. citellus* repatriation based on the latest developments was developed and endorsed by the HMoA (A6). Recommendation for the flood and inland water prevention activities in the *S. citellus* habitat prepared and received by the concerned authorities (A7). Baseline data of public awareness were collected (A8). Multifunctional equipment purchased (A9). 104 ha grassland, 2.1 ha of farmhouse lands purchased and reconstructed (B1, C4). Captive breeding facilities established, captive breeding technology developed, breeding stocked established and captive bred cubs were produced (C1). Careful health checks have been done and any serious epidemic were not found (C2). 54 ha stepping stones among Natura 2,000 sites established and maintained and about 70 ha bounds along dirt roads were reconstructed in Hungary and 28 ha was reconstructed in Romania (C4). 18 new *S. citellus* populations, two new *C. cricetus* populations and a *N. montanosyrmiensis* population was established (C5). Careful guarding and maintenance of repatriated populations (C6). Good cooperation established with hunters and the number of mammal predators reduced (C7). *S. citellus* movements were mapped, new and essential information gained for further conservation measures (C8). Prey composition data by on-line video streaming and photo-trapping were collected and evaluated (D1). Land use data of *F. cherrug* & *A. heliaca* were collected by PTTs (D2). Monitoring reports were prepared (D3). LSAS was advising farmers, hunters and several forums were organised (E1), 1,000 logo stickers, 7,000 sticker of target species, 2,000 copies of leaflets on *C. cricetus*, 1,000 copies of brochures on *C. cricetus* and 2,000 copies of brochure on target species printed, 4,000 copies of educational exercise booklet prepared, 5,000 leaflets of the project was prepared, 4,000 copies of colouring book for children produced (E2), 2,000 pcs Hungarian and 500 pcs Romanian “Keep the dog closed” A2 size posters printed and displayed (E4). Citellus show was established in three places in Hungary (E5).pc Project Web is functioning (E6). 23 information boards in Hungary and 10 pcs in Romania prepared and erected. One roll-up got to produced and displayed in events (E7). 1,500 copies of B1 size posters in Hungary and 300 copies in Romania, 7x500 stickers

and 11 magnetic boards, 1,000 T-shirts and 500 DVD in Hungarian w/English and Romanian subtitle were prepared and distributed (E8). Seven TV and radio broadcast, 13 printed and 10 online articles and 7 scientific papers published (E9). 2000 Hungarian, 1500 English and 1500 Romanian copies of Layman's report printed and distributed (E10). Blind mole rat Advisory Group was extended with souslik and national coordination of both species conservation are going on (F5). VII. EGSM was held and the experience and outcome of the project was shared with the international audience (F6).

2.3. Summary of chapters:

2.3.1. Introduction:

Includes the overall objective and the specific objectives of the project, the sites are involved, the species are targeted, the main conservation issues being targeted (including threats), the socio-economic context and the expected long term results.

2.3.2. Administrative part

Includes the description of the management system, description and schematic presentation of working method, including overview of project phases, activities and planning, presentation of the beneficiaries, changes in the project management structure, partnership agreements status (including date of signature) and key content, evaluation of the management system, description of the project management, 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 Commission and Monitoring team.

2.3.3. Technical part

includes the technical progress

- A: Preparatory actions (A1-A9),
- B: Land purchase (B1)
- C: Concrete conservation actions (C1-C7)
- D: Monitoring of the impact of the project actions (D1-D5)

and the dissemination progress

- E: Dissemination actions (E1-E10)
- F5: Networking and
- F6: Held VII. EGSM

2.3.4. Financial Part

The work was based on the annual work plans and budget. The project management follows the work and checked the expenses monthly and quarterly in case of foreign partners. 2,803,729 € 97.31% of the planned total budget have spent during the project period. There was some relocation among the cost categories in consultation with EC but within the 10 % or 30,000 € limit. One amendment to the Grant Agreement was signed because the infrastructure costs exceeded the 10% or 30,000 € limit.

3. Introduction

3.1. Overall and specific objectives

3.1.1. Overall objectives

The project's overall objective to reinforce the on-going efforts to strengthen the European core populations of *Aquila heliaca* and *Falco cherrug*, globally threatened species on Annex I of the Birds Directive also identified as priority species for LIFE-Nature projects.

3.1.2. Specific objectives

- The project aims to stop the decline of the existing small mammals (*Spermophilus citellus*, *Cricetus cricetus*, and *Lepus europeus*) population as the essential food sources of *A. heliaca* & *F. cherrug* where they exist.
- The project works as a demonstration project in some actions to prepare the background scientifically for the possible future increase of those populations based on the best practices applied.
- The project aims to increase public awareness towards the birds of preys and especially their small mammals prey too.
- The project also aims to demonstrate how to adjust different nature conservation priorities when we carefully consider the life style and habitat demand of *Sicista subtilis trizona* and *Nannospalax montanosyrmensis* strictly protected species in Hungary and adjusting our work for the benefit of all species.
- Strong, healthy genetically stable *S. citellus* population will provide suitable food for *A. heliaca* and *F. cherrug* population. *S. citellus*, *C. cricetus*, *N. montanosyrmensis*, and *L. europeus* will survive in the Natura sites and around them within 10 km. *S. citellus*, *C. cricetus*, will increase in the food of *A. heliaca* and *F. cherrug*.
- More healthy and bigger *S. citellus* population.

3.2. Sites are involved

There are 27 Hungarian and 17 Romanian Natura 2000 areas involved in the project.

3.2.1. In Hungary

HUBF20003 Kab-hegy; Grassland along HUBF20011 Felső-Nyírádi-erdő és Meggyes-erdő, HUBF20031 Szentkirályszabadja, HUBN10002, HUBN20034 Borsodi-Sík and Borsodi Mezőség; HUBN10003, HUBN20009 Tard-környéki erdőpuszta; HUBN10007, HUAN20004 Hernád-völgy és Sajóladai-erdő; HUDI10002, HUDI20039 Pilis és Visegrádi-hegység (Strázsa hegy, Dömörkapu és Keszölczi dombok); HUDI20047 Szigeti homokok; HUFH10001, HUFH20002 Fertő-tó; HUFH10004 Mosoni-sík; HUFH20001 Rábaköz; HUFH20007, HUFH20009 Péri repülőtér & Gönyüi homokvidék; HUFH20011 Rába; HUFH30004 Szigetköz; HUFH30005 Hanság; HUHN20144 Kenderesi-legelő; HUHN20145 Kecskeri-puszta és környéke; HUKM10003, HUKM20014 Csejt-puszta (Dévaványa környéki gyepek); HUKN20008 Déli-Homokhátság; HUON10001, HUON20018 Örség (Szalafő and Csörötnek); HUON20011 Kenyeri reptér.

3.2.2. In Romania

ROSPA0015, ROSCI0048, ROSCI0049, ROSCI0231, ROSCI0350 Câmpia Crișurilor; ROSPA0016, ROSCI0021 Câmpia Ierului; ROSPA0069, ROSCI0108 Lunca Mureșului

Inferior; ROSPA0078, ROSCI0115 Mlaştina Satchinez; ROSPA0103, ROSCI0104 Valea Alceului; ROSCI0068 Diosig; ROSCI0287 Comloşu Mare; ROSCI0345 Pajiştea Cenad; ROSCI0349 Bulgăruş.

3.3. Species are targeted

Imperial Eagle (*Aquila heliaca*), Saker (*Falco cherrug*), Ground-squirrel (*Spermophilus citellus*), European hamster (*Cricetus cricetus*), Hare (*Lepus europeus*), Southern birch mouse (*Sicista subtilis trizona*) and Lesser blind mole rat (*Nannospalax montanosyrmiensis*)

3.4. Main conservation issues being targeted (including threats)

The rodents population especially *S. citellus*, *N. montanosyrmiensis*, *C. cricetus*, *L. europaeus* are shrinking today. It means that the increasing birds of prey population facing with decreasing rodents population what is resulting increasing conflict with fanciers and hunters. (D1, D2)

- **Fragmentation of habitat and insulation of the probably inbred small mammals populations;** (A1, A2, A4, A6, B1, C1, C3, C4, C5, C6, D3, D5, F7)
- Diseases of small mammals; (A3, C2, D3)
- Poisoning; (A4, A5, C6, D3)
- **Loss of habitat;** (A4, A5, A7, C4, D3, D5)
- Predators; (C7, D3)
- Lack of information; (A8, D3, D4, E1, E6, E7, E9, E10, F5, F6)
- **Lack of public awareness;** (A8, D3, D4, E1, E2, E3, E4, E5, E8, E10)
- Lack of food sources in the breeding period; (A3, C1, C5, D3)
- Conflict with hunters (A4, D3, D4).

3.5. Socio-economic context

Stakeholder groups and their likely attitude to the project:

Governmental bodies:

- Nature conservation authorities: + promote species and habitat conservation, long-term nature conservation ensured.

- Agricultural and rural development authorities: + reconciling land-use priorities, long-term nature conservation ensured.

Regional and local municipalities: +/- eco-tourism, possible restrictions

Land-owners, land-users: +/- possible future funding and/or restrictions on agricultural activities in core areas.

Tourists, travel agencies: +/- possible future restrictions on tourism in nesting areas, increase in tourism potential of the area.

MME/BirdLife Hungary: + promote species and habitat conservation, long-term nature conservation ensured.

Other nature conservationists: + contribute to a long-term, realistic species and habitat conservation and management project.

Scientific and educational institutes: + directly and indirectly share the outcome of the project.

Local people: + increase in tourism potential of the area.

Hunters: +/- increase of raptors, improved habitat

Social-economic impact of the project:

1. Land purchase provide income for landowners

2. Impact of the compensated set aside on bounds on the farmers' economy.
3. Impact of the compensated set aside on bounds on the hunters' economy.
4. Impact of assisted reduction of predators on the hunters' economy.
5. Impact of birds of prey on farmers' and hunters' economy.
6. Impact of extensive farming of the restored areas on the farmers' and hunters' economy.

The Agricultural Environmental Programme (AEP) came to existence to support sustainable agriculture and to aid the protection of the living environment. Zonal subsidies are available for ESAs (Environmental Sensitive Area) within the programme that aims to land use practices favourable for the target species (e.g. *A. heliaca* & *F. cherrug*).

3.6. Expected longer term results

As a result of the project the main reasons of the decrease of small mammals will be better understand and the decrease of these main food sources of *A. heliaca* and *F. cherrug* will be stopped.

- Strong, healthy genetically stable *S. citellus* population will provide suitable food for *A. heliaca* and *F. cherrug* population.
- *S. citellus*, *C. cricetus*, *N. montanosyrmiensis*, and *L. europeus* will be stable in the Natura sites and around them within 10 km.
- *S. citellus*, *C. cricetus*, will increase in the food of *A. heliaca* and *F. cherrug*.
- Gene banks will be established and captivity breeding will provide sources for the improvement of fragmented small populations.
- Potential habitats will be reconstructed and about 2000 *S. citellus* will be reintroduced from strong viable populations.
- The fragmented populations will be connected by stepping stones.
- The public awareness would be increased towards these species.

3.7. Summary of the achievements, deviations, important problems and difficulties met during the project implementation.

Achievements:

Essential data were collected and evaluated for better understanding the status of the target species such as population data and trend, genetical and health situation of *S. citellus*.

Strategic documents were prepared and endorsed by the HMoA: Up-to-date distribution maps of *S. citellus*, *C. cricetus*, *N. montanosyrmiensis* and *S. trizona* for the entire area of Hungary, *S. citellus* welfare plan, Airport management guidelines, Reintroduction Protocol for *S. citellus*.

Land Stewardship Advisory Service established.

104 ha grassland, 2.1 ha of farmhouse lands purchased and reconstructed. 54 ha stepping stones among Natura 2,000 sites established and 70 ha bounds along dirt roads were reconstructed in Hungary and 28 ha was reconstructed in Romania.

Captive breeding facilities, technology and breeding stocked established and captive bred cubs were produced.

18 new *S. citellus* populations, two new *C. cricetus* populations and a *N. montanosyrmiensis* population was established.

Several publications were produced and distributed among the stakeholders.

Cooperation with farmers, hunters and the public were improved.

Sharp decline of *S. citellus* population has dropped, *C. cricetus* population stabilised, valuable *N. montanosyrmiensis* individuals rescued and new population created, *S. trizona* population has increased and their habitat doubled to 40 ha.

Deviations:

Instead of lease of land (B2) some management contract were signed (C4).

Some original sites were replaced after detailed study of suitability.

More 75 ha land was purchased and maintained.

Two new *C. cricetus* populations and a *N. montanosyrmiensis* population was established what were not planned.

More dissemination materials have produced and distributed.

Important problems and difficulties:

The main problem was the slow and very bureaucratic governmental system in both countries.

4. Administrative part

4.1. Description of the management system

The project manager position was outsourced by tender to FENCON Ltd. A Project Manager together with the FHNPD staff Project Technical Coordinator and Project Administrator did the project management. Each of the associated beneficiaries appointed a coordinator as a contact person for the project management. Partnership agreements were signed. An electronic Project Hand Book was prepared and it was introduced to all staff and volunteers participating in the project by training. Annual work plans were prepared by the beneficiaries and approved by the project manager. A Steering Committee was formed to monitor the project implementation. The project management regularly visited the beneficiaries to ensure the smooth implementation of the project and prepared the scheduled reports to EC. The Project Administrator continuously checked the beneficiaries' financial reports and arranged the money transfer for the beneficiaries.

4.1.1. Description and schematic presentation of working method, including overview of project phases, activities and planning

In the *preparation phase* the project management started the work with work planning. The work was divided by years and the first year by months. The budget was also adjusted to the work plan. In the main time technical, communication and financial guidelines were prepared and an electronic Project Handbook were compiled including the Partnership Agreement, guidelines, work plans, budgets, common provisions etc. Training was organised for all staff involved in the project to standardise the implementation of the work. After the training the *implementation phase* started. The Project Manager tracked the progress by monthly reports provided by the partner coordinators and by visits to the project sites. The project management assisted the beneficiaries by all means through telephone, internet and personal visits. The Steering Committee followed up the work's progress annually.

4.1.1.1. Initial technical meeting

The Coordinating Beneficiary invited the Associated Beneficiaries for a technical preparation meeting on 12.09.2014. The meeting was held in the Budapest Zoo. (Refer to Annex F1/1 of IR).

4.1.1.2. Contracting Project Management

- Coordinating Beneficiary employed the Project Technical Coordinator and the Project Administrator from 01.11.2014. to speed up the work.
- This speed up the tender process also for the Project Manager who was contracted 12.12.2014.

4.1.1.3. Project management activities

- Partner co-ordinators were appointed by all partner organisations in September 2014.
- Detailed work plan and budget of all partners were divided for years and in 2015 for months and included in the Project Hand-book.
- The Technical Coordinator took part on the Kick of Meeting in Budapest on 11 November 2015 (Refer to Annex F1/2 of IR).

- Project Hand-book were prepared electronically for each project partners and introduced during the project training (**Refer to Annex F1/3 of IR**). It was amended time by time with some up to date documents like “Permission to collect samples for evaluation of genetic status of *S. citellus*” (**Refer to Annex A2/3 of MTR1**), or with the Updated *S. citellus* Reintroduction Protocol (**Refer to Annex A6/1 of MTR1**) and the questionnaire for airport grassland management (**Refer to Annex A5/1 of MTR1**).
- Two days project training was organised in Királyrét in Hungary on 10-11 February 2015, where partners’ team took part to learn about the technical, administrative and financial issues of the project implementation (**Refer to Annex F3/2 of IR**).
- Partnership Agreements an Amendment and Financial Amendments were prepared, signed and submitted with the Inception Report (**Refer to Annexes 7.1/1-7.1/13 of IR**). Three Amendments were prepared, signed and submitted with the second Mid-term Report (**Refer to Annexes 7.1/1-7.1/3 of MTR2**). Another three Amendments were prepared, signed and submitted with the Final Report (**Annexes 7.1/1-7.1/3**).
- The external auditor was selected and contracting in progress (**Refer to Annex F4/1 of IR**).
- Steering Committee was established. The first meeting was held in FHNPD in Sarród on 19 March 2015 (**Refer to Annexes F2/1-F2/7 of IR**). The second was held in FHNPD in Sarród on 23 March 2016 (**Refer to Annexes F2/1-F2/5 of MTR1**). The third was held in SASKÖZPONT in Jászberény on 29 March 2017 (**Refer to Annexes F2/1-F2/5 MTR2**). The last one was held in FHNPD in Sarród on 27 March 2018 (**Annexes F2/1-F2/3**).
- Project Manager announced the project in a press conference together with the announcement of *Spermophilus citellus* as “the Mammal of the Year” in the Museum of Natural History on 27 March (**Refer to Annexes E9/1-E9/7 of IR**).
- The Project Manager establish hotline to the head of Dept. of the Nature Conservation Authority to speed up the permission process (**Refer to Annex F1/1 of MTR1**).
- The project management organised annual evaluation meeting in Budapest (FÁNK) on 04.09.2015. (**Refer to Annexes F1/2-F1/4 of MTR1**). The 2016 years' meeting was held in Kaposvár University on 11.10.2016 (**Refer to Annexes F1/1-F1/2 of MTR2**). The 2017 years' meeting was held in Sarród (FHNPD) on 26-27.10.2017 (**Refer to Annexes F1/3-F1/4 of MTR2**). In 2018 a project closing evaluation meeting was held in MAVIR (Budapest) on 09.11.2018 (**Annexes F1/1-F1/3**).
- The project management organised a coordination meeting for preparation of the implementation of A2 action - what was in delay due to delaying permission- in Tihany (BfNPD) on 24.02.2016 (**Refer to Annexes A2/5-A2/6 of MTR1**). An evaluation meeting was organised in KNPDP in Kecskemét on 19.01.2017 (**Refer to Annexes A2/3-A2/6 of MTR2**). Another meeting was organised to evaluate the final results of the genetic survey on 19.03.2018 in FÁNK (**Annexes A2/2-A2/4**).
- The Project Manager, the Technical Coordinator and the Project Administrator visited the project partners to assist them in the project start and follow up the

work progress (**Refer to Annexes F1/5-F1/7 of MTR1 and C2/4 & F1/5 of MTR2**) and (**Annexes F1/4-F1/5**).

- The project management initiated a meeting among DINPD, the project partner MADÁRVILÁG and the project management, to discuss the cooperation among the parties. The meeting took part on 17.01.2017 (**Refer to Annexes F1/6-F1/7 of MTR2**).
- The project manager urged to set up a *S. citellus* advisory board to assist the Ministry of Agriculture policy work and co-ordinate the work nationwide. The Ministry of Agriculture extended its existing Blind-mole rat Advisory Group with souslik (**Refer to Annexes F1/8-F1/9 of MTR2**). The project manager participated on the Group's meetings and initiated to set up annual relocation plan, which was prepared and endorsed by the state secretary (**Annex C5/8**).
- Regular electronic communications (by emails and telephones) were going on between the project manager and administrator and the partner co-ordinators.
- Partners were submitting monthly progress and financial reports to the project management and the Project Manager to the External Monitoring team.
- The project manager initiated an amendment to the Grant Agreement on 30/07/2018 what was signed by the contracting parties on 23/10/2018.

Action Number	Table 1: Proposed work schedule and implementation																			
	2014		2015				2016				2017				2018				2019	
	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	
project	S IR MR1 MR2 E FR																			
schedule	preparation phase I M P L E M E N T A T I O N.....																			
			A. Preparatory actions, elaboration of management plans and/or action plans :																	
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
			B. Purchase/lease of land/or compensation payment for use rights																	
1.																				
2.																				
			C. Concrete conservation actions :																	
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
			D. Public awareness and dissemination of results :																	
1.																				
2.																				
3.																				
4.																				
5.																				
			E. Overall project operation and monitoring:																	
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
			✓ planned but not implemented B2>C4 S=Start IR=Inception Report; MR=Mid-term Report; E=end FR=Final Report C3>C5 ✓ implemented as planned ✓ implemented but not planned																	

		Table 1: Proposed work schedule and implementation																				
Action Number	2014				2015				2016				2017				2018				2019	
			III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	
project schedule	S IR MR1 MR2 E FR																					
	preparation phase I M P L E M E N T A T I O N.....																					
F. Overall project operation and monitoring of the project progress:																						
1.			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
2.					✓				✓				✓				✓					
3.				✓	✓																	
4.					✓	✓			✓	✓			✓	✓			✓	✓			✓	
5.			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
6.															✓	✓	✓	✓	✓			

✓ planned but not implemented B2>C4 S=Start IR=Inception Report; MR=Mid-term Report; FR=Final Report

✓ implemented as planned

✓ implemented but not planned

4.1.2. Presentation of the beneficiaries

Co-ordinating beneficiary: Fertő-Hanság National Park Directorate (FHNP) is responsible for 46,000 ha protected areas. There are about 10 pairs *F. cherrug* and 6-7 pairs *A. heliaca* within the national park.

Associated beneficiaries:

In Hungary:

Balaton-felvidéki National Park Directorate (BfNPD), plays an important role in the conservation of *S. citellus* populations in Hungary. There are 48 ground squirrel colonies within its operational area.

Budapest Zoo & Botanical Garden (FANK) is more than 145-year-old and has long history in keeping, breeding and showing animals.

Bükk Mammalogical Society (BEKE) has been engaged in research and conservation of mammal species since more than a decade.

KAPOSVÁR University studying two of the target species, *S. citellus* and *L. europeus*, for over a decade and published a dozen research papers on topics related to their conservation.

Kiskunság National Park Directorate (KNPD) managing one of Hungary's most characteristic geological area is the Danube-Tisza Interfluve region.

MADÁRVILÁG Nonprofit Közhasznú Kft main activities are surveying and monitoring species and habitats, active conservation measures in the field.

MAVÍR Zrt. Is responsible for bird safety on high voltage electric power lines.

MME/BirdLife Hungary a member of BirdLife International was created to protect birds and their natural environment

NIMFEA Nature Conservation Society is engaged with nature conservation since many years, conserving biodiversity in local and regional level.

Örségi National Park Directorate (ÖNPD) controls and manages 50,000 ha nationally protected area and 70,000 ha Natura 2000 area. It carries out several species conservation programmes.

In Romania:

Association MILVUS Group is dedicated to bird and nature protection, acting in the fields of conservation, education, research and consultancy

Environmental Protection Agency of Satu Mare County (EPASM) is a provincial environment protection agency.

4.1.3. Changes in the project management structure

According to the new project management structure the project was managed by an external Project Manager who was selected by tender. The Project Manager had two assistants, a Technical Coordinator and a Project Administrator who were employed by the Coordinating Beneficiary specifically for the project work and for the project duration.

The Project Administrator was substituted from 15 May 2017 to 1 June 2018 because of her maternity leave.

The Technical Coordinator was substituted from 1 June 2018 because of her maternity leave.

The Project Manager's tasks:

Administration

- Establish and get to maintain the administration system necessary for running the LIFE+ Project, particularly the reporting systems.
- Ensure that proper accounting and financial reporting system established and maintained what is necessary for running the LIFE+ Project, and monitoring of budget.
- Ensure that purchase of goods and services fully comply with the Hungarian and EU regulations.
- Inform and advise the project Steering Committee on project progress. Prepare reports for the project Steering Committee.
- Prepare reports for the European Commission.
- Ensure good communication between different partner organisations.

Co-ordination

- To deliver the project according to contractual terms or its amended variation approved by the European Commission, by planning and progressing the project tasks using suitable project management and monitoring techniques as necessary and appropriate. The Project Manager is expected to be fully aware of all deliverables, timing & resourcing; ensuring that they are implemented or a formal agreement is made with the European Commission for a contractual change.
- To ensure that suitable budgeting and resource planning is set up within each and all beneficiaries for the duration of the Project.
- Provide training for Beneficiaries' staff involved in the project's implementation.

Production of Project Handbook

- Prepare a Project Handbook for Project staff and other key people to set quality standard and ensure consistency across the Project.

Public Affairs and Communication

- Ensure that all dissemination tasks specified within the application document are completed.

- Respond to queries about the LIFE+ Project from press, media and general public as well as other similar projects.

Technical Coordinators' Tasks:

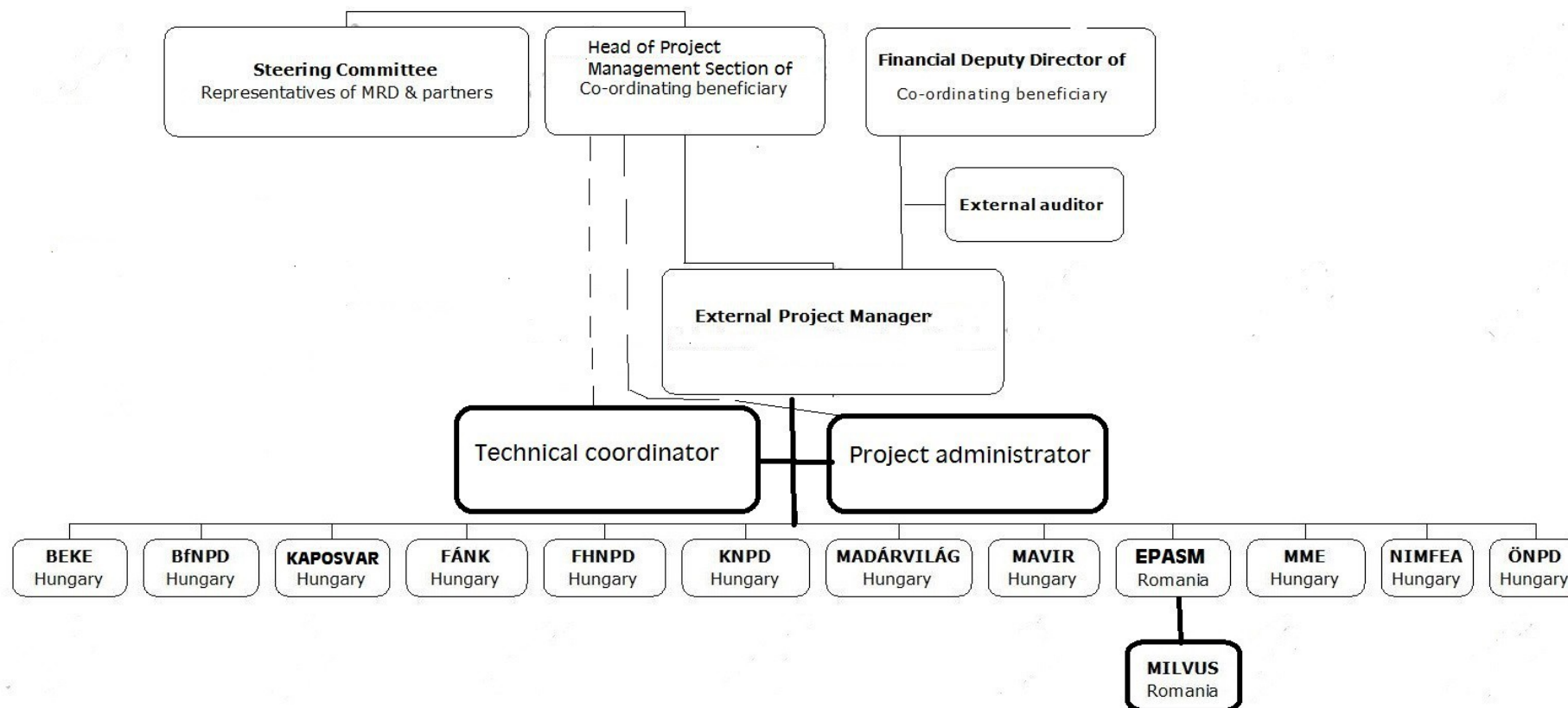
1. Assist the Project Manager in the management of all technical issues.
2. Coordinate the preparation of the technical guidelines of the Project Handbooks.
3. Assist the Project Manager in the training of project staff.
4. Prepare the Steering Committee meetings.
5. Coordinate the annual work planning of the beneficiaries.
6. To co-ordinate the Project Team to carry out project tasks as required, ensuring that they are aware of their roles, tasks and responsibilities within the team and they have a suitable overview of the whole project.
7. Follow up the implementation of the work plans.
8. Ensure that project web site set up and functioning properly.
9. Promote awareness of the aims, activities and results of the LIFE+ Project.
10. Ensure that project staff, project beneficiaries and all other interested parties kept informed of project progress.

Project Administrator's tasks: did not change comparing to the originally planned.

4.1.4. Up to date organigramme of the project team and the project management structure at the end of the project

Names and functions of the participants is given in Annex F1/8 of MTR1, F1/10 of MTR2 and Annex F1/6

PROJECT ORGANISATION CHART



4.1.5. Partnership agreements status (incl. date of signature) and key content

Agreements were prepared according the “LIFE+ Guidelines for Partnership Agreements” and were signed on 09.01.2015 and submitted with the Inception Report. **(Refer to Annexes 7.1/1-7.1/12 of IR).**

Modification was signed with NIMFEA due to transferred dissemination work and costs **(Refer to Annex 7.1/13 of IR).**

Modifications were signed with BfNPD, MME and NIMFEA due to reallocation of some work **(Refer to Annexes 7.1/1-7.1/3 of MTR2).**

Modifications were signed with BEKE, BfNPD and MME due to reallocation of some work **(Annexes 7.1/1-7.1/3).**

Financial Amendments were signed with the Associated Beneficiaries as soon as the 2015 years budgets were approved **(Refer to Annexes 7.1/14-7.1/18 of IR).**

4.1.6. Amendments to Grant Agreement

An amendment to Grant Agreement was requested on 30/07/2018 because the infrastructure costs exceed with 44% more than the 10% or 30000 € limit **(Annex 7.1/4).** The amendment was signed by the contracting parties on 23/10/2018 **(Annex 7.1/5).** The originally planned equipment and services were purchased but according to the accounting regulations these together consists an infrastructure and must be accounted accordingly. The amendment was necessary to comply with the Hungarian financial regulations.

4.2 Evaluation of the management system

4.2.1. Description of project management

The applied project management system functioned well. It has established an efficient cooperation and it built a good partnership among state nature conservation organisations, NGOs and corporate even among neighbouring countries.

4.2.2. The problems encountered

The main problem was the slow and very bureaucratic governmental system in both countries:

- It hampered the procurements and even the start of the project work.
- Lack of permissions in time delay some activities especially A2.
- The delay of C1 action due to unknown reasons. KAPORVÁR was referring to the low procedure for enquiring the necessary permissions but we did not get any evidence of it despite of multiplied requests.
- Communication activities have to be transferred from national parks to NGOs to keep schedule.
- Action B2 had to be converted to Action C4.
- Some adjustments were needed on the work and work schedule but it was not significant.

4.2.3. Communication with the Commission and Monitoring team

The project management has a good communication with the Monitoring team and the Commission. The Project Manager has informed the External Monitor about the monthly progress and escorted him during his project inspections. The External Monitor and the commission answered all questions promptly and helped to solve all problematic issues.

5. Technical part

Both *A. heliaca* and *F. cherrug* population is increasing in the Carpathian basin thanks to the conservation effort of the last decades and the valuable European Union' support in the last decade. However the spatial rearrangement of the *F. cherrug* population is going on most probably influenced by the available food sources. While these endangered bird species populations are increasing their important food sources the small mammals like *S. citellus* and *C. cricetus* are decreasing. Our aim was to understand the present condition of these species and do all effort to stop this decrease.

5.1. Technical progress per task (actions)

5.1.1. Action A: Preparatory actions, elaboration of management plans and/or of action plans

Action A1: Baseline surveys of populations of target species for monitoring future trends and impacts of our actions

Result planned	Result achieved
With these data, it will be possible to exactly identify the threats that local populations or colonies are facing, and these threats will be addressed through specific conservation measures.	<ul style="list-style-type: none"> Guidelines for the baseline surveys have been prepared Survey method tested and presented Baseline survey was implemented Reports on the results/distribution maps of the results of the baseline survey was prepared Habitat suitability was analysed, report was prepared and further developed. Trend of target species were analysed and results utilized.

Action status: completed

Measure	Original deadline	Revised deadline	Progress
<ul style="list-style-type: none"> Actualized distribution map of <i>S. citellus</i>, <i>C. cricetus</i>, <i>L. europeus</i> in standard digital format (D). 	31.07.2015	30.09.2016	completed
<ul style="list-style-type: none"> Baseline survey accomplished (M) 	30.06.2015	31.08.2016	completed
<ul style="list-style-type: none"> Habitat suitability analysis (M) 	30.07.2015	30.09.2018	completed
<ul style="list-style-type: none"> Trend analysis (M) 	30.07.2015	30.05.2018	completed

Description of the progress and outputs during the reporting time:

Guidelines for the baseline surveys have been prepared and included in the Project Handbook (Refer to Annex F3/1 of IR). *A. heliaca* and *F. cherrug* breeding pairs' survey has been accomplished in 2015 (Refer to Annex A1/1 of MTR1). BEKE tested *C. cricetus* survey and presented the first result in a conference (Refer to Annex A1/1 of IR).

The baseline surveys were completed in 2015 and in 2016 (**Refer to Annexes A1/1a-d of MTR2**). During the 3rd week of April, the National Biodiversity Monitoring (NBMR) was carried out in every year. An intensive survey was implemented at national level regarding *S. citellus*, to which the partners contributed by implementing the survey on their areas. Besides, the partners also implemented a more precise and detailed survey based on GPS recording on their areas regarding *S. citellus* (**Refer to Annexes A1/2-A1/3 of MTR1**) and *C. cricetus*. A precise survey on *C. cricetus*, *N. montanosyrmiensis*, and *S. trizona* was implemented regarding the entire area of Hungary and up-to-date distribution maps were prepared (**Refer to Annexes A1/4-A1/8 of MTR1**). The detailed baseline survey highlighted that the NBMR method need to be revised. The project took this issue to the agenda of the first meeting of the extended Blind-mole rat & souslik Advisory Board of the Ministry of Agriculture (**Refer to Annex A1/2 of MTR2**).

MME and BEKE implemented a survey on the distribution of *C. cricetus* linked to *A. heliaca* territories, based on the analyses of *A. heliaca* food remains to reconstruct *C. cricetus* population trend for the previous decades where data were missing according to **Annex A1/9 of MTR1**. A preliminary report was prepared about the available data collection and entering a digitized database (**Refer to Annex A1/3a of MTR2**). It was followed by the evaluation of samples from 2005-2015, data were entered into the database and an interim report was prepared (**Refer to Annex A1/3b of MTR2**). Finally samples collected in 2016-2017 were evaluated and entered to the database. The final result of the *A. heliaca* food remains analysis was presented in the final report (**Annex A1/1**). It was also published by *Ornis Hungarica* (**Annex A1/1a**).

A habitat survey sheet was designed to collect information about the habitat of the *S. citellus* populated areas (**Refer to Annex A1/4a of MTR2**) and another for the habitat survey of the repatriation sites (**Refer to Annex A1/4b of MTR2**). Based on the collected information habitat suitability analysis has been implemented (**Refer to Annex A1/5 of MTR2**). The habitat suitability analysis was further developed upon the request of the Commission (**Annex A1/2**).

We have prepared the trend analysis of *A. heliaca* & *F. cherrug* (**Refer to Annex A1/6 of MTR2**), *C. cricetus* (**Refer to Annex A1/7 of MTR2**), *N. montanosyrmiensis* (**Refer to Annex A1/8 of MTR2**), *S. trizona* (**Refer to Annex A1/9 of MTR2**), *L. europaeus* (**Refer to Annex A1/10 of MTR2**) and *S. citellus* (**Annex A1/3**). It shows the drastic decline of the *S. citellus* population after 1990 what slowed down during the project period. An article was written about this and submitted (**Annex A1/3a**).

