



LIFE Project Number
<**LIFE13 NAT/HU/000081**>

MIDTERM Report
Covering the project activities from **01/09/2014** to **31/12/2017**

Reporting Date
<**24/04/2018**>

LIFE+ PROJECT NAME or Acronym
<**ROLLER – Conservation of the European Roller (*Coracias garrulus*) in the Carpathian Basin**>

Project Data

Project location	Hungary and Romania
Project start date:	<01/09/2014>
Project end date:	<31/03/2020>
Total Project duration (in months)	<67> months
Total budget	€ 5 046 097
Total eligible budget	€
EU contribution:	€ 3 784 572
(%) of total costs	75 %
(%) of eligible costs	

Beneficiary Data

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1. List of contents

1. List of contents	2
2. Executive Summary	3
2.1. General Progress.....	3
2.2. Assessment of viability of the project objectives and work plan	7
2.3. Problems encountered.....	7
3. Introduction	9
4. Administrative part.....	12
4.1. Description of the management system.....	12
4.2. Evaluation of the management system	13
4.3. Organigramme of the project team and the management system.....	16
5. Technical part.....	17
5.1. Technical progress, per task	17
5.2. Dissemination actions.....	31
5.3. Evaluation of Project Implementation.....	36
5.4. Analysis of long-term benefits	48
6. Comments on the financial report	50
6.1. Summary of Costs Incurred	50
6.2. Accounting system	52
6.3. Partnership arrangements (if relevant)	53
6.4. Auditor's report/declaration	53
7. Annexes.....	59

2. Executive Summary

2.1. General Progress

The main aim of the Roller LIFE+ project is to:

- Strengthen the European core population in the Carpathian basin and ensure its conservation by the implementation of suitable conservation measures.
- Restore former Roller habitats and demonstrate new or unfamiliar management practices.
- Increase the population size of the Roller by creating new nest sites and by the promotion of bird friendly habitat management of Natura 2000 sites.
- Involve relevant stakeholders into the conservation activity and therefore establish the fundamentals of sustainable protection of the species.
- Decrease the mortality of the targeted population by promoting the bird friendly electric pylon designs, insulating the most relevant pylons.
- Identify endangered migratory and roosting sites; make the first steps for their conservation through networking.

After the establishment of the operational project team, management and administrative system of the project (period closed with the Inception Report by 31.05.2015) we started the implementation phase. The first Progress Report of the project was submitted by 31.03.2016. The EC accepted these reports and asked to speed up some direct conservation actions and the building of the Roller Visitor Centre.

The preparatory actions reached the goals set up in the project time schedule or are in the most advanced stage achievable.

In action A1 the final reports on the sustainable management of Roller nesting habitats were submitted, the consultation with concerning authorities about the forest management guidelines will follow soon.

In action A2 several milestones has been already reached, e.g.: the “Database about suitable habitats for nestbox mounting and existing cavities for breeding in western Romania” and the “Database on existing Roller nestboxes in the Hungarian project SPAs”, and we delivered the “Handbook of nestbox installation methods” with the Progress Report.

The National Action Plan for the species is under development, we started to consult the Ministry of Rural Development in Hungary regarding the future endorsement possibility of National Action Plan (action A3).

Before the first field season the Monitoring plan (deliverable action A4) has been developed and we trained the participants according to it (milestone action A4).

In the framework of the direct conservation actions, we made significant progress in the reporting period, but some further delays occurred also. The root causes of delays are the complicated planning and the related permitting procedures, moreover the public procurement procedures are additional obstacles of the scheduled implementation.

Going into details of habitat restoration and creation of new future habitats, in action C1 the necessary preparatory processes needed more time than planned. Concerning the habitat restoration works we received part of the necessary permits in the end of 2017. The new planned date in the 1st Mid-term Report was by 28/02/2018 but subcontracting of the works is

still in progress in the reporting date. The Beneficiary cannot finish the restoration action before the deadline indicated. The implementation of this action also affects action D1, therefore one proposed scenario is draw up in the description of the related actions /chapter 5.1. of this document/ and also highlighted in the cover letter of the report.

In case of action C2 and C5 for the tree plantation works BNPD closed the tender and subcontracted the works. The majority of planned elimination works and plantation works are ready by the deadline approved in the last report (28/02/2018). However, the spring water regime of some remote places didn't allow the access of workers. At the earliest possible occasion the external company will finish the planned works to achieve the indicators approved in the proposal. Regarding the plantation of trees in Romania under action C5 the legal background and property issues of the plantations was clarified, the locations of the 50 patches were selected and the permissions for these arrived. The public procurement was problematic but APMSM closed the tender with delay but success and the plantation works can start in spring, 2018.

The third habitat restoration action (C3) progress as planned, DALERD finished the clearing of invasive tree species, soil works and the plantation works in the targeted areas. Until the reporting period totally 118 900 pcs of saplings were planted, the care works are continuous. The survival rate of saplings is 50,4%, the replacement is in progress as planned in the proposal.