Indicators used to test the performance:

Number of sites surveyed and the % of the total population surveyed.

Problems and their impacts:

No

Modifications:

BEKE preferred to use ear tag to mark *C. cricetus* leaving inside the villages during the baseline survey, however the NEA did not permit it. *C. cricetus* usually are poisoned inside the villages. BEKE wanted to catch these *C. cricetus* and take them to an *A. heliaca* eyrie's as a food source of the bird.

Due to the initiative of partners the baseline survey was extended as the partners indicated that they would see it useful to go on with a precise baseline survey regarding the target

species (highlighting *S. citellus*, at their project areas, *C. cricetus*, *N. leucodon* and *S. trizona* nationally in HU) The baseline survey was ongoing in 2016.

The activities (milestones) were rescheduled at the annual project evaluation meeting (04.09.2015).

MME and BEKE were implement a survey on the distribution of *C. cricetus* linked to *A. heliaca* territories, based on the analyse of *A. heliaca* food remains to reconstruct *C. cricetus* population trend for the previous decades where data were missing. **(Refer to Annex A1/9 of MTR1)**. Preliminary approved by the EC (in e-mail) on 30.03.2016. The final result of the *A. heliaca* food remains analysis was presented in the final report **(Annex A1/1)**. It was also published by Ornis Hungarica **(Annex A1/1a)**.

Comments on Commission's requests:

“I approve Hamster *C. cricetus* ear-tags only if they are made of a digestible material, as this will avoid potential adverse effects on eagles and other protected predators.”

Finally we did not use them because we did not get permission from the Nature Conservation Authority.

“I note that the trans-location of *S. citellus* and *C. cricetus* has been carried out without completing a habitat suitability or ecological niche factor analysis. Therefore, the related C4, C5 and C6 actions technically can be seriously questioned. Please submit a draft habitat suitability analysis and the results of the trend analysis with your second Mid-term Report.”

The sites selections were base on the IUCN requirements (12 points initiated in the AF) in advanced. See in action C5. Please find habitat suitability analysis in Refer to Annex A1/5 of MTR2 and the trend analysis in Refer to Annexes A1/6-A1/10 of MTR2.

“Please note that the habitat suitability analysis submitted as Annex A1/5 to MTR2 is not acceptable as it is very generic and hardly contains concrete data regarding the habitat preference of *Spermophilus citellus*. Please prepare a more carefully elaborated version and submit it with the Final Report.”

Please find the revised habitat suitability analysis in Annex A1/2.

Action A2: Evaluation of the genetic status of the fragmented populations of *S. citellus*

Result planned	Result achieved
We will obtain a general knowledge of the genetic status of the <i>S. citellus</i> populations. This includes the assessment of heterozygosity as a measure of viability and the determination of the loss of genetic diversity due to isolation. Molecular methods can also be used to monitor the genetic status of repatriated populations to prevent bottlenecks. Such knowledge will be used to restore the genetic heterogeneity of the fragmented populations by planned reintroductions to increase the size and viability of target populations. The result of such analysis help us identifying and protecting populations that serve as a source for future colonisations and relocations, and to assess the potential risk of local extinctions. Describing the spatial and demographic structure of the populations will enable us to select the optimal strategy for <i>S. citellus</i> management in the following years.	<ul style="list-style-type: none"> • The guideline for sample collection has been prepared. • List of Potential colonies has been prepared. • Genetic sample collection and examination of collected samples was implemented. • Results of the genetic examination of samples were evaluated and utilized

Action status: completed

Measure	Original deadline	Revised deadline	Progress
• Genetic sample collection (M)	30.04.2016	31.08.2016	completed
• sequencing (M)	30.10.2016	31.12.2017	completed
• evaluation and reporting (M)	31.12.2016	30.03.2018	completed

Description of the progress and outputs during the reporting time:

The guideline for sample collection has been prepared and included in the Project Handbook (**Refer to Annex F3/1 of IR**). List of Potential colonies were prepared (**Refer to Annex A2/1 of IR**).

In Hungary:

Procurements of 900 traps happened in the frame of C5 action but it was used for trapping for sampling. Sequencing methodologies studied and a meeting was held to select the best methods for the project. (**Refer to Annex A2/1 of MTR1**)

The request for permission to the National Environmental Authority (NEA) was submitted at the beginning of May 2015 (**Refer to Annex A2/2 of MTR1**). Questions for the completion of the request of the permission from the NEA arrived to FHNPD on 15th June and the answers with the clarifications were posted to the authority on 27th June. The permission was only issued in December 2015 by the NEA (**Refer to Annex A2/3 of MTR1**). The modification request to extend the sampling survey with invasive sampling methods (regarding blood check and biopsy) was prepared and submitted on 25th January, the permission regarding the extension of sampling survey with invasive sampling methods was issued on 31th March and arrived 1st April. (**Refer to Annex A2/4 of MTR1**).

A meeting was held in Tihany (BfNPD) (**Refer to Annex A2/5 of MTR1**) on 02.24.2016. with the participation of all partners involved in the field sample collection. The list of selected sites and time schedule was finalized and the details and responsibilities were agreed (**Refer to Annex A2/6 of MTR1**).

S. citellus field sampling activities were implemented between 1-20th April, with the involvement of almost all project partners. Besides the coordinator of the activity, KAPOSVÁR, also KNPD and FANK took place in the sampling of the appointed population with the assistance of other partners (BEKE, BfNPD, EPASM, FHNPD, MADRVILAG, MME, MILVUS, NIMFEA and ÖNPD), helping in the trapping of *S. citellus*. The three groups collected 362 genetic samples from 32 sites all over Hungary (**Refer to Annexes A2/7 and A2/10 of MTR1**). The samples were handed over to the laboratory responsible for implementing the genetic analysis by 30.04.2016 (**Refer to Annex A2/8 of MTR1**).

The laboratory submitted the reports about the genetic analysis (**Refer to Annexes A2/1-A2/2 of MTR2**) at the end of 2016. An evaluation meeting was held in KNPD in Kecskemét on 19.01.2017 (**Refer to Annexes A2/3-A2/6 of MTR2**).

The participants of the evaluation meeting has agreed that:

The most diverse populations should serve as donor populations.

S. citellus may not cross the Danube river during repatriation.

We do not need to add animals to the small populations because of the bottleneck system, but the new specimens may bring some diseases to the original population.

15 females and 5 males *S. citellus* should be moved from from Szentkirályszabadja to Kaposvár for captive breeding first time.

Additional 68 samples of 4 additional populations were collected. These were analysed together with the Romanian samples. The sample collecting period finished in September (though the samples of the last site happened at the end of August, and further 2 populations were targeted, but due to technical and capacity problems, the sampling finally did not happen) **(Refer to Annex A2/7 of MTR2)**.

Following that all the number of all collected samples was known, the subcontracting of the external expert in genetics could start. The contracting took place in October 2017 according to the best offer and the subcontractor was appointed. The samples were analysed by 12.31.2017 and evaluated by 15.03.2018. The final report of the genetic evaluation of *S. citellus* populations was prepared **(Annex A2/1)**. A meeting was held in FÁNK on 20.03.2018 to discuss the final outcome of genetic survey of *S. citellus*. The participants of the evaluation meeting has agreed that *S. citellus* may not cross neither the Danube river nor the Tisza rivers during repatriation. **(Annexes A2/2-A2/4)**. The *S. citellus* Reintroduction Protocol was updated by this one **(Annex A6/1)**.

In Romania:

Due to late permission **(Refer to Annex A2/8 of MTR2)** the work just started on 04/04/2017.

Four sites were selected **(Refer to Annex A2/9 of MTR2)** just along the Natura 2000 sites in connection with the Natura 2000 sites what has assured that the collected samples represent the populations of the Natura 2000 sites.

The genetic sample collection took place in April 2017. The sampling of the first 2 sites were done with the assistance of Hungarian partners (BfNPD, FHNP, KAPOSVÁR) on 04-05/04/2017 **(Refer to Annex A2/10 of MTR2)**. The second part of the sampling took part on the 3rd week of April. Altogether 84 samples were collected **(Refer to Annex A2/11 of MTR2)** and handed over to an institute of the Babes-Bolyai University which was the Romanian cooperating partner of the external expert implementing the genetic examination of the samples. The Romanian partner extracted the DNA from the tissue samples and forwarded the processed samples to the Hungarian subcontractor for further examination and evaluation.

The samples were examined and evaluated together the additionally collected samples in Hungary.

Indicators used to test the performance:

Number of correctly collected samples and the number of location from where those are collected.

Problems and their impacts:

In both countries the delay in issuing the permission resulted in delay of implementing the filed sampling activities.

In Hungary:

The first sampling was implemented first time between 1-20th April 2016 and continued with the second stage sampling until the end of August. Additional 68 samples of 4 additional populations were collected in 2017. These were analysed together with the Romanian samples.

In Romania:

The permission was issued too late in 2015. Romanian beneficiaries had to apply for new permission in 2016. The new permission was issued by the National Authority allowed the sample collection only at sites that are not protected and neither N2000 **(Refer to Annex**

A2/12 of MTR2). Thus new sites had to be selected for the genetic sampling that are in connection with N2000 sites (**Refer to Annex A2/9 of MTR2**). The work was done in 2017.

Consequence in other actions:

It delayed of actions C1, C5, C6

Modifications:

In Hungary:

Due to the delay in the issuing of the permission the field sampling activity had to be postponed to April 2016, thus the prolongation of the activity with one year was necessary. Besides the mapping of genetic variability of populations also another sampling is planned to be implemented to reveal the genetic relations of different *S. citellus* populations (3 individuals per populations). A proposal of this survey had been outlined by KNDP on 31/05/2015. Modification request was submitted in March 2016 and was approved by 06/04/2016 regarding the development of the schedule of the methodology. Before the end of April the contract was signed and the schedule was developed (**Refer to Annex A2/9 of MTR1**). The sample collection was continued until 31.08.2016. Additional 68 samples of 4 additional populations were collected. These were analysed together with the Romanian samples.

In Romania:

Because of the delayed permission, as well as due to insufficient knowledge on the status of colonies before completion of action A1, a prolongation of the activity with one year is desired. Since the National Authority based on the recommendation of the Academy of Science allowed the sample collection only at sites that are not protected and neither N2000, (**Refer to Annex A2/12 of MTR2**), thus new sites had to be selected for the genetic sampling that are in connection with N2000 sites (**Refer to Annex A2/9 of MTR2**). The work was done in 2017.

Comments on Commission's requests:

“I approve the extension of deadline in these actions with one year, until December 2016.”

We managed to complete the work until this deadline in Hungary, but unfortunately in Romania it will be completed only in December 2017.

“I acknowledge the information that the Romanian authority did not permit sample collection in protected areas or on Natura 2000 sites. Please explain in your next report how the original aim to evaluate the genetic status of the fragmented population can be achieved under these circumstances; and please remember that the action should mainly target the populations of Natura 2000 sites listed in the project document”

Four sites were selected (Refer to Annex A2/9 of MTR2) just along the Natura 2000 sites in connection with the Natura 2000 sites what has assured that the collected samples will represent the populations of the Natura 2000 sites.

“Please add an English summary to the research report on the genetic status of *S. citellus* populations and submit it with the second Mid-term Report. “

The Annex A2/2 of MTR2 included.

„As a minimum requirement I recommend that you add a title page to each project report or compilation report including

- the title of the document,
- the name and affiliation of the author(s),
- the date of issue, and

- LIFE and Natura 2000 logos.

I also recommend adding a brief English executive summary to all project reports.

Please amend annexed A2, A3, A5, C1, C7 and D3 reports and guidelines accordingly and submit them with your Final Report”.

Please find the **revised Annex A2/1 of MTR2**.

Action A3: Survey of the stress status of *S. citellus* colonies and its use to develop *S. citellus* welfare plan

Result planned	Result achieved
Describing the physiological status of animals helps us predicting the future diseases and thus preventing the lethal events leading to population decrease. As stress responsiveness plays a key role in allowing animals to cope with environmental challenges, measurement of glucocorticoid levels can give insight into an animal's well-being and can aid us solving conservation and management issues. We will prepare a souslik habitat management guideline summarizing the optimal conditions corresponding to minimal stress levels.	<ul style="list-style-type: none"> The guideline for sample collection has been prepared. List of Potential colonies are prepared. Collection of samples for stress analyses was implemented together with the collection of genetic samples (in A2) The examination of the collected samples was done. <i>S. citellus</i> Welfare Plan was prepared.

Action status: completed

Measure	Original deadline	Revised deadline	Progress
<ul style="list-style-type: none"> Sample collection (M) <i>S. citellus</i> welfare plan (D) 	30.11.2015 31.12.2015.	30.04.2016 01.07.2018	completed completed

Description of the progress and outputs during the reporting time:

The sample collection of this action was done together with the A2 action. The guideline for sample collection has been prepared and included in the Project Handbook (**Refer to Annex F3/1 of IR**). List of Potential colonies are prepared (**Refer to Annex A2/1 of IR**).

In Hungary:

S. citellus field sampling activities were implemented between 1-20th April 2016, with the involvement of almost all project partners during the sample collection in Action A2.

Some additional samples were collected by KAPOSVÁR at the beginning of June 2016 to reveal the seasonal difference of stress hormones. The three groups collected 401 samples for the analyses of stress status of *S. citellus* (**Refer to Annex A3/1 of MTR1**). The samples were handled over to the laboratories implementing the analysis 13.06.2016 (**Refer to Annex A3/2 of MTR1**). The laboratory did the examination of the samples (**Refer to Annex A3/1 of MTR2**). The results of the laboratory examination were evaluated and the findings were summarised in a report (**Refer to Annex A3/2 of MTR**). Based on the results of the examinations an extended survey was carried out to identify the most sensitive period of the year when the disturbance may reduces the productivity of the sousliks. Based on the result of this survey a *S. citellus* Welfare Plan was prepared (**Annex A3/1**).

In Romania:

Due to late permission (**Refer to Annex A2/8 of MTR2**) the work just started in 04/04/2017. Four sites were selected (**Refer to Annex A2/9 of MTR2**) just along the Natura 2000 sites in connection with the Natura 2000 sites what has assured that the collected samples will represent the populations of the Natura 2000 sites.

The sample collection took part together with the genetic sample collection in April 2017. The sampling of the first 2 sites were done with the assistance of Hungarian partners (BfNPD, FHNP, Kaposvár) on 04-05/04/2017 (**Refer to Annex A2/10 of MTR2**). The second part of the sampling took part on the 3rd week of April 2017. Altogether 84 samples were collected and sent to the lab. Result of the lab examination was evaluated together with the Hungarian results.

Indicators used to test the performance:

Number of correctly collected samples and the number of location from where those are collected.

Problems and their impacts:

In both countries the delay in issuing the permission resulted in delay of implementing the field sampling activities.

In Hungary:

The original sampling in Hungary had only been implemented between 1-20th April 2016.

In Romania:

The permission was issued too late in 2015. Romanian beneficiaries had to apply for new permission in 2016. The new permission was issued by the National Authority allowed the sample collection only at sites that are not protected and neither N2000 (**Refer to Annex A2/12 of MTR2**). Thus new sites had to be selected for the genetic sampling that are in connection with N2000 sites (**Refer to Annex A2/9 of MTR2**). The work was done in 2017.

Consequence in other actions:

It delayed of actions C1, C5, C6

Modifications:

In Hungary:

Due to the delay in the issuing of the permission the field sampling activity had to be postponed to April 2016, thus the prolongation of the activity with one year was necessary.

Based on the results of the examinations an extended survey seemed necessary to identify the most sensitive period of the year when the disturbance may reduces the productivity of the sousliks. A request was made to the Commission (**Refer to Annex A3/3 of MTR2**). The Commission approved it by the letter ENV-D-4 LB/PR on 22/08/2017.

The welfare plan was ready when the extended examination was ready on 01.07.2018.

In Romania:

The permission was issued too late in 2015. Romanian beneficiaries had to apply for new permission in 2016. The new permission was issued by the National Authority allowed the sample collection only at sites that are not protected and neither N2000 (**Refer to Annex A2/12 of MTR2**). Thus new sites had to be selected for the genetic sampling that are in connection with N2000 sites (**Refer to Annex A2/9 of MTR2**). The work was done in 2017.

Comments on Commission's requests:

"I approve the extension of deadline in these actions with one year, until December 2016."

We managed the original sample collection and examination until this deadline in Hungary, but in Romania it was postponed to 2017, and in the main time the work was also extended with the approval of the Commission, therefore the welfare plan will be ready only on 01.07.2018.

"I acknowledge that you prepared the stress hormone research report. Please include an English summary in it and submit it with your second Mid-term Report."

*Please find it in **Annex A3/2 of MTR2***

"I approve the extension of the stress hormone sample collection and analysis."

We are implementing it.

"I encourage you to prepare a separate *S. citellus* welfare plan."

We are working on it but waiting for the result of the Romanian samples examination and the extended work in Hungary. It will be ready on 01.07.2018.

*S. citellus Welfare Plan was prepared (**Annex A3/1**).*

"Please amend annexed A2, **A3**, A5, C1, C7 and D3 reports and guidelines accordingly and submit them with your Final Report."

*Please find it in the **revised Annex A3/2 of MTR2***

Action A4: Set up the Land Stewardship Advisory Service

Result planned	Result achieved
Land Stewardship Advisory Service established in the project areas that would provide regular advice for the farmers and hunters on the target species.	<ul style="list-style-type: none"> The manual for the Land Stewardship Advisory was prepared and included in the Project Handbook. It was introduced on the training of project participants on 10/2/2015 The kick-off meeting of the Advisory Service was held on 17/11/2015 in Budapest together with the training of the members of the Service. The Romanian Best Management Guideline (RBMG) was ready and submitted to the National Authorities. Dissemination of the printed version was going on.

Action status: completed

Measure	Original deadline	Revised deadline	Progress
<ul style="list-style-type: none"> LSAS established (M) 	28.02.2014.	17.11.2015	completed
<ul style="list-style-type: none"> Romanian best management guideline(D) 	28.02.2014.	31.12.2016	completed

Description of the progress and outputs during the reporting time:**In Hungary:**

The manual of the Land Stewardship Advisory Service was developed and included in the Project Handbook (**Refer to Annex F3/1 of IR**). It was introduced at the training of project participants (F3) at 10/2/2014. The partner coordinators selected the advisors in their area who have close contacts with the farmers in the project sites. Training was organized for the

members together with the kick-off meeting of the LSAS on 17/11/2015 (**Refer to Annex A4/1 of MTR1**) about the project's requirements on land use. The LSAS start to operate after that. The name of advisers were published on the project website.

In Romania:

During early 2015 MILVUS compiled a comprehensive document presenting the exact location (including maps and coordinates) of all *S. citellus* colonies identified so far within the project area (Satu Mare, Bihor, Arad and Timiș counties) (**Refer to Annex A4/2 of MTR1**). This document was sent to EPASM, which then officially forwarded it to all other Environmental Protection Agencies and competent agricultural authorities within the four counties. The aim of distributing such a document was to notify these institutions about the populations of this protected species, and warn them about considering this scientifically based information in cases of infrastructural or agricultural development, or any other case which might have the risk of destroying ground squirrel habitats. This document is considered one of the basic data necessary for compiling the "Best Management Guideline".

During summer 2015 a national agri-environmental package proposal was developed for the conservation of dry grassland as habitats of European ground squirrel (*S. citellus*) and blind mole rats (several *Spalax* and *Nannospalax* species), partly using our results and experience from the present project. This proposal contains both general and specific recommendations of grassland management applicable in regions where no other grassland-based agri-environmental measures are in place, and works as a starting point in compiling the "Best Management Guideline", which is still dependent on the final results of Action A.1. The proposal was forwarded to authorities in November 2015. (**Refer to Annex A4/3 of MTR1**).

In September 2015, a large part (over 300 hectares) of one of our target areas (and incidentally the largest intact grassland habitat of the European ground squirrel in Western Romania), situated inside protected areas ROSCI0231 and ROSPA0015 was illegally ploughed. By conducting field surveys in the area, we managed to stop further destruction of this extremely valuable, protected habitat, and reported the case to authorities, (**Refer to Annex A4/4 of MTR1**) during September and October providing them with many scientifically founded data about the values of this protected habitat, among which the appearance of *S. citellus* is also listed.. The case is currently being prosecuted.

In late 2015 and early 2016 we were actively involved in the Natura 2000 site designation process, by providing the scientific based for designations, as well as participating in related public debate. As a result, boundaries of some of our project sites are expected to be extended, however official decision is pending. This is expected to have important consequences on grassland management in our project areas, as legal status of some European ground squirrel habitats will be modified.

Based on the results of A1 Action the "Best Management Guideline" was prepared (**Refer to Annex A4/1 of MTR2**).

Indicators used to test the performance:

Number of trained advisers.

Problems and their impacts:

In Hungary: none

In Romania: none

Modifications:

In Romania:

The preparation of the Best Management Guidelines was postponed by 31.12.2016.

930 copies of the BMG were printed and distributed.

Comments on Commission's requests:

“Please publish the official list of Land Stewardship Advisers on the project website.”

The list of LSAs is published on the website.

„Please submit the best management guidelines for Romania with your second Mid-term Report. I may consider part of the related costs ineligible in case of further delay.”

*Please find it in **Annex A4/1 of MTR2***

“Please submit the list of stakeholders (with a date, contact person's name, affiliation/sector, location/address) you contacted in the frame of the action.”

*Please find it at action E1 because the advisory activities planned and described there (**Annex E1/1**).*

Action A5: Preparing airport's grassland management guideline

Result planned	Result achieved
An airport management guideline what would enable the airport managers to manage the airport grassland to satisfy the air and <i>S. citellus</i> safety requirements in the same time.	<ul style="list-style-type: none"> A protocol was prepared and included in the Project Handbook. The questionnaire was prepared and finalized and is in use by the partners during the consultations with airport managers. Airport's grassland management guideline prepared and disseminated

Action status: **completed**

Measure	Original deadline	Revised deadline	Progress
• Survey completed and airport management guidelines ready (M)	31.12.2015.	30.09.2016	completed
• workshop organised (M)	28.02.2016.	31.10.2016	completed
• 200 copies of adjusted airport management guideline prepared (D)	31.03.2016	15.05.2018	completed

Description of the progress and outputs during the reporting time:

The airport management personnel were contacted to study the implemented management practices.

The questionnaire had been prepared (**Refer to Annex A5/1 of MTR1**) and the survey was implemented.

FHNPD held a meeting with the management of Péri Airport on 30/07/2015 regarding the appropriate management of the airport in order to maintain the *S. citellus* population of the airport (**Refer to Annex A5/2 of MTR1**).

KNPD collected the data of *S. citellus* populations in 5 airports within the National Park area. Out of these airports important populations are present at two areas, from two areas the population disappeared and there is one area where *S. citellus* is still present but the size of the population is critical and close to disappearing. Besides the characteristics of the areas

and populations the threats were also identified and the recommendations regarding the appropriate management were prepared.

BfNPD held a meeting with the management of Szentkirályszabadja airport on the nature conservation management of the airport (**Refer to Annex A5/1 of MTR2**).

Partners collected data by the designed questioner from the most important airports (**Refer to Annex A5/2 of MTR2**).

In the annual evaluation meeting in Sarród on 26 September 2017 the participants discussed the draft guidelines based on their experience with their negotiation with airport managers.

In 05/10/2017 the project manager and the technical coordinator presented the draft guideline for the audience of the general meeting of the Association of Rural Airports in Szolnok and distributed 20 copies for further comments (**Refer to Annex A5/3 of MTR2**). The project manager negotiated also with Mr. Ferenc Kis the Environment Protection Manager of the Budapest Airport.

The collected information was used to revise the draft design what was brought to the agenda of the first meeting of the newly extended Blind-mole rat and Suslik Advisory Board of the Ministry of Agriculture on 25/10/2017 (**Refer to Annex A1/2 of MTR2**). The Guideline was finalised according to the advise of the meeting (**Refer to Annex A5/4 of MTR2**). Finally the Guideline was edited, 200 copies printed (**Annex A5/1**) and disseminated among the airports where *S. citellus* population exist by the National Parks which are supervising their *S. citellus* population (**Annexes A5/2 and A5/2a**).

An online questioner <https://online-kerdoiv.com/index/v/h/repuloterek> were prepared to get some feedback about the impact of the guideline. The result is presented in **Annex A5/3**.

On 20. February 2019 the project manager got a phone call from the notary of Baracs which municipality became the owner of Dunaújváros sport airport and asking some question referring to the Guideline what he got from the airport commander to consider the *S. citellus* there.

Indicators used to test the performance:

Nr. of Airports willing to apply the management guideline

Problems and their impacts:

None

Modifications:

None

Comments on Commission's requests:

“I acknowledge that you contacted the management of airports with abundant *S. citellus* colonies and launched a questionnaire survey. Please prepare and disseminate the guidelines for managing airport grasslands by 31/03/2017 at the latest, and submit them with your next report.”

We has prepared the guidelines and consulted in many forums including the newly extended Blind-mole rat and Suslik Advisory Board of the Ministry of Agriculture (Refer to Annex A5/5 of MTR2). However we just start to design the printed version what will be ready at the end of 2017 or the very beginning of 2018 and will be distributed among the airport managers in 2018.

*The airport's grassland management guideline and dissemination documents included in **Annexes A5/1-A5/2a**.*

“Thank you for publishing the comprehensive airport’s grassland management guideline on the website of the project. Please submit the list of contacted airports with the Final Report”

Please see it in **Annex A5/2**.

“Please amend annexed A2, A3, **A5**, C1, C7 and D3 reports and guidelines accordingly and submit them with your Final Report.”

Please find it in the **revised Annexes A5/1 & A5/3 of MTR2**

Action A6: Updating *S. citellus* Reintroduction Protocol

Result planned	Result achieved
An up to date digital Reintroduction Protocol for <i>S. citellus</i> repatriation based on the latest developments.	An up to date digital Reintroduction Protocol for <i>S. citellus</i> repatriation based on the latest developments was developed 15.2.2015 and was revised by 31.12.2015. and revised again by 31.01.2017. The final version was endorsed by HMoA in 2018.

Action status: **completed**

Measure	Original deadline	Revised deadline	Progress
• Up to date Reintroduction Protocol (D)	31.12.2014	31.12.2015	completed

Description of the progress and outputs during the reporting time:

The *S. citellus* reintroduction protocol was updated (**Refer to Annex A6/1 of IR**), was discussed during the training of project participants (F3) and was finalized accordingly. The protocol was further revised upon the request of the EC. (**Refer to Annex A6/1 of MTR1**).

Based on the result of the genetic survey and the habitat analyses it was updated again. (**Refer to Annex A6/1 of MTR2**). Another update was made including the annual reintroduction plan and the emergency displacement process and it was endorsed by HMoA (**Annex A6/1**).

Indicators used to test the performance:

Inclusion of EC's requirement

Problems and their impacts:

None

Modifications:

None

Comments on Commission's requests:

“Please compile a more comprehensive *Spermophilus citellus* reintroduction protocol that includes a risk assessment chapter and considers the application of the relevant principles of IUCN's Guidelines for Reintroductions and Other Conservation Trans-locations, e.g. regarding monitoring and adaptive management of the released individuals. Please submit the extended protocol with your next report.”

*The revised *S. citellus* reintroduction protocol includes a risk assessment chapter and considers the application of the relevant principles of IUCN's Guidelines for Reintroductions and Other*

Conservation Trans-locations, e.g. regarding monitoring and adaptive management of the released individuals was completed.

Action A7: Evaluation of the water management system on *S. citellus* habitat and preparing recommendation how to improve it.

Result planned	Result achieved
Mortality due to flood will be reduced and repatriation would not be done on area endangered by flood.	The protocol for the evaluation of the water management system on <i>S. citellus</i> habitat in favour of the <i>S. citellus</i> was prepared. Project areas were assessed against flood danger. Recommendation for the flood and inland water prevention activities in the <i>S. citellus</i> habitat prepared and handed over the concerned authorities.

Action status: completed

Measure	Original deadline	Revised deadline	Progress
<ul style="list-style-type: none"> Identifying the potential risk of flood on the <i>S. citellus</i> habitat (M) 	31.12.2015.	31.12.2015	completed
<ul style="list-style-type: none"> Recommendations for Water Authority for the required water management on <i>S. citellus</i> habitat (D) 	31.12.2016.	31.12.2016.	completed

Description of the progress and outputs during the reporting time:

The protocol for the evaluation of the water management system on *S. citellus* habitat in favour of the *S. citellus* was prepared and included in the Project Handbook by 8/12/2014.

The project areas were assessed first according to it and it was realised that many of the selected project sites are located on potential flood plain therefore it was recommended to replace them (**Refer to Annex A7/1 of IR**). Details are given in C4. and C5.

FHNPD prepared a detailed study regarding the water management systems at the project areas of FHNPD that can be subject of repatriation of *S. citellus* (**Refer to Annex A7/1 of MTR1**).

BEKE has prepared a recommendation regarding favourable flood and inland water prevention activities for the habitats of the strictly protected souslik in their working areas (**Refer to Annex A7/1 of MTR2**) and submitted it to the responsible authorities. The authorities acknowledged the document in an official resolution stating to consider the recommendations during their activities. (**Refer to Annex A7/2 of MTR2**).

NIMFEA has also prepared a recommendation for the flood and inland water prevention activities for *S. citellus* habitat in their working area and submitted to the concerned authority (**Refer to Annex A7/3 of MTR2**) They prepared a more elaborated version and submitted it also (**Annex A7/1**). The authorities has receipt the documents but only one has replied on it formally (**Annexes A7/2**).

Indicators used to test the performance:

Nr. of safe sites.

Problems and their impacts:

None

Modifications:

None

Comments on Commission's requests:

"I remind you that the project requires that water management recommendations are endorsed by the relevant authorities."

"Please submit your water management recommendations and the related endorsement letters of the authorities with your second Mid-term Report."

Please find it in the *Annexes A7/1-A7/5 of MTR2*

"The aim and relevance of the content of "Recommendations for Water Authority for the required water management on *S. citellus* habitat" are not entirely clear. Therefore, the document and the related acknowledgement of receipt letter (Annexes A7/3-4) are not acceptable. For the completion of this action, please submit a set of concrete recommendations relevant to the target areas, similar to Annex A7/1, and proper endorsement letters, similar to Annex A7/2, of KÖTIVIZIG authority, Hortobágy National Park Directorate and Körös-Maros National Park Directorate."

Please find it in the *Annexes A7/1-A7/2*

Action A8: : Baseline survey of the public awareness

Result planned	Result achieved
Through the survey we will be able to maximise the effects of our program, and PR-campaign.	<ul style="list-style-type: none"> • The first test version of the questionnaire was developed. • Online and pdf. version of the finalized questionnaire was developed and unloaded to the site. • Data collection was implemented • Collected data was analysed and evaluation was prepared

Action status: completed

Measure	Original deadline	Revised deadline	Progress
• Questionnaire (M)	31.12.2014.	29.05.2015.	completed
• Data collection completed (M)	31.03.2015.	31.01.2016.	completed
• Data processing ready (D)	01.12.2015	31.03.2016.	completed

Description of the progress and outputs during the reporting time:

The development of the questionnaire is coordinated by MME. A subcontractor was selected and the first sets of the questionnaires were developed by 30/3/2015 (**Refer to Annex A8/1 of IR**). The questionnaire was in testing-phase for one month and after this initial phase it was revised and finalized by 15.05.2015 according to the comments and experiences that were collected and sent to the external company. The questionnaires were finalized by 29.05.2015. Following some final corrections the final pdf and the online version of the questionnaires were also prepared and both of the versions were uploaded and available on the project website (**Refer to Annex A8/1 of MTR1**)

The questionnaire was adjusted to Romania and the Romanian version was translated and uploaded to the site (**Refer to Annex A8/2 of MTR1**).

The data collection was completed and the filled questionnaires sent to the company responsible for the evaluation by 31.01.2016. The evaluation was ready by 31.03.2016.

The prepared questionnaires in case of the one targeting children in the lower grades of primary school consisted of 16 questions, while the one targeting the higher grades consisted of 18 questions (both 2 A4 pages). For adults a questionnaire of 31 questions (on 6 pages) was prepared. The one for farmers and hunters was made up of 30 questions (also on 6 pages).

At project level a total of 269 questionnaires were filled by adults, 19 by farmers and hunters, 223 by children at lower classes of primary schools and 279 by children in higher primary school classes. Summarizing the answers of the questionnaires the survey showed that among the target groups farmers and hunters and the age group of 18-29 and 50-59 should be targeted by more active communication in order to demolish the existing misbeliefs regarding *S. citellus*. Besides the general knowledge of both the groups of school children and general public (adults) should be extended. The main aim of informing should be to improve the acceptance of the *S. citellus* as protected rodent species. The study had been uploaded to the website (**Refer to Annex A8/3 of MTR1**).

Indicators used to test the performance:

Nr. of field questionnaires and the identified background knowledge.

Problems and their impacts:

None

Modifications:

The data processing was ready by 31.03.2016

Comments on Commission's requests:

"I encourage you to complete the opinion poll as soon as possible since late completion may distort its results. Please submit the results with your next report."

It is completed. Results are submitted (Refer to Annex A8/3 of MTR1)

Action A9: Acquisition of equipment (in compliance with public-procurement regulations)

Result planned	Result achieved
Cost efficient procurement.	<ul style="list-style-type: none"> Multifunctional equipments purchased

Action status: completed

Measure	Original deadline	Revised deadline	Progress
<ul style="list-style-type: none"> Tender process complete (M) 	31.12.2014	31.05.2016	completed
<ul style="list-style-type: none"> Multifunctional equipment purchased (M) 	28.02.2015	31.09.2016	completed

Description of the progress and outputs during the reporting time:

All multiply use equipment what was needed for the project work have been purchased. LIFE and Natura 2000 logos are displayed on them **(Refer to Annex A9/1 of MTR2)**.

Indicators used to test the performance:

Number of purchased equipment

Problems and their impacts:

In Hungary:

In case of MME 25.862 € was budgeted for the purchase of a new car considering the income from selling an old car. However in the main time the old car of MME was needed for another LIFE project where another old car completely broken down.

In Romania:

In the case of Environmental Protection Agency of Satu Mare (EPASM) 50% of a car's cost were budgeted. However due to the strict regulation of the Romanian Government state agencies cannot buy an additional car. Therefore they cannot use state money to cover the other 50%-t of the car outside of the project only in case they cover the total cost of the car of project money. Without this car the project activities cannot be managed since the agency has only 3 cars that would be needed for their daily work.

Modifications:

Due to the necessary changed in the management structure of the project (change from externalized to personnel and externalized sources a car and two notebooks would be needed for the two employees (Technical Coordinator and Project Administrator). FHNPD had used about 15,600 € for the car and about 2,000 € for the notebooks from the spared VAT.

Due to the problem mentioned at MME it was necessary to buy a new Land Rower for the project that had cost about 35,000 €.

NIMFEA requested to purchase one binocular and one telescope instead of the two that was planned within the original budget.

Due to the problem mentioned at EPASM a second hand car was purchased for 6,500 € from the project budget that will be used only for the project work during the project duration.

KAPOSVÁR requested to shift 2,300 € for additional costs of equipment.

These modifications were already reported in the Inception Report.

Comments on Commission's requests:

„I remind you to use the LIFE and Natura 2000 logos on all pieces of equipment purchased in the framework of the project (for example information terminals and the soil hole driller machine), otherwise the relevant costs may be considered ineligible at the Final Report stage.”

LIFE and Natura 2000 logos are displayed on the purchased equipments (Refer to Annex A9/1 of MTR2).

„Please note that pieces of equipment purchased with significant delay may be considered ineligible at the stage of the Final Report if not justified.”

All equipment was purchased in time. Some one might purchased in later phase of the project because it was necessary from that time.

The missing Annex A9/1 of MTR2 replaced.

5.1.2. Action B. Purchase/lease of land and/or compensation payments for use rights**Action B1: Purchase of land**

Result planned	Result achieved
58.6 ha grassland will be owned by the state and managed by the KNPD. It will serve for rehabilitation and sustainable management as a potential habitat for <i>S. citellus</i> repatriation and for feeding ground for <i>A. heliaca</i> and <i>F. cherrug</i> . Another 10 abandoned farmyards about 2 ha will be purchased in HUKM20014.	<ul style="list-style-type: none"> The proposed areas were checked against flood danger and the purchase plan has modified according to it. 134 ha grassland was purchased by KNPD 2.1 ha of farmyards was purchased by NIMFEA

Action status: completed

Measure	Original deadline	Revised deadline	Progress
134 ha grassland purchased (D)	31.01.2016	30.06.2017	completed
2.1 ha farmyards (D)	31.01.2016.	12.02.2017	completed

Description of the progress and outputs during the reporting time:

Altogether 134 ha land was purchased by KNPD. The data of the land purchase are summarized in **Annex B1/1**.

The target areas were checked also in the frame of A7 action and Öttömös found flood safe. KNPD was negotiated with the land owners and basically has agreed. The first phase of the procurement process 37.75 ha of Öttömös 0100/59 was completed by 11/2015 (**Refer to Annexes B1/1-B1/2 of MTR1**) and (**Annex B1/2**).

The procurement of the second part of the area 30.93 ha of Öttömös 0100/64, 0100/77, 0100/79 and 0100/87 was completed by 11/2016 (**Annexes B1/4-B1/7**).

The last 65.3 ha of Öttömös 0100/85 what was changed to 0100/108 was completed by 06/2017 (**Refer to Annex B1/1 – B1/2 of MTR2**) and (**Annex B1/3**).

The purchased grassland was rehabilitated in Öttömös by KNPD (**Annex C4/1**).

Regarding the farmyards, 2.1 ha on three plots (0120/6, 0409/2 and 0409/3) in Túrkeve were purchased (**Refer to Annex B1/4 – B1/5 of MTR2**) (**Annex B1/8**).

The purchased farmyards were rehabilitated by NIMFEA (**Annex C4/3**).

Indicators used to be test the performance:

Nr. of ha purchased

Problems and their impacts:

The target areas were checked also in the frame of A7 action and it was found that the smaller area Kelebia 0169/1 (6,6 ha) is unsuitable for *S. citellus* because it is a very low area along a small creek and the rainwater is naturally gravitating to this area. In very rainy years the rainwater and the creek may flood the area what may kill the *S. citellus*.

The purchase of 35.00 ha of 0100/85 was more complicated considering the more divers ownership of the area, thus the procurement needed longer time.

In case of the farmyards the situation was more complex because within the Natura 2000 area the old farmyards usually included in the arable land around and the purchase was difficult due to the ownership of these lands. NGO cannot buy arable land. Finally in three areas were

purchased by NIMFEA out of them two (Túrkeve 0409/2 and 0409/3) are a small part of the farmyards and take parts of joint ownership.

Consequence in other actions:

It delays of actions C4 and C5

Modifications:

KNPD preferred to purchase land only in Öttömös but altogether more than it was originally planned. In the main time the land registration numbers have been changed due to some reorganisation of the ownership. In the new reorganised set up it was important to purchase this quantity to have the majority role in these joint ownership areas. The original budget covered the costs of these surplus lands.

Additional linking land plots (reg. no. 0100/64, 0100/77, 0100/79 and a share of 0100/87) to the site where the land purchase happened were available for KNPD and following the preliminary consultations with the external monitor team and the approval of the Commission, KNPD purchased these additional land plots of non-LIFE own sources, what was not accounted within the project budget, but it is considered as a LIFE project land and the nature conservation use is compulsory also in case of this lands (**Refer to Annex B1/3 of MTR2**) and (**Annex B1/1**).

NIMFEA purchased 2.1 ha farmyards but only three instead of ten.

Comments on Commission's requests:

"I acknowledge that 73.07 ha of agricultural land was purchased. Please submit the relevant documentation with your second Mid-term Report."

*The relevant documents can be found in **Annex B1/3 of MTR2**.*

"During his visit, the external monitor spot-checked and collected the land purchase contract (Contract No: S80027-00164, Date: 24/02/2017. Amount: HUF 1,958,531) concluded between Mrs. Lovászi and associated beneficiary KNPD. However, the referred land registration number of Öttömös 100/108 is not included in the list of purchased land reported so far. Please clarify this in your second Mid-term Report."

*The reg. no. of Öttömös 0100/108 derived after the splitting up of the former reg. no. of Öttömös 0100/85. As the plot 0100/85 had to be expropriated by KNPD due to the complex ownership (was an undivided common property) of the site, the 0100/85 was split up into three reg numbers, to 0100/107, 0100/108 and 0100/109 (see the statement of the area and the map of expropriating in **Annexes B1/1 - B1/2 of MTR2** of which KNPD purchased the plot 0100/108.*

"I approve linking land plots (reg. no. 100/64, 100/79, 100/87 and a share of 100/77) purchased from external, non-LIFE budget to the project. "

KNPD did it.

"Please note that costs of purchasing farm yards may be considered ineligible at the Final Report stage in case habitat management of the purchased sites is omitted. "

In case of the farm yards the management of the purchased plots and of the plot where the purchase is in progress started at the beginning of 2017 (end January or first half of February 2017.) upon agreements and letter of intent of the purchase signed with the owners.

"Please submit a complete list of purchased land and farmyards with the Final Report, including the name of municipality territory, plot ID, size, name of previous owner, date of purchase, price in Euro and in your national currency, an Euro/ha unit price, associated charges in Euro, Natura 2000 site code and descriptions of habitat management activities applied on each of them."

Please find the requested data in **Annex B1/1**.

“Please be reminded that for the eligibility of relevant costs a full land purchase documentation including the sale contracts, the updated land registry sheets and guarantees that the land will be assigned definitively to nature conservation must be submitted.”

Please find the requested documents in **Annexes B1/2-B1/8**.

“Please note that the cost of land and farmyards purchased outside Natura 2000 areas without a prior agreement of the Commission may be considered ineligible at the Final Report stage.”

All farmyards purchased in Natura 2000 lands (**Annex B1/1**).

“Please submit a complete list and supporting documentation on land purchased from the project's budget with the Final Report.”

Please refer to **Annexes B1/1-B1/8**.

Please also clarify the exact size of land to be managed by AB NIMFEA within plots 0306, 7884, 0503/19, 0376/13, 0368/5 and submit the relevant agreements with land owners if any.

Please refer to **Annex B1/8**.

Action B2: Lease of land

Result planned	Result achieved
50 ha leased. Natura 2000 sites will be connected. The <i>S. citellus</i> , <i>C. cricetus</i> and <i>L. europeus</i> populations will be strengthened and spread over the area what would serve food source for the increasing <i>A. heliaca</i> and <i>F. cherrug</i> population and may reduce the pressure on other game species. It will reduce the conflict between hunters and nature conservationist.	The activity is moved to C4 action.

Action status: modified

Measure	Original deadline	Revised deadline	Progress
- First contract (M)	31.12.2014		Moved to C4.
- Cutting grass (M)	31.01.2016.		
- Planting Alfa alfa by farmers (M)	01.08.2015		
- Signing new contracts (M)	01.01.2016		

Description of the progress and outputs during the reporting time:

We were working hard to be able to overcome on the difficulties what the new legislation created for us (see bellow). Finally we developed a contract form for external assistance and a Proof form. The land owners were approached and the land management contracts with 6 owners for 20 pieces of land and for 30 ha signed (**Refer to Annex B2/1 to IR**).

Problems and their impacts:

Due to recent unexpected changes in the legislation we are facing some difficulties at the implementation of action B2 Lease of land that aims to establish strips of bounds on the leased areas. According to the Art. 25-26 and 39 of the new Land Law that came in effect by 1st January 2014 the official procedure of handing over arable land by selling and buying and also by leasing or /by other types of solutions for use became more complicated, given that

every contracting and also every intent of contracting of this type has to be evaluated by the local land committees, which were not established until that time and their starting date was even not known. But the rules for land lease was so strict that there could be several (around 3-6 months) of delay in the administration.

The additional problem was that in 2014 the regional bodies of the government launched inspections at Győr-Moson-Sopron County regarding unusually high fees paid for land lease at new contracts. This has resulted in putting in focus all land related contracting.

Modifications:

Considering the above mentioned reasons, in order to avoid any kind of difficulties but most of all significant delays, we realized the work planned in action ‘B2 Lease of land’ in the frames of action ‘C4 Habitat reconstruction’, where assignment contracts were made with the land owners defining the activities to be implemented at the areas subject of the contract. The implemented activities were paid as an assignment fee for the farmer from the external assistance costs. In practice the technical implementation and the objective remained the same, only the way of financing was changed. This modification was already reported in the Inception Report.

Comments on Commission's requests:

“I approve the proposed budget reallocation from B2 to C4. Please note that while no related modification of the Grant Agreement is necessary at this stage, the reallocation will have to be taken into account in case any other modifications in the budget are made.

At the same time I encourage you to actively monitor the status of national legislation entering into force with an impact on this and any other actions in order to see if you can revert to the originally planned form of actions.”

It is not possible to revert to the originally planed form of action since the Law did not change.

5.1.3. Action C. Concrete conservation actions

Action C1: Establishing captive breeding program for *S. citellus* and gene bank from captive and natural colonies

Result planned	Result achieved
We establish the methodology of keeping and breeding <i>S. citellus</i> individuals in captivity. Such methodology will be transferred to keep the animals in the Education Centre (Action E5) and show the tame individuals to the public there. We expect to produce 50 captive bred animals by the end of the project. Captive bred and tamed animals will be used by FÁNK and NIMFEA to exhibit animals without capturing new individuals from the wild.	<ul style="list-style-type: none"> - Location of the captive breeding of <i>S. citellus</i> was selected within the university premises and the establishment of the facilities and captive breeding conditions were developed. - Captive breeding technology developed - Permissions were gained - 13 animals were captured in Siófok Kiliti Airport and were marked with microchips and placed at the breeding facility. - 11 captive bred cubs were produced. - 15 pregnant sousliks were captured at Szentkirályszabadja airport and were marked with microchips and placed at the breeding facility. - 67 cubs were delivered in captivity. - 10 cubs were moved to FANK - 48 cubs were translocated to Fertőszéplak - 20 cubs remains for breeding stock

Action status: completed

Measure	Original deadline	Revised deadline	Progress
Facilities and breeding conditions establishment (D)	31.12.2015	30.09.2016	completed
Captive breeding technology developed (M)	31.12.2016		completed
50 individuals produced in captivity (D)	31.12.2018		completed

Description of the progress and outputs during the reporting time:

Location of the captive breeding of *S. citellus* at KAPOSVAR was selected within the university premises. The university started some site preparation out of the project. Procurement of necessary equipments and materials (cages, etc.) happened. The building facilities and the air-conditioning enabling the winter hibernation of *S. citellus* were developed by June 2016. **(Refer to Annex C1/1 of MTR1)**. However the runs were not prepared. The beneficiary was waiting with its construction for the first *S. citellus* to accommodate. The captive breeding activity started only in October 2017 after capturing of 5 females and 8 males of *S. citellus* in Siófok Airport where animals were still available on 25-26/10/2017 and placed at the breeding facilities of KAPOSVÁR **(Refer to Annex C1/1 of MTR2)**.

In April 2018 when the animals wake up from hibernation the females cages were connected with males cages.

In the main time 15 pregnant females were captured in Szentkirályszabadja airport, tagged by chips and taken to the captive breeding facilities.

On 30.04.2018 three females out of the four pregnant which were mating in captivity delivered 12 offspring. Out of them eleven survived **(Annex C1/1)**.

From 02.05.2018 the pregnant females from Szentkirályszabadja delivered 67 offspring. From the altogether 78 offspring 10 were transferred to FÁNK for the citellus show, 48 were translocated to Fertőszéplak and 20 remains in Kaposvár as the future breeding stock. It means that the breeding facilities are working and ready to produce offspring for translocation in Transdanubia (Dunántúl). It may be extended to other regions in the future however FÁNK has an intention to create breeding facilities to produce offspring for translocation in Duna-Tisza Köze based on the experience gained by KAPOSVÁR during the project.

Indicators used to test the performance:

Nr. of *S. citellus* produced in captivity.

Problems and their impacts:

When the breeding facilities were ready in 06/2016 the beneficiary had to request the permissions from two national authorities: From ÁNTSZ (National Public Health and Medical Officer Service) and from Environmental and Nature Conservation Department of Pest County Government Office. According to the beneficiary both authorities were claiming that their permission can only be issued when the other has already been issued. The project management offered their help to solve this issue but the beneficiary did not ask for it. The project management requested evidence for several times to understand the situation but the beneficiary just provided the permission of the Environmental and Nature Conservation Department of Pest County Government Office (**Refer to Annex C1/2 of MTR2**). We understood that this permission was requested very late. It was dated 18 months after that the facility was ready only on 28/09/2017 and the permission of the Authority arrived to KAPOSVÁR on 24/10/2017. However we did not get any evidence about the reason of the permission's delay from ÁNTSZ. Unfortunately the few captured available animals did not make it possible to breed 50 offspring therefore they captured 15 pregnant females next spring to get enough offspring to create the breeding stock.

Consequence in other actions:

Due to the delays in the captive breeding, captive bred and tamed animals cannot be placed, as was originally planned, at E5 by FÁNK and NIMFEA to exhibit these animals in their citellus shows without capturing new individuals from the wild. Finally 10 offspring were transferred to FÁNK for future exhibition.

Modifications:

Instead of 20 only 10 separate enclosures was planned but finally did not built for unknown reason.

Some additional equipment: 5 surveillance cameras, a steamer cleaner and 10 metal shelf were purchased.

At the beginning it was estimated that much more nourishment (294 bags) and some nutritional supplement (30kg) may be needed. This was preliminary approved by the EC (in e-mail) on 30/03/2016. But as the breeding started in quite a delay, the requested increased number of feed was not necessary. Thus further modifications were requested and the number of feed was reduced to 112 bags.

Comments on Commission's requests:

“Please submit the description of the captive breeding technology with your second Midterm Report. Please note that I accept no further delays and the eligible costs related to captive breeding may be decreased in proportion to the delay.”

Please find the captive breeding technology in Annex C1/3 of MTR2

“I understand that due to consecutive delays in implementation the captive breeding programme for *S. citellus* will only partly be completed by the end of the project period and this will also likely influence the results of Action C5. Please note that eligibility of costs of relevant sub-actions may be reduced in accordance with the achieved results at the FR stage.”
Although originally C1 action had not any relation to C5 action, but finally 48 offspring were translocated to Fertőszéplak.

“Thank you for submitting the description of captive breeding technology. Please amend it with a title page, with your first experience in caging and hygiene, diet, handling, autumn and winter care, spring care and breeding, care of the young and conclusions, and submit the amended version with your Final Report.”

Please find the amended captive breeding technology in Annex C1/2.

“Please amend annexed A2, A3, A5, C1, C7 and D3 reports and guidelines accordingly and submit them with your Final Report.”

Please find it in the revised Annexes C1/1 & C1/2 of MTR2

**Action C2: Establishing veterinarian surveillance of potential food sources of
A. heliaca and *F. cherrug* i.e. *S. citellus*, *C. cricetus*, *N. superspecies leucodon* and *L. europeus***

Result planned	Result achieved
Veterinarian surveillance of potential food sources of <i>A. heliaca</i> and <i>F. cherrug</i> is established.	<ul style="list-style-type: none"> Guideline for sample collectors has prepared and included in the Project Handbook Training for sample collectors was held Samples for veterinarian examination were collected during the field sample collection activity

Action status: completed

Measure	Original deadline	Revised deadline	Progress
- Guideline for sample collectors (M)	31.01.2015		completed
- Training for sample collectors (M)	28.02.2015		completed
- Functioning veterinarian surveillance system(M)	31.12.2016		completed

Description of the progress and outputs during the reporting time:

Guideline for sample collectors was prepared and included in the Project Handbook (Refer to Annex F3/1 in IR)

In Hungary:

The permission to the National Authority was submitted at the beginning of May 2015. Questions for the completion of the request of the permission from the National Environmental Authority arrived to FHNPD on 15th June and the answers with the

clarifications were posted to the authority on 27th June. The permission was only issued in December 2015 by the National Authority. The modification request to extend the sampling survey with invasive sampling methods (blood check and biopsy) was prepared and submitted on 25th January, the permission regarding the extension of sampling survey with invasive sampling methods was issued on 31th March and arrived 1st April.

In the frame of the project training (at 10-11/02/2015 of F3) the sample collection was introduced.

A meeting was held in Tihany (BfNPD) **(Refer to Annex A2/5 of MTR1)** on 02.24.2016. with the participation of all partners involved in the filed sample collection. The list of selected sites and time schedule was finalized and the details and responsibilities were agreed. **(Refer to Annex A2/6 of MTR1)**

S. citellus field sampling activities were implemented between 1-20th April 2016, with the involvement of almost all project partners. Besides the coordinator of the activity, KAPOSVÁR, also KNPD and FANK took place in the sampling of the appointed population with the assistant of other partners (BEKE, BfNPD, EPASM, FHNP, MADRVILAG, MME, MILVUS, NIMFEA, and ÖNPD), helping in the trapping of *S. citellus*. The three groups collected 399 samples of excrement of *S. citellus* for the analyses of bacteriological and parasitological examination (this later was extended with the examination of protozoans and worms) completed by Duo-Bakt Veterinary Microbiological Laboratory **(Refer to Annex C2/1 of MTR1)**. Upon the results of the laboratory tests it can be stated, that the presence of *Salmonella* cases need to be considered during the future activities when moving animals **(Refer to Annex C2/2 of MTR1)** and the further monitoring and investigation of *Coccidiosis* (*Eimeria*) is necessary.

Another important part of the veterinary surveillance and monitoring is to implement the veterinary examination and condition survey of rescued individuals, being wounded or for other reasons, as it happened to the *S. citellus* that was found during the sampling with paralysed back part. The animal was treated and the recovered animal was released at Malomházi Zoo of Hortobágy National Park Directorate **(Refer to Annex C2/3 of MTR1)**.

The sampling was planned to be continued until 31/08/2016 with blood checks, implemented by the vets of FANK, to identify also the virological status of the most important *S. citellus* populations, that can be used as source populations for the reintroductions.

In 08/2016, during the preparation of repatriation activities serious decline was discovered in case of some source populations (Szolnok military airport, Kunpeszér) which at the end also inhibited the repatriation activities. The same phenomenon was reported from another colony near Paks. The veterinary checks targeted the 3 populations (Szolnok, Kunpeszér, Paks – Hardi pasture) where rapid decline was noticed, to investigate whether or not infectious disease could be.

In Szolnok, no sousliks were captured (or seen) on the day of sampling. In Kunpeszér, 3 trapped individuals were sampled and a further 2 in Paks. The animals were anaesthetized using a mobile anaesthetic machine with isoflurane gas. Blood samples, oral and rectal swabs were also taken, as well as faces in those cases, where the sousliks produced them while they were captured. Blood samples, the oral and rectal swabs yielded negative results.

In this time frame, 3 dead individuals were also brought to the Budapest Zoo (1 in Szolnok and 2 animals in Kunpeszér) and subsequently, necropsies were performed on the cadavers. The 1st individual, from Szolnok, yielded inconclusive results as the carcass was partially eaten by predators/scavengers. In case of the gross necropsy of the 2 animals from Kunpeszér the Lab found that one of the individuals to have died of shock based on the histopathological picture, however in the other individual, a viral infection could have been suspected based on

the findings seen microscopically. However, further toxicological examinations were not performed owing to financial constraints. Furthermore, the samples that were sent for bacteriological examination did not find any infectious agents and the virological testing did not yield positive results either.

Sampling of 2017 took place in August and targeted a decreasing population of a colony near Fertőújlak. 2 individuals were captured and blood samples were taken under anaesthesia using mobile anaesthetic machine with isoflurane as in 2016. Fecal samples/rectal swabs were also obtained (**Refer to Annex C2/1 of MTR2**). All examination yielded negative results (**Refer to Annex C2/2 of MTR2**).

Detailed description of the veterinary checks can be found in **Annex C2/3 of MTR2**. An evaluation meeting was held (**Refer to Annex C2/4 of MTR2**).

In Romania

Due to late permission (**Refer to Annex A2/8 of MTR2**) the work could just start in April 2017.

Four sites were selected (**Refer to Annex A2/9 of MTR2**) just along the Natura 2000 sites in connection with the Natura 2000 sites that assured that the collected samples will represent the populations of the Natura 2000 sites.

The excrement sample collection took part in 04/2017. The sampling of the first 2 sites were done with the assistance of Hungarian partners (BfNPD, FHNP, KAPOSVÁR) on 04-05/04/2017. The second part of the sampling took part in the 3rd week of April.

Altogether 84 samples of excrement were collected (**Refer to Annex A2/11 of MTR2**) and were handed over to FANK.

Indicators used to be test the performance:

Nr. of colonies tested.

Problems and their impacts:

The permission was issued too late in 2015. Romanian beneficiaries had to apply for new permission in 2016. The new permission was issued by the National Authority allowed the sample collection only at sites that are not protected and neither N2000. Thus new sites had to be selected for the genetic sampling that are in connection with N2000 sites (**Refer to Annex A2/10 of MTR1**).

Consequence in other actions:

No.

Modifications:

Instead of purchasing a mobile anaesthetic machine, FANK converted an anaesthetic machine, the one that they have at the moment.

Instead of purchasing the microscope, that at the end FANK managed to purchased from other sources, the planned cost of the equipment was allocated to the development of the citellus show (action E5), where the expenses were higher than it was expected.

Action C3: Improving the genetic status of target populations by planned introductions of animals of known allelic composition

Result planned	Result achieved
10 <i>S. citellus</i> colonies genetic status will be improved and higher overall genetic variance and viability of the populations.	The activity is moved to C5

Action status: **abandoned**

Measure	Original deadline	Revised deadline	Progress
Source population of high genetic variability selected (M)	31.12.2015	31.12.2016	moved to C5
Performing the translocation of 10x50 individuals (M)	31.05.2016	31.05.2018	

Description of the progress and outputs during the reporting time:

The results of the genetic examinations, revealing that the genetics of *S. citellus* populations can easily recover from bottleneck effects suggested that the advantage of introducing additional genetic alleles in certain populations is respectively low. While the results of the veterinary surveys concluded that this kind of mixing of *S. citellus* populations might have rather high risk of transporting sicknesses and diseases between populations. This could also result in causing bigger damages in the base population compared to the advantages achieved by the introduction of new alleles.

Considering these reasons our experts assumed that the health risks of these kind of translocations is higher than their advantages in the improvement of the genetic status of the populations.

Indicators used to be test the performance:

Nr. of trans-location

Problems and their impacts:

No

Modifications:

Considering the above mention reasons and upon the recommendations of our experts, we skipped this action and instead we are doing some additional translocation under C5 action.

Comments on Commission's requests:

"I was informed that the transfer of potential diseases poses higher risks to *S. citellus* colonies than poor genetic diversity. Please continue establishing new *S. citellus* populations but avoid mixing up individuals from different populations if there is a risk of transferring diseases."

We avoid mixing up individuals from different populations.

Action C4: Habitat reconstruction to improve the carrying capacity for prey species

Result planned	Result achieved
<p>The potential future hunting areas of <i>A. heliaca</i> and <i>F. cherrug</i> will be converted to suitable habitat for prey species including those 58.6 ha, what is purchased in the frame of the project. Total area and carrying capacity of grasslands for <i>S. citellus</i> and <i>L. europeus</i> will increase in the purchased areas. (KNPD)</p> <p>The grassland composition will be more natural dominated by plant species preferred by <i>S. citellus</i>. 2 ha suitable habitat for <i>C. cricetus</i> and <i>L. europeus</i> on the reconstructed abandoned farmhouses' lands and 100 ha bounds along dirt roads in the Great Plain area. (NIMFEA)</p> <p>Another 70 ha will be reconstructed in FHNPD area.</p> <p>Removal of invasive allergenic plants like ragweed would reduce health problems of local people.</p> <p>The current trend of the small mammals' population decline will be prevented by our specific actions. The decline will slow down and hopefully stop after five years. We expect about 10% increase after a 10 years period. The proportion of small mammals among the preys of the increasing <i>A. heliaca</i> and <i>F. cherrug</i> would not be further reduced what would reduce the conflict with hunters. In case of <i>S. citellus</i> based on previous similar actions when half of the introduced animals survived and integrated to the local population, we expect similar outcome after the planned action. Therefore it is foreseen that about in 28 locations which were inhabited sometimes in the past the <i>S. citellus</i> population will be restored. In case of <i>S. substilis trizona</i> it is foreseen that the known 20 ha habitat will be doubled or it will be justified that there is not any other localities in Hungary. The existing and potential habitats will be properly maintained without any conflict with <i>S. citellus</i> interest. In case of <i>C. cricetus</i> we expect better information about the size of the existing population.</p>	<ul style="list-style-type: none"> Habitat reconstructions were ongoing on the 134 ha purchased area of KNPD. The nature conservation maintenance of 55 ha stepping stones were carried out under the supervision of FHNPD. The reconstruction of 2.1 ha area was done by NIMFEA on the purchased plots. 70 ha bounds along dirt roads were reconstructed in 7 areas by NIMFEA. 28 ha was reconstructed by MILVUS at ROSCI0021 (Câmpia Ierului), in two separate patches. In case of <i>S. substilis trizona</i> the habitat was doubled to 40 ha and habitat management guideline were prepared for BNPD in Hungary.

Action status: completed

Measure	Original deadline	Revised deadline	Progress
<ul style="list-style-type: none"> 200 ha reconstructed (M) First contract (M) Cutting grass (M) Planting Alfa alfa by farmers (M) Signing new contracts (M) 	01.04.2017.	30.06.2018 10.03.2015 15.07.2015 01.08.2015 01.01.2016	completed completed completed completed completed

Description of the progress and outputs during the reporting time:**In Hungary:**

The sites for habitat reconstruction were checked and some sites were changed. (See in modification below.) Land use contracts were signed with land owners (See Action B2.)

1. Reconstruction of purchased land by KNPD

In 2016 reconstruction of 37,75 ha purchased site (Öttömös 100/59) started, with the elimination of invasive *Eleagnus angustifolia*, targeting small size plants, **(Refer to Annex C4/1 of MTR1)** and grazing of the area by a temporary arrangement until KNPD would be able to make a long term arrangement as the official land manager of the area.

In 2017 the reconstruction was extended to the entire 104 ha purchased area and was targeting small and big size, singles plants and also groups of *E. angustifolia* with poisoning and cutting. The works started in October and carried out until March 2018 **(Refer to Annex C4/1 of MTR2), Annex C4/1.**

Elimination of offshoots will be done in the frame of the After LIFE Plan in the beginning of 2019.

2. Maintaining stepping stones among Natura 2000 sites

FHNPD has contracted 11 landowners during 2015 to maintain the stepping stones among Natura 2000 sites on almost 54 ha and a company (Lajta-Hanság) for the reconstruction of additional 15 ha **(Refer to Annex C4/2 of MTR1)**. Unfortunately the company with 15 ha went bankrupt so eventually no reconstruction was done on the area. The landowners of other plots planted alfalfa on the land strips and harvested it according to the national park's requirement set in the contract. The managements of sites were constantly checked by FHNPD during 2016 **(Refer to Annex C4/3 of MTR1)** and in 2017 to know if the management is done according to the requirements **(Refer to Annexes C4/2 – C4/4 of MTR2)**. The management of the sites were checked also in 2018 **(Annex C4/2).**

3. The installation of electrical fence and reconstruction of grassland was completed at Oslí-Hány project site in March 2016 (Refer to Annex C4/4 of MTR1) and (Annex C4/2).

4. The reconstruction of 5 ha area of Péri airport was done by FHNPD in cooperation with the airport. The permission of the regional authority arrived in 10/2016 **(Refer to Annex C4/5 of MTR2)**, approving in addition sowing of 5 ha area at Péri airport. The reconstruction works started in 11/2016 by mowing to clean the site, that was followed by in addition sowing with mix of native grass species **(Refer to Annex C4/6 of MTR2) and (Annex C4/2).**

5. NIMFEA reconstructed the 2.1 ha purchased farmyards (Refer to Annex C4/7 of MTR2) and (Annex C4/3).

6. Altogether 70 ha was reconstructed by grassing on 7 sites, of which 52 ha were bounds along dirt roads and 18 ha arable land (3 sites) was reconstructed (re-sown) as grassland by NIMFEA (Refer to Annexes C4/8 & C4/9 of MTR2) and (Annex C4/3).

7. In case of *S. subtilis trizona* the habitat was doubled and habitat management guideline were prepared for BNPD in Hungary (Annex C4/4).

In Romania:

It took more time to make all arrangement and to gain permissions than was expected.

In 07/2017 two plots of 1540 m² and 1250 m² were reconstructed at ROSCI0021 Câmpia Ierului (Érmellék) site, on the pasture near the municipality of Ottomány (Otomani) by mowing. As the grazing with sheep seems possible the areas can be transformed to be suitable for *S. citellus*. **(Refer to Annexes C4/10 – C4/11 of MTR 2).**

Since the grazing of the rehabilitated area started no further mowing was necessary **(Annex C4/5).**

Indicators used to test the performance:

Size of reconstructed sites

Problems and their impacts:

1. Land purchase changes in KNPD area in HUKN10008 needed changes in rehabilitation target site too.
2. In FHNPd area in HUHF30005 the selected sites (“Illetményföldek”) were completely destroyed by wild boars which ransacked the area so heavily during last year that the reconstruction of the site would be very costly and very time consuming (**Refer to Annex C4/1 of IR**).
3. Unfortunately the Lajta-Hanság company with 15 ha went bankrupt so eventually no reconstruction were done on their area.
4. **During the project implementation we realised the nature conservation disadvantage of the land-based support of CAP therefore we intended to prepare a proposal for the government how it should be changed but the specialists on CAP are working on the CAP strategic planning and using the project's results and experience for it. Since currently they do not have capacity we agreed that beside the CAP strategy they will elaborate a more detailed and specific proposal in the frame of the Grassland IP base on the project's finding.**

Modifications:

- In case of reconstruction of *S. citellus* habitats by KNPd since the planned land purchase had to be changed (refer to B1) therefore the habitat reconstruction was done on the finally purchased land (**Refer to Annex B1/1 of IR**).
- Instead of leasing lands (B2) land use contracts were signed to create “stepping stones” among Natura 2000 sites (**Refer to Annex B2/1 of IR**).
- The rehabilitation of “Illetményföldek” HUHF30005 was given up and the planned *S. citellus* repatriation was done in a new place (See in Action C5) (**Refer to Annex C4/4 of MTR2**).

These changes were reported in the Inception Report.

Comments on Commission's requests:

We are working only in the Öttömös site.

“Please submit maps showing the locations of habitat reconstruction sites including the reconstructed field margins with your second Mid-term Report and put a focus on sustainability of results as farmers reportedly destroy field margins during soil-preparation work. “

Please find the maps in Annexes B1/3, C4/3, C4/7, C4/9, C4/10 of MTR2

Please submit with the Final Report the full documentation (agreements with municipalities, field notes, photos, work registers etc.) on the reconstruction of field margins.

*Please refer to **Annex C4/3**.*

Action C5: Reintroduction of *S. citellus* to reconstructed areas

Result planned	Result achieved
<p>Such interventions will enrich the food supply of local breeding pairs of <i>A. heliaca</i> and <i>F. cherrug</i> in a region where their population is expected to grow and where they mostly predate small game. Reduction in the predation on game animals would make it easier to incorporate local hunters to our conservation efforts. We expect a general increase of <i>S. citellus</i> habitat especially in regions where <i>A. heliaca</i> and <i>F. cherrug</i> feed. Buffer zones with special water management would reduce the impact of catastrophic events like flooding.</p> <p>Due to repatriation, the number of colonies and their density will increase. Such changes will positively affect the breeding success of raptors. Based on previous similar actions when half of the introduced animals survived and integrated to the local population, we expect similar outcome after the planned action. Therefore it is foreseen that about in 28 locations which were inhabited sometimes in the past the <i>S. citellus</i> population will be restored.</p>	<ul style="list-style-type: none"> - Potential sites are checked and unsuitable were replaced. - Permission regarding repatriation of the protected species (<i>S. citellus</i>, <i>C. cricetus</i>, <i>N. montanosyrmiensis</i>) were issued by the National Environmental Authority in Hungary. - 1.376 (478+635+263) <i>S. citellus</i> were repatriated on 23 locations and 18 new colonies were established in Hungary. In addition to this 192 <i>S. citellus</i> were repatriated in three locations in Romania. <p><u>Additional:</u></p> <ul style="list-style-type: none"> - 100 <i>C. cricetus</i> were repatriated and 2 new populations were established in areas where <i>A. heliaca</i> and <i>F. cherrug</i> home range areas. - 17 (2016:9; 2017:1; 2018:7) <i>N. montanosyrmiensis</i> were repatriated from the border-zone to Öttömös project site.

Action status: completed

Measure	Original deadline	Revised deadline	Progress
20 established <i>S. citellus</i> colonies (M)	30.08.2018		completed

Description of the progress and outputs during the reporting time:

The selected sites for *S. citellus* reintroduction were checked and some sites had to be changed. (See in modification bellow.)

In Hungary:

The reintroduction activities were scheduled to start after 15/07/2016 in order to have the preliminary result of the genetic examination of Action A2 (sequencing).

A tentative plan for reintroduction, regarding source populations for each targeted site were prepared (**Refer to Annex C5/1 of MTR1**). A request for permission for reintroduction of *S. citellus*, based on the reintroduction plan was submitted to the NEA on 01/10/2015 and the permission was issued on 04/02/2016 (**Refer to Annex C5/2 of MTR1**). A request for modification was issued by 03/04/2016 and the permissions, one regarding the modification of repatriation (**Refer to Annex C5/3 of MTR1**) and a new permission regarding the use of microchips (**Refer to Annex C5/4 of MTR1**) arrived on 24/06/2016.

During the repatriation activities of 2016, 478 *S. citellus* were translocated and 8 new populations were established:

- BEKE translocated 137 *S. citellus*; 50 to Felső-Kéked (Hernád-valley); 50 to Perei pasture (Hernád-valley) and another 37 to near Batúz-tanya (to Borsodi-Mezőség) **(Refer to Annex C5/1 of MTR2) and (Annex C5/1).**

- BfNPD translocated 107 *S. citellus* from Belső-tó to Külső-tó (to Vadparlag site) in Tihany on 27.07.2016 **(Refer to Annex C5/2 of MTR2) and (Annex C5/2).**

- FHNPI translocated 83 animals to Osli-Hany site from Szentkirályszabadja-airport **(Refer to Annex C5/3 of MTR2) and (Annex C5/3).**

- MADÁRVILÁG translocated 51 animals from Solymár (from the parking areas of the supermarket) to Esztergom **(Refer to Annex C5/4 of MTR2) and (Annex C5/4) .**

- ÖNPD translocated 100 animals to two sites: 50 to Kenyeri airport, 50 to the pasture of Kemenessömjén. The translocation to Órség site had to be postponed to 2017 due to not sufficient number of animals in the source population at Szentkirályszabadja airport **(Refer to Annex C5/5 of MTR2) and (Annex C5/5).**

The translocation attempt of KNPD (from Kunpeszér to Öttömös) and of NIMFEA (from Szolnok to Túrkeve) failed due to the lack of source populations.