The Farmers for Roller program (action C6) has also tree plantation activities, in Hungary altogether 76 farmers were contracted and we started the plantations of the 2835 saplings and placement of 339 nestboxes. In Romania 12 farmers were contracted, however the procurement of saplings and necessary equipment runs together with action C5 therefore this action also experienced some delays. Based on the attitude of the target group and the expanded timeframe (EC allowed us to continue the action until the end of the project) we are convinced to achieve the targeted goals. In Romania the protection of the remaining tree lines is crucial to provide nesting place for the species, therefore our priority was to set up and run the patrolling under action C9. The database of trees recorded on the selected routes was already provided in the Progress Report (milestone), the controlling activities resulted in one crime event up to the date of reporting, all related documentation was submitted to the relevant authorities.

To create nesting sites we installed altogether 2172 nest boxes in Hungary and Romania up to the reporting date (action C4).

In the framework of action C7 we reached the next milestone with the help of the subcontracted expert approved by the EC: "Database of dangerous powerlines". The preparation also helped to get the baseline data of action D4 on the involved SPAs. Progress made in the reporting period supports the achievement of the goals until the end of 2018.

In the action C8 we started to locate migratory routes by ringing 6683 birds (including 2503 colour-ringed birds). Altogether 264 individuals were recaptured between 2015 and 2017. Altogether 22 adult rollers were deployed with satellite tags, in 2017 we tracked 11 of them and 4 of them reached the wintering ground. Deployment of geolocators also started in 2017: 90 geolocators were deployed in Hungary and another 25 in Romania to adult birds.

To measure the effect of the project and produce baseline data for the main indicators we started all relevant monitoring activities and baseline data were collected.

An external company started the monitoring action under action D1 to survey the species composition and abundance of potential prey species of European roller (arthropods, amphibians, reptiles and mammals) to follow up changes resulting from restoration activities of action C1, C2 and C3. We used Pica GPS loggers to study habitat use of Rollers breeding in the reconstruction area. However due to the delays in action C1 the subcontracted monitoring activities cannot measure the effect of project actions in 2018 as previously

planned. We plan to reorganize the monitoring works and the related budget to 2019. We monitored the population of Rollers in the project area. In the project area the breeding population of the species seems to be stable between 2016 and 2018 with 981, 1009 and 1047 recorded breeding pairs respectively.

The socio-economic assessment of the project impacts are externalized in both countries. The interim reports are available annexed (action D3).

The monitoring of electric pylon insulation continued in Hungary. In the 3 years (2015-2017) 1704 + 3793 + 566 pylons were surveyed respectively by project employees and volunteers, data was analysed by the Monitoring Centre of BirdLife Hungary. Pylon monitoring started with a delay in Romania, where finally 1064 pylons were surveyed in 2017 to get baseline data of dangerous pylons before the insulations.

We also made progress in communication actions, however delay of habitat reconstructions caused delays of demonstrative events as well. Delay of opening the visitor centre still persists but the previously approved new deadline (31/12/2018) still seems to be achievable. The interactive educational trails are still in progress, the trail on HUKN10007 can be installed in spring when the water leaves the area, while design of the boards planned on HUBN10002 is still under preparation. Procurement of PR materials continued: the 2nd set of PR materials was procured in Romania and a farmland bird guide was produced for farmers in Hungary. The trilingual project webpage is updated regularly with news in all 3 languages. Up to reporting date we have 77 project news (average 1.9 news/month).

The project was presented at LIFE meetings in Budapest and Prague, published an article in *Acta Zoologica*, and posters were also presented at the following conferences: IX. Magyar Természetvédelmi Biológiai Konferencia, VI. International Bio-logging Science Symposium, 11th European Ornithologists' Union Conference, VII. Tájökológiai Konferencia, XI. Magyar Természetvédelmi Biológiai Konferencia (action E8).

KNPD and MME held a conference between 19-21st January, 2017 where 68 participants attended from 27 countries and joined forces to develop the ISAP of the European Roller (action E9). The same occasion but in different days (as side event outside the scope of this project) we started also to build up the CMS Flyway Action Plan for the Species which was adapted at the 12th Meeting of the Conference of the Parties (Manila, Philippines, 23-28. October 2017).

Due to other priorities MME staff did not start action E10 "Promote bird friendly electric pylon design" as scheduled. Workshops and trainings are re-scheduled until 31st December, 2018. Until then we assess all pylon types and study the insulation methods and possibilities.