During the repatriation activities of 2017, 635 *S. citellus* were translocated and 8 new populations were established:

- BfNPD repatriated 197 animals from Tihany Belső-tó, 105 to Pécselyi-medence 92 to Nyírad **(Refer to Annex C5/2 of MTR2) and (Annex C5/2).**

- FHNPD moved 44 animals from Szentkirályszabadja to Várbalog **(Refer to Annex C5/3 of MTR2) and (Annex C5/3).**

- KNPD relocated 73 animals from Kecskemét, 58 animals to Öttömös and 15 to the citellus show of FÁNK **(Refer to Annex C5/7 of MTR2).**

- MADÁRVILÁG relocated 75 animals from Solymár the parking of a supermarket, near to Tahitótfalu, on Szentendre-island **(Refer to Annex C5/4 of MTR2). (Annex C5/4) .**

- NIMFEA reintroduced 45 animals to Csudabala site from Budapest International Airport and 27 animals from Kecskemét airport to Kecskeri-pusztas site (near Karcag) **(Refer to Annex C5/8 of MTR2) and (Annex C5/6).**

- ÖNPD reintroduced 189 *S. citellus* from Szentkirályszabadja, 90 to Öriszentpéter and 99 to Kenyeri airport **(Refer to Annex C5/5 of MTR2) and (Annex C5/5).**

In 2018 the *S. citellus* translocation were nationally planned by the BMR&SAB and endorsed by the under secretary of HMoA thanks to the project's effort **(Annex C5/7).** With reference to this the Nature Conservation Authority has modified the permission for the project **(Annex C5/8).** According to this 263 *S. citellus* were translocated and 4 new populations were established:

- BfNPD translocated 96 animals from Tihany Belső-tó to Pécsely's pasture where the grey cattle is grazing **(Annex C5/2).** The translocations looks successful.

- FHNPD translocated 48 offspring from the breeding station of KAPOSVÁR to Fertőszéplaki legelő and 24 animals from Szentkirályszabadja to Várbalogi legelő where 44 animals were translocated in 2017 too. **(Annex C5/3).** The translocations looks successful.

- MADÁRVILÁG translocated 45 animals from Solymár the parking of a supermarket, near to Tahitótfalu, on Szentendre-island not so far from the place where the translocation was done in 2017 **(Annex C5/4).**

- NIMFEA translocated 50 animals to Túrkeve, Csejt-pusztas site from Hajdúszoboszló airport. Another 10 animals (3 males and 7 females) were taken to the citellarium harmonization with the genetic survey results. **(Annex C5/6).**

In Romania:

Due to the lack of permissions, the repatriation activities could only start in 2017.

In 2017 97 *S. citellus* were translocated and 2 colonies were established.

- MILVUS repatriated 63 animals from Arad to Sântana (Újszentanna) (ROSPA0015); and 34 animals from Zsomboly to Cenad near Nagyszentmiklós (ROSCI0345) (**Refer to Annex C5/10 of MTR2**).

In 2018 95 *S. citellus* were translocated and a third colonies was established.

- MILVUS repatriated 46 animals to Sânmartin (ROSPA0015) and 49 animals to to Cenad (ROSCI0345) (**Annex C5/9**)

Altogether 1,568 *S. citellus* were translocated for 23 locations and 18 new colonies were established.

Translocation of *Nannospalax montanosyrmiensis* from the border fence zone to Öttömös project area

During 2016 9 *N. montanosyrmiensis* were repatriated from the border fence-zone to Öttömös project-site (**Refer to Annex C5/6 of MTR2**).

In 2017 only one animal were repatriated while in 2018 seven animals were repatriated. The repatriated animals were genetically checked and marked by chip. (**Annex C5/10**).

Translocation of *Cricetus cricetus* from down town to Imperial eagle's habitat.

In 2017 98 *C. cricetus* were translocated and 2 new colonies were established.

-BEKE translocated 73 animals from the down town of Szíhalom village near to the Eagle-centre at Jászberény; and 25 animals form Szentistván to Túrkeve (**Refer to Annex C5/9 of MTR2**) and (**Annex C5/11**).

In 2018 another 23 animals were translocated from Szíhalom to Jászberény (**Annex C5/11**).

Indicators used to test the performance:

Nr. of new population.

Problems and their impacts:

Many of the originally selected area for repatriation have to be changed due to different reasons:

- The target areas were checked first in the frame of A7 action and became evident that some of the selected areas are in a flood hazard area therefore these areas have to be changed. (See bellow in modifications.) (**Refer to Annex A7/1 of IR**).
- In case of KNPD since the planned land purchase has to be changed (refer to B1) therefore the habitat reconstruction has to be done on the finally purchased land (**Refer to Annex B1/1 of IR**).
- Some area was destroyed either by land owner or by wild boars therefore those must be replaced (**Refer to Annexes A7/1 and C4/1 of IR**).
- The Audi Co. the owner of the area did not agree to reintroduce *S. citellus* to its area at Péri Repülőtér HUFH20007. However we discovered some surviving animals there and by the habitat rehabilitation (C4) those hopefully will form a viable population.
- More suitable area was found in ÖNPD area.

The National Environmental Authority did not give the permission or limited the number of individuals that can be removed from the source populations in case of some requested sites. This was effected the volume of the translocated populations and lead to further modifications regarding the source populations.

Due to the problems in source populations at some parts of the Great Plan the repatriation activities of NIMFEA and KNPD in 2016 failed. The source population of NIMFEA would have been Szolnok airport, from where the *S. citellus* seemed to have completely disappeared

for yet unknown reasons. Then we tried to change to have additional animals from Kunpeszér for the repatriations of NIMFEA, that was estimated as the largest population of Hungary, where also KNPD would have capture animals for translocation. Unfortunately at that time the animals of Kunpeszér site were probably in a summer dormant phase due to the hot dry weather, thus hardly any animals were moving so the capturing could not be implemented. Due to the unsuccessful translocations of 2016 the translocation had to be extended up to 2018. In Romania, permits from the Ministry of Environment were much delayed, hindering the commencing of this action before 2017. Also, the desired number of individuals was not approved by the Ministry. Despite of this, a satisfying number of animals have been successfully repatriated.

Modifications:

- The following sites on flood hazard area had to be changed to safer sites in HUBN10007-HUAN20004 (**Refer to Annex A7/1 of IR**):
 - Göncruszka site had to be cancelled and replaced by **Pere** site.
 - Hernádbüd site had to be cancelled and replaced by **Bekecs North** site.
 - In HUKN10008 Kelebia site had to be cancelled since the area was not purchased due to flood risk.
- Destroyed areas had to be replaced:
 - In HUBN10007-HUAN20004 (**Refer to Annex A7/1 of IR**):
 - The ploughed Garadna site had to be cancelled and replaced by **Hollóháza** site.
 - The Onga South site planted with trees had to be cancelled and replaced by **Bekecs South** site.
- “Illetményföldek” in HUFH30005 destroyed by wild boars had to be cancelled and replaced by LIFE08NAT/HU/000289 project rehabilitated area in HUFH20009 (**Refer to Annex C5/1 of IR**).
- Péri Repülőtér (Pér Airport) abandoned as translocation site because we discovered some remaining population there.
- ÖNPD replaced Csikólegelő in HUON10001 by Kemenessömjén 0237/1 and 0234 areas in HUON20012. The new area was considered better for *S. citellus*, which was occurring there in the past. The new owner of the area was willing to maintain the area properly for *S. citellus* (**Refer to Annex C5/2 of IR**).
- Based on the findings of the genetic examination we skipped the C3 action and instead we were doing some additional translocation under C5 action. BfNPD selected a site just along the Felső-Nyírádi-erdő és Meggyes-erdő (HUBF20011) Natura 2000 site which is state property and managed by the national park (**Refer to Annex C5/14 of MTR2**). After the approval of the changes by the TDO on 31 July 2017 BfNPD repatriated 92 *S. citellus* from Tihany Belső-tó there (**Refer to Annex C5/2 of MTR2**).
- BfNPD also selected another new site at Pécsely (**Refer to Annex C5/15 of MTR2**). The area is a part of the Balaton-felvidéki National Park and it is regularly grazed by Grey caws. The trans-location is planned for July 2018 from Szentkirályszabadja or Tihany.
- Translocation of *Nannospalax montanosyrmiensis* from the border fence zone to Öttömös project area started as an emergency action. When the government decided to build fence along the border to stop migration the scattered *N. montanosyrmiensis* individuals became extremely endangered therefore they need to be rescued from

there. The newly purchased habitat for *S. citellus* was large enough to accommodate the rescued animals (**Annex C5/10**).

- Repatriation of *C. cricetus* from urban areas to natural sites was requested as a modification. Request for permission regarding the repatriation of *C. cricetus* was submitted to the NEA by BEKE (**Refer to Annex C5/5 of MTR1**) and the permission was issued on 08/03/2017 (**Refer to Annex C5/11 of MTR2**).

A management plan (**Annex C5/12**) was developed by the end of the project (based on the inception protocol (**Refer to Annex C5/6 of MTR1**) that was prepared on the base of "Office National de la Chasse et de la Faune Sauvage: "Implementation and evaluation in situ of restocking operations of *C. cricetus* populations in the departments of Haut-Rhin and Bas-Rhin from 2013 to 2017" and on own experiences) including reintroduction protocol for the Hungarian *C. cricetus* population which will be useful in the future in case of the radical decrease of *C. cricetus*. In Jászág an agreement was signed by the local farmers and competent nature conservation authority (Hortobágy National Park Directorate) (**Refer to Annexes C5/7-C5/8 of MTR1**) which lay a charge on the responsible for the action (BEKE). This action was achieved in cooperation with HELICON LIFE and its Eagle Centre. In case of Túrkeve project sites, NIMFEA arranged the declarations with the farmers (**Refer to Annex C5/9 of MTR1**).

Comments on Commission's requests:

We are working on the changed target sites.

"*S. citellus* should be translocated in early 2017 and followed up in 2018. Please carefully consider the number of individuals to be translocated to guarantee that the source meta-populations are not threatened by the action. Their survival rate should be reported annually, and fully in the Final Report."

The genetic examination highlighted that translocation hardly can endanger the meta-population but we ensured that not more than 10% of them were translocated. 2016 years survival rates are given in Annex C5/12 of MTR2.

"Please ensure sufficient and efficient coordination of parallel translocation efforts in Hungary; preferably by one of the project beneficiaries."

We achieved that the Blind-mole rat Advisory Board to the undersecretary of the HmoA was enlarged to the Blind-mole rat & Suslik Advisory Board and this board will coordinate this work in the future (Annex A1/2 of MTR2).

"I remind you that the translocation of urbanised *C. cricetus* to agricultural habitats is approved only on condition that proper documentation is in place. This includes site specific restocking plans, certificates from the relevant authorities and written agreements from the landowners concerned."

Please see Annex C5/9 of MTR1 & Annex C5/11 of MTR2.

Action C6: Protection of short term survival and evaluation of long term success of reintroduced and natural prey populations

Result planned	Result achieved
Measurably higher success of reintroductions with reduced number of repatriated animals	Comparing the result with LIFE06NAT/HU/000096 project's reintroduction measurably higher success was achieved with much reduced number of repatriated animals (See table 1).

Action status: completed

Measure	Deadline	Progress
Measurable higher success (M)	30.09.2018	completed

Description of the progress and outputs during the reporting time:

As stated in the reintroduction protocol guarding and feeding animals is an important part of the repatriation activities assuring the short term survival of the new colonies released at the new sites.

The areas where the holes were prepared for animals to be released were fenced around and the animals were released in these fenced-around areas, inhibiting them from running away when being stressed during their release. It is important as if they run away on the surface they can easily be prey of predators, as the animals can be safe only underground so it is important that they stay in the prepared area and continue to dig the prepared holes and develop them into tunnels. After a few days the animals were digging out of the fenced-around-area and spread on the sites. The fences were used in case of all reintroduction activities, but different solutions were used. Usually the area of release was bordered with one fence, but in case of the Romanian repatriation, each hole had it's own small fence (**Refer to Annex C6/1 of MTR2**). The fences were left on the repatriation sites for at least one week.

Guarding the newly relocated animals was also an important part for increasing the success of reintroduction. Given that the recently placed animals are vulnerable for predation they can be easily captured and the entire reintroduction can be destroyed by a few predators. Besides the preliminary trapping of predators, during the first week the new colonies were guarded in case of every repatriation (**Refer to Annex C6/2 of MTR2**).

The other important task in order to keep the recently moved animals at the repatriation site was to feed them. This way they was not forced to leave the holes for long distances to collect food and they could turn more time on preparing their new tunnel systems. Feeding was continued for weeks, after the repatriation (**Refer to Annex C6/3 of MTR2**).

Table 2. Comparing the result of translocation with LIFE06NAT/HU/000096 project's

Project period	Nr. of translocated animal	Created new population	Unsuccessful at the end of the project
2006-2010	4785	24	4
2014-2018	1568	23	5

Indicators used to test the performance:

Number of survived animals.

Problems and their impacts:

No

Modifications:

No

Action C7: Encouraging hunters to catch predators the competitors of *A. heliaca* and *F. cherrug* around the habitat of *S. citellus*, *C. cricetus*, and *L. europeus* by distribution of traps for them.

Result planned	Result achieved
Predators' number in the reintroduction areas will be reduced therefore the reintroduction success will considerably increase.	<ul style="list-style-type: none"> • 400 traps were purchased and handed over to hunting organizations • Trapping is ongoing started • Annual reports of trapping activities of were submitted to the beneficiaries

Action status: completed

Measure	Original deadline	Revised deadline	Progress
<ul style="list-style-type: none"> • Procurement of trap (M) • Contracts with hunters (M) • Hunters report (D) 	31.12.2014 28.02.2015 31.12.2015	30.06.2016 30.06.2016 31.12.2016	completed completed completed

Description of the progress and outputs during the reporting time:

In Hungary:

Traps were purchased by BfNPD, FHNP, MADÁRVILÁG, NIMFEA and ÖNPD. Agreements and records of handover were signed with hunters regarding traps and trapping (**Refer to Annex C7/1 of MTR1**). Traps were handed over and it was agreed that hunters will submit a report by the end of every year. In 2016 BfNPD implemented the trapping themselves, but it was not successful so far (**Refer to Annex C7/2 of MTR1**).

The trapping activities were ongoing by the partners. Annual reports of trapping for 2016 were attached (**Refer to Annexes C7/1 – C7/5 of MTR2**).

The trapping was continued during the project period. Final reports of the trapping are included in **Annexes C7/1 – C7/5**.

In Romania:

The permissions for trapping were requested from the managers of areas affected by trapping and from local Environmental Authorities.

Before handing over the traps, county hunting organizations in Szatmár, Bihar, Arad and Temes county had been contacted that are mainly covering the targeted grassland of *S. citellus*.

The official documents of the traps had to be translated as the certified translation was necessary in order to be able to convince the hunters of the traps being suitable for the Romanian legislation.

Traps were handed over for four hunting associations that were contracted for trapping (**Refer to Annex C7/3 MTR1**). The appropriate use and setting of the traps was introduced for the hunters. Hunters submitted a report with the results of trapping by the end of every year.

In 2016 EPASM contracted 5 hunting association for trapping of Szatmár (2), Bihar (2) and Arad (1) counties. Annual report of trapping in 2016 was attached of Szatmár, Bihar and Arad county (**Refer to Annex C7/6 of MTR2**).

The trapping was continued during the project period. Final report of the trapping included in **Annex C7/6**.

Indicators used to test the performance:

Trapping report of the hunters

Problems and their impacts:

No

Modifications:

Some traps were planned with GSM control but finally ordinary traps were purchased.

Comments on Commission's requests:

“I expect you to accelerate this action and prepare the first hunters' reports by 03/2017 at the latest.”

See the reports in Annexes C7/1-C7/6 of MTR2.

„As a minimum requirement I recommend that you add a title page to each project report or compilation report including

- the title of the document,
- the name and affiliation of the author(s),
- the date of issue, and
- LIFE and Natura 2000 logos.

I also recommend adding a brief English executive summary to all project reports.

Please amend annexed A2, A3, A5, C1, C7 and D3 reports and guidelines accordingly and submit them with your Final Report. ”

*Concerned Beneficiaries prepared their final report of trapping according to the required quality **Annexes C7/1 – C7/6.***

Action C8: Mapping the movements of *S. citellus*

Result planned	Result achieved
New and practical conservation information on the species that will contribute to prepare and carry out more conservation measures more efficiently.	<ul style="list-style-type: none"> • Two types of tags (collar and internal tag) were considered, but finally only collars were used for animal safety and practical reasons. • 2016: 4 animals were tagged and followed and the system was tested • 2017: 6 animals were tagged and tracked (translocated individuals) • 2018: 8+2 (re-using collars of preyed individuals) translocated individuals were tagged and tracked+ 5 individuals were tagged and tracked in the source colony

Action status: completed

Measure	Original deadline	Revised deadline	Progress
• Deploying first tags (M)	30.06.2015	31.08.2016	completed
• Following the tagged animals & tagging new individuals (M)	31.05.2016	31.05.2017	completed
• Detailed report on the movements and population dynamics of the species (D)	31.01.2017	31.10.2018	completed
• Follow up of tagged animals (M)	31.05.2017	30.09.2018	completed

Description of the progress and outputs during the reporting time:

VHF collars were used for tracking. Request for permission was submitted to NEA on 03/04/2016 regarding the methods of tagging with collars and was received on 24/06/2016. (Refer to Annex C8/2 of MTR1).

Due to the delay in Action A2 and A3 the tagging of *S. citellus* was postponed. In the period covered by the report the preparatory activities of tagging was ongoing, studying the alternative tagging methods (implant transmitter, collar, harness), collecting the references and descriptions of products (opportunities, constraints, prices) of different producers, articles about the necessary technology and negotiations and meetings were held with producers (Biotrack, ATS, Telenax, Lotek, etc.) by MADÁRVILÁG, to find the necessary and appropriate technology and tags for mapping *S. citellus*. The investigation revealed that only one system, produced by a Hungarian developer, is able to automatically log and follow the movements of the animal in space (the other type of automatic transmitters is only able to record certain parameters but not able to track movement in space).

The parts of the system are the tags, the transmitters and a central receiver tower with a special software, which processes and visualizes the signs of the towers. The transmitter itself is cylinder shaped and ca 1 cm long and wide, with the weight of 3-4 grams and can be attached to the animal with collars. The range of the transmitter is several kilometres, the frequency of the signs can be programmed and can be working for more than a year with built in battery. The system is able to track 32 animals at the same time.

The procurement of the equipment happened by 07/2016. First the central receiver tower and the 10 transmitters were produced by 06/2016. The first 4 individuals of *S. citellus* were tagged during the reintroduction activity of MADÁRVILÁG to the project site near Esztergom, at the beginning of 08/2016. This was functioning as a test phase of the system and the settings. VHF collars stopped working during the dormant phase of the animals, when we did not disturb them to take off the collars. The removal of the collars was planned to be done in spring 2017. Unfortunately, the central administration of Danube-Ipoly National Park Directorate prevented us to enter to the site in 2017 to find and re-trap the collared animals. (An agreement was finally signed by the Directorate only in September 2017.) That unfortunately, prevented us also from continuing the second phase of the tracking in the same site. Instead the action was moved to the project site in the Szentendrei island, where the private landowner was very helpful. In the second phase 6 individuals were tagged at the end 07/2017 during the reintroduction activity of MADÁRVILÁG to the project site on Szentendrei island. List of tagged animals can be found in **Annex C8/1 of MTR2**.

In 2018, the system was working well and we have tracked ten individuals in total. In addition to tracking translocated individuals, we were able to tag and track five individuals in the natural colony in the source population (in Solymár).

A summary report regarding the details of the tagging activity and the results, maps and pictures can be found in **Annex C8/2 of MTR2**.

A full report with photos and maps can be found in **Annex C8/1**.

Indicators used to test the performance:

Nr. of *S. citellus* tagged and information collected.

Problems and their impacts:

The delay is due to the difficulties in finding appropriate method for tagging, which took respectively more time than it was foreseen.

The cooperation with the Duna-Ipoly National Park Directorate had some bureaucratic difficulties what forced us to move the action to the other site.

Consequence in other actions:

No.

Modifications:

Madárvilág Nonprofit Kft. requested changes in the budget for 2017-2018 as a result of the evaluation of work experience in 2015-2016. Due to the delay in project start, action C5 and therefore C8 could not be carried out in 2015 as it was planned originally. Effective start of tracking part of the project was postponed to 2016, only preparatory actions were done in 2015.

In 2016, the tracking started and resulted in the following conclusions:

- was planned to use a GPS/VHF tag for *S. citellus*, but it is still not available on the market, tags do not yet exist in that size; instead a new system tracking and positioning automatically (VHF) tagged animals became available in 2016, was purchased and works well;
- tracking animals with simple hand-held devices provides significantly less information than automatic tracking,
- the originally planned PIT tagging and reading would make sense only if was done by all participants in the project (in large numbers) - is not feasible so was deleted;

Due to the above mentioned reasons, the following changes in the project (budget) were requested:

- to upgrade and continue working with the new system expanding it to two more receiver stations to increase sensitivity and accuracy;
- as the system can track a maximum of 16 animals at the same time, and as the recovered tags can be re-used, the number of VHF tags was reduced (to 30 from 80)
- in order to collect background variables in local scale, we requested to purchase equipment that was originally not planned: DJI Phantom 4 agro drone to calculate NDVIA values and a mini meteo stations to record local meteorological data

The requested modification was approved by the Commission on 31/03/2017.

5.1.4. Action D. Monitoring of the impact of the project actions (obligatory only if there are concrete conservation actions)

Action D1: Monitoring of the impact of the project actions by video record and photo traps in *A. heliaca* and *F. cherrug* nests.

Result planned	Result achieved
Pictures of the photo traps at the nests along the project areas will document the preys used to feed the juveniles. The evaluation of the pictures will confirm the presence and possible increase of the <i>S. citellus</i> , <i>C. cricetus</i> and <i>L. europeus</i> among the preys.	<ul style="list-style-type: none"> • The guideline for video- and photo-trapping was developed and was included in the Project Handbook. • Photo traps were purchased and installed. • Pictures were continuously recorded and evaluated. • On-line video streaming was presented on the website of the project. • List of food/prey source was prepared and evaluated.

Action status: completed

Measure	Original deadline	Revised deadline	Progress
• Web camera installed (M)	28.02.2015.	28.02.2016	completed
• Photo-traps purchased (M)	31.03.2015	21.12.2015	completed
• Photo-traps installed in <i>F. cherrug</i> nests(M)	15.05.2015	15.05.2018	completed
• Photo-traps installed in <i>A. heliaca</i> nests(M)	01.06.2015	01.06.2018	completed
• 10 photo-traps recorded pictures and lists of identified preys (M)	30.09.2018	31.12.2018	completed

Description of the progress and outputs during the reporting time:

The guideline for video- and photo-trapping was finalized by 15/1/2015 by MME and MADÁRVILÁG and was presented at the training. The guideline was included in the Project Handbook (**Refer to Annex F1/3 of IR**).

In Hungary:

Video trapping: At the beginning of 2015 the tendering of the streaming activity had been conducted and the supplier had been selected. The selected supplier has installed the system and the pictures continuously recorded since the *F. cherrug* pair started to breed. Due to some technical errors of the accumulator and the accelerator in the first days the streaming was only functioning during daytime. In a few days the problem was recovered and since then the streaming was continuous. At the end of March 2015 the streaming was linked to and can be followed on the website of the project (**Refer to Annex D1/1 of IR**).

In 2015 in the nest targeted by the camera a pair of *F. cherrug* was nesting and incubating 5 eggs but unfortunately the nesting was not successful. The 5 rotten eggs were removed from and were sent for laboratory examination to find out the reason of the unsuccessfulness of the breeding. The eggs were found infertile (**Refer to Annex D1/1 of MTR1**).

In 2016 although the female occupied the nest and laid one egg but unfortunately there was no breeding in the nest observed by the camera as the male *F. cherrug* of the pair died.

In 2017 a new male joined to the female and they had a successful breeding 4 juveniles fledged successfully **(Refer to Annex D1/1 of MTR2)**.

In 2018 the breeding were successful and 4 juveniles fledged successfully **(Annex D1/1)**.

Pictures of preys were also evaluated.

Photo-trapping:

The nests of *A. heliaca* and *F. cherrug* were surveyed in order to find the appropriate place for photo trapping and satellite tagging in every year from 2015 to 2018.

In 2015, 4 photo-traps were purchased by MME in April and 15 by MAVIR in December.

In May 2015 7 photo-traps (4 new and 3 old) were installed to monitor *F. cherrug* nests (3 in Győr-Moson-Sopron county, 3 in Borsod-Abaúj-Zemplén county, and 1 in Jász-Nagykun-Szolnok county)**(Refer to Annex D1/2 of MTR1)**. In June 2015, photo traps were removed from the monitored nests of *F. cherrug* nests and one was re-installed to a late breeding. 2 cameras were re-installed at nests of *A. heliaca* by FHNPD, but one had to be removed because it disturbed the adults. Data from memory cards were downloaded to the computer and was evaluated **(Refer to Annexes D1/3-D1/4 of MTR1 and Annex D1/5 and MTR2)**.

A preparation meeting was held on 02/05/2016 **(Refer to Annex D1/2 of MTR2)**. In 2016 19 photo-traps were installed and recorded pictures **(Refer to Annex D1/3 of MTR2)**. In June 2016, photo traps were removed from the monitored nests of *F. cherrug* nests and three were reinstalled at *A. heliaca* nests. Data from memory cards were downloaded to the computer and was evaluated. At *F. cherrug* nests 717 food items were observed: 49% birds, 31% mammals and 20% unidentifiable **(Refer to Annex D1/4 of MTR2)**. At *A. heliaca* nests 60 food items were observed: 7% birds, 76% mammals and 12% unidentifiable. Most of the prey was *L. europeus* 72% **(Refer to Annex D1/5 of MTR2)**. An evaluation meeting was held on 12/10/2016 where we discussed the gained experiences and worked to prepare the survey next year **(Refer to Annex D1/6 of MTR2)**. Based on this MAVIR produced a special arm to be able to adjust the photo-trap on the pylons **(Refer to Annex D1/7 of MTR2)**. 19 photo-traps were installed at *F. cherrug* nests in 2017 and 18 were working. Thanks to the careful evaluation of the previous experiences and for the proper adjustment 662 676 pictures were taken. One photo-traps was installed at *A. helica* nest and 3 237 pictures were recorded **(Refer to Annex D1/8 of MTR2)**. The recorded pictures were evaluated. 24 photo-traps were installed at *F. cherrug* nests in 2018 and 23 were working. 770 810 pictures were taken. One photo-traps was installed at *A. helica* nest and 6 348 pictures were recorded. The recorded photos were evaluated and a Final Report about the photo trapping has prepared **(Annex D1/2)**.

In Romania

Since more and more *F. cherrug* are nesting in Romania in the nest boxes installed by the former LIFE project therefore seven photo-traps were installed in 2017 and 179 836 pictures were recorded and evaluated **(Refer to Annex D1/9 of MTR2)**.

In 2018 six photo-traps were installed and 213 896 pictures were recorded. The recorded photos were evaluated and a Final Report about the photo trapping has prepared **(Annex D1/3)**.

Indicators used to test the performance:

Nr. of data recorded.

Problems and their impacts:

In 2015 Pirate users had overtaken the streaming and were using it unauthorized on different sites. Due to this activity the streaming was switched off but the pictures were continuously recorded for evaluation. After some security measures the streaming was restarted.

The male falcon became old and died in the Video monitored nest therefore we could not record successful breeding there in 2015 and 2016.

The GSM system installed by MAVIR for the photo-traps reduce the duration of the batteries therefore less picture were taken in 2016 than in 2017 when GSM was switched off.

Modifications:

No necessary modifications.

Action D2: Monitoring of the impact of the project actions by satellite tagged adult birds

Result planned	Result achieved
The land use of the breeding birds can be identified. The impact of the different project action can be justified by the satellite tagged birds.	<ul style="list-style-type: none"> • The guideline for satellite tagging of adult birds was developed and was included in the Project Handbook. • 20 transmitters were purchased by 28.02.2016 by MAVIR • Transmitters are attached to birds • Data recorded and evaluated

Action status: completed

Measure	Original deadline	Revised deadline	Progress
• Transmitters delivered (M)	28.02.2015	28.02.2016	completed
• Transmitters installed (M)	15.05.2015	30.06.2016	completed
• Data evaluated (M)	30.09.2015	30.09.2018	completed
• Digital maps with the birds' locations on the sites (D)	30.09.2018		completed

Description of the progress and outputs during the reporting time:

The guideline for satellite tagging of adult birds was finalized by 15/1/2015 by MME and was presented at the training. The guideline was included in the Project Handbook (**Refer to Annex F1/3 of IR**).

The purchase of 20 transmitters was completed by MAVIR mid-February 2016. The first transmitter was installed on *F. cherrug* by FHNPD on 02/03/2016 (**Refer to Annexes D2/1-D2/2 of MTR1**).

16 transmitters were used to tag *F. cherrug* and 4 to tag *A. heliaca* (**Refer to Annexes D2/1-D2/5 of MTR2**).

In Hungary: We have tagged twelve birds (*A. heliaca* and *F. cherrug*) plus one in Serbia that returned later to Hungary.

LIFE13 NAT/HU/000183 RAPTORS PREYLIFE

The composition of the tagged Sakers (*Falco cherrug*) were:

FALCHE	Female	Male
Juvenile	0	0
Immature	0	1
Adult	3	7

In addition, we tagged two juvenile Imperial Eagles (*Aquila heliaca*).

In Romania: Only one adult male and four juvenile Saker Falcons were tagged.

FALCHE	Female	Male
Juvenile	4	0
Immature	0	0
Adult	0	1

In addition, we tagged two Imperial Eagles.

Table 3. The detailed data on birds tagged by the project LIFE NAT /HU/000183

Species	Age	Sex	Date of tagging	Date of last signal	Country	Cause of the end of tracking	Comment
FALCHE	Ad	F	2016-03-02	active	HU		
FALCHE	Ad	M	2016-03-07	active	HU		
FALCHE	Ad	F	2016-03-27	2018-10-11	HU	logger failure	
FALCHE	Ad	M	2016-03-29	active	HU		In pair with another tagged saker.
FALCHE	Ad	M	2016-03-31	active	HU		
FALCHE	Imm	M	2016-04-03	2016-08-25	SRB	electrocution	Hungarian bird returned to Hungary.
FALCHE	Ad	M	2016-04-21	2016-07-13	HU	electrocution	in Slovakia
FALCHE	Juv	F	2016-06-16	2016-10-11	RO	electrocution	on a earlier insulated pylon
FALCHE	Juv	F	2016-06-16	2016-07-31	RO	unknown reason	developmental disorder (?)
AQUHEL	Juv	un-known	2016-07-10	active	RO		
FALCHE	Ad	M	2017-02-27	2018-12-02	HU	electrocution	
FALCHE	Ad	M	2017-03-21	2018-01-17	HU	unknown reason	
FALCHE	Ad	M	2017-03-31	2017-05-16	HU	electrocution	near nest
FALCHE	Ad	M	2017-04-12	active	RO		
FALCHE	Juv	F	2017-06-05	2017-10-08	RO	electrocution	In Bulgaria. Chick of tagged adult male saker.
FALCHE	Juv	F	2017-06-13	active	RO		
AQUHEL	Juv	un-known	2017-06-30	2017-08-12	HU	unknown reason	Logger was found a few metres away from carcass cut from the bird. Likely intentional killing, but no sign of shooting or poisoning.
AQUHEL	Juv	un-known	2017-06-30	2017-09-08	HU	unknown reason	
AQUHEL	Juv	un-known	2017-07-05	2017-07-26	RO	unknown reason	
FALCHE	Ad	F	2018-02-23	active	HU		In pair with another tagged saker.

Apart from the recent LIFE project, we used data of sakers tagged in the previous LIFE09 NAT/HU/000384 project (in the project or in the After-LIFE period). In that project the

reason of tagging was different, however we could use the data of still alive birds to complete our data set provided by the recently tagged birds. See the description of additionally considered tags below:

Table 4. The detailed data on birds tagged by the project LIFE NAT /HU/000384

Species	Age	Sex	Date of tagging	Date of last signal	Country	Cause of the end of tracking	Comment
FALCHE	Ad	F	2015-04-01	2018-03-01	HU	logger failure	Tagged originally in 2013. Failed logger replaced in 2015.
FALCHE	Ad	M	2015-02-08	2017-07-30	HU	unknown	Tagged originally in 2014. Failed logger replaced in 2015.
FALCHE	Ad	M	2014-04-22	2015-03-22	HU	logger failure	Failed logger replaced in 2015-02-08 (see above).
FALCHE	Ad	M	2014-03-16	2015-01-29	HU	logger failure	
FALCHE	Ad	M	2014-03-12	2015-01-29	HU	logger failure	Confirmed breeding in June 2015.
FALCHE	Ad	M	2013-05-10	2016-04-03	HU	logger removed	Bird re-trapped and logger removed after 3 years of tracking. He is healthy and breeding, no sign of any injury from the logger.
FALCHE	Ad	M	2013-03-17	2015-05-01	HU	poisoning	Confirmed by laboratory examinations.
FALCHE	Ad	M	2013-02-18	2015-07-25	HU	electrocution	
FALCHE	Ad	M	2013-02-16	2018-01-14	HU	logger removed	Bird re-trapped and logger removed after 5 years of tracking. He is healthy and breeding, no sign of any injury from the logger.
FALCHE	Ad	M	2013-02-12	2018-01-04	HU	unknown	Likely perished, carcass not found. New male in the eyrie in next spring.

The maps of tagged birds still alive in the end of the project is attached (**Annex D2/1**).

In this recent project, the major aim of tagging was to map habitat use of birds and understand their relation to their prey and their environment. That aim was achieved and presented in the conference (**Annex D2/2**). The other aim was still to monitor the risk posed on those birds of prey. Unfortunately, satellite tracking confirmed that electrocution is still a major risk for saker falcons (both adults and juveniles) as six out of 16 tagged birds were electrocuted.

In Romania: Mainly juveniles were tagged since the birds just start to occupy Romanian territories and we want to know more about where they are roaming. On adult and four juvenile *F. cherrug* were tagged and out of them two juveniles died. One had some developmental disorder and the other was killed by electric shock. There were two juvenile *A. heliaca* tagged and one of them are still alive.

Indicators used to test the performance:

Nr. of tagged birds and nr. of data received.

Problems and their impacts:

The delay in the purchase of the transmitters was due to the complex and rather bureaucratic procurement rules of MAVIR.

Modifications:

No necessary modifications.

Action D3: Monitoring of the project actions

Result planned	Result achieved
The project's impact on the target species will be easily monitored by the management team.	5 guidelines of the monitoring methodology of the target species were prepared and were included in the Project Handbook.

Action status: completed

Measure	Deadline	Progress
Annual monitoring (M)		completed
Annual monitoring report (D)	31.12. of each year from 2016	completed

Description of the progress and outputs during the reporting time:

For the monitoring of the impacts the 5 guidelines that were prepared also for the baseline surveys (A1) (**Refer to Annex F3/1 of IR**) for each target species was used to monitor the development of the populations of targeted species with the same tool to provide comparable data. The monitoring actions started after the baseline survey had been implemented.

Given that the baseline survey regarding *S. citellus* was extended by 31/08/2016, and that the direct conservation actions regarding *S. citellus* started in 2017, the monitoring of the species could only start in 2017. The first monitoring of the other targeted species was implemented according to the protocols in 2016 and the 1st monitoring reports were prepared by 31/12/2016 (**Annexes D3/1-D3/5 of MTR2**). The monitoring was carried out in 2017 and 2018 too (**Annexes D3/1-D3/5**).

The monitoring justified that during the project period:

- the *A. heliaca* population has **increased** in Hungary (**Annex D3/1**)
- the *F. cherrug* population of Hungary partly **shifted** to Romania where the nesting facilities were improved by the former LIFE project and where more *S. citellus* are available and to Austria. (**Annexes D3/1-D3/1a**).
- the two decades **sharp decline** of the Hungarian *S. citellus* population **has dropped** (**Annexes D3/2-D3/2a**)
- the current extent of *C. cricetus* population in Hungary **is known** after many years to be the background for its conservation work and they start to occupy some areas again in Transdanubia (Dunántúl) what shows some expansion (**Annex D3/3**).
- the endangered *N. montanosyrmiensis* individuals were rescued and translocated therefore the population was **stabilised** (**Annex D3/4**)
- the *S. subtilis trizona* population **has increased** (**Annex D3/5**)

BfNPD surveyed the potential habitats to search for unknown *S. citellus* populations and found two populations in 2017 (**Refer to Annex D3/6 of MTR2**).

Indicators used to be test the performance:

Annual population data is available in the Annual Monitoring Reports.

Problems and their impacts:

No problem

Modifications:

Based on the baseline survey results four *A. heliaca* nests were selected in every 5 regions covering all four density categories (4*5=20 nests in total) for special monitoring what enabled us to identify *C. cricetus* population density from food remains (**Refer to Annex A1/9 of MTR2**). BEKE did the *C. cricetus* population survey on the 20 sites in a 3-4 km circle around the nests. MME did the a) collection of food remains from *A. heliaca* nests during the breeding season, b) the collection food remains second time from 20 selected *A. heliaca* nests after fledging, between 2016-2018 and c) the analyses of collected food samples. As a result we expected to find *C. cricetus* populations within the hunting area of *A. heliaca* pairs and to ensure their protection and monitor their population dynamics. Besides, it was possible to calibrate the result of food remain analysis by field surveys and an index, showing the relation between population density and *C. cricetus* frequency in prey, was defined. The detailed analyses of food remains prior and during the project would serve the largest objective database for *C. cricetus* distribution and densities in a large spatial scale, almost covering the whole Great and Little Plain areas of Hungary. Based on the previous analyses (mostly from 1995-2004 period) we estimate that during the 24 years (1995-2018) we have gained more than 2000 occurrence data for the species, which can be compared with the occurrence of ca 10000 other prey items. Therefore the ratio of the species within the diet serves an accurate estimation for the local trends of the (sub)populations as well (**Refer to Annex A1/3 a-b of MTR2**) and (**Annexes A1/1-A1/1a**).

Comments on Commission's requests

“Please test the hypothesis of the comparative *C. cricetus* trend analysis in the archive database (1995-2004) and present the results to the external monitoring team. I will approve the continuation of the study based on the quality of preliminary results.”

We submitted the result from the first period on 3 March 2017 and we got the permission to continue the work on 23 March. 2017. The result is presented in (Refer to Annex A1/3 a-b of MTR2) in the frame of A1 action and included in the trend evaluation of C. cricetus (Refer to Annex A1/8 of MTR2).

“Please submit the 2016 monitoring report with your second Mid-term Report.”

Please find them in Annexes D3/1-D3/5 of MTR2.

„Please amend annexes D3 reports and guidelines accordingly and submit them with your Final Report.”

Please find it in the revised Annex D3/6 of MTR2. The Final Reports of D3 action includes also the content of the previous ones in the required form.” (Annexes D3/1-D3/5).

Action D4: Assessment of the social-economic impact

Result planned	Result achieved
A study will be prepared and delivered with the Final Report.	A study was be prepared and delivered with the Final Report.

Action status: completed

Measure	Deadline	Progress
A study prepared (D)	31.12.2018	completed

Description of the progress and outputs during the reporting time:

Data collection was carried out by the Land Stewardship Advisory Service.

Two questionnaires were prepared:

- 1.) Questionnaire for farmers (**Annex D4/1**).
- 2.) Questionnaire for hunters (**Annex D4/2**).

The Land Stewardship Advisory Service collected data by these questionnaires.

Collected data evaluated and a synthesis report was prepared about the assessment of the social-economic impact of the project (**Annex D4/3**).

Indicators used to test the performance:

Nr. of people effected

Problems and their impacts:

Lack of experience about it in the project team.

Modifications:

Since there was not any experience about this issue among the beneficiaries therefore external assistance was hired to prepare the assessment.

Comments on Commission's requests

“Please put more effort in these actions so as to deliver comprehensive studies by the end of the project period. “

Completed (**Annex D4/3**).

Action D5: Assessment of ecosystem functions restoration

Result planned	Result achieved
A study will be prepared and delivered with the Final Report.	The manual of the action was prepared by 10/2/2015 A study has prepared

Action status: completed

Measure	Deadline	Progress
A study prepared (D)	31.12.2018	completed

Description of the progress and outputs during the reporting time:

The guideline of the assessment of ecosystem functions restoration of the project was prepared by NIMFEA and was presented and accepted on the training of project participants (**Refer to Annex F3/1 of IR**).

NIMFEA has prepared the first draft of the report (**Refer to Annex D5/1 of MTR2**) outlining the main chapters of the report and consulted with partners regarding their input to certain chapters. Data was collected, evaluated and a report of the assessment of ecosystem functions restoration has prepared (**Annex D5**).

Problems and their impacts:

No problems appeared.

Modifications:

No necessary modifications.

Comments on Commission's requests

“Please put more effort in these actions so as to deliver comprehensive studies by the end of the project period. “

Completed (*Annex D5*).

5.2. Dissemination actions

5.2.1. Objectives

- E1:** To increase the awareness of the stakeholders and their tolerance towards the target species.
- E2:** To improve the habitat management in favour of the target species by improving the knowledge of the stakeholders.
- E3:** *S. citellus* habitats will be considered and protected from flood water.
- E4:** Less dogs will hunt outside of the settlement.
- E5:** Annually at least 100.000 people will learn about the animals and related nature conservation problems and the work of the project.
- E6:** An accessible and up-to-date web site will inform the general public and technical staff working on similar projects about the project.
- E7:** There will be large scale publicity of the project aims and activities and its support by LIFE.
- E8:** To secure public support for conservation efforts by producing and disseminating different materials.
- E9:** Adequate public support will be attracted to the necessary conservation measures.
- E10:** To disseminate the result of the project by a Layman's report.
- F5:** To disseminate the result of the project by networking especially by the BMR&SAWG.
- F6:** To disseminate the result of the project by the EGSM.

5.2.2. Dissemination overview per activity

Action E1: Organising forums for stakeholders

Results planned	Results achieved
The awareness of the stakeholders and their tolerance towards the target species will increase. Less conflict will risk these species	Awareness raising of stakeholders was ongoing on project areas. (See details below)

Action status: completed

Measure	Deadline	Progress
Minutes of the meetings	28.02.2018	completed

Description of the progress and outputs during the reporting time:

In Hungary:

The Land Stewardship Advisory Service activities.

List of activities is given in **Annex E1/1**

BEKE:

Regular on site advising on areas affected by down town invasion of *C. cricetus* by listening the complaints of the population and assured them that nature conservation is aware of the problem and a solution is being developed (**Refer to Annex E/1 of MTR1**).

The advisors of BEKE consulted with the inhabitants of the villages affected by *C. cricetus* (at Szihalom, Szentistván, Mezőszemere and Átány villages during the relocation activities). The advisors listened to the complains and opinions of the inhabitants and introduced the work of the advisory body, distributed the brochures and leaflets regarding hamsters and in-

introduced the alternative solutions and importance of the protection of the species for the villagers (**Refer to Annex E1/1 of MTR2**) and (**Annexes E1/1-E1/2**).

BfNPD:

During the estimation of shrub control activities the requirements of *S. citellus* habitats are being considered. In favour of the protection of the *S. citellus* population at Gyulai-domb, a site under the management of Veszprém Zoo, the habitats used by *S. citellus* were marked off. (**Refer to Annex E1/1 of MTR1**). The citellus show was also used as forum for advisory activities in the Levendula ház. Forums for stakeholders were organised in several places along the project sites. One of them was held in Aszófő near to the site of *S. citellus* translocation in Tihany (**Annexes E1/1 & E1/3**).

FHNPD:

Providing guidance during personal meetings or through phone regarding the necessary and possible tasks, through being in constant contact with them (**Refer to Annex E1/1 of MTR1**). FHNPD constantly consulted with farmers contracted to maintain demonstration areas. A demonstration field visit was held on 27/09/2017 for the members of the advisory body to introduce the demonstration sites and the works, the contacting and convincing of farmers. (**Refer to Annexes E1/2- E1/3 of MTR2**).

A forum was planned for 10/2017 but due to the favourable weather conditions the farmers were busy therefore it was held later on 13.04.2018 in Kapuvár. Beside of this the advisor provided advice on spot for many farmers and hunters (**Annexes E1/1 & E1/4-E1/5**).

KNPD:

Given that the NP has no livestock the maintenance of the project site is planned to be solved by providing the site as a common pasture for the habitats of the nearby village of sheep and cattle. Personal negotiations were already held regarding this issue with the municipality and with the owners of livestock of the village (**Refer to Annex E1/1 of MTR1**).

Regarding *N. montanosyrmiensis* forums will be organized for the public and another one for the managers of the lands owned by the municipalities.

The advisor, the species coordinator of *N. montanosyrmiensis*/ground mole-rat of the project, of KNPD participated at the repatriation activities of HNPDP near Debrecen at the end 09/2017 to give advice during the repatriation activities (**Refer to Annex E1/4 of MTR2**). Also took part at the relocation activities of the species near Baja where animals had to be moved from the development area to the Ground Mole-rat Reserve in 10/2017 (**Refer to Annex E1/5 of MTR2**).

In 2018 the species coordinator of *N. montanosyrmiensis*/ground mole-rat of the project, and the local ranger had a forum for the local citizens of Baja in April about the species conservation issues. In July the species coordinator and the Head of the Conservation Dept. of KNPDP had a meeting with the rangers to provide information on the species and their conservation issues. (**Annex E1/1**).

NIMFEA:

In the office, at Fekete István Education Centre experts are available for personal consultation, furthermore they are available on phone and by email. The Advisory Service was advertised on the website of the organization (**Refer to Annex E1/6 of MTR2**) at the offices of farm advisor's network and in local newspapers (**Refer to Annex E1/7 of MTR2**). NIMFEA printed a leaflet (**Refer to Annex E1/8 of MTR2**) and posters (**Refer to Annex E1/9 of MTR2**) using own sources but with the visual identity of the project to raising awareness regarding the importance of the protection of bounds. The materials were distributed at the farm advisor offices and public areas (**Refer to Annex E1/10 MTR2**). The advisory body also exhibited the resolution of the project regarding the use of redendin at farmers' shop (**Refer to Annex E1/11 of MTR2**) and (**Annexes E1/1 & E1/6**).

ÖNPD:

The forums were held before the repatriation activities were implemented.

The Advisory Service conducting intensive and continuous informing activity on the N2000 sites involved in the project. In the frames of this activity every farmer involved in the management of the targeted sites (Kenyeri airport and Kemenessőmjén pasture) were contacted and informed of the project and of the habitat needs and environmental importance of *S. citellus*. They were continuously consulted regarding the grazing of pastures inhabited by *S. citellus*, recommendations regarding the change of methods (e.g. pressure of grazing) were made. Besides the appropriate management of grasslands the service also consulted with the users of the target areas of the repatriation of *S. citellus*, in order to have the grasslands in appropriate status for the species.

The hunting organizations of the sites were also informed regarding the need of reducing the number of predators. The advisers of the service attended the annual training of professional hunters of Vas county where the aims and activities of the project were introduced and the importance of trapping of predators was highlighted (**Refer to Annex E1/12 of MTR2**).

A forum was organized before the repatriation activities on 20/07/2017 at Óriszentpéter where the project and the status of *S. citellus* in Vas county was introduced. The importance of the reintroduction activities of Őrség and the role of the public in the survival of the colony were highlighted. 15 persons participated at the forum (**Refer to Annexes E1/13-14 of MTR2**) They provided advice on airport grassland management for the Kenyeri airport management with reference to the new guideline (**Annex E1/1 & E1/8**).

In Romania:

EPASM:

In the first part of 2016 EPASM started building the cooperation with the agricultural policy officers of the municipalities of Érmellék area. This cooperation was based on the activities of 2015, during which the representatives of municipalities were contacted personally and the contacts of agricultural policy officers were collected (**Refer to Annex E1/2 of MTR1**)

As the first step of consultations with the farmers the agricultural policy officers of some municipalities of Érmellék (ROSCI0021) were contacted on phone and personal meetings were initiated and organized. From the point of farmers the period of early spring and early summer, thus the forums were scheduled for winter time.

According to the guidance of the policy officers of the contacted municipalities (Mezőpetri - Petresti, Érendréd - Andrid, Érszalacs - Salacea, Székelyhíd - Sacueni) the shepherds of these areas were contacted on site. During the field-consultations with the shepherds their attention was called on the importance of the target species of the certain areas and also on the laws and possible subsidies regarding grasslands. (**Refer to Annex E1/3 of MTR1**)

In 03/2017 forums were organized in the municipalities of Bánság, Temes (Timis county), Szentpéter (Sânpetru Mare), Zombolya (Jimbolia), Sárafalva (Saravale) (**Refer to Annexes E1/15-E1/17 of MTR2**)

In 10/2017 the municipalities of Partium were targeted, visiting the north-eastern area of Érmellék, Satu Mare county, Érszakácsi (Săcășeni), Mezőpetri (Petresti), Szaniszló (Sanislău), Csanálos (Urziceni), Érkávás (Căuaș) municipalities. (**Refer to Annexes E1/18-E1/20 of MTR2**)

During the forums the project and its aims, the target species were introduced, the importance of the protection of the *S. citellus* habitats were highlighted. The services of the advisory body were introduced and the contact of the advisers was shared (**Annexes E1/1 & E1/9**).

Indicators used to test the performance:

Persons/farmers informed

Problems and their impacts:

No problems appeared

Modifications:

In many cases individual consultations with farmers, landowner were found more useful than to organize forums (**Refer to Annexes E1/1-E1/3 of MTR1**).

Comments on Commission's requests:

"Please proceed with the organisation of forums for Stakeholders, even if individual communication is more effective in some cases. The forums should be properly documented with the agenda, the list of participants and a brief summary of conclusions together with photos. Individual consultations should also be registered; including contact data. Please provide these data in your next report."

Some forums were organised mostly in Romania. Unfortunately it is difficult to organising forums in Hungary because there are very few farmers who has livestock and grassing land. It is more easy to approach them personally. To invite farmers for a regional meeting does not work. They even did not go for the meeting of Chamber of Agriculture because they did not considering that forum useful for them.

Action E2: Production and distribution information materials about the target species, their habitat requirement and management.

Results planned	Results achieved
Improved knowledge of the stakeholders will improve the habitat management in favour of the target species	Improved knowledge of the stakeholders improved the habitat management in favour of the target species

Action status: *completed*

Measure	Original deadline	Revised deadline	Progress
2000 copies of colour brochures (1)	31.12.2014	30.06.2015	<i>completed</i>
6000 copies of colouring books (2)	31.12.2014	30.06.2016	<i>completed</i>
7000 stickers (3)	31.12.2014	30.06.2015	<i>completed</i>
7000 memorial cards (4)	31.12.2014	30.06.2016	<i>completed</i>
4000 brochures(5)	31.12.2014	30.06.2016	<i>completed</i>
1000 project logo stickers(6)		<i>09.06.2015</i>	<i>completed</i>
1,000 copies of brochures on <i>C. cricetus</i> printed(7)		<i>15.09.2015</i>	<i>completed</i>
2,000 copied of leaflets on <i>C. cricetus</i> printed(8)		<i>27.10.2016</i>	<i>completed</i>
5,000 copies of LA4 size 3-side-folded leaflet (9)		<i>31.10.2016</i>	<i>completed</i>
1000-1000 copies of Hungarian and Romanian leaflets about the <i>S. citellus</i> (10)		<i>31.10.2016</i>	<i>completed</i>

Description of the progress and outputs during the reporting time:

1,000 project logo stickers (6) were produced in 3 different sizes (15 cm, 10 cm and 5 cm diameter) by 9/6/2015 and the stickers were distributed among beneficiaries. (Refer to Annex E2/1 of MTR1) (For details see below at point 1./ of Modifications)

7*1,000 stickers (3) of targeted species was prepared by 31/7/2015 (Refer to Annex E2/2 of MTR1)

2,000 copies of LA4 size 3-side-folded leaflet regarding *C. cricetus* (7) (Refer to Annex E2/3 of MTR1) was printed by 15/9/2015 and

1,000 copies of A5 size brochures on *C. cricetus* (8) was printed by 16/9/2015. (Refer to Annex E2/4 of MTR1) (For details see below at point 2.) of Modifications)

2,000 copies of brochure (1) introducing the target species was prepared by 01/11/2015 and had been distributed among Beneficiaries (Refer to Annex E2/5 of MTR1)

4,000 copies of educational exercise booklet (5) was printed by 31/7/2016. (Refer to Annex E2/6 of MTR1) (See details below at point 4.) of Modification)

5,000 copies of LA4 size 3-side-folded leaflet (9) regarding the project was printed by 31/10/2016 (Refer to Annex E2/1 of MTR2) (See details below at point 3.) of Modification)

6,000 copies of colouring books (2) were ready by 30/06/2017 (Refer to Annex E2/2 of MTR2) (See details below at point 4.) of Modification) (Refer to Annex E2/3 of MTR2)

7,000 memorial cards (4) were ready by 30/06/2017 (Refer to Annex E2/4 of MTR2)

1000-1000 copies of Hungarian and Romanian leaflets about the *S. citellus* (10) were prepared by 31/10/2016 and distributed Refer to Annexes E2/5-E2/6 of MTR2)

Indicators used to test the performance:

copies of materials produced

number of materials distributed (Refer to Annex E2/7 of MTR2)

Problems and their impacts:

No

Modifications:

The preparation of the materials (2000 copies of colour brochures, 7000 stickers, 2000 brochures) started by 1/5/2015 and were ready by 30/6/2015.

The production of the 6.000 copies of colouring books and 7.000 memory cards for children what are distributed for children visiting the exhibition centres is rescheduled by 30/6/2016 to be ready by the opening of the centres.

1.) The production of 1.000 pieces of not scheduled project logo stickers were produced in 3 different sizes (request was approved by the EC)

2.) Production of not planned 2.000 copies of LA4 size 3-side-folded leaflet and 1.000 copies of A5 size brochures regarding *C. cricetus* was requested (request was approved by the EC by 30/3/2016)

3.) 5.000 copies of A4 leaflets about the project by 30/9/2016:

For the introduction of the project to general public, the project has no 'simple' materials that could be distributed at events, etc. Additional costs needed is: 250 € of External assistance and 700 € of Consumables that will reallocated from our reserve found saved during the

former modifications. It is important given that the project had already used most of the materials that had been printed. Even is a project brochure is existing, but only printed in 2.000 copies and due to the content it is more serious (also expensive) to be suitable for broader distribution. These, the project would like to keep for distribution on conferences, technical workshops, etc. The rest of the awareness raising materials are targeting kids with more specific content – not with general information about the project. For this reason a shorter, more brief and more general introduction of the project – a simple, 3-times folded LA4, leaflet was produced, that could be distributed to the general public (kids, parents, etc.) on public awareness raising events. (modification preliminary approved by the EC by email on 30/3/2016)

4.) Changes regarding two originally planned awareness raising materials

Instead the originally planned 6.000, only 4.000 copies of A/4 size 16 pages educational colouring tale book for kids was produced. The cost in Consumables budget line of printing the 4.000 copies is lower, 3310 € (compared to 4.966 € of the cost of printing 6.000 pieces).

Instead of the planned 2.000 copies of A/5 size 12 pages brochures 4.000 copies was printed and the extent of the brochure was extended to a 20+4 (cover) pages educational exercise booklet. Regarding the preparation of the booklet a working group had been set up within the partnership and continued to develop the booklet. Given that it is a respectively more complex_output, the extension of the deadline of the delivery by 30/06/2016 was approved. The layout is ready, it was printed by 31/7/2016.

Regarding the expenses, the cost of External assistance increased from 345 € to 1.400 € (cost of design and graphics: design 800 €, illustrations/graphics 600 €), the cost of Consumables increased from 2.345 € to 4.800 € (printing of 4.000 copies 20+4 pages booklet instead of 2.000 pc of 12 pages brochure.).

In total the production of the two brochures resulted in additional cost of 1.055 € External assistance (extra cost of design 455 €, and cost of illustrations/graphics 600 €) and 800€ of Consumables cost (extra cost of printing 2.000 copies of the exercise booklet: 2.455 € minus the -1.655 € savings of printing 4.000 copies instead of 6.000 of the colouring booklet). In total: 1.855 €, which was reallocated from the reserve saved during the former modifications. The reason of the change is to keep the original number of these two outputs (total of 8.000 copies of the two brochures) – from 6.000+2.000 the number of copies was changed to 4.000+4.000. One reason is that the A/5 size brochure, that was developed into an educational exercise book will receive more emphasize and we expected to have a quality output and would have liked to have a higher number of copies. The other reason is an economic reason, as in case of 4.000 copies the exercise booklet can be printed at a more reasonable price, compared to 2.000. Given that the exercise booklet would be a more complex material with more complex design, in this case it is more important than in the case of the other (colouring) brochure, where the production price is lower. Modification preliminary approved by the EC by email on 30/3/2016

Comments on Commission's requests:

“Please produce the remaining information materials of 4,000 colouring books, 7,000 memory cards and 4,000 brochures no later than 31/12/2016, and submit them with your next report.”

The colouring book and the memory cards are needed for the citellus show and were ready for the opening of the shows.

“I remind you to use the LIFE and Natura 2000 logos in all documents and electronic materials produced in the framework of the project, including your studies and research reports, otherwise the relevant costs may be considered ineligible at the Final Report stage.”

We take care to include the logos on all materials.

Action E3: Raising awareness measures to convince the water management bodies to protect habitats by nature friendly water management

Results planned	Results achieved
<i>S. citellus</i> habitats will be considered and protected from flood water	<i>S. citellus</i> habitats will be considered and protected from flood water

Action status: abandoned

Measure	Original deadline	Revised deadline	Progress
Minutes of meeting	31.12.2016	31.12.2017	Not any particular meeting was necessary

Description of the progress and outputs during the reporting time:

The document prepared under action A7 was handed over the concerned water management authorities who acknowledged it and promised to consider it during their work. They consider the received document clear enough and they did not need any clarification more therefore they did not find time for meeting on this subject.

Indicators used to test the performance:

Problems and their impacts:

The water management authorities did not find time for a meeting.

Modifications:

BEKE contacted the Water Authority in 10/2016.

Comments on Commission's requests:

“Please submit meeting minutes and summaries of the consultations with authorities.”

Consultations were not held because the water management authorities did not find it necessary.

They consider that the document received under action A7 was clear enough and they did not need further clarification.

“Please seek a meeting opportunity with the water management authorities through official channels and submit the relevant correspondence with your Final Report.”

They believe that they fully understood our concern explained our letters and they promised to consider it but they believes that this matter do not need special meeting.

Action E4: Producing and displaying “Keep the dog closed” posters

Results planned	Results achieved
Less dogs and cats will hunt outside of the settlement	<ul style="list-style-type: none"> • 2.000 copies of poster were printed in Hungarian • 500 copies of poster were printed in Romanian

Action status: completed

Measure	Original deadline	Revised deadline	Progress
2000 pieces of A2 size poster	31.12.2014	30.04.2015	completed

Description of the progress and outputs during the reporting time:

2000 Hungarian posters were prepared by 31/8/2015 in Hungarian and were distributed to partners. 500 Romanian posters were printed by 01/12/2016 and handed over to the Romanian partners. (Refer to Annex E4/1 of MTR2) Posters were installed at project areas, repatriation sites and other relevant areas (Refer to Annex E4/1 – E4/2 of MTR1) (Refer to Annex E4/2 of MTR2) of partners and installation was continue until the end of the project. Also the replacement of the destroyed posters has happened. A few poster may remain with the beneficiaries and will be used during the after life period.

Indicators used to test the performance:

Number of posters printed.

Number of posters exhibited.

Problems and their impacts:

No problems appeared

Modifications:

There was also a Romanian version of the poster prepared due to the initiation of the Romanian partners. Given that on their project areas, even if those are Hungarian speaking parts, it is not appreciated to install Hungarian posters if parallel a Romanian version cannot be found. The Romanian layout was prepared by 15/04/2016 and was printed by 12/2016 in 500 copies together with the Hungarian one.

Action E5: S. citellus show (Introduction of the target species for the general public)

Results planned	Results achieved
Three exhibition centre will be developed and annually at least 100.000 people will learn about the animals and related nature conservation problems and the work of the project	<ul style="list-style-type: none"> • The citellus shows are functioning at BfNPD, FÁNK and NIMFEA • 6000 copies of B/5 size guide booklet were printed • Annually at least 100.000 people learns about the animals and related nature conservation problems and the work of the project

Action status: completed

Measure	Original deadline	Revised deadline	Progress
• 6000 copies of B/5 size guide booklets	31.07.2016	31.03.2017	completed
• Three exhibition centres ready	31.07.2016	31.03.2017	completed

Description of the progress and outputs during the reporting time:

The three citellus shows were developed:

1.) BfNPD prepared the documentation and requested the approval of the Ministry in 01/2016. The approval arrived in 07/2016, and the procurement procedure started immediately. Thus the procedure could be closed by 31/08/2016 and the installation of the system could start after.

The citellus show is located at the plot of Tihany 087/1 parcel number which is a pasture grazed by Hungarian grey cattle with a significant population of *S. citellus* and this citellus show was aiming to introduce the life of this colony on a high quality for the public. The show was aiming to achieve this with the use of 4 large resolutions outdoor cameras installed on the site to provide high quality live broadcasting to the 4 information terminals (kiosks). There are 3 weatherproof outdoor terminals, 2 placed in the garden of the Lavender House visitor centre and one at the edge of the site, and an indoor terminal placed inside the visitor centre (**Refer to Annexes E5/1-2 of MTR2**). The show was ready by 28/02/2017 and following a kind of test-phase the official opening ceremony of the show took place on 15/06/2017 (**Refer to Annex E5/3 of MTR2**). Since then it was working efficiently (**Annex E5/1**) despite of the robbery of energy supply system and annually about 20000 people have seen it.

The guide booklets was printed in 6,000 copies by 31/03/2017 and besides being an information material introducing the show, at the same time it is also an education booklet for kids introducing not only the species of *S. citellus*, but also the needs of the species and related conservation activities (**Refer to Annex E5/4 of MTR2**).

2.) At NIMFEA the establishment of the citellus show happened at Fekete István Education Centre. The production of panes/elements happened and were delivered to Nimfea by 31/06/2016.

The citellus show of NIMFEA (citellarium) is a fenced-around area where the animals are exhibited for the public. A dense fence of 10*10 m was immersed 0.8 m deep in the soil that is 1.7 m high over the surface. Due to the extreme weather conditions of the former years security solutions were implemented, as the installation of drainage tubes and an open rainwater drainage ditch was also developed (**Refer to Annex E5/5 of MTR2**). It was prepared by 30/03/2017 but as due to the delays in the breeding, no *S. citellus* were placed in it, therefore some *C. cricetus* and *L. europeus* were introduced to the public. In the main time based on the genetic survey result the Bind mole rat and Suslik Advisory Board has decided not to take animals from captivity breeding of *S. citellus* population of Transdaubium but from Hajdúszoboszló airport. The Nature Conservation Authority gave permission for translocation of ten animals into the citellarium (**Annex E5/2**). In 23 August 2018 3 females and 7 males were caught in Hajdúszoboszló airport and released in the citellarium (**Annex E5/3**).

3.) The establishment of the citellus show at FANK started on 13/02/2017 and the show was ready by 31/03/2017. The citellus show was developed at the paddock formerly used for *N. nutria*. This show is placed in a place so-called "Budapest House" showing the wildlife of Budapest and its close neighbourhood. The concrete wall of the paddock is painted to

symbolize an airport (of Budaörs) near Budapest that is an important *S. citellus* habitat (**Refer to Annex E5/6 of MTR2**). Due to the delay of the breeding the animals could only be captured from natural populations. The permission could have been requested only after knowing the source population. The first attempt was to place that 11 animals that had to moved due to construction works from Budapest International Airport, but the Duna-Ipoly National Park Directorate did not agree and placed these animals to a natural site. Finally the animals were relocated from a natural site near Kecskemét where the habitat was no longer suitable for the long term survival of the population. The permission for keeping 15 *S. citellus* was issued on 21/06/2017 by the Environmental and Nature Conservation Department of Pest County Government Office (**Refer to Annex E5/7 of MTR2**). 6 animals were captured and placed 22/06/2017 in the show other 9 were placed during 07/2017 that were captured from the same source population near Kecskemét.

In 2018 ten animals were transferred from the Kaposvár breeding station to FÁNK' cillelarium. These animals were taken back to the station for wintering. FÁNK has a plan to develop its own breeding station based on the experience of Kaposvár and would keep the animals there.

Problems and their impacts:

BfNPD was facing problems with the overcomplicated bureaucracy of procurement process, that was taking really long time. The procedure was launched in 01/2016 by the Directorate and it was completed by 31/8/2016. This led to delays in the implementation.

During the night of 27-28/08/2017 the solar panes and the batteries enabling the broadcasting were stolen from the site (**Annex E5/4**). BfNPD made the police report and the investigation started. Replacement batteries were placed to enable the functioning of the system until the closing of the police investigation procedure.

At FANK the reason of the delay was that tamed individuals born in captivity at the breeding of KAPOSVÁR were planned to be placed in the show, that was in delay, thus FANK was expecting the animals in 2017 and the management of the zoo did not allow to set the show before the animals were foreseen to arrive. The other problem was that the permission for placing wild animals could only have been requested after knowing the source population. This led to further delays.

At NIMFEA after the production of the panels, there were difficulties with the purchase of soil, that was necessary to fill the citellarium, and only when the place was ready the permission could be requested, that could take 3-4 months. Due to the delays in the breeding, no *S. citellus* were placed in it, therefore in the beginning some *C. cricetus* and *L. europeus* were introduced to the public.

Modifications:

Due to the delay at KAPOSVÁR in the starting of the breeding programme the citellus shows at NIMFEA and FANK were also delayed given that originally it was planned that captive bred and tamed animals will be used by FÁNK and NIMFEA to exhibit animals without capturing new individuals from the wild. Due to the further delays at KAPOSVÁR at the end the animals had to be captured from the wild in case FÁNK. In case of NIMFEA there was not enough *S. citellus* available even for repatriation therefore some *C. cricetus* and *L. europeus* were introduced to the public as a temporarily solution.

The preparation of the booklet of BfNPD and the cost of printing and design was shifter to MME due to the overcomplicated bureaucracy of national parks in Hungary to be able to produce the material in time. MME and BfNPD worked together on the preparation of the booklet.

Comments on Commission's requests:

“Please accelerate this action and fully establish the exhibition facilities by 02/2017. Further delays will cause the relevant cost items to be considered ineligible at the final report stage.”

The citellus shows are working and they are very popular.

Action E6: Design and operate project web site

Results planned	Results achieved
An accessible and up-to-date web site will inform the general public and technical staff working on similar projects about the project. Hence, it will promote networking with past and future LIFE projects dealing with the conservation of the target species. We expect 20,000 visitors over the project period to visit the site.	<ul style="list-style-type: none"> • The website of the project has been launched by 10/3/2015 • <i>F. cherrug</i> breeding can be monitored there continuously in breeding seasons • Continuously being updated, news and outcomes/deliverables uploaded. • 52,152 visitors visited the project web site

Action status: completed

Measure	Deadline	Progress
• Functioning Webpage	31.12.2014	completed

Description of the progress and outputs during the reporting time:

The preparation of the project website began by the beginning of 2015 by the beneficiary responsible for the maintenance, MME, and the project coordinator. The website was launched during the 2nd week of March 2015 and can be reached at the following direct link:

<http://sakerlife3.mme.hu>. (Refer to Annex E6/1 of IR). The website was linked to the common website for previous Saker LIFE projects as a 3rd 'menu point' (<http://www.sakerlife.mme.hu/intro.html>) by 31/3/2015 in order to reach higher publicity by reaching the audience of the two previous well-known projects. (Refer to Annex E6/2 of IR). The site can be reached in three languages (English, Hungarian and Romanian). The streaming of the webcam of Action D1 was linked to the website by 31/3/2015. (Refer to Annex D1/1 of IR). And the streaming is working from 01/03 to 31/10 every year.

The site is under constant development and the uploading of the content is in progress, news and results/outcomes of the projects are being uploaded when being ready. The site had 24,746 visitors from 106 countries who visited the site 104,207 times (Refer to Annex E6/1 of MTR1) until 06/2016 and had 17,423 visitors with 118,802 site visits from 89 countries between 06/2016 and 10/2017 (Refer to Annex E6/1 of MTR2) and had 52,152 visitors with 235,488 site visits from 89 countries until the end of the project (Annex E6/1). Via MAVIR web 34,881 visitors visits 348,985 sites until 10/2017 and about 28,000 visitors visits 161,000 site visits in 2018 (Annex E6/2). The web camera via MAVIR was visited nearly 63,000 visitors during the four years period.

Indicators used to test the performance:

Number of visitors of the site:

Problems and their impacts:

To avoid pirate sites overtaking the streaming a disclaimer had been developed and uploaded to the site together with the streaming. This took some times to finalise by the lawyer of MAVIR therefore the streaming started 2 weeks later.

Modifications:

No necessary modifications.

Comments on Commission's requests:

"I acknowledge that you uploaded the PDF copies of the leaflet and brochure education materials and the research papers to the website. Nevertheless, please extend the website information in general; especially on the biology and conservation of the target species."

The website information regarding the target species was updated and the results of the project upload.

"I repeatedly encourage you to update the content (news, species description, S. citellus display sites & galleries) of the website, especially in the English and Romanian versions by the submission of your second Mid-term Report."

The updates were done and uploaded.

Action E7: Erecting information signs at project site

Results planned	Results achieved
There will be large scale publicity of the project aims and activities and its support by LIFE+.	<ul style="list-style-type: none"> • The design of the draft layout has been prepared by 31/3/2015 • 23 Hungarian/English and 10 Romanian/English boards had been prepared and installed

Action status: completed

Measure	Original deadline	Revised deadline	Progress
• 23+10 information boards ready	31.12.2014	31.05.2015	completed
• Boards erected	31.03.2015	30.06.2015	completed

Description of the progress and outputs during the reporting time:**In Hungary:**

The subcontractor was selected, and the text of the signboards was prepared. The boards are bilingual, in Hungary the text is visible in English/Hungarian, the boards that are erected in Romania are English/Romanian. **(Refer to Annex E7/1 of IR)**. The 22 Hungarian boards were prepared in B1 size **(Refer to Annex E7/1 of MTR1)** and a roll-up **(Refer to Annex E7/2 of MTR1)** was also produced. The boards were placed by the project sites or by more frequently visited areas near the project sites **(Refer to Annex E7/3 of MTR1)**.