List of milestones and deliverables achieved /delivered:

Submitted together with the Inception Report:

- A5 Business Plan delivered by the subcontractor (deliverable)
- E6 Project website online (milestone)
- F1 Signed Partnership Agreements and Financial Guidelines (deliverable)
- F1 AWP of the Beneficiaries (milestone)
- F4 Contract of the auditor (milestone)

Submitted together with the Progress Report:

- A1 Habitat maps of study sites (milestone)
- A2 Database about suitable habitats for nestbox mounting and existing cavities for breeding in Romania (milestone)
- A2 Database on existing Roller nestboxes in the Hungarian project SPAs (milestone)
- A2 Handbook of nestbox installation methods (milestone)

- A4 Monitoring Plan (deliverable)
- A4 Monitoring training of participants (milestone)
- C3 Elimination of invasive trees (milestone)
- C7 Database of powerlines selected for nestbox installation in western Romania (milestone)
- C9 Database of trees recorded on the selected routes (milestone)
- D4 Survey 1. results available in Hungary (milestone)
- E4 Project boards erected (milestone)
- E5 First set of deliverable PR materials produced (deliverable)
- F1 AWP of Beneficiaries (milestone)

Attached to/ achieved with the 1st Mid-term Report:

- A1 Final report of the study by the subcontractor (deliverable)
- C1 Beginning of grazing (milestone)
- C2 Management by grazing (milestone)
- C2 Elimination of invasive trees and sowing of seed mixture of ploughed land (milestone)
- C3 Plantation of trees (milestone)
- C3 Establish meadows (milestone)
- C5 Selecting of habitats and property issues clarified (milestone)
- C8 1st assessment of threats by partner NGOs (deliverable)
- E10 Conflict map of bird electrocutions (deliverable) – Annual map is attached, final report by 31/12/2019
- F1 AWP of Beneficiaries (milestone)

Attached to/ achieved with the current, 2nd Mid-term Report:

- C2 Plantation of trees (milestone)
- C3 Plantation of trees (milestone)
- C7 Database of dangerous powerlines in western Romania (milestone)
- D4 Survey 1. results available in Romania (milestone)
- E10 Conflict map of bird electrocutions (deliverable) – Annual map is attached, final report by 31/12/2019
- F1 AWP of Beneficiaries (milestone)

The project structure and working methods secure the implementation of the planned actions. Delays in the public procurement processes of the public bodies seems to progress. Both the national park directorates in Hungary and APMSM in Romania were in delay with the procurement of tree saplings but the processes finished with success and the plantations could begin.

Another delay occurs at the other public procurement process of KNPD connected to the Roller Visitor Centre. We expect to start the construction works in early 2018 the latest. The progression of the project is in accordance with the proposal in general despite of the delays in these actions, beneficiaries are committed to maintain the project goals and implement the rescheduled project plan.

The early stage of the project does not allow the deep analysis of long-term benefits. Direct conservation actions did not finish yet, and the first direct effects of the activities on Roller population is only expected to be measurable from the next year.

The financial progress of the project is affected by the delay in major procurements. According to the proposal the project didn't reached the threshold to apply for 40% of EC co-financing together with the 1st mid-term report. This is the reason we asked for two mid-term reports paired with two 20% pre-financing payments which was approved by the EC. The beneficiaries are committed and able to manage the financial delays, the most probably the later will not affect the performance of the project.

2.2. Assessment of viability of the project objectives and work plan

The project objectives and the work plan are still viable, in spite of the delays deriving mainly from the permission and public procurement process of public beneficiaries. At this stage of the project the implementation of Action C1 may deserve special attention from the PM team, as this action directly affects the timing of monitoring Action D1.

The delays are not threatening the general progress of the project and all the main indicators can be fulfilled within the original time frame. We already rescheduled the affected actions to secure the best possible results within and after the project period. The short term delays in the performance of habitat reconstruction actions will not affect the target species and its' habitat on long term. Beneficiaries are committed to maintain in long term the results of all conservation actions, thus if the investment can be secured within the frame of the project the favourable conditions will be secured far behind the project period. Action specific written commitments of all Beneficiaries will be provided in the After-Life Conservation Plan of the project together with the final report.

The Roller Visitor Center opening ceremony is expected to be in late 2018, the consequences of the delay are detailed in the next point of the report.

2.3. Problems encountered

The financial balancing of the Romanian part of the project depends mainly on the own contribution of APMSM. However as we already informed the Commission in the IR of the project the Romanian Ministry of Environment Water and Forest (RMEWF) is always late to approve the necessary budget for APMSM. Now it seems the staff overcame to the problem and can handle the cash-flow need of the project within the budget of the Beneficiary. Procurement processes and permit procedures of public body beneficiaries caused delays in the implementation of individual actions. However, the overall achievements made so far and the envisaged progress of these actions are believed to secure the final implementation of the project.

We ask the kind approval of the minor modifications necessary to accommodate to the changing demands of external circumstances detailed in the description of the individual actions (section 5.1). These are needed to keep the best possible project performance and therefore the scheduled implementation of project actions. The overall execution of project is managed according to the project proposal, however some delays occurred as it is usual with a large complex project with numerous beneficiaries. The PM supported all Beneficiaries with elaboration alternative scenarios of possible solutions, rescheduling or subcontracting tasks or reallocation budget lines. Monthly reporting allows the PM team to follow up the results achieved and several targeted discussion took place among the project team members and the leaders in charge of the Beneficiaries. Following the monitor visit in September 2017, the PM

team prepared the list of most important tasks for each Beneficiary separately. Detailed instructions were accounted on the solution of the problems encountered, and the Beneficiaries were informed on the revised deadlines set up by the EC regarding the affected actions. Annexed to his letter, the Director of the CB addressed directly the leaders in charge of all Beneficiaries to draw up the attention at the highest level of the executive board.