In Romania:

The 10 Romanian boards were prepared in B2 size (**Refer to Annex E7/4 of MTR1**). All information boards were placed in the central/focal places of settlements; near schools, municipalities, town centres, parks, tourist information centres (**Refer to E7/5 of MTR1**).

Indicators used to test the performance:

Nr. of information sign displayed.

Problems and their impacts:

No problems appeared

Modifications:

In Hungary:

Instead of 23 information board 22 were prepared and one roll-up. The roll up were displayed in many places during meetings and different events.

Problems and their impacts:

No problems appeared

Action E8: Secure public support for conservation efforts

Results planned	Results achieved
<ul style="list-style-type: none"> • 1500 copies of B1 size posters in Hungarian and 300 copies in Romanian languages • 1000 T-shirts prepared • 500 copies of DVD in English, Hungarian, and Romanian languages produced, distributed and broadcasted in national channels. 	<ul style="list-style-type: none"> • 1500 copies of B1 size posters in Hungarian and 300 copies in Romanian languages • 1000 T-shirts prepared • 500 copies of DVD in English, Hungarian, and Romanian languages produced, distributed and broadcasted in national channels.

Action status: completed

Measure	Original deadline	Revised deadline	Progress
<ul style="list-style-type: none"> • 1500 + 300 copies of A2 size posters • 1000 T-shirts • 500 copies of DVD 	30.09.2015 31.03.2016 01.07.2018	31.07.2016 31.07.2016 01.07.2018	completed completed completed

Description of the progress and outputs during the reporting time:

Posters: Final layout of the poster Hungarian (3rd version) was prepared by 30/4/2016 and was ready by 18/06/2016 (**Refer to Annex E8/1 of MTR1**). For the Romanian version the basic and also distribution maps had to be changed in order to include the areas of Romania. The Romanian version was printed together with the poster of action E4 by 05/12/2016 in 500 copies (**Refer to Annex E8/1 of MTR2**).

In Hungary posters were exhibited at schools, public areas, local government offices and were exhibited and distributed also on events.

In Romania posters were posted at public areas – highlighted local information points of municipalities, local government offices, public institutions and bus stops – and were exhibited at events (e.g. at Caravan LIFE event at Bucharest, organized by the Romanian Ministry of Environment in 06/2017; at Romenvirotec Expo, international exhibition of environmental protection technologies in 10/2017) **(Refer to Annex E8/2 of MTR2)**.

T-shirts: Two types of T-shirts were prepared: 1.) *T-shirt for project staff* (with project logo and the name of the project) **(Refer to Annex E8/2 of MTR1)** and 2.) *T-shirt for public* for adults and also for children (with the drawings of the targeted species) **(Refer to Annex E8/3 of MTR1)**. Both include LIFE and Natura 2000 logo as well. Layouts were ready by 31/7/2016 and the selection of supplier started. In the meantime the layouts were also discussed on the annual evaluation meeting of 2016 (at Kaposvár on 11/10/2016) and the partners requested to change the design of the version prepared for the public (version 2.) and use a figure where all the target species were indicated. For this reason an illustration of one of the booklets was chosen to be used on the T-shirts for adults. (The design of the T-shirt for children remained unchanged) Following this change new layouts of the T-shirts were prepared, already with the selected colours **(Refer to Annex E8/3 of MTR2)**. The ordering of the T-shirts continued with the new layout, but finally the T-shirts were ready only by 31/01/2017. Also gym bags were prepared by own sources of MME, in 3 versions, using the formerly prepared graphics of the project **(Refer to Annex E8/4 of MTR2)**. The posters were distributed between beneficiaries.

Film: Film producer company – NATFILM – had been contracted by 12/2015.

The production of the film had started, the film troop took shots of the field-sample collecting at Tihany site and at the installation of a camera trap at a nest of saker near Dévaványa **(Refer to Annex E8/4 of MTR1)** in Spring 2016 **(Refer to Annex E8/5 of MTR2)**. During the summer of 2016 the film troop took part and shots at the repatriation and tagging of *S. citellus* at Solymár and Esztergom site. In Autumn 2016 the relocation of *N. montanosyrmiensis* was also filmed.

In 2017 the media event of ringing the chicks of *F. cherrug* nest monitored with web-cam and the relocation of *C. cricetus* was recorded.

At the end of September 2018 the project film “*Preys of predators – the middle link in the chain*” was ready in Hungarian language with English and Romanian subtitle. 500 DVDs had been prepared from it and distributed among the beneficiaries and about 100 copies were distributed among the participants of the 7th EGSM and Subterranean Rodent Meeting **(Annex E8/1)**. It was broadcasted on 24.11.2018 on M5 TV.

<https://www.mediaklikk.hu/video/ragadozok-zsakmanyai-a-kozepso-lancszem-2/>

The project work was introduced at several events:

In Hungary:

Lobby events:

On the general meeting of BAZ county in January, the proposal of BEKE was discussed regarding the including of the birch-mouse in the Depository of the County (the ‘megyei Értéktár’) It was approved on 29.05.2018 **(Annex E8/2)**.

Presentations:

1.) Presentation by the Project Manager on the 'Mammal of The Year' of 2015 in the National History Museum in Budapest on 27/3/2015. **(Refer to Annexes E9/1-E9/2 of IR)**

2.) Presentation by the Project Manager in the "Ürgekutató Konferencia" organised in the frame of "The mammal of the year 2015, the souslik." events during the year: The project took part in the organization of the final scientific conference of the event on 03/11/2015 at Budapest Zoo (FANK) **(Refer to Annex E8/5 of MTR1)**.

3.) The project participated at the final closing event, the "Ürgegála" 13-16/11/2015 at Natural History Museum (MTM) where the project appeared with the didactic materials for children (**Refer to Annex E8/6 of MTR1**).

4.) Presentation by Project Technical Coordinator at the VIth Bird Protection Conference (VI. Madárvédelmi Konferencia) on 18/11/2015 (**Refer to Annexes E8/7- E8/8 of MTR1**).

5.) Presentation of the project work by the Project Manager in the 10th Hungarian Conservation Biological Conference (X. MTBK at Mórahalom, on 1-3/4/2016. BEKE introduced the activities regarding the protection of *C. cricetus* and presented a poster regarding the project-related activities (**Refer to Annexes E8/11-E8/12 MTR1**).

6.) BEKE participated at the 9th International Conference on Biodiversity Research in Daugavpils, on 26-28/04/2017 with two posters with the results of the project, regarding the situation of *C. cricetus* in Hungary and the phylogeographic research of *S. citellus*. (**Refer to Annex E8/6 of MTR2**)

7.) Abstracts were submitted and 4 were selected for presentation at the 11th Hungarian Conservation Biological Conference (XI. MTBK at Eger in 11/2017) (**Annexes E8/3-E8/4**).

8.) The project was presented in the INQUA-HABCOM workshop in May 2018 '*Ground squirrels on the march: expansion and speciation in the Quaternary of the Circum-Pontic area and surroundings*', where 3 presentation were performed regarding the scientific results of the preparatory actions (A1, A2) of the project.

Public events:

1.) Participation on the "Family Day" events of MME in 2015 (19/9/2015) and in 2016 (14/5/2016) where the project appeared with didactic and awareness raising materials (**Refer to Annexes E8/9-E8/10 of MTR1**). There were about 560 visitors.

2.) The project participated at the 'Tatai vadlúd sokadalom' event in 11/2015 and 18-19/11/2016. Information materials were distributed and the boards were used for entertaining and education children (**Refer to Annex E8/7 of MTR2**). There were about 17000 visitors.

3.) MME participated at the 'Művészetek völgye' festival at Kapolcs on 28-31/07/2016 with the magnetic boards and the tunnel system. Information materials were also distributed. (**Refer to Annex E8/8 of MTR2**). There were about 200 visitors.

4.) MME participated at the 'Gyüttment' festival (about environment consciousness) at Csobánkapuszta on 26-28/08/2016 with the magnetic boards and the tunnel system. Information materials were also distributed (**Refer to Annex E8/9 of MTR2**). There were about 1000 visitors.

5.) MME participated at the Day of Earth at Farnos on 21/04/2017 and Normaafa on 23/04/2017 to introduce the project (**Refer to Annex E8/10 of MTR2**). There were about 1600 visitors.

6.) Participation on the "Family Day" events of MME in 2017 on 04/06/2017 and on 16/09/2017 held in Jókai-garden at Budapest (**Refer to Annex E8/11 of MTR2**). There were about 600 visitors.

7.) Participation at the Day of Hungarian Nature (Magyar Természet Napja) on 21/05/2017 in Budapest, Csillebérc (**Refer to Annex E8/12 of MTR2**). There were about 700 visitors.

8.) Project was introduced and materials were distributed for visitors at Őrségi Lepkealand on 22-24/07/2016 and in 2017 on 12-14/05/2017, Őrségi Tökfesztivál in 2016 (24/09/2016) and 2017(23/09/2017) by ÖNPD (**Refer to Annex E8/13 of MTR2**).

9.) MME presented the project at OMÉK (National Agricultural Exhibition and Fair) on 20-24/09/2017 at Budapest (**Refer to Annex E8/14 of MTR2**). There were about 87300 visitors.

10.) In December 2017 The project participated at the preparation of the activities of the 'Mammal of the Year 2018' campaign with the organizer, the MoA. As the target species of the campaign was one of the target species of the project, the blind mole-rat (**Annex E8/5**).

Mammal of the Year 2018 was opened in 29 March 2018 (**Annex E8/6**).

Closing Event related to the event series of the 'The Mammal of the Year: the blind mole-rat' took place in the Hungarian Natural History Museum between 16th-17th of November with the participation of the RaptorspreyLIFE project.

11.) MME presented the project at FeHoVa (International Weapon Angling and Hunting Exhibition) on 15-18/02/2018 (**Annex E8/7**). There were about 55000 visitors.

Educational programs:

Several presentations were held by beneficiaries (BEKE, MAVIR, NIMFEA, ÖNPD) about the project and the importance of the protection of the target species (**Refer to Annex E8/15 of MTR2**).

In Romania:

On 9/4/2015 EPASM and MILVUS organized a presentation at Szaniszló (in Satu Mare County) to introduce the project and its aims to local students, teachers and representatives of the municipality. Besides the presentation a field trip was organized for the participants where *S. citellus* could be shown to the participants.

On 24/8/2015 the project was represented by EPASM at the cultural event of 14th Patricium Hungarian Day at the Kossuth Garden in Szatmárnémeti (Satu Mare) through an information stand where the project itself, its aims and target species was introduced to the participants of the event.

On 14-16/12/2015 EPASM gave presentations about the project at the 3 most significant Hungarian schools (Kölcsey Ferenc Main Gymnasium, Szatmárnémeti Reformat Gymnasium and Hám János Roman-Catholic Lyceum) to secondary and primary school children. At the presentations the project and the target species were introduced to call the attention of students on the importance of the protection of the species. (**Refer to Annex E8/12 of MTR1**)

In 12/2016 the project was presented for the students of Mihai Eminescu National College of Szatmárnémeti (Satu Mare). A local TV broadcast a short summary of the event.

The project was presented at the Info-life Day organized for the 25th anniversary of LIFE in Szászka on 21-23/05/2017 (**Refer to Annexes E8/16-E/17 of MTR2**).

In 06/2018 info LIFE Day was organized in Tarna Mare (Nagytarna), where actions and goals of the project were presented (**Annex E8/8**).

In 10/2018 presentation was performed about raptorspreylife project at Targu Jiu by EPASM.

Indicators used to test the performance:

Nr. of sort of material produced

Nr. of materials distributed.

Nr. of people participated at the events/ were informed by the project.

Problems and their impacts:

Poster: The distribution data in Hungary and Romania were differently detailed. The synchronization of the distribution data took quite some time to be able to generate the up-to-date maps for the poster. The Romanian version was ready by 05/12/2016.

T-shirt: The prices of the production of 1.000 T-shirts is higher than that was budgeted, searching for cheaper possibilities (different suppliers and solutions) was time-consuming. The cheapest offer was selected but this resulted in further delays, as some of the T-shirt materials took even one month to arrive and also the production took quite a while as the supplier had not a big-scale printing capacity (actually the T-shirts were made one-by-one).

Modifications:

Poster: Instead of 300 copies 500 were printed of the Romanian version due to more cost-effective production costs (as the price of 300 would be the same as of 500 copies).

Additional materials produced:

1.) 7*500 pieces of stickers: stickers with drawings of the target species for children were produced by 15/09/2015 (Refer to Annex E8/13 of MTR1) (modification approved by the EC on 09/10/2015)

2.) Production of 8 magnetic boards of the very popular game (B1 size) with illustration of the target species of plastic: the 7 already existing paper boards (**Refer to Annex E8/14 of MTR1**) (and an additional one about the habitat of the species) were produced of plastic (that is more suitable for outdoor use on events, as the previous ones that were made of paper are respectively destroyed) and metal (for the magnetic effect). Additional costs: 1.000 € of Consumables cost, that can be reallocated from our reserve found saved during the former modifications. (modification was approved by the EC by 30/3/2016).

3.) Production of toy tunnel system of mole-rat with explanation boards: A mobile game tunnel system and other material (explanation boards, etc.) made by MME to illustrate mole-rat life and explain the life of the other target species. Additional costs: about 1.700 € of External Assistance (1.500 € for the design of 20pcs of A2-size plastic boards explaining the station and exercises of the tube system; 200 € for designing paper masks of the target species that kids can colour and wear these in the tube system while doing the exercises as mole-rats and ground squirrels) about 1800 € of Consumables cost (500 € for the purchase of the materials of the tube system (tubes, chambers and other materials- balls and plastic vegetables, etc.), 350 € for the production of 20pcs of A2-size plastic board ; 350 € for the frames of the plastic boards and 600 € for printing of (3*500pcs) paper masks. The cost can be reallocated from the reserve saved during the former modifications. (modification was preliminary approved by the EC by email on 30/3/2016).

4.) 2 roll-ups regarding *S. trizona* were prepared by BEKE, is placed at Batúz-tanya at the most important habitat of the species. The other was exhibited at the 11th Hungarian Conservation Biology Conference (XI. MTBK at Eger) and will be used for other occasions (**Refer to Annex E8/18 of MTR2**).

Action E9: Informing media about project's aims, activities and achievements

Results planned	Results achieved
<p>The conservation problems and the results of the LIFE project will be brought to the attention of the general public, decision-makers and interest groups. As a result, adequate public support will be attracted to the necessary conservation measures, and information on subsidies available through CAP and the Natura 2000 network will be widely distributed.</p> <ul style="list-style-type: none"> • Two Press Conferences will be organised one at the start and one at the end of the project. • At least two press releases will be circulated annually to local & national newspapers. • Two articles will be submitted annually to local & national newspapers to magazines for farmers and on the main web sites of relevant hunters associations. • Two scientific papers will be produced during the project period. • Two site visits will be organised for the media. 	<ul style="list-style-type: none"> • Four Press Conference was held and press releases were launched • Three site visits for media was organized • Scientific articles was published • Radio and TV reports were broadcasted • Articles in newspapers were launched

Action status: completed

Measure	Original deadline	Revised deadline	Progress
Press releases, articles, scientific papers	01.10.2014	25.03.2015	completed
First Press Conference	01.10.2014	27.03.2015	completed

Description of the progress and outputs during the reporting time:***In Hungary:******Press conferences and press releases:***

The first **press conference** was held in 27/3/2015 at the Natural History Museum in Budapest, together with the announcement of the *S. citellus* as the 'Mammal of The Year' of 2015. The event was organized in cooperation with the MoA and the NHM. **(Refer to Annexes E9/1-E9/3 of IR).**

A background material was prepared about the project and **press release** was launched by MME and NHM to introduce the project and its aims to the media. **(Refer to Annex E9/4 of IR).** The national media was represented at the event of and two radio interviews were made with the Project Manager (Oxygen environmental programme of Radio Kossuth and Radio Katolikus).

Three online media published news about it: MTI/Dióhéj Kiadó Kft. **(Refer to Annex E9/5 of IR)**, National Geographic **(Refer to Annex E9/6 of IR)**, and Greenfo **(Refer to Annex E9/7 of IR).**

The second **press conference** was held on 15/06/2017 at BfNPD in Tihany, to introduce the “citellus show” **(Annexes E9/1-E9/2).** A press release was sent out by BfNPD about it. An interview was recorded by Duna TV in the programme ‘Balatoni nyár’ (around 12:00, 26.07.2017) and news article was also published.

The third **press conference** was held on 15/05/2018 in KAPOSVÁR to introduce the successful captive breeding of *S. citellus*. Local media and Duna TV were present. **(Annex E9/3).**

The forth **press conference** was held on 04/10/2018 at the Natural History Museum in Budapest in the occasion of the VII. European Ground Squirrel Meeting and press release was released **(Annexes E9/4-E9/6).** Several report were given for radios, newspapers and TVs.

TV and radio interviews:

The project manager had an interview about the project work for the TV News of MTV1 on 22/09/2017.

The project manager had a presentation about the three Saker LIFE project in the Ozone TV on 06/10/2017 in relation the 25 years anniversary of LIFE. It was broadcasted on 19/10/2017.

<https://videa.hu/video/ozonetv/emberek-vlogok/10.19-life-projekt-l4Xw1ciRgtMqKULI>

In 26/06/2018 the Baja TV broadcasted a report about the *S. citellus* conservation <https://www.youtube.com/watch?v=zCv9o4pnD78>

Three episode of the TV program entitled “Egyenlítő” in the TV channel, OzoneTV related to the RaptorspreyLIFE project and to the VII EGSM were broadcasted during November 2018:

about Subterranean Rodent Workshop broadcasted at 7th of November:

<https://videa.hu/video/ozonetv/emberek-vlogok/11.07-foldikutya-konferencia-YBK5oBJxKC2Ugey6>

about VII. EGSM broadcasted at 9th of November:

<https://videa.hu/video/ozonetv/emberek-vlogok/11.09-urgekonferencia-FZd3dCvF3qqDoGZi>

about RaptorspreyLIFE project broadcasted at 13th of November :

<https://videa.hu/video/ozonetv/emberek-vlogok/11.13-life-projekt-pNBEX4YcAX0wZOXr>

Printed Media:

The project was presented in the MAVIR magazine **(Refer to Annex E9/8 of IR)**.

Articles regarding *C. cricetus* were published in 1/2016 in 'Kistermelők Lapja' magazine **(Refer to Annex E9/1 of MTR1)** and in 19/2015 in 'Alkony' magazine **(Refer to Annex E9/2 of MTR1)** initiated by BEKE.

Articles regarding *N. montanosyrmiensis* initiated by KNPd, were published in 2/2016 in 'Túrista Magazin' magazine **(Refer to Annex E9/3 of MTR1)**, in 3/2016 an article in 'Madártávlát' magazine **(Refer to Annex E9/4 of MTR1)** and in 4/2016 an article in 'Élet és Tudomány' magazine **(Refer to Annex E9/5 of MTR1)** was published regarding the baseline survey of *N. montanosyrmiensis* initiated by KNPd.

In 05/2017 an article was published about the citellus show in Tihany in the monthly journal of Tihany municipality, the 'Tihanyi Visszhang' **(Refer to Annex E9/1 of MTR2)**

On 06/10/2017 an article was published about relocation of *C. cricetus* in the daily newspaper of Heves county, in the 'Heves Megyei Hírlap' **(Refer to Annex E9/2 of MTR2)**

In 06/2017 an article was published about the citellus show in Tihany on the online Nők lapja magazin, the NLCafé **(Refer to Annex E9/5 of MTR2)**.

In 2/2016 an article in 'Természet Búvár' magazine was published regarding the *N. montanosyrmiensis* initiated by KNPd **(Refer to Annex E9/6 of MTR1)**.

In 07/2016 an article in 'Élet és Tudomány' magazine was published regarding *S. trizona* initiated by BEKE **(Refer to Annex E9/3 of MTR2)**.

In 2018/4 issue of TermészetBúvár an article was published about the Mammals of the Year, the blind mole rat **(Annex E9/6)**.

In 05/10/2018 the Élet és Tudomány published an article about the Mammals of the Year, the blind mole rat **(Annex E9/7)**.

An article was published in the Hunters Year Book 2018 "Small game management with two million years experience – or reduction of raptors by eagles" **(Annex E9/8)**.

Scientific papers:

An article was published in the Ornis Hungarica "Temporal changes in the diet composition of the Eastern Imperial Eagle (*Aquila heliaca*) in Hungary" **(Annex A1/1a)**.

An article was submitted to Hystrix: "An endangered agrarian pest: status and conservation of the Common hamster (*Cricetus cricetus*) in its last European stronghold" **(Annex E9/9)**.

An abstract was submitted to ICCB Contributed Session: "From pests to endangered species: Conservation of grassland dwelling small mammals in Central Europe with the support of European Unions LIFE projects" **(Annex E9/10)**.

Online articles:

In 3/2016 an article at 'Greenfo' was published regarding the baseline survey of *N. montanosyrmiensis* initiated by KNPd **(Refer to Annex E9/7 of MTR1)**

In 10/2017 an article was published about relocation of *C. cricetus* on the online news portal of Heves county **(Refer to Annex E9/4 of MTR2)**.

In 15/05/2018 an online new was published about the captive breeding of *S. citellus* by Index **(Annex E9/11)**.

In 05/07/2018 an article was published about the captive breeding of *S. citellus* on the online news portal of Somogy county(SONLINE) **(Annex E9/12)**.

In 08/10/2018 an article was published about the project's work on the online news portal of Túrista Magazin (Tourist Magazine)(**Annex E9/13**).

Site visit for media:

On 16/05/2017 site visit for media was organized by MAVIR to the nest with web-camera to ring the chick of *F.cherrug*. (**Refer to Annexes E9/6-E9/7 of MTR2**)

On 15/06/2018 site visit for media was organized by BfNPD in Tihany, to introduce the “citellus show” (**Annexes E9/1-E9/2**).

On 25.06.2018 site visit for media was organized by MAVIR to the nest with web-camera to ring the chick of *F.cherrug* (**Annex E9/14**).

In Romania:

7 articles were published, 1 at a national weekly and 6 at regional daily newspapers regarding the project, introducing the aims and targeted species in 12/2015. Articles in seven on-line sites were published, 2 in Romanian sites and 5 in Hungarian language (**Refer to Annexes E9/9 of MTR1**).

Several on-line articles and news were prepared by MILVUS (**Refer to Annex E9/8 of MTR2**).

An interview with the coordinator of EPASM was made and was broadcasted in a regional television related to the Infolife Day event organized for the 25th anniversary of LIFE in Szászka on 21-23/05/2017. The interview can be found at: <http://www.btv.ro/de-25-de-ani-life/>, the relevant part starting from 1:32.

On 26/06/2018 an article was published by Informacia Ziler about a program organised in a youth camp about the protection of *S. citellus* (**Annex E9/15**).

On 01/07/2018 an online article was published by Friss Újság about a program organised in a youth camp about the protection of *S. citellus* (**Annex E9/16**).

Indicators used to test the performance:

Number of articles published in printed (national, local, regional) and in online media.

Problems and their impacts:

Site visit for media:

In 2016 it was also planned to organize the site visit for the representatives of media, but given that the laying of *F.cherrug* was not successful, the visit had to be omitted.

Modifications:

No necessary modifications.

Action E10: Layman's report

Results planned	Results achieved
4000 copies of 20 pages hard copy report and PDF format on the web in English, Hungarian, and Romanian languages	5000 copies of 28 pages hard copy report in English, Hungarian, and Romanian languages have prepared and distributed. PDF format is available on the web.

Action status: completed

Measure	Deadline	Progress
<ul style="list-style-type: none"> 2000+1000+1000 copies of the Layman's report 	30.08.2018	completed

Description of the progress and outputs during the reporting time:

2000 copies of Hungarian, 1500 copies of English and Romanian 28 pages A4 size Layman's report of Securing prey sources for endangered *Aquila heliaca* and *Falco cherrug* population in the Carpathian basin was prepared and distributed among the partners. The PDF format of these reports are available on the project web (**Annexes E10/1-E10/4**).

Indicators used to test the performance:**Problems and their impacts:**

No problems

Modifications:

From the English and Romanian issues 1500 copies were printed instead of 1000.

5.1.5. Action F. Overall project operation and monitoring of the project progress

Actions F1-F4 is discussed in part 3, Administrative part.

Action F5: Networking

Result planned	Result achieved
Efficient project implementation due to intensive networking	The project has been controlled and its achievements endorsed by BMR&SAWG. The project was the presented on a several events.

Action status: completed

Measure	Original deadline	Revised deadline	Progress
Reports of visits	31.12.2015		completed
Memos of meetings	31.12.2016	31.12.2018	completed

Description of the progress and outputs during the reporting time:

The partners participated at several networking activities to exchange knowledge regarding the target species and project activities (e.g. repatriation, tagging, etc.) that can be categorized as follows

Networking on technical events

Networking meetings between partners

Networking meetings with other projects

Networking with other institutions

The meetings can be found in the summary table at **Annex F5/1**

The most important networking activities took part in the frame of the Blind mole rat & Souslik Advisory Working Group (BMR&SAWG) of the under-secretary of the Ministry of Agriculture.e.g. The existing Blind mole rat Advisory Working Group was extended upon the recommendation of the project to have an efficient coordination of *S. citellus* conservation. After the extension of the WG six meeting were held until the end of the project (**Annexes F5/2-F5/7**) and two more already after that. All the important achievements and products were endorsed by the BMR&SAWG. Very important achievement of this networking the annual coordinated planning of *S. citellus* translocations.

The 2017 years work was evaluated and the tasks of the last year was specified (**Annex F5/8**)

The VII. EGSM was also an important networking event. Details can be fund bellow in action F6.

Indicators used to be test the performance:

Number of networking occasion

Problems and their impacts:

No problems appeared

Comments on Commission's requests

“Please submit a summary table of networking events and meeting memos with your second Mid-term Report”

Summary table can be found at **Annex F5/1 of MTR2** and memos can be found at **Annexes F5/2-F5/12 of MTR2**.

Memos are not available from networking field works/trips and neither when networking on technical events happened.

Action F6: International conference to share and evaluate results and experience of the project

Result planned	Result achieved
Evaluation of the work and achievements of the project with the participation of international experts will contribute to the global success of <i>A. heliaca</i> , <i>F. cherrug</i> and the food sources species conservation. The personal contacts established at the conference will improve future conservation activities of these species.	The work and achievements of the project were introduced to the international experts and evaluated. The conference improved the international cooperation of the conservation of the target species.

Action status: completed

Measure	Original deadline	Revised deadline	Progress
International conference	31.09.2018	31.10.2018	completed

Description of the progress and outputs during the reporting time:

Beneficiaries who participated in the VI. European Ground Squirrel Meeting (EGSM) has invited the VII. EGSM to Budapest in 2018. An organising committee was set up. Since most specialists were out in the field during the active period of the *S. citellus* therefore the meeting was scheduled from 3 to 5 of October 2018 inclusion of field trip. A two-days pre-meeting workshop on subterranean rodents, including blind mole rats was planned on 1-2 October. FHNPd was replacing BfNPD as the host of the meeting and the Museum of Natural History in Budapest was selected for venue. Online registration facilities was developed on the project web site. The first announcement was made in April (**Annex F6/1**) and the second on one in August (**Annex F6/2**). A Book of Abstract was prepared (**Annex F6/3**). Altogether 95 persons took part on the two events from fifteen countries. There were 45 presentations. Out of these eighteen were in relation with the project (**Annex F6/4**). An environment friendly textile conference bag was prepared for the participants (**Annex F6/5**). A press conference was held at the venue of the EGSM (**Annexes E9/5-E9/6**).

Indicators used to be test the performance:

Number of participants and presentations

Problems and their impacts:

No problems appeared

Modifications:

A two-days pre-meeting workshop on subterranean rodents, including blind mole rats was planned on 1-2 October. Since the meeting was moved to October when *S. citellus* is hibernated therefore FHNPd was replacing BfNPD as the host of the meeting and the Museum of Natural History in Budapest was selected for venue.

5.3. Evaluation of Project Implementation

5.3.1. Methodology applied

Since the main objective of the project to secure the prey sources of the endangered *A. heliaca* and *F. cherrug* therefore a baseline survey of the target species' population and the stakeholders knowledge was conducted; Also the genetic, stress and health status of them was assessed; *S. citellus* Reintroduction Protocol was updated; Habitat suitability was analysed; Suitable habitat was purchased and reconstructed; Stepping stones were created among Natura 2000 areas; Facilities has prepared for indoor propagation of *S. citellus* and the first batch of indoor propagated *S. citellus* was released; *S. citellus*, *C. cricetus* and *N. montanosyrmiensis* were translocated to suitable habitats; Mainly adult but some juvenile birds are tagged with PTT to collect information of land use and hunting habit; The prey assortment was identified by using of video camera, photo traps and examination of food remains.

Translocation of *S. citellus*, and tagging birds by PTT, use of video camera or photo traps were some kind of replication of earlier LIFE projects (LIFE06NAT/H/000096 & LIFE09NAT/HU/000384) with better results based the experience gained.

5.3.2. Results achieved

Table 5: Results achieved and evaluated

Task	Foreseen in the revised proposal	Achieved	Evaluation
A1. Baseline surveys of populations of target species for monitoring future trends and impacts of our actions.	With these data, it will be possible to exactly identify the threats that local populations or colonies are facing, and these threats will be addressed through specific conservation measures.	<ul style="list-style-type: none"> • Guidelines for the baseline surveys have been prepared. • Survey method tested and presented. • Baseline surveys were implemented. • Reports on the results/distribution maps of the results of the baseline surveys were prepared. • Habitat suitability was analysed, report was prepared and further developed. • Trend of target species were analysed and results utilized. 	Result achieved and immediately visible Fundamental informations for conservation work of target species were collected. With these data, it was possible to exactly identify the threats that local populations or colonies are facing, and these threats were addressed through specific conservation measures. Beneficiaries are using them in the CAP strategic planning.
A2. Evaluation of the genetic status of the fragmented populations of <i>S. citellus</i>	We will obtain a general knowledge of the genetic status of the <i>S. citellus</i> populations. This includes the assessment of heterozygosity as a measure of viability and the determination of the loss of genetic diversity due to isolation.	<ul style="list-style-type: none"> • The guideline for sample collection has been prepared. • List of Potential colonies has been prepared. • Genetic sample collection and examination of collected samples was implemented • Results of the genetic examination of samples were evaluated and utilized. 	Result achieved and immediately visible Fundamental informations for <i>S. citellus</i> conservation work were collected and utilised. Beneficiaries are using them in the CAP strategic planning.

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Task	Foreseen in the revised proposal	Achieved	Evaluation
A3. Survey of the stress status of <i>S. citellus</i> colonies and its use to develop <i>S. citellus</i> welfare plan	Describing the physiological status of animals helps us predicting the future diseases and thus preventing the lethal events leading to population decrease. As stress responsiveness plays a key role in allowing animals to cope with environmental challenges, measurement of glucocorticoid levels can give insight into an animal's well-being and can aid us solving conservation and management issues. We will prepare a <i>S. citellus</i> welfare plan summarizing the optimal conditions corresponding to minimal stress levels.	<ul style="list-style-type: none"> • The guideline for sample collection has been prepared. • List of Potential colonies has been prepared. • Collection of samples for stress analyses was implemented together with the collection of genetic samples (in A2) • The examination of the collected samples was done. • The <i>S. citellus</i> welfare plan has prepared. 	<p>Result achieved and will become apparent after the next few years</p> <p><i>S. citellus</i> Welfare Pan is available.</p> <p>Beneficiaries are using them in the CAP strategic planning.</p>
A4. Set up the Land Stewardship Advisory Service (LSAS)	Land Stewardship Advisory Service established in the project areas that would provide regular advice for the farmers and hunters on the target species.	<ul style="list-style-type: none"> • The manual for the Land Stewardship Advisory was prepared and included in the Project Handbook. • It was introduced on the training of project participants on 10/2/2015 • The kick-off meeting of the Advisory Service was held on 17/11/2015 in Budapest together with the training of the members of the Service. • List of advisers available on the project web page. • The Romanian Best Management Guideline (RBMG) was ready and submitted to the National Authorities. • Dissemination of the printed version was going on. 	<p>Result achieved and immediately visible</p> <p>LSAS on duty</p> <p>RBMG is available</p>

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Task	Foreseen in the revised proposal	Achieved	Evaluation
A5. Preparing airport's grassland management guideline	An airport management guideline what would enable the airport managers to manage the airport grassland to satisfy the air and <i>S. citellus</i> safety requirements in the same time.	<ul style="list-style-type: none"> • A protocol was prepared and included in the Project Handbook. • The questionnaire was prepared and finalized and is in use by the partners during the consultations with airport managers. • Final version of the guideline was prepared and introduced to the airport managers. It was endorsed by the extended governmental advisory board. • List of airports hosted <i>S. citellus</i> was prepared • 200 copies of the guideline were printed and distributed among the responsible National Parks which handed over to the airports and the responsible rangers 	<p>Result achieved and will become apparent after some time considering the current ownership changes too</p> <p>Stakeholders have the airport management guideline. Beneficiaries are using them in the CAP strategic planning.</p>
A6. Updating <i>S. citellus</i> Reintroduction Protocol	An up to date digital Reintroduction Protocol for <i>S. citellus</i> repatriation based on the latest developments.	An up to date digital Reintroduction Protocol for <i>S. citellus</i> repatriation based on the latest developments was developed 15.2.2015 and was revised by 31.12.2015 and based on the result of the genetic survey and the habitat analyses the protocol was further updated by 31.01.2017.	<p>Result achieved and immediately visible</p> <p>Endorsed by the Blind mole rat and souslik advisory board to the State Secretary and became a valid National Protocol.</p>
A7. Evaluation of the water management system on <i>S. citellus</i> habitat and preparing recommendation how to improve it.	Mortality due to flood will be reduced and repatriation would not be done on area endangered by flood.	<ul style="list-style-type: none"> • The protocol for the evaluation of the water management system on <i>S. citellus</i> habitat in favour of the <i>S. citellus</i> was prepared • Project areas were assessed against flood danger • Recommendation for the flood and 	<p>Result achieved and will become apparent after next flood</p> <p>Recommendation handed over the concerned authorities.</p>

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Task	Foreseen in the revised proposal	Achieved	Evaluation
		inland water prevention activities in the <i>S. citellus</i> habitat prepared.	
A8. Baseline survey of the public awareness	Through the survey we will be able to maximise the effects of our program, and PR-campaign.	<ul style="list-style-type: none"> • The first test version of the questionnaire was developed. • Online and PDF. version of the finalized questionnaire was developed and unloaded to the site. • Data collection was implemented • Collected data was analysed and evaluation was prepared 	Result achieved and was used for the socio-economic assessment.
A9. Acquisition of equipment	Cost efficient procurement.	• Planned equipment were purchased	Result achieved and immediately visible
B1. Purchase of land	58,6 ha grassland will be owned by the state and managed by the KNPD. It will serve for rehabilitation and sustainable management as a potential habitat for <i>S. citellus</i> repatriation and for feeding ground for <i>A. heliaca</i> and <i>F. cherrug</i> . Another 10 abandoned farmlands about 2 ha will be purchased in HUKM20014.	<ul style="list-style-type: none"> • The proposed areas were checked against flood danger and the purchase plan has modified according to it. • 104 ha grassland was purchased by KNPD • 2.1 ha of farmhouse lands was purchased by NIMFEA 	Result exceeded and immediately visible
B2. Lease of land	50 ha leased. Natura 2000 sites will be connected. The <i>S. citellus</i> , <i>C. cricetus</i> and <i>L. europeus</i> populations will be strengthened and spread over the area what would serve food source for the increasing <i>A. heliaca</i> and <i>F. cherrug</i> population and may reduce the pressure on other game species and the conflict between hunters and nature conservationist.	The activity is moved to C4 action.	See in C4 Action

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Task	Foreseen in the revised proposal	Achieved	Evaluation
C1. Establishing captive breeding program for <i>S. citellus</i> and gene bank from captive and natural colonies	We establish the methodology of keeping and breeding <i>S. citellus</i> individuals in captivity. Such methodology will be transferred to keep the animals in the Education Centre (Action E5) and show the tame individuals to the public there. We expect to produce 50 captive bred animals by the end of the project. Captive bred and tamed animals will be used by FÁNK and NIMFEA to exhibit animals without capturing new individuals from the wild.	<ul style="list-style-type: none"> • Location of the captive breeding of <i>S. citellus</i> was selected within the university premises and the establishment of the facilities and captive breeding conditions were developed. • Captive breeding technology developed • Permissions were gained • 13 animals were captured in Siófok Kiliti Airport and were marked with microchips and placed at the breeding facility. • 11 captive bred cubs were produced. • 15 pregnant sousliks were captured at Szentkirályszabadja airport and were marked with microchips and placed at the breeding facility. • 67 cubs were delivered in captivity. • 10 cubs were moved to FÁNK (but will winter in KAPOSVÁR). • 48 cubs were translocated to Fertőszéplak • 20 cubs remains for breeding stock 	Result achieved and immediately visible
C2. Establishing veterinarian surveillance of potential food sources of <i>A. heliaca</i> and <i>F. cherrug</i> i.e. <i>S. citellus</i> , <i>C. cricetus</i> , <i>N. superspecies leucodon</i> and <i>L. europeus</i>	Veterinarian surveillance of potential food sources of <i>A. heliaca</i> and <i>F. cherrug</i> is established.	<ul style="list-style-type: none"> • Guideline for sample collectors has prepared and included in the Project Handbook • Training for sample collectors was held • 399 samples were collected during the field sample collection activity in HU in 2016 and 84 in RO in 2017 • Additional samples were collected at colonies where the possibility of disease was assumed. 	Result achieved -and immediately visible The results of the veterinary surveys concluded that the mixing of <i>S. citellus</i> populations might have rather high risk of transporting diseases between populations.

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Task	Foreseen in the revised proposal	Achieved	Evaluation
C3. Improving the genetic status of target populations by planned introductions of animals of known allelic composition	10 <i>S. citellus</i> colonies genetic status will be improved and higher overall genetic variance and viability of the populations.	The activity is moved to C5	Considering the results of genetic examination our experts assumed that the health risks of the translocations of <i>S. citellus</i> into different colonies is higher than their advantages in the improvement of the genetic status of the populations.
C4. Habitat reconstruction to improve the carrying capacity for prey species	The potential future hunting areas of <i>A. heliaca</i> and <i>F. cherrug</i> will be converted to suitable habitat for prey species including those 58,6 ha, what is purchased in the frame of the project. Total area and carrying capacity of grasslands for <i>S. citellus</i> and <i>L. europeus</i> will increase in the purchased areas. The grassland composition will be more natural dominated by plant species preferred by <i>S. citellus</i> . 2 ha suitable habitat for <i>C. cricetus</i> and <i>L. europeus</i> on the reconstructed abandoned farmhouses' lands and 100 ha bounds along dirt roads in the Great Plain area. Another 70 ha will be reconstructed in FHNP area. Removal of invasive allergenic plants like ragweed would reduce health problems of local people. The current trend of the small mammals'	<ul style="list-style-type: none"> • Habitat reconstructions were ongoing on the 103,9 ha the purchased area of KNP • The nature conservation maintenance of 54 ha stepping stones were carried out under the supervision of FHNP. • The reconstruction of 2.1 ha area was done by NIMFEA on the purchased plots • 100 ha bounds along dirt roads were reconstructed in 7 areas by NIMFEA • 28 ha was reconstructed by MILVUS at ROSCI0021 (Câmpia Ierului), in two separate patches. • In case of <i>S. subtilis trizona</i> the habitat was doubled and habitat management guideline were prepared for BNPD in Hungary. 	Result exceeded and immediately visible Habitat reconstruction was going on larger area what was planned. Experiences will be used by the beneficiaries in the CAP strategic planning.

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Task	Foreseen in the revised proposal	Achieved	Evaluation
	<p>population decline will be prevented by our specific actions. The decline will slow down and hopefully stop after five years. We expect about 10% increase after a 10 years period. The proportion of small mammals among the preys of the increasing <i>A. heliaca</i> and <i>F. cherrug</i> would not be further reduced what would reduce the conflict with hunters. In case of <i>S. citellus</i> based on previous similar actions when half of the introduced animals survived and integrated to the local population, we expect similar outcome after the planned action. Therefore it is foreseen that about in 28 locations which were inhabited sometimes in the past the <i>S. citellus</i> population will be restored. In case of <i>S. subtilis trizona</i> it is foreseen that the known 20 ha habitat will be doubled or it will be justified that there is not any other localities in Hungary. The existing and potential habitats will be properly maintained without any conflict with <i>S. citellus</i> interest. In case of <i>C. cricetus</i> we expect better information about the size of the existing</p>		

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Task	Foreseen in the revised proposal	Achieved	Evaluation
<p>C5. Reintroduction of <i>S. citellus</i> to reconstructed areas</p>	<p>Such interventions will enrich the food supply of local breeding pairs of <i>A. heliaca</i> and <i>F. cherrug</i> in a region where their population is expected to grow and where they mostly predate small game. Reduction in the predation on game animals would make it easier to incorporate local hunters to our conservation efforts. We expect a general increase of <i>S. citellus</i> habitat especially in regions where <i>A. heliaca</i> and <i>F. cherrug</i> feed. Buffer zones with special water management would reduce the impact of catastrophic events like flooding.</p> <p>Due to repatriation, the number of colonies and their density will increase. Such changes will positively affect the breeding success of raptors. Based on previous similar actions when half of the introduced animals survived and integrated to the local population, we expect similar outcome after the planned action. Therefore it is foreseen that about in 28 locations which were inhabited sometimes in the past the <i>S. citellus</i> population will be restored.</p>	<ul style="list-style-type: none"> Potential sites are checked and unsuitable were replaced. Permissions regarding repatriation of <i>S. citellus</i>, <i>C. cricetus</i> and <i>N. montanosyrmiensis</i> were issued by the National Environmental Authority in Hungary. 1.376 (478+635+263) <i>S. citellus</i> were repatriated on 23 locations and 18 new colonies were established in Hungary. Out of this 192 <i>S. citellus</i> were repatriated in three locations in Romania. 100 <i>C. cricetus</i> were repatriated and 2 new populations were established in areas where <i>A. heliaca</i> and <i>F. cherrug</i> home range areas. 17 (2016:9; 2017:1; 2018:7) <i>N. montanosyrmiensis</i> were repatriated from the border-zone to Öttömös project site. 	<p>Result exceeded and will become apparent after five years</p> <p><i>C. cricetus</i> & <i>N. montanosyrmiensis</i> repatriation originally was not planned but it was necessary activities.</p>

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Task	Foreseen in the revised proposal	Achieved	Evaluation
C6. Protection of short term survival and evaluation of long term success of reintroduced and natural prey populations	Measurably higher success of reintroductions with reduced number of repatriated animals	Guarding and feeding repatriated animals. Mostly successful reintroductions were done with less high survival rates.	Result achieved and immediately visible Measurably higher success of reintroductions with reduced number of repatriated animals
C7. Encouraging hunters to catch predators the competitors of <i>A. heliaca</i> and <i>F. cherrug</i> around the habitat of <i>S. citellus</i> , <i>C. cricetus</i> , and <i>L. europeus</i> by distribution of traps for them.	Predators' number in the reintroduction areas will be reduced therefore the reintroduction success will considerably increase.	<ul style="list-style-type: none"> • 400 traps were purchased and handed over to hunting organizations. In Romania for 7 ones. • Trapping was done • Annual reports of trapping activities were submitted • Considerable predators were eliminated 	Result achieved and immediately visible
C8. Mapping the movements of <i>S. citellus</i>	New and practical information on the species that will contribute to prepare and carry out more conservation measures more efficiently.	<ul style="list-style-type: none"> • VHF collars were used for tracking. • 4 animals were tagged and followed in 2016 and the system was tested • 6 animals were tagged and being followed in 2017 • 2018: 8+2 (re-using collars of preyed individuals) translocated individuals were tagged and tracked +5 individuals were tagged and tracked in the source colony • Agro drown was used to collect data from the sitesousliks • The data was evaluated. 	Result achieved and immediately visible but further work may be useful. Beneficiaries are using them in the CAP strategic planning.
D1. Monitoring of the impact of the project actions by video record and photo traps in <i>A. heliaca</i> and <i>F. cherrug</i> nests.	Pictures of the photo traps at the nests along the project areas will document the preys used to feed the juveniles. The evaluation of the pictures will confirm the presence and possible increase of the <i>S.</i>	<ul style="list-style-type: none"> • The guideline for video- and photo-trapping was developed and was included in the Project Handbook. • Photo traps were purchased and installed. • Pictures are continuously recorded for 	Result achieved and immediately visible 1.8 million pictures were recorded and nearly 5,000 preys were evaluated. The evaluation

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Task	Foreseen in the revised proposal	Achieved	Evaluation
	<i>citellus</i> , <i>C. cricetus</i> and <i>L. europeus</i> among the preys.	evaluation <ul style="list-style-type: none"> On-line video streaming is presented on the website of the project Evaluation of pictures taken by photo-traps 2016-2018 was completed and list of food source/prey was prepared and evaluated. 	of the pictures confirmed the ratio of <i>S. citellus</i> , <i>C. cricetus</i> and <i>L. europeus</i> among the preys. Beneficiaries are using them in the CAP strategic planning.
D2. Monitoring of the impact of the project actions by satellite tagged adult birds.	The land use of the breeding birds can be identified. The impact of the different project action can be justified by the satellite tagged birds.	<ul style="list-style-type: none"> The guideline for satellite tagging of adult birds was developed and was included in the Project Handbook. 20 transmitters were purchased by 28.02.2016 by MAVIR 11 <i>F. cherrug</i> and 2 <i>A. heliaca</i> were tagged in Hungary 5 <i>F. cherrug</i> and 2 <i>A. heliaca</i> were tagged in Romania 	Result achieved and immediately visible Beneficiaries are using them in the CAP strategic planning.
D3. Monitoring of the project actions	The project's impact on the target species will be easily monitored by the management team.	<ul style="list-style-type: none"> 5 guidelines of the monitoring methodology of the target species were prepared and were included in the Project Handbook. Monitoring reports were prepared 	Result achieved and immediately visible but need continuation
D4. Assessment of the social-economic impact	A study will be prepared and delivered with the Final Report.	The study was prepared	Result achieved and immediately visible
D5. Assessment of ecosystem functions restoration	A study will be prepared and delivered with the Final Report.	<ul style="list-style-type: none"> The study was prepared 	Result achieved and immediately visible
E1. Organising forums for stakeholders	The awareness of the stakeholders and their tolerance towards the target species will increase. Less conflict will risk these species	<ul style="list-style-type: none"> LSAS organised some forums or participated some adequate forum Awareness raising of stakeholders was ongoing on project areas by LSAS of 8 beneficiaries. Individual consultations and advising was found more effective.	Result achieved and will become apparent in the following years.

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Task	Foreseen in the revised proposal	Achieved	Evaluation
E2. Production and distribution information materials about the target species, their habitat requirement and management.	Improved knowledge of the stakeholders will improve the habitat management in favour of the target specie	<ul style="list-style-type: none"> • 1.000 logo stickers produced • 7.000 sticker of target species prepared • 2.000 copied of leaflets on <i>C. cricetus</i> printed • 1.000 copies of brochures on <i>C. cricetus</i> printed • 2.000 copies of brochure on target species printed • 4.000 copies of educational exercise booklet prepared • 5.000 leaflets of the project was prepared • 4.000 copies of colouring book for children produced • 7.000 copies of memorial card • 11 magnetic boards for kids • nature playground • 1000-1000 copies of Hungarian & Romanian leaflets about the <i>S. citellus</i> 	Result exceeded and it was very effective. These immediately have some visible effect but it will become more apparent after some time
E3. Raising awareness measures to convince the water management bodies to protect habitats by nature friendly water management	<i>S. citellus</i> habitats will be considered and protected from flood water	Results of Action A7 was handed over to the water authorities and National Parks.	Result achieved and will become apparent after the next flood
E4. Producing and displaying “Keep the dog closed” posters	Less dogs will hunt outside of the settlements	<ul style="list-style-type: none"> • 2.000 copies of poster were printed in Hungarian and displayed • 500 copies of poster were printed in Romanian and displayed 	Result achieved, effective and immediately visible
E5. <i>S. citellus</i> show (Introduction of the target species for the general public)	Three exhibition centres will be developed and annually at least 100.000 people will learn about the animals and related nature conservation problems and the work of the project	<p>The citellus shows are functioning at BfNPD, FÁNK and NIMFEA</p> <ul style="list-style-type: none"> • 6000 copies of B/5 size guide booklet were printed • Annually at least 100.000 people learns about the animals and related nature 	Result achieved, very effective and immediately visible

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Task	Foreseen in the revised proposal	Achieved	Evaluation
		conservation problems and the work of the project	
E6. Design and operate project web site	An accessible and up-to-date web site will inform the general public and technical staff working on similar projects about the project. Hence, it will promote networking with past and future LIFE projects dealing with the conservation of the target species. We expect 20,000 visitors over the project period to visit the site.	<ul style="list-style-type: none"> • The website of the project has been launched by 10/3/2015 • <i>F. cherrug</i> breeding could be monitored there continuously in breeding seasons • Continuously being updated, news and outcomes/deliverables uploaded. • 52,152 visitors 	Result achieved, very effective and immediately visible The streaming of the breeding of <i>F. cherrug</i> was the most popular part of the site.
E7. Erecting information signs at project site	There will be large scale publicity of the project aims and activities and its support by LIFE+.	<ul style="list-style-type: none"> • The design of the draft layout has been prepared by 31/3/2015 • 23 Hungarian/English and 10 Romanian/English boards had been prepared and installed • one roll up produced and used 	Result achieved and immediately visible
E8. Secure public support for conservation effort	<ul style="list-style-type: none"> • 1500 copies of A2 size posters in Hungarian and 300 copies in Romanian languages • 1000 T-shirts • 500 copies of DVD in English, Hungarian, and Romanian languages produced, distributed and broadcast in national channels. 	<ul style="list-style-type: none"> • 1500 copies of B1 size posters in Hungarian are ready • 300 copies of B1 posters in Romanian language are ready • 1000 T-shirts were prepared • 500 copies of DVD in English, Hungarian, and Romanian languages produced, distributed and broadcast in M5 and Ozone TV channels. • 11 events were organised with a total 209,960 participants 	Result achieved, very effective and immediately visible
E9. Informing media about project's aims, activities and achievements	The conservation problems and the results of the LIFE project will be brought to the attention of the general public, decision-makers and	<ul style="list-style-type: none"> • Four Press Conference was held and press releases were launched • Three site visits for media was organized 	Result exceeded, very effective and immediately visible

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Task	Foreseen in the revised proposal	Achieved	Evaluation
	<p>interest groups. As a result, adequate public support will be attracted to the necessary conservation measures, and information on subsidies available through CAP and the Natura 2000 network will be widely distributed.</p> <ul style="list-style-type: none"> • Two Press Conferences will be organised one at the start and one at the end of the project. • At least two press releases will be circulated annually to local & national newspapers. • Two articles will be submitted annually to local & national newspapers to magazines for farmers and on the main web sites of relevant hunters associations. • Two scientific papers will be produced during the project period. • Two site visits will be organised for the media. 	<ul style="list-style-type: none"> • Scientific articles was published • Radio and TV reports were broadcast • Articles in newspapers were launched 	
E10. Layman's report	4000 copies of 20 pages hard copy report and PDF format on the web in English, Hungarian, and Romanian languages	5000 copies of 28 pages hard copy report in English, Hungarian, and Romanian languages have prepared and distributed. PDF format is available on the web.	Result achieved, effective and immediately visible
F1. Project management	Technical, Administrative and financial arrangements and mechanisms are in place to enable the smooth and accurate running of the project. All project staff is appointed and aware of their roles	Technical, Administrative and financial arrangements and mechanisms were in place to enable the smooth and accurate running of the project. All project staff fulfil their obligations for completing the project.	Result achieved and immediately visible

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Task	Foreseen in the revised proposal	Achieved	Evaluation
	and obligations for completing the project. High quality technical reports and appropriate financial reports produced on time, correctly and to budget, accompanied by report(s) from independent auditor and submitted on time.		
F2. Held Steering Committee Meeting	Regular, timely, scheduled meetings, held with good attendance, which will help secure the high priority of the project work for project staff and their leaders.	Annual Steering Committee Meetings held	Functioned and its work's result immediately visible
F3. Training of project staff	The training will be completed by 31.11.2014 latest, with the attendance of all project participants. A uniform methodology will be ensured as the result of the training. Monitoring data will be comparable and suitable for statistical analysis. Earlier experiences will be utilised in the project execution and will be available for all project participants. Smooth rendering of accounts and compliance with national and EU financial regulations throughout the duration of the project.	Project staff trained and Project Handbook was prepared. All contributors got it.	Result achieved and immediately visible
F4. Independent financial audit	Audited Financial Report	Audited Financial Report	Result achieved and immediately visible
F5. Networking	Efficient project implementation due to intensive networking	Intensive networking was going on. The project has been controlled and its achievements endorsed by	Result achieved and immediately visible

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Task	Foreseen in the revised proposal	Achieved	Evaluation
		BMR&SAWG. The project was presented on a several events.	
F6. International conference to share and evaluate results and experience of the project	Evaluation of the work and achievements of the project with the participation of international experts will contribute to the global success of <i>A. heliaca</i> , <i>F. cherrug</i> and the food sources species conservation. The personal contacts established at the conference will improve future conservation activities of these species.	VII. European Ground Squirrel Meeting held in Budapest, Hungary on 3-5 October, 2018. 95 participants from 15 countries.	Result achieved and will become apparent after some time
F7. After LIFE conservation Plan	After-LIFE Conservation Plan delivered with the final report.	After-LIFE Conservation Plan has prepared.	Result achieved and will become apparent after five years

5.3.3. EU added value of the project

- Strengthened cooperation among EU members.

The project was a multinational project involving two EU members' institutions organisations and company what strengthened the regional cooperation within EU.

- Conservation of endangered species of Europe.

The project conserved *A. heliaca* and *F. cherrug*, endangered species of Europe included in Annex I of the Birds Directive by improving the food sources for them. While did it also conserved *S. citellus*, and *S. subtilis* endangered species of Europe included in Annex II of the Habitat Directive. Besides it also helped to survive of *C. cricetus* which was drastically reducing in EU territory and *N. montanosyrmiensis* endangered species of Europe included in Annex IV. of the Habitat Directive.

- Efficient utilisation of EU LIFE found and transfer of knowledge within EU.

The project carried out the work with less money as it was planned. It used the achievements of the former EU founded LIFE projects for conservation of these above mentioned species and transferred the results of the project within EU in the VII. EGSM, by the project web page, by the film about the project work and by the Layman's report.

5.3.4. Policy developments resulted from the project activities

The Blind mole-rat Specialists Working Group as an advisory body to the Under Secretary of the State of HmoA was extended with *S. citellus* specialists for the recommendation of the project so the *S. citellus* conservation work became more institutionalized.

The policy documents developed by the project i.e. *S. citellus* Reintroduction Guidelines, Airport's grassland management guidelines, *S. citellus* welfare plan were endorsed by the Undersecretary of HmoA.

Annual Planning of *S. citellus* translocation has started coordinated by the working group and endorsed by the Under Secretary of State.

5.3.5. Climate change adaptation effect of the project

The habitat suitability analysis helps to identify the suitable arid grassland habitat which is still suitable for the small mammals as the food sources of raptors since they are better adapted for the arid grassland habitat.

By the risk assessment and the recommendations for the flood and inland water prevention activities the foreseen climate change resulted periodical high rainfall risk can be reduced.

5.4 Analysis of long-term benefits

5.4.1. Environmental benefits

5.4.1.1. Direct environmental benefits

- 104 ha habitat was purchased and reconstructed by Kiskunsági National Park Directorate. These are direct benefits for the Annex I. *A. heliaca* and *F. cherrug* species but also for *S. citellus*, *N. montanosyrmiensis* and *L. europeus*.
- 54 ha stepping stones were created among Natura 2000 sites by Fertő-Hanság National Park Directorate. These are direct benefits for the Annex I. *A. heliaca* and *F. cherrug* species but also for *C. cricetus*, and *L. europeus*.
- 100 ha bounds were reconstructed along dirt roads in the Great Plain (in 7 areas) by NIMFEA. These are direct benefits for the Annex I. *A. heliaca* and *F. cherrug* species but also for *C. cricetus* and *L. europeus*.
- The reconstruction of 2.1 ha area farmhouse lands was done by NIMFEA. These are direct benefits for the Annex I. *A. heliaca* and *F. cherrug* species but also for *C. cricetus* and *L. europeus*.
- 28 ha was reconstructed by MILVUS at ROSCI0021 for the benefit of *A. heliaca* and *F. cherrug* species but also for *S. citellus* and *L. europeus*.
- The habitat of *S. subtilis trizona* was doubled for 40 ha which is a direct benefit of this species.
- Improved conservation status of the target species.
- *S. subtilis trizona* population has increased, the rapid decline of *S. citellus* population significantly decreased, endangered *N. montanosyrmiensis* populations were rescued, and *C. cricetus* populations stabilised with some territorial extension.

5.4.1.2. Relevance for environmentally significant issues or policy areas

EU Natura 2000 initiative

- Bird Directives
Two species of the Annex I. of the Bird Directives were advanced by the project.
- Habitat Directives
Three species included in the Habitat Directives were advanced by the project.

Agri-Environmental schemes

- A proposal for proper habitat management requirement of *S. trizona* was prepared and submitted to the Bükk National Park Directorate. As a result of this the habitat has doubled to 40 ha.
- The blind-mole rat specialist working group was extended with sousliks based upon the proposal of the project to co-ordinate all *S. citellus* related conservation issues. The important policy documents were endorsed by the working group.
- 74 ha demonstration sites of stepping stones were prepared and maintained.
- *S. citellus* habitat of Hármashatár-hegy is protected from mountain bike playground due to some intervention of the project manager.

- Beneficiaries are working on the CAP strategic planning.

IUCN Red book

IUCN updated the *S. subtilis trizona* data based on the baseline survey data of the project compiled in 2016. <https://www.iucnredlist.org/species/92332716/92332725>

5.4.2. Long-term benefit and sustainability

5.4.2.1. Long-term environmental benefit

The long term environmental benefit that the increasing *A. heliaca*, and *F. cherrug* breeding population find enough food in the long run and can sustain on it. Besides the targeted prey species are also endangered species and their survival itself a long term benefit of the project.

The project sites in the Natura 2000 areas are improved which support higher biodiversity and the EU policy for it.

5.4.2.2. Long-term economic benefit

The nature conservation is not an economic issue but rather an issue to compensate or eliminate the distraction of the economic activities. However the stabilised or increased population attract recreational tourism. Some extensive agriculture with some agri-environmental subsidies sustain local farmers.

5.4.2.3. Long term social benefit

Peoples especially the future decision maker generation (children) understand better the value of Natura 2000 sites, the biodiversity, ecosystem service and the importance of the conservation of the preys of the raptors. A healthier ecosystem means healthier human beings.

The extensive agriculture provide more employment in some regions.

5.4.2.4. Continuation of the project actions (Annex F7/1)

- A5. Preparing airport's grassland management guideline. *Advising on grassland management of airports for improvement.*
- A6. Updating *S. citellus* Reintroduction Protocol. *Experience with the implementation will be used for actualization.*
- C1. Establishing captive breeding program for *S. citellus* and gene bank from captive and natural colonies. *Extending the breeding facilities and capacity.*
- C2. Establishing veterinarian surveillance of potential food sources of *A. heliaca* and *F. cherrug* i.e. *S. citellus*, *C. cricetus*, *N. montanosyrmensis* and *L. europeus*. *FÁNK would act in case of any disease outbreak or the suspicion of an epidemiologic process occurs.*
- C4. Habitat reconstruction to improve the carrying capacity for prey species. *Maintaining of the sites.*
- C5. Reintroduction of *S. citellus* to reconstructed areas. *Strengthening of the translocated populations with repeated translocation from the same donor populations or from captive breeding.*
- C6. Protection of short term survival and evaluation of long term success of reintroduced and natural prey populations. *Regular controls and maintenance of all *S. citellus* introduction sites.*

- C7. Encouraging hunters to catch predators the competitors of *A. heliaca* and *F. cherrug* around the habitat of *S. citellus*, *C. cricetus*, and *L. europeus* by distribution of traps for them. *Keeping contact with hunters who have been lent traps during the project; they will be encouraged to use them in the future, and report back to us.*
- C8 Mapping the movements of *S. citellus*
- D1. Monitoring of the impact of the project actions by video record and photo traps in *A. heliaca* and *F. cherrug* nests
- D2. Monitoring of the impact of the project actions by satellite tagged adult birds *Removing the satellite transmitters from tagged birds, but capturing and satellite-tagging one or two adult F. cherrug in 2019 in Romania*
- D3. Monitoring of the project actions. *Monitoring of the target species populations.*
- E1. Organising forums for stakeholders. *Continuation of the advisory activities of LSAS*
- E5. *S. citellus* show (Introduction of the target species for the general public)
- E6. Design and operate project web site
- E8. Secure public support for conservation efforts.
- E9. Informing media about the achievements. *Results of the project will be presented to the public via media.*
- E10 Layman's Report. *Distribution on public events.*

5.4.3. Replicability, demonstration, transferability, cooperation

The establishment and management of stepping stones among the Natura 2000 areas has demonstration character. It demonstrates for nature conservationists farm advisors, farmers of other areas and for the press how to incorporate nature conservation interest into daily farming practice. Beneficiaries are using it in the CAP strategic planning.

The successful captive breeding of *S. citellus* will be replicate by FÁNK and may be NIMFEA in Hungary but it can be an option for the other countries in the region.

The citellus shows in three different part of Hungary are good tools for demonstration. There is an interest and demand from Serbian organisations to transfer the knowledge and replicate the project in Serbia in a new LIFE project. The knowledge what would be gained during the project will be transferred to the stakeholders and target audience via project web page, networking, by the press and in a planned international conference.

Project partners have an intensive cooperation among them and in the neighbouring countries.

The VII. EGSC was organised was a good forum to share the experiences and transfer knowledge.

5.4.4. Best Practice lessons and their improvements

The project has applied best practices of the Best of LIFE projects LIFE06 NAT/H/000096 and LIFE09 NAT/HU/000384 i.e.

- C4 Habitat reconstruction to improve the carrying capacity for prey species; *Airport Grassland Management Guideline prepared and provided tool for better grassland management.*

- C5 Reintroduction of *S. citellus* to reconstructed areas; *Genetic and stress survey result used to improve reintroduction protocol and reintroduction, welfare plan prepared.*
- D1 Monitoring of the impact of the project actions by video record and photo traps in *A. heliaca* and *F. cherrug* nests; *Special console for photo traps prepared and resulted better adjustment and more useful pictures.*
- D2 Monitoring of the impact of the project actions by satellite tagged adult birds; *Mainly adults tagged with more sophisticated transmitters provided more adjustable data with photo-trapping data.*
- D3 Monitoring of the project actions;
- F1-F5 Overall project operation and monitoring of the project progress

5.4.5. Innovation and demonstration value

The indoor breeding of *S. citellus* is an innovative process.

Mapping the movements of *S. citellus* is an innovative process too.

The establishment of stepping stones among the Natura 2000 areas has demonstration value.

5.4.6. Long term indicators of the project success

Aquila heliaca, *Falco cherrug*, *Spermophilus citellus*, *Cricetus cricetus*, *Sicista subtilis trizona*, *Nannospalax montanosyrmiensis* habitats (1530, 6120, 6210, 6220, 6240, 6250, 6260, 6410, 6430, 6440, 6510) management will be improved in about 500,000 ha via the improved CAP using the beneficiaries' recommendation to the strategic planning (with reference to actions A5, A6, A7 and C4).

The monitoring activities of these species on these habitats will be going on with reference to actions D1, D2, D3, D4 and D5.

The 106.1 ha purchased Natura 2000 land (1530, 6440) will be the permanent and stable habitat for *Aquila heliaca*, *Falco cherrug*, *Spermophilus citellus*, *Nannospalax montanosyrmiensis*. (with reference to actions B1, C4 and C5).

The *S. citellus* captive breeding capacity will be increased to three times (3x50 animals annually for the three regions) (with reference to action C1)

The *Aquila heliaca*, *Falco cherrug* populations will find at least 150 stable *S. citellus* populations (with reference to actions C1, C2, C4, C5 and C6).

C. cricetus remains will increase with 2%-t in the food remains of *Aquila heliaca* (with reference to action C5).

S. subtilis trizona habitats will increase from 6 to 9 and its relative frequency will increased from 1.6 to 2 (with reference to C4).

A viable, self-sustaining or able to grow further *N. montanosyrmiensis* population will be available in the project site (with reference to C4, and C5).

The indicators was given in the online indicator tables

The status of the indicators for project **LIFE13 NAT/HU/000183** has changed to **Validated**

6. Comments on the financial report

6.1. Summary of Costs Incurred

Table 6: Summary of the costs incurred

PROJECT COSTS INCURRED					
Cost category	Budget according to the grant agreement	Budget according to amendment	Total costs incurred	% by GA	% by modified
1. Personnel	880 983	880 983	857 679	97.35	97.35
2. Travel	171 887	169 268	177 122	103.05	104.64
3. External assistance	543 660	545 542	590 365	108.59	108.22
4. Durables: total <u>non-depreciated</u> cost	502 981	536 285	506 353	100.67	94.42
- <i>Infrastructure sub-tot.</i>	108 621	156 567	148 898	137.08	95.1
- <i>Equipment sub-tot.</i>	394 360	349 706	357 454	90.64	102.22
- <i>Prototypes sub-tot.</i>	0	0	€ 0,00		
5. Land purchase/lease	435 856	435 856	353 087	81.01	81.01
6. Consumables	172 402	169 847	138 954	80.6	81.81
7. Other costs	13 518	13 518	19 717	145.86	145.86
8. Overheads	159 956	159 956	158 673	99.2	99.2
TOTAL	2 881 243	2 881 243	2 801 950	97.25	97.25

Since FHNPD had to keep the money in the National Treasury and the costs of the Associated Beneficiary was usually post-financed therefore there were any interest gained.

6.1.1. Comments on the costs categories

6.1.1.1. Personnel costs

97,35% of the original personnel costs were used. However there was some relocation **to** and **from** the personnel costs:

At BEKE 5,135 € transferred from FHNPD to cover the costs of the blind-mole rat species coordinator from February to May 2018. It was approved by the TDO on 28/06/2018. The PA was amended according to it.

At FHNPD the Project technical coordinator's costs (54,720 €) and the project administrator's costs (41,280 €) were transferred from External assistance to personnel costs. This changes was reported already in the Inception Report.

Some communication work was transferred from FHNPD to NIMFEA with 7,474 € covered by the Partnership Agreement.

At KAPOSVAR there was some internal changes:

Since the partner coordinator who is doing the most specific project work cannot spend more than 50% of his working time on the project some two additional staff (Field Assistant 5,070 €, and Genetic consultant 5,850 €) were employed. The partner coordinator's salary is much higher than it was

originally budgeted because he became a professor (Expected total sum 30,800 €). However the animal keeper's cost would be much lower 19,008 € only. These changes was approved by the TDO on 2 January 2016.

Since the breeding did not start up until October 2017 we consider the personnel costs of some staff questionable. We asked some clarification about them but we are doubt if the personnel costs of those in C1 action who are linked to the breeding (animal keepers, genetic consultant and breeding assistant) are eligible and whether it should excluded from the financial report **(Refer to Annexes F1/5 & F1/11 of MTR2)**.

At MADÁRVILÁG the total personnel costs (60,952 €) were transferred to external assistance costs due to the form of applied payment according to the Hungarian regulation. This was already reported in the Inception Report.

At MME some work was transferred from NIMFEA to MME with some money.

At NIMFEA 5,180 € personnel cost were converted to external assistance costs. This was approved by the TO on 14/04/2016.

8,066 € was transferred to equipment costs for swather with the approval of the TDO on 11/07/2017.

Some communication work was transferred to NIMFEA from FHNPD with 7,474 € covered by the Partnership Agreement and some work from NIMFEA to MME.

The personnel costs were calculated according to the CP 24.2.

Table 7: More than 20% differences in actual and planned daily rates:

Partner	Name of person	Position	Actual average daily rate	Daily rate in the budget	Days worked on the project	Reason
FÁNK	Dr. Endre Sós	Veterinary/ Partner co-ordinator	107.04 €	64 €	51	Because of the one year delay three team has collected the samples in the same time therefore he had to participate in the work for a few days. But the other vet work cheaper as it was planned.
FÁNK	Gábor Simonyi	Communication Manager	96.65 €	59 €	2.625	Originally this position wasn't planned for the Head of Communication, but since the citellus show was in delay only a few days work was done by him.
FÁNK	Mária Bodó	Partner administrator	68.23 €	33 €	21.125	Originally this position was planned for a person specially hired for this position, but since the work was in delay due to the lack of permission, therefore less administration was needed also.
FÁNK	Erzsébet Vargáné Kertész	Partner administrator	45.98 €	33 €	4	Replacement of Mária Bodó
FÁNK	Gabriella Jenei	Partner administrator	56.25 €	33 €	13.375	Replacement of Erzsébet Vargáné Kertész
KAPOSVÁR	Dr. Vilmos	Partner Coordinator	118.20 €	79 €	290	He became professor since the project was planned with much higher salary.

	Altbäcker					This was negotiated with EC and it was accepted on 12 January 2016
ÖNPD	Krisztián Harsányi	Ranger	81.85 €	43 €	10	He is a ranger and his salary is given by the official classification. He was replaced by a lower salary ranger
ÖNPD	Blanka Kóródi	Ranger	59.89 €	43 €	42	She is a ranger and her salary is given by the official classification. She was replacing the more expensive Krisztián Harsányi

Changes in position:

BEKE:

Took over the blind-mole rat species coordinator from KNDP from February 2018. Details see at KNDP.

EPASM:

In Romania the state employees did not get salary for about 4 months at the beginning of the year due to budgetary reason what makes a frequent fluctuation. Angela Bota was responsible for the Country coordinator position and she did the project administration also till the end of March 2015. She was replaced by Levente Koczan as Country coordinator and Mihaela Preda as partner accountant. Levente Koczan quitted from this position 14 October 2015. From 15 February 2016 he was replaced by Zoltan Balog. Project assistant Tihámér Fülöp quit his job on 31/05/2017. Zoltán Balog took over his job also.

FÁNK:

Dr. Endre Sós and Dr. Viktória Koroknai share the veterinary position.

Gábor Simonyi was replaced by Bálint Boros as communication manager from 01/04/2017.