We believe that these measures are already visible in the progress of the project and the delays already encountered will not affect the overall objectives of the project.

Although with delay but we think the original indicators will be achieved both in by action and the whole project, except the number of visitors in the Roller Visitor Center (Action E3). The delayed opening of the Roller Visitor Center hinder MME to achieve the number of visitors (15000 for 41 month, on average 366 visitors each month) set up as the indicator of action E3. As only 15 month of operation is envisaged after the opening of the facilities, the realistic final indicator could be 5500 visitors until the end of the project.

3. Introduction

The target species of this project, the European Roller is the only species in the family Coraciidae to breed in Europe. Following a moderate decline during 1970-1990, the species has continued to decline by up to 25% across Europe during 1990-2000. Overall European decline exceeded 30% in three generations (15 years) in Europe at the time of the proposal writing and in consequence the species was listed as Category 1. Near Threatened in IUCN Red List.

Meanwhile conservation actions in several countries have contributed to national recoveries, especially the nest box schemes proved to be successful to create new nesting sites in suitable habitats.

Therefore the Roller has been downlisted to Least Concern on IUCN Red List recently. Although the population is still thought to be declining, the declines are not thought to be sufficiently rapid to warrant listing as Near Threatened.

The following specific objectives have been targeted by the project:

1. Create nesting opportunities for Roller in 17 SPAs in Hungary holding altogether 589-717 breeding pairs and in 15 SPAs in Western-Romania holding altogether 97-137 breeding pairs.
2. Improve nesting and feeding habitats on the three characteristic Roller habitat types on three project sites. Demonstrate the new management methods to owners and managers of key Roller habitats to promote their use.
3. Decrease mortality of Rollers caused by unsafe nesting opportunities and electrocution.
4. Promote the bird friendly habitat management of Natura 2000 sites, prevent especially tree logging.
5. Ensure sustainable and long-term conservation management of the species by the “Farmer for Rollers program” and the creation of National Action Plan in Hungary.
6. Increase public awareness of European Roller to strengthen the conservation of the species.

Sites involved:

- ROSPA0014 Câmpia Cermeiului SPA
- ROSPA0015 Câmpia Crişului Alb şi Crişului Negru SPA
- ROSPA0016 Câmpia Nirului - Valea Ierului SPA
- ROSPA0047 Hunedoara Timișană SPA
- ROSPA0067 Lunca Barcăului SPA
- ROSPA0069 Lunca Mureşului Inferior SPA
- ROSPA0078 Mlaştina Satchinez SPA
- ROSPA0095 Pădurea Macedonia SPA
- ROSPA0097 Pescăria Cefa - Pădurea Rădvani SPA
- ROSPA0103 Valea Alceului SPA
- ROSPA0126 Livezile - Dolaţ SPA
- ROSPA0127 Lunca Bârzavei SPA
- ROSPA0128 Lunca Timişului SPA
- ROSPA0142 Teremia Mare - Tomnatic SPA
- ROSPA0144 Uivar - Diniaş SPA
- HUBN10002 Borsodi-sík SPA
- HUBN10004 Hevesi-sík SPA

- HUBN10005 Kesznyéten SPA
- HUDI10001 Abonyi-kaszálóerdő SPA
- HUDI10004 Jászkarajenői puszták SPA
- HUHN10001 Szatmár-Bereg SPA
- HUHN10002 Hortobágy SPA
- HUHN10003 Bihar SPA
- HUHN10005 Jászság SPA
- HUKM10004 Vásárhely környéki és csanádi-háti puszták SPA
- HUKN10001 Felső-kiskunsági szikes puszták és turjánvidék SPA
- HUKN10002 Kiskunsági szikes tavak and the őrzégi turjánvidék SPA
- HUKN10007 Alsó-Tiszavölgy SPA
- HUKN10008 Balástya–Szatymaz környéki homokvidék SPA
- HUKN30001 Csongrád-bokrosi Sóstó SPA
- HUKN30002 Gátéri Fehér-tó SPA
- HUKN30003 Izsáki Kolon-tó SPA

Main conservation issues present in our project area and thus being targeted:

Threat 1: Decreased size and quality of foraging habitat

Threat 2: Loss of suitable nest sites

Threat 3: Increased mortality

Threat 4: Low public awareness

Threat 5: Absence of strategic tools ensuring the proper conservation management of European Roller

Socio-economic context

The project is aiming to increase social awareness via actions focused on raising awareness of key stakeholders (land users, hunters, decision makers) as well as wide public, i.e. meetings, excursions, providing consultations, dissemination of educational materials, presenting the information on info boards. Foreseen effects of the project, concerning the socio-economic impact are:

- Increasing awareness of local people and key stakeholders concerning the local Natura 2000 sites and its importance for *Coracias garrulus*.
- Developing positive attitude to Roller and the Natura 2000 site itself
- Reducing negative perceptions, human disturbance and illegal activities
- Using services of local companies and thus providing short-term employment opportunities for local people during the project duration. Local companies will be used to provide services such as land management, tree planting. Cooperation between stakeholders and local companies will be improved.
- The land users which implement proper management practices will be supported by subsidies. Land users will also benefit from the restoration of windbreaks and forest patches, as this measure will contribute to limit the soil erosion. This action, as well as installation of nest-boxes, will attract several bird species, which will feed on rodents and insects causing damages on crops.
- Local population will also benefit from the improved ecosystem functions by increased biodiversity of the area.

Expected longer-term results: The Roller breeding population of targeted SPAs in Hungary will increase by >20% during the project period and it will reach 707-860 breeding pairs by 2019. The figure below shows that the project already reached one of this criteria (number of pairs). This is rather due to the better monitoring of the species and the conservation efforts

made in the elapsed time from the writing of the proposal to the date of currently valid population estimate. We are voluntarily committed to target the 20% increase instead of numbers, thus increase the population of Roller to at least 1076 pairs in Hungary.

The population of the western Romanian project area (15 SPAs) will increase by >20% during the project and it will reach 116-164 breeding pairs in 2019.

459 hectares of new nesting and foraging habitat in different regions of Hungary will be developed for Rollers by the project beneficiaries. The treated parts of the roller home-ranges will be used more frequently for hunting (data provided by Action D1 for each treated site). Based on the experiences of these actions (C1, C2, and C3) and followed by the appropriate monitoring (D1) and dissemination of the management techniques (E1) the know-how necessary for the range expansion of the species in the Carpathian-basin will be established. 1000 dangerous pylons will be insulated in Romania (C7). Plantation and maintenance of forest patches, treelines and solitaire trees, wooden poles will establish the background of long term the sustainable management of Roller nesting habitats on Natura 2000 sites. Revealing migratory stop-over sites and the initiative of their conservation will help to minimize the mortality factors on surveyed pathways.

The evaluation of project efforts in this relatively early stage is not entirely possible, however as this diagram shows the targeted population seems to show stability in numbers.

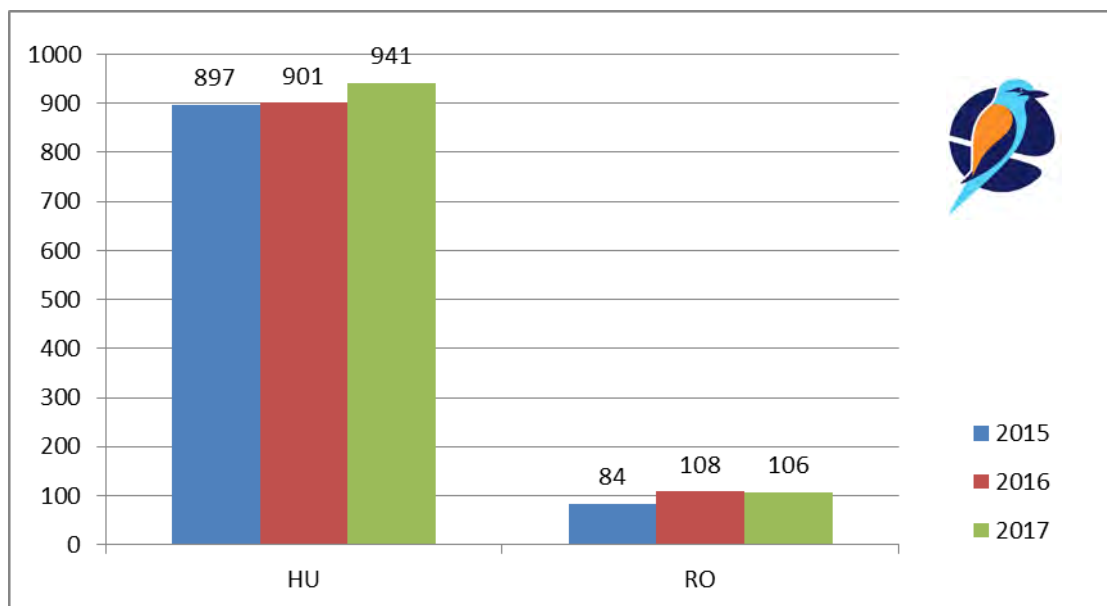


Table 1: number of Roller pairs of the project sites in 2015, 2016 and 2017

Next years will show if the complex activities will result in the increase of the population, but some early results of our preparatory actions and international trends highlight the importance of active conservation measures in favour of the species.

4. Administrative part

4.1. Description of the management system

Project phases

The Inception Report was submitted in June, 2015 and was accepted by the EC in August. Partnership Agreements (PA) had been signed between CB and each ABs between August and October, 2014 submitted together with the Inception Report. The Progress Report was submitted in March, 2016 and was accepted in July. A new, modified Partnership Agreement was signed on 19/07/2016 with KNPD (attached to the 1st Mid-term Report), the reason was the reallocation of nestbox procurements from KNPD to MME because KNPD had difficulties with procuring the originally planned wooden concrete nestboxes from Germany. The 1st Mid-term Report was submitted in May, 2017 and was accepted in August. Mr. András Kovács from the External Monitoring Team NEEMO visited the CB on 3 missions (31/07-31/08/2015, 25-26/08/2016, 18-19/09/2017).