Mária Bodó was replaced by Erzsébet Vargáné Kertész as partner administrator from 01/04/2017 and she was replaced by Gabriella Jenei from 31/06/2017.

FHNPD:

From 01/11/2014 the task of the project technical coordinator (Zsuzsa Fidlóczky) and the project administrator (Viktória Bene) were transferred from the external assistance cost category. This was already reported in the Inception Report. Viktória Bene started her maternity leave from 15/05/2017 and was temporarily replaced by Alexandra Rendes until 01/06/2018 when she returned to work.

From 01/02/2016 Attila Fersch joined to the project to take over some task from Miklós Váci.

From 01/06/2018 Zsuzsa Fidlóczky started her maternity leave and was replaced by Dr. Attila Németh.

KAPOSVÁR:

Since the partner coordinator (Dr. Vilmos Altäcker) who is doing the most specific project work cannot spend more than 50% of his working time on the project two additional staff (Ágnes Altbäcker- Breeding Assistant and Dr. Tamás Molnár-Genetic consultant) were employed from 01.04.2016. The animal keeper Zsuzsanna Bán was replaced by Zsófia Nagy from 01/05/2017. Since the breeding did not start up until October 2017 and we did not get clarification about them we considered the personnel costs of those in C1 action who are linked to the breeding (animal keepers, genetic consultant and field assistant) ineligible and excluded from the financial report (**Refer to Annex F1/5 of MTR2**).

KNDP:

In 2016 the partner administrator Melinda Forgó changed her name to Melinda Csima after her marriage. She was replaced from 01/05/2016 by Annamária Csóka who was replaced by Katinka Botos from 01/10/2016.

Due to internal reasons at KNPD the contract of Dr. Attila Németh the partner coordinator, who was also the species coordinator expert of blind-mole rat, from January 2018 was not extended. Given that KNPD could not provide another expert regarding the species, that is important from the point of a successful last step of the repatriation of the species; and also considering that 2018 is the year of the blind-mole rat, with a number of dissemination activities regarding the species it was important that the project does not remain without an expert of blind-mole rat. On the other hand, by January it was foreseen that the project coordinator will work only by end May, thus a person taking over that role in the last year was foreseen to be needed. The coordinating beneficiary and the project manager was searching for someone who is already well aware of the project. For this reason the species coordinator role and the expert was shifted to BEKE, from February to end May 2018 to help with the extra activities of BEKE, to continue the tasks of species coordinator, including the representing of the project on technical events regarding blind mole-rat connected to the Mammal of the Year event series, to coordinate the organizing of the final international conference and to start to follow the tasks of project technical coordinator to be able to take over that complete task from June 2018.

MILVUS:

In the end of February 2016 Attila Marton quit his project assistant position, and he was replaced by Szilárd Sugár and Zsuzsanna Aczél-Fridrich. They divided the position from 1 March 2016.

MME:

Tamás Trauttman has quit his partner administrator position and was replaced by András Zsohovszky from 1 March 2016. András was replaced by Zsuzsanna Magyar from 01/01/2017.

NIMFEA:

Anita Nagy and Géza Molnár share the partner coordinator position from 1. March 2015.

Anita took over the project administrator job also from Attila Bácskai on 01/11/2015.

Géza Molnár quit his job on 31/12/2016 and Anita on 30/02/2017 and they were replaced by Tamás Barna from 01/03/2017. From 01/01/2018 Tamás Barna's work time was reduced for 2 hours a day, and from 09/05/2018 Róbert Benedek Sallai joined to the project as project coordinator too.

ÖNPD:

Krisztián Harsányi was replaced by Blanka Kórodi in the Ranger position from 1. March 2016.

6.1.1.2. Travel costs

103.05 % of the original travel costs and 104.64% of the revised one were used.

In Hungary all costs (fuel, repair, insurance, toll fee, etc. excluding amortization) in relation with company's cars accounted on the cars and km unit cost are calculated and accounted. A correction was calculated and accounted at the end of the years. Partners declared their unit costs by car what were used for the project. These unit costs were used to calculate the project costs multiplying the justified km of the given month and the unit costs.

In Romania partners accounted only the fuel costs of justified km.

Some cost was relocated to and from:

At BEKE 2,865 € transferred from FHNPD to cover the costs of the blind-mole rat species coordinator from February to May 2018. It was approved by the TDO on 28/06/2018. The PA was amended according to it.

BfNPD transferred 2,586 € to FHNPD to cover the costs of the VII. EGSM. The PA was amended according to it.

At EPASM 2,665 € was transferred from travel costs to other costs, to cover the service cost of the project car. This was temporarily approved by TDO on 16/06/2017.

Another 1,200 € was transferred from travel costs to consumables to cover the costs of printing 930 copies of RBMG. This was approved by TDO on 28/06/2018.

At FHNPD 29,999 € was transferred from external assistance to travel costs of the project technical coordinator. This changes was reported already in the Inception Report.

Another 2,865 € transferred to BEKE to cover the costs of the blind-mole rat species coordinator from February to May 2018. It was approved by the TDO on 28/06/2018. The PA was amended according to it.

2,586 € received from BfNPD to cover the costs of the VII. EGSM and another 3,000 € was used for the same purpose what was preliminary approved by the TDO on 14/07/2018.

At MADÁRVILÁG about 12,000 € additional costs would be needed in C8 action due to the more frequent field work.

MILVUS transferred 6,100 € to Other costs because in the Romanian system only the fuel costs can be charged on travel.

At MME 4,122 € was relocated from travel costs to equipment costs to cover the 4WD car surplus costs.

2,500 € was transferred to external assistance costs to cover the costs of the social-economic impact assesment. The PA was amended according to it. It was temporarily approved by the TDO on 28/06/2018.

At NIMFEA 2,535 € was relocated from travel costs to external assistance costs. This was temporarily approved by the TDO by email on 30/03/2016.

6.1.1.3. External costs

108.59% of the original external assistance costs and 108.22% of the revised one were used.

At BEKE 1,585 € was transferred from FHNPD for *S. citellus* repatriation.

At BfNPD the costs of citellus show was considered infrastructure by the financial management therefore 1568 € was transferred to infrastructure.

345 € was transfered to FHNPD to cover the costs of the VII. EGSM. The PA was amended according to it.

At FHNPD 96,000 € was relocated to personnel costs for project management and 15,600 € was relocated for car and 2,630 € for two laptop computers to equipment costs, while 145,597 € from renting of land (B2) was relocated to external assistance (C4). This changes was reported already in the Inception Report.

From FHNPD 1,585 € was transferred to BEKE for *S. citellus* repatriation.

This was approved by the TDO on 30/03/2016.

21,723 € was transferred to NIMFEA with the transferred communication work covered by the Partnership Agreement, another 1,706 € for additional printing works and 1,800 € was transferred to MME's equipment costs. These were approved by TDO on 30/03/2016.

1,600 € was transferred to MME for the development of the schedule of the methodology, 2,543 € was transferred to MME for printing costs and 6,247 € for *C. cricetus* survey in *A. heliaca* food remains what was approved by the TDO on 06/04/2016.

1,600 € was spent on catering of *S. citellus* conference by the approval of TDO on 21/10/2015.

At KAPOSVÁR for grassing the enclosures every year 960 € was approved by TDO 19/01/2016. However the enclosure is not yet prepared.

At MADÁRVILÁG the total personnel costs (60,952 €) were transferred to external assistance costs due to the form of applied payment according to the Hungarian regulation. This was already reported in the Inception Report.

They had to use a special service to process data from the receiver. It costs 5,439 €.

At MME 1,600 € was transferred for the development of the schedule of the methodology, 2,543 € was transferred for printing costs and 6,247 € for *C. cricetus* survey in *A. heliaca* food remains from FHNPd what was approved by the TDO on 06/04/2016.

2,500 € was transferred here from travel costs, and 1,500 € from other costs to cover the costs of the social-economic impact assesment. An additional 1,000 € from FHNPd's project savings was added to it. The PA was amended according to it. Altogether 5,250 € was temporarily approved for this issue by the TDO on 28/06/2018.

At NIMFEA 401 € was transferred for project logo and hamster leaflets by the approval of TDO on 21.10.2015 and 21,723 € was transferred with the transferred communication work from FHNPd covered by the Partnership Agreement, another 1,706 € for additional printing works. These were approved by TDO on 30/03/2016.

1,414 € was moved to infrastructure in E5.

6.1.1.4. Infrastructure costs

137.08 % of the original infrastructure costs and 95.10% of the revised one are reported.

At BfNPD the citellus show (E5) costs 36,050 € had to move here partly from external assistance costs partly from equipment costs. This was the main reason for amendment of GA.

At FANK 5,000 € was transferred from equipment costs here (E5). The citellus show is ready and functioning. but due to the frequent and recent changes of the administration may not submitted all the invoices.

At KAPOSVAR 1,100 € was converted from Consumables to Infrastructure with the approval by the TDO on 19/01/2016.

At NIMFEA 1414 € was moved from infrastructure in E5. The citellus show is ready and functioning but the second part of the invoice is not yet paid due to the financial difficulties of NIMFEA.

6.1.1.5. Equipment costs

90.64% % of the original equipment costs and 102.22% of the revised one were used.

BEKE purchased 6 pc trail cameras for S. trisona survey and monitoring with the approval by the TDO on 13/02/2017.

BfNPD has purchased an extra objectives within the original costs for photo equipments which was approved by the TDO on 01/05/2016.

34,482 € of citellus show (E5) was transferred to infrastructure costs according to the law.

The portable fences (1,724 €) were transferred from consumables to this categories.

At EPASM the TDO approved to by a second hand car from the 6,000 € project cost what was planned for 0.5 car 12/03/2015.

At FANK 5,000 € was transferred to Infrastructure costs for citellus show. This money was saved because the mobile anaesthetic machine and the microscope were purchased by another sources already. This was approved by the TDO on 09/03/2017.

At FHNPDP 15,600 € relocated from external assistance for a 4WD car and 2,630 € for two laptop computer for the project management. This changes was reported already in the Inception Report.

From FHNPDP 1,800 € external assistance costs was transferred to MME for a telescope with the approval of the TDO on 30/03/2016.

At KAPOSVÁR 2,300 € was relocated from consumables costs and there was some relocation within the cost category itself and some additional equipment were purchased (trailer, 2 GPS, RFID reader/w antenna, 10 surveillance camera/w fitting, steamer cleaner, 10 metal shelf, screen) with the approval by the TDO on 19/01/2016.

The 0.5 car was purchased much cheaper but did not used for the project. The university always provided cars for the work, but not the “project” car.

At MADÁRVILÁG 21,600 € was relocated from Consumables and some new equipment was purchased (8 pc VHF receiver, updating VHF receiver stations (extending hardware capacity, calibrator unit for VHF system, Solar power banks for VHF receiver stations, 30 pc VHF tags for VHF system, DJI Phantom 4 Agro NDVI drone, Automatic meteo station) because the technology was changed. This is more efficient and more cheaper. The TDO approved this on 31/03/2017.

Originally 2 notebooks were planned, but only one was bought in the beginning of the project for one of the project staff (done by an external assistant), the other project staff (another external assistant) used his own privet notebook. But when it' broken down MADÁRVILÁG purchased the other one notebook in the end of 2017.

For MILVUS one laptop was approved by the TDO on 19/01/2016.

For MME the EC approved on 30/03/2015 to cover the total cost of the new Land Rover project car from the budget of the project on the basis that the replacement car was broken down and therefore it completely lost its market value. This was mentioned in the Inception Report already.

1,800 € from external assistance costs of FHNPDP was transferred to MME for -a telescope with the approval of the TDO on 30/03/2016.

At NIMFEA 8,066 € was transferred from the personnel costs for purchase a swather with the approval of the TDO on 11/07/2017.

6.1.1.6. Land purchase/lease costs

81.01 % of the original land purchase costs were used.

At FHNPDP 145,597 € from renting of land was relocated to external assistance as it was mentioned in the Inception Report.

6.1.1.7. Consumable costs

80.60% of the original consumable costs and 81.81 % of the revised one were used.

BEKE spent about 876 € for some small unforeseen items (batteries, services, etc.) what was not planned covered by some money relocated from other cost categories.

At BfNPD the portable fences (1,724 €) were moved to equipment categories. 6000 copies of B/5 size guide booklets 4,138 € (E5) were transferred to MME.

EPASM spent about 1200 € on 930 copies of RBMG what was covered the money transferred from travel costs with the approval of the TDO on 28/06/2018.

From FHNPDP 24,000 € was transferred to NIMFEA and MME for communication costs.

FHNPDP spent 643 € for some unforeseen items such as project stickers, project stamps for the project participants

At KAPOSVÁR the 5 video cameras and the screen were moved to equipment and some relocation has happened inside the consumables so some additional items were purchased (50 souslik identity card and 200 bags of litter + 6 garbage bins) with the approval by the TDO on 19/01/2016.

Since the breeding did not start until October 2017 and less nourishment would be needed some money was relocated to 6 kertisol test set to continue the stress hormone test. Approved by EU on 22/08/2017.

KNPD purchased some unforeseen items for the suslik and blind-mole rat repatriation and spent about 210 € for them.

At MADÁRVILÁG 21,600 € was transferred to equipment costs in relation to C.8 action. The TDO approved this on 31/03/2017.

From MILVUS the production and costs of 300 sheets posters were shift to NIMFEA.

At MME 6,260 € was transferred from FHNPDP for communication materials.

There was the most money transfer back and forth in this cost category at NIMFEA. The communication work was transferred from FHNPDP to here and some work to MME later. 4,854 € was transferred to external assistance cost from here.

NIMFEA purchased some unforeseen items for the susliks (food for the susliks, mesh etc.) They cost about 1,805 €

6.1.1.8. Other costs

145.86 % of the original other costs were used, however it was not exceed the 10000 €.

EPASM transferred 2,665 € from travel costs. This was temporarily approved by TDO on 16/06/2017.

FHNPD transferred 560 € to BEKE to cover the costs of the blind-mole rat species coordinator from February to May 2018. It was approved by the TDO on 28/06/2018. The PA was amended according to it.

At MME 1,500 € was transferred to external assistance costs to cover the costs of the social-economic impact assesment. It was temporarily approved by the TDO on 28/06/2018.

MILVUS transferred 6,100 € from travel costs because in the Romanian system only the fuel costs can be charged on travel.

6.2. Accounting system

Forrás SQL Integrated accounting system is used by the Coordinating Beneficiary. In this system the project's codes are 1121 and 1126 **(Refer to Annex Fin46 of MTR2).**

Coordinators of Beneficiaries submitted their monthly financial report to the Project Office of the Coordinating Beneficiary where the project administrator checked them whether all verifications were submitted, matching the formal requirement and the approved budget figures.

Time sheets were completed electronically.

The Coordinators of Beneficiaries were countersigned the staff's time sheets and the Project Manager approved the Coordinators' time sheets. Any deviation from the approved budget was requested and approved by the Project Manager in advance.

Usually the purchase order has included the project reference number and the supplier had to refer for it. All beneficiaries got a project stamp including the project reference number and the short name of the Beneficiary. All invoices and any other verification had to be stamped with it. The accounting system of the Associated Beneficiaries are shown in **Annexes Fin42-Fin45 & Fin 47- Fin54 of MTR2.**

6.3. Partnership arrangements

The Project Administrator entered the accepted costs into the financial table. The coordinating beneficiary reimbursed the costs what were approved by the project manager until the available advance payment. The NGOs got quarterly advance payment according to a Financial Amendment of the Partnership Agreement and their annual budget. Project administrator sent the financial table to the Associated Beneficiaries Coordinator for checking.

With the exception of MAVÍR and FÁNK, no partner can reclaim VAT. MADÁRVILÁG was under examination by the Tax Office **(Refer to Annexes Fin29-Fin39 of MTR2)**, who is established, that the MADÁRVILÁG is not allowed to reclaim the VAT. **(Annex Fin32).**

6.4. Auditor's report/declaration

An external Auditor was contracted.

Name of the Auditor Ltd.: Kolbe Könyvvizsgáló Kft. (Kolbe Auditor Ltd.)

Address: 1138 Budapest, Viza utca 7/B..

Registration nr.: 01-09-260371

Represented by: Mrs. Tünde Kolbe manager/auditor

6.5 Summary of costs per action

Refer to Annex Fin1 of MTR2 includes an excel tables with these information.

7. Annexes

Annex 1	List of Annexes of Inception Report
Annex 2	List of Annexes of Mid-term Report 1
Annex 3	List of Annexes of Mid-term Report 2

7.i Annexes missing from MTR2

Annex A9/1 of MTR2
Annex B1/1 of MTR2
Annex B1/2 of MTR2
Annex B1/3 of MTR2
Annex B1/4 of MTR2
Annex B1/5 of MTR2
Annex C5/8 of MTR2
Annex D2/2 of MTR2
Annex D2/3 of MTR2
Annex D2/4 of MTR2
Annex D2/6 of MTR2
Annex D5/1 of MTR2

Annex E1/2 of MTR2
Annex E1/10 of MTR2
Annex E1/11 of MTR2
Annex E1/15 of MTR2
Annex E6/1 of MTR2

7.ii Corrected annexes of MTR2

Annex A2/1 of MTR2
Annex A3/2 of MTR2
Annex A5/1 of MTR2
Annex A5/3 of MTR2
Annex C1/1 of MTR2
Annex C1/2 of MTR2
Annex D3/6 of MTR2

7.1 Administrative annexes

Annex 7.1/1	Modification of PA with BEKE (electronic and hard copy)
Annex 7.1/2	Modification of PA with BfNPD (electronic and hard copy)
Annex 7.1/3	2 nd Modification of PA with MME (electronic and hard copy)
Annex 7.1/4	Request for Amendment to Grant Agreement
Annex 7.1/5	Amendment to Grant Agreement
Annex F1/1	Invitation letter, program and attendance sheet of the project closing evaluation meeting
Annex F1/2	Minutes of the Project closing meetings
Annex F1/3	Result achieved table including ongoing tasks for Project closing meeting and for project inspection
Annex F1/4	Minutes of the meeting with KNPD

Annex F1/5	Minutes of the meeting with KAPOSVÁR
Annex F1/6	List of participants
Annex F2/1	Invitation letter, program and attendance sheet of the 4 th Steering Committee meeting
Annex F2/2	The project manager's presentation
Annex F2/3	Minutes of the 4 th Steering Committee Meeting

7.2 Technical annexes

7.2.1. List of keywords and abbreviations used

BMR&SAWG	Blinded-mole rat and Souslik Advisory Board of HMoA
CAP	Common Agriculture Policy
EC	European Commission
EPASM	Environmental Protection Agency of Satu Mare County
GIS	Geographic Information System
GSM	<i>Global System for Mobile</i>
HmoA	Hungarian Ministry of Agriculture
HQ	Headquarters
KNPD	Kiskunság National Park Directorate
MAVIR	Hungarian Transmission System Operator Company Ltd.
MILVUS	„Milvus Group” Association
MME	BirdLife Hungary
NEA	National Environment Authority
NGO	Non-governmental Organisations
NHM	Natural History Museum
NW	North West
PA	Partnership Agreement
PTT	Platform Transmitter Terminals
RD	Rural Development
RDP	Rural Development Program
RMEWF	The Romanian Ministry of Environment Water and Forest
SC	Steering Committee
SPA	Special Protected Area
ToR	Terms of Reference

7.2.2 Other Technical annexes

Annex A1/1	Temporal changes in the diet composition of the Eastern Imperial Eagle (<i>Aquila heliaca</i>) in Hungary
Annex A1/1a	Ornis Hungarica_vol26(1)_p1-26 (electronic and hard copy)
Annex A1/2	Revised version of habitat suitability analysis
Annex A1/3	The trend analysis of <i>S. citellus</i>
Annex A1/3a	Decline of the European Ground Squirrel in Hungary
Annex A2/1	The final report of the genetic evaluation of <i>S. citellus</i> populations
Annex A2/2	Invitation of the meeting to discuss the final outcome of the final report of the genetic evaluation of <i>S. citellus</i> populations on 20.03.2018.

Annex A2/3	List of participants of the meeting on 20.03.2018 in FÁNK
Annex A2/4	Presentation of the results of the genetic sampling and evaluation of <i>S. citellus</i> population on 20.03.2018 in FÁNK
Annex A3/1	<i>S. citellus</i> welfare plan
Annex A5/1	Airport's grassland management guideline (electronic and hard copy)
Annex A5/2	List of surveyed airport identifying target for dissemination of guideline
Annex A5/2a	Disseminating of airport's grassland management guideline
Annex A5/3	Online survey of the welcome of the airport's grassland management guideline
Annex A6/1	Updated Guideline for susliks reintroduction
Annex A7/1	NIMFEA's recommendation for the flood and inland water prevention activities in the habitat of the strictly protected susliks
Annex A7/2	Acknowledgement of KÖTIVIZIG
Annex B1/1	Land purchase data
Annex B1/2	Land purchase document of Öttömös 0100/59
Annex B1/3	Land purchase document of Öttömös 0100/85 / 0100/108
Annex B1/4	Land purchase document of Öttömös 0100/64
Annex B1/5	Land purchase document of Öttömös 0100/77
Annex B1/6	Land purchase document of Öttömös 0100/79
Annex B1/7	Land purchase document of Öttömös 0100/87
Annex B1/8	Land purchase document of Túrkeve
Annex C1/1	Captive breeding of <i>S. citellus</i> - The offspring
Annex C1/2	The amended captive breeding technology
Annex C4/1	Habitat reconstruction in Öttömös by KNPD
Annex C4/2	Habitat reconstruction by FHNPD to improve the carrying capacity for prey species
Annex C4/3	Habitat reconstruction by NIMFEA to improve the carrying capacity for prey species
Annex C4/4	Recommendation for the proper management for <i>Sicista trizona</i> habitat
Annex C4/5	Habitat reconstruction by MILVUS to improve the carrying capacity for prey species
Annex C5/1	Final Report of <i>S. citellus</i> translocation by BEKE
Annex C5/2	Final Report of <i>S. citellus</i> translocation by BfNPD between 2016 and 2018
Annex C5/3	Final Report of <i>S. citellus</i> translocation by FHNPD between 2016 and 2018
Annex C5/4	Final Report of <i>S. citellus</i> translocation by MADÁRVILÁG between 2016 and 2018
Annex C5/5	Final Report of <i>S. citellus</i> translocation by ÖNPD between 2016 and 2018
Annex C5/6	Final Report of <i>S. citellus</i> translocation by NIMFEA in 2017 and 2018
Annex C5/7	National <i>S. citellus</i> translocation plan for 2018.
Annex C5/8	Modification of the Nature conservation Authority's permission of <i>S. citellus</i> translocation for 2018.
Annex C5/9	Final Report of <i>S. citellus</i> translocation by MILVUS in 2017 and 2018
Annex C5/10	Final Report of <i>N. montanosyrmiensis</i> translocation by KNPD between 2016 and 2018
Annex C5/11	Final Report of <i>C. cricetus</i> translocation by BEKE in 2017 and 2018
Annex C5/12	Management Plan for <i>C. cricetus</i> population

Annex C7/1	FINAL REPORT about trapping predators in the frame of the project by BfNPD between 2016 and 2018
Annex C7/2	FINAL REPORT about trapping predators in the frame of the project by FHNPDP between 2016 and 2018
Annex C7/3	FINAL REPORT about trapping predators in the frame of the project by MADÁRVILÁG between 2016 and 2018
Annex C7/4	FINAL REPORT about trapping predators in the frame of the project by NIMFEA between 2016 and 2018
Annex C7/5	FINAL REPORT about trapping predators in the frame of the project by ÖNPD between 2016 and 2018
Annex C7/6	FINAL REPORT about trapping predators in the frame of the project by EPASM between 2016 and 2018
Annex C8/1	Mapping the movements of <i>S. citellus</i>
Annex D1/1	Breeding was monitored by 24 hours online Video system in one <i>F. cherrug</i> nest.
Annex D1/2	Final Report, Evaluation of prey composition during the breeding season in <i>F. cherrug</i> and <i>A. heliaca</i> nests by photo traps in Hungary.
Annex D1/3	Final Report, Evaluation of prey composition during the breeding season in <i>F. cherrug</i> nests by photo traps in Romania.
Annex D2/1	Maps of movements of active tagged birds as of December 2018
Annex D2/2	Habitat use analysis of Saker Falcon in relation to prey species European Ground Squirrel (<i>Spermophilus citellus</i>)
Annex D3/1	FINAL REPORT <i>A. heliaca</i> and <i>S. citellus</i> population monitoring between 2016 and 2018
Annex D3/1a	Reasons behind the population changes of the saker falcon (<i>Falco cherrug</i>) in the past 120 years, in particular with regard to the period between 2007-2018.
Annex D3/2	FINAL REPORT on national level <i>S. citellus</i> population monitoring between 2016 and 2018
Annex D3/2a	FINAL REPORT of translocated <i>S. citellus</i> population monitoring (2019 years data will be added in April)
Annex D3/3	FINAL REPORT <i>C. cricetus</i> population monitoring between 2016 and 2018
Annex D3/4	FINAL REPORT <i>N. montanosyrmiensis</i> population monitoring between 2016 and 2018
Annex D3/5	FINAL REPORT <i>S. subtilis trizona</i> population monitoring between 2016 and 2018
Annex D3/6	FINAL REPORT <i>L. europeus</i> population monitoring between 2016 and 2018
Annex D4/1	Questionnaire for farmers
Annex D4/2	Questionnaire for hunters
Annex D4/3	Synthesis report about the assessment of the social-economic impact of the project
Annex D5	Report of ecosystem functions restoration assessment

7.3 Dissemination annexes

Annex E1/1	Advisory activities of LSAS
Annex E1/2	Advising by BEKE
Annex E1/3	Organising forum for stakeholders in Aszófő by BfNPD
Annex E1/4	Organising forum for stakeholders in Kapuvár by FHNPDP

Annex E1/5	Attendance sheet of forum in Kapuvár
Annex E1/6	Report of LSAS of NIMFEA
Annex E1/7	Report of LSAS of ÖNPD
Annex E1/8	Organising forum for stakeholders by EPASM
Annex E5/1	Pictures about the use of the citellus show in Tihany
Annex E5/2	The Nature Conservation Authority's permission
Annex E5/3	Translocation 10 <i>S.citellus</i> to the citellarium in Túrkeve
Annex E5/4	The stolen equipment of the citellus show of Tihany
Annex E6/1	Project web statistic
Annex E6/2	MAVIR's web statistic about web camera's visits in 2018
Annex E8/1	Project film <i>“Preys of predators – the middle link in the chain”</i> in Hungarian language with English and Romanian subtitle on DVD (hard copy)
Annex E8/2	Resolution of inclusion of the birch-mouse in the Depository of the BAZ County
Annex E8/3	Program of the 11 th Hungarian Conservation Biological Conference
Annex E8/4	Abstracts of the 11 th Hungarian Conservation Biological Conference
Annex E8/5	Designing the program for the Mammal of the Year 2018
Annex E8/6	Invitation for opening the Mammal of the Year 2018
Annex E8/7	Presenting the project in FeHoVA
Annex E8/8	LIFE Day was organised in Tarna Mare (Nagytarna) in 06/2018 by EPASM
Annex E9/1	Invitation for Press Conference in Tihany by BfNPD
Annex E9/2	Pictures of the Press Conference in Tihany
Annex E9/3	Pictures of the Press Conference in KAPOSVÁR
Annex E9/4	Invitation for the Media to the Press Conference in the VII. European Ground Squirrel Meeting
Annex E9/5	Press release of the project closing press conference at the VII. European Ground Squirrel Meeting
Annex E9/6	2018/4 issue of TermészetBúvár, an article about the Mammals of the Year, the blind mole rat (electronic and hard copy)
Annex E9/7	40. issue of Élet és Tudomány an article about the Mammals of the Year, the blind mole rat (electronic and hard copy)
Annex E9/8	Article in the Hunters Yearbook: Small game management with two million years experience – or reduction of raptors by eagles (electronic and hard copy)
Annex E9/9	Article submitted to Hystrix: <i>“An endangered agrarian pest: status and conservation of the Common hamster (Cricetus cricetus) in its last European stronghold”</i> (electronic and hard copy)
Annex E9/10	Submitted abstract to ICCB Contributed Session: <i>“From pests to endangered species: Conservation of grassland dwelling small mammals in Central Europe with the support of European Unions LIFE projects”</i>
Annex E9/11	Online article in the Index about captive breeding of <i>S. citellus</i>
Annex E9/12	Online article of SONLINE about the captive breeding of <i>S. citellus</i>
Annex E9/13	Online article in the Túrlista Magazin “Susliks are in trouble”
Annex E9/14	Pictures of site visit organized for media by MAVIR
Annex E9/15	An article about the project's educational work in a Romanian youth camp
Annex E9/16	Online news from the project's educational work in a Romanian youth camp

Annex E10/1	Layman's Report in English (electronic and hard copy)
Annex E10/2	Layman's Report in Hungarian (electronic and hard copy)
Annex E10/3	Layman's Report in Romanian (electronic and hard copy)
Annex E10/4	Receipts of the Layman's Report
Annex F5/1	Summary table for Networking activities
Annex F5/2	Minutes of Blind mole rat & Suslik Advisory Working Group on Suslik issues on 25/10/2017
Annex F5/3	Minutes of Blind mole rat & Suslik Advisory Working Group on Suslik issues on 04/04/2018
Annex F5/4	Minutes of Blind mole rat & Suslik Advisory Working Group Consultation on blind mole rat conservation 17/07/2018
Annex F5/5	Minutes of Blind mole rat & Suslik Advisory Working Group on Suslik issues on 24/07/2018
Annex F5/6	Minutes of Blind mole rat & Suslik Advisory Working Group Consultation on blind mole rat conservation 29/09/2018
Annex F5/7	Minutes of Blind mole rat & Suslik Advisory Working Group Consultation on blind mole rat conservation 29/11/2018
Annex F5/8	Minutes of the Annual Evaluation Meeting on 26-27/09/2017
Annex F6/1	First Announcement VII EGSM
Annex F6/2	Second Announcement VII EGSM
Annex F6/3	Book of Abstracts (electronic and hard copy)
Annex F6/4	Pictures of the conference
Annex F6/5	Conferece bag (hard copy)
Annex F7/1	After Life Conservation Plan (electronic and hard copy)

7.4 Final table of indicators

The indicators was given in the online indicator tables “The status of the indicators for project **LIFE13 NAT/HU/000183** has changed to **Validated**”

8. Financial report and annexes

8.1 Financial Reporting

Financial Report including all beneficiaries

Financial Reports by beneficiaries

8.2 Financial Annexes

Annex Fin1 Costs per action tables

(electronic and **hard copy**)

Annex Fin2 "Standard Payment Request and Beneficiary's Certificate"

Annex Fin3 "Consolidated Cost Statement for the Project"

Annex Fin4 "Beneficiary's Certificate for Nature Projects"FHNP

Annex Fin5 "Beneficiary's Certificate for Nature Projects"BEKE

Annex Fin6 "Beneficiary's Certificate for Nature Projects"BfNP

Annex Fin7 "Beneficiary's Certificate for Nature Projects"EPASM

Annex Fin8 "Beneficiary's Certificate for Nature Projects"FÁNK

Annex Fin9 "Beneficiary's Certificate for Nature Projects"KAPOSVÁR

Annex Fin10 "Beneficiary's Certificate for Nature Projects"KNPD

Annex Fin11 "Beneficiary's Certificate for Nature Projects"MADÁRVILÁG

Annex Fin12 "Beneficiary's Certificate for Nature Projects"MAVIR

Annex Fin13 "Beneficiary's Certificate for Nature Projects"MILVUS

Annex Fin14 "Beneficiary's Certificate for Nature Projects"MME

Annex Fin15 "Beneficiary's Certificate for Nature Projects"NIMFEA

Annex Fin16 "Beneficiary's Certificate for Nature Projects"ÖNP

Annex Fin17 "Beneficiary's Individual Cost Statement"FHNP

Annex Fin18 "Beneficiary's Individual Cost Statement"BEKE

Annex Fin19 "Beneficiary's Individual Cost Statement"BfNP

Annex Fin20 "Beneficiary's Individual Cost Statement"EPASM

Annex Fin21 "Beneficiary's Individual Cost Statement"FÁNK

Annex Fin22 "Beneficiary's Individual Cost Statement"KAPOSVÁR

Annex Fin23 "Beneficiary's Individual Cost Statement"KNPD

Annex Fin24 "Beneficiary's Individual Cost Statement"MADÁRVILÁG

Annex Fin25 "Beneficiary's Individual Cost Statement"MAVIR

Annex Fin26 "Beneficiary's Individual Cost Statement"MILVUS

Annex Fin27 "Beneficiary's Individual Cost Statement"MME

Annex Fin28 "Beneficiary's Individual Cost Statement"NIMFEA

Annex Fin29 "Beneficiary's Individual Cost Statement"ÖNP

Annex Fin30 VAT declaration of BEKE

Annex Fin31 VAT declaration of KAPOSVÁR

Annex Fin32 VAT declaration of MADÁRVILÁG

Annex Fin33 VAT declaration of MME

Annex Fin34 VAT declaration of NIMFEA

Annex Fin35 VAT declaration of ÖNP

Annex Fin36 Tihamér Fülöp's salary slips from January to October 2015

Annex Fin37 Zsolt Hegyeli's salary slips of January 2015 and from Aug to Dec 2016

Annex Fin38 Zsolt Hegyeli's salary slips of 2017-2018

Annex Fin39 The requested documents from NIMFEA with reference to the salary of

Anita Nagy and Géza Molnár

Annex Fin40 The requested documents from BEKE about Tamás Dr. Cserkész

Annex Fin41 The requested documents from Balaton-felvidéki National Park Directorate (BfNPD) about Lajos Dr. Nagy

Annex Fin42 The requested documents from Fertő-Hanság National Park Directorate (FHNPD) about Zsuzsa Fidlóczky

Annex Fin43 The requested documents from KAPOSVÁR about Vilmos Dr. Altbacker

Annex Fin44 The requested documents from KNPD about Attila Dr. Németh

Annex Fin45 The requested documents from NIMFEA about Anita Nagy

Annex Fin46 The requested documents from Magyar Villamosenergia-ipari Átviteli Rendszerirányító Zrt (MAVÍR) about György Bíró

Annex Fin47 The requested documents from FHNPD, the invoices reported under seq. no. 2 - 6, 8 - 10 with proofs of payment

Annex Fin48 The requested documents from MAVÍR, the proof of payment related to invoice no. AM8SB 9020893

9. Deliverables

Annex 7.1/1	Modification of PA with BEKE (electronic and hard copy)
Annex 7.1/2	Modification of PA with BfNPD (electronic and hard copy)
Annex 7.1/3	2 nd Modification of PA with MME (electronic and hard copy)
Annex A1/1a	Ornis Hungarica_vol26(1)_p1-26 (electronic and hard copy)
Annex A3/1	<i>S. citellus</i> welfare plan (electronic and hard copy)
Annex A5/1	Airport's grassland management guideline (electronic and hard copy)
Annex A6/1	Updated Guideline for susliks reintroduction (electronic and hard copy)
Annex D3/1a	Reasons behind the population changes of the saker falcon (<i>Falco cherrug</i>) in the past 120 years, in particular with regard to the period between 2007-2018 (electronic and hard copy)
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Annex F6/3	Book of Abstracts (electronic and hard copy)
Annex F6/5	Conferece bag (hard copy)
Annex F7/1	After Life Conservation Plan (electronic and hard copy)

Hard copy of Annex E2/6 of MTR1

Hard copies of Annex E1/8 and Annex E1/9 of MTR2