Activities and tasks

According to the approved proposal the Project Management was selected through a competitive tender process; the tender was held on 17/10/2014, decision was made on the same day and contract was signed with the Consulex Ltd. on 17/10/2014. In the Mid-term Report approval letter Ares(2017)4173740 - 25/08/2017 EC asked to submit the tender documentation, please find it under Annex/Annexes to the cover letter.

The project management team (Peter Palatitz, Zsófia Sümegi - Consulex Ltd.) has coordinated the technical implementation of the project, working in close relation with the administrative and financial staff of MME BirdLife Hungary represented by Lilla Barabás senior administrator and Eszter Babinszkiné Gombos junior administrator. Later in June 2016 Lilla Barabás was replaced by Anna Hunor-Kálmánczi in the position of senior administrator.

The management tasks are detailed in the organigramme of the project team under point 4.3.

The detailed management tasks has been presented in the previous reports and did not change. These are as follows:

- *Technical coordination and communication*
 - *Planning*: Annual working plan (prepared by the Project coordinator of the CB and ABs, revised by the external company, final version accepted by the Director of CB)
 - *Monitoring*: Monthly task report (prepared by the Project coordinator of the CB and ABs, revised by the external company, final version accepted by the Director of CB)
 - *Reporting*: Annual report (prepared by the Project coordinator of the CB and ABs, revised by the external company, final version accepted by the Director of CB and the Project Manager)
 - *Communication*: Annual agenda of tasks (prepared by the Communication officer and/or the Project coordinator of the CB and ABs, revised by the external company, final version accepted by the Communication director of CB and the Project Manager)
- *Financial coordination and book keeping*
 - *Planning*: Annual financial plan (prepared by the Project assistant and the Project coordinator of the CB and ABs in accordance with the technical plans, revised by the

Project Assistant of the CB and the external company, final version accepted by the Director of CB and the Project Manager)

- *Monitoring*: Monthly financial reports (prepared by the Project assistant of the CB and ABs, sent to the Project Assistant of the CB.)
- *Reporting and payment process*: Annual Report and payment request (prepared by the Project Assistant and the Project Coordinator of the CB and ABs, revised by the Project Assistant of the CB and the external company, final version accepted by the Director of CB and the Project Manager). If deemed necessary the payment request is also accepted quarterly with the related financial report.

Partnership Agreements (PA) had been signed between CB and each ABs and submitted together with the Inception Report. The up-to date monitoring of the administrative requirements and technical advancements based on the approval system of unified Annual Working Plans (AWP). A monthly reporting system was set up and both financial and technical progress reports are required from Beneficiaries in the end of every month. If deemed necessary the payment request is also accepted quarterly with the related financial report. No changes are envisioned regarding the project duration or project management structure.

4.2. Evaluation of the management system

The project management process allows the Coordinating Beneficiary the follow up of the project implementation. The overall execution of project is managed according to the project proposal, however some delays or minor changes have been occurred as it is usual with a large complex project with numerous beneficiaries. The communication with the external monitoring team and the desk officers were always helpful, we always had answers to our questions with short notice.

Overall project operation and monitoring of the project progress:

F.1 Overall project operation and management

Status: ongoing, in time

The project management team participated to the kick-off meeting in November, 2014; working contracts has been signed for the most relevant project positions, the project management company started the regular visit of the beneficiaries:

- meeting with APMSM and Milvus Group: 5th November, 2014, Satu Mare, Romania;
- meeting with KNPD: 12th November, 2014, Kecskemét, Hungary;
- meeting with BNPD: 13th November, 2014, Tepély-puszta, Hungary;
- meeting with Dalerd Ltd. and the auditor 22th January, 2015, MME office Budapest, Hungary;
- visiting Dalerd Ltd.: 21th April, 2015, Szeged, Hungary.

MME staff organized the planned workshop between 8 and 9th November 2014. Altogether 51 specialists participated from Hungary, Romania and Serbia sharing their experiences and knowledge about the species and working out the future cooperation. (Documentation were handed in with the Inception Report.)

In January, 2015 all beneficiaries finalized the annual working and cost plans, the project management company approved and unified the plans. This internal documents detail the information necessary for the implementation of all relevant actions for the Beneficiaries in form of an excel table (tasks, responsables, indicators, source of verification). The easy to use tables will help the implementation, the follow up and the reporting of the project.

We held several meetings with partners during 2015:

- meeting with KNPD on 16th July,
- meeting with BNPD on 22th July,
- meeting with Dalerd on 31th August as field monitor visit,
- meeting with MME colleagues on 20th November.

There was a meeting with Dalerd Ltd. in the MME office about financial issues on 14th October, 2015. APMSM and Milvus Group had a meeting on 1st July. We had a monitoring visit on 31th July and made a field trip with the monitor on 31th August to the project area of Dalerd Ltd.

We also held an annual overall project meeting with all the partners on 11th December in Jászberény to discuss the progress of the project actions (documentation were attached to the Progress Report).

Meetings with partners we held during 2016:

- meeting with KNPD on 22th March, 2016
- meeting with APMSM on 12th October, 2016
- meeting with BNPD on 26th August, 2016 as field monitor visit and on 23th February, 2017.

There was a meeting with Dalerd Ltd. in the MME office about financial issues on 29th September, 2016. APMSM and Milvus Group had meetings on 5th February and 13th April, 2016. We had a monitoring visit on 25th August in the MME office and made a field trip with the monitor on 26th August to the project area of BNPD. We also held an annual overall project meeting with all the partners on 28th November in Kecskemét to discuss the progress of the project actions (documentation were attached to the 1st Mid-term Report).

Since the last report we had a monitoring visit on 18-19 September, 2017 which consisted of a consultation in the MME office and a field visit at KNPD project sites.

We also held an annual overall project meeting with all the partners on 28th November in Felsőtárkány to discuss the progress of the project actions (please find the documentation attached as annex F1).

Consulex Ltd. receives the monthly reports from all the Beneficiaries and provides the consolidated version to the external monitor and to the PM of the project.

F.2 Developing an After-Life Conservation Plan

Status: not relevant, start date: 01.01.2019.

F.3 Networking with other projects

Status: ongoing, in time

The project was presented at LIFE Projects Fair in Prague on 25th April, 2016 organised by Ministry of the Environment of the Czech Republic in the frame of LIFE 14 CAP/CZ/0001 project (the presentation and a picture was handed in with the 1st Mid-term Report) where we consulted about the problems and the preventive methods connected to pylons with the

representatives of LIFE13 NAT/SK001272 and the difficulties of reintroduction of endangered migratory species with the representatives of LIFE12 BIO/AT/000143.

Within the scope of Action E9 (Update of the European SAP) the project made significant effort to establish the network of Roller specialists all over Europe. We hosted 68 experts from 27 countries for 3 days and demonstrated the objectives and results of the current LIFE project and the participants shared their local experiences and problems. For further details please see the detailed description of the action.

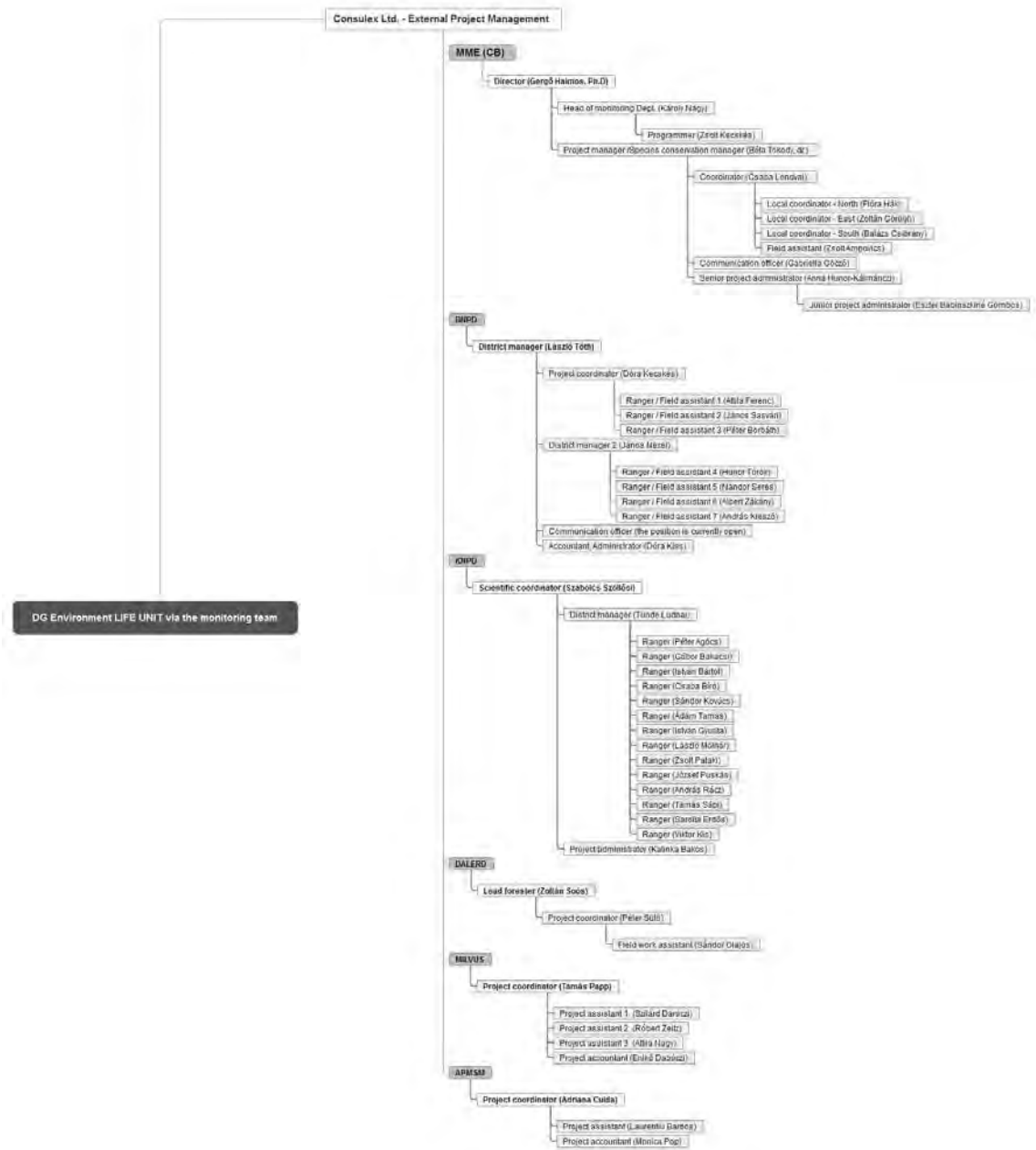
The communication and information exchange with the LIFE Capacity project in Hungary as with the National LIFE+ Contact Point and all relevant other LIFE+ project is continuous. Dalerd took part in the project event of LIFEinFORESTS project LIFE13 INF/HU/001163 Living Forest Conference in Sopron at 21-22/03/2017 where our colleagues learnt about the attitude of private forest owners to Natura 2000 and the issues of sustainability in woodland habitats of common interest.

F.4 External audit

Status: ongoing, in time

Consultation about the financial issues with the auditor is continuous. In the 22th January 2015, MME staff organised a meeting with the Auditor and Dalerd Ltd.

4.3. Organigramme of the project team and the management system



5. Technical part

5.1. Technical progress, per task

Overview of main achievements of the project in the reporting period:

Name of the Milestone	Action code	Deadline (planned)	Deadline (accomplished)	Deliverable/ Milestone/ Report
Final report of the study by the subcontractor	A1	28/02/2017	28/02/2017	Deliverable
Study on the potential range expansion of the species in Hungary	A2	30/03/2016 re-planned in the I. MTR by 28/02/2018	planned by 30/06/2018	Deliverable
End of investment phase of the habitat restoration	C.1	29/02/2016 re-planned in the PR by 31/03/2017 re-planned in the I. MTR by 28/02/2018	planned by 31/11/2018	Milestone
Beginning of grazing	C1	24/04/2016	24/04/2016	Milestone
Plantation of trees	C2	31/03/2016 re-planned in the I. MTR by 31/12/2017	31/12/2017	Milestone
Management by grazing	C2	24/04/2016	24/04/2016	Milestone
Elimination of invasive trees and sowing of seed mixture of ploughed land	C2	15/10/2016	31/03/2017	Milestone
Plantation of trees	C3	31/03/2016	replacement is continuous	Milestone
Establish meadows	C3	31/08/2016	31/08/2016	Milestone
Selecting of habitats and property issues clarified	C5	31/03/2016	31/03/2017	Milestone
Plantation of forest patches and erection of wooden poles	C5	31/03/2017 re-planned in the I. MTR by 31/03/2018	planned by 31/03/2018	Milestone
Plantation of solitaire trees in western Romania	C5	30/09/2017	planned by 31/03/2018	Milestone
Database of dangerous powerlines in western Romania	C7	31/08/2017	31/12/2017	Milestone
Powerlines selected for nestbox installation isolated in western Romania	C7	30/04/2016 re-planned in the I. MTR by 30/11/2018	planned by 30/11/2018	Milestone

Name of the Milestone	Action code	Deadline (planned)	Deadline (accomplished)	Deliverable/ Milestone/ Report
Results of PTT and geolocator data analysis	C8	31/03/2017 re-planned in the I. MTR by 28/02/2018	planned by 28/02/2018	Milestone
1 st assessment of threats by partner NGOs	C8	31/03/2018	31/03/2017	Deliverable
Report about illegal logging	C9	31/03/2017 re-planned in the I.MTR by 31/03/2020	the action is expanded until the end of the project, the report will be handed in with the final report	Milestone
Survey 1. results available in Romania	D4	05/12/2016 re-planned in the I.MTR by the ILMTR	31/12/2017	Milestone
BNPD workshop for 100 persons (farmers)	E1	31/07/2017	planned by 31/11/2018	Milestone
Report on tree logging	E2	31/10/2017	planned by 31/12/2018	Deliverable
Opening of the Roller Visitor Centre	E3	31/05/2017 re-planned in the I.MTR by 31/12/2018	planned by 31/12/2018	Milestone
Conflict map of bird electrocutions	E10	31/03/2016 re-planned in the I.MTR by 31/03/2020	annual map is attached, final map by 31/12/2019	Deliverable
Workshops and trainings completed	E10	31/03/2017 re-planned in the I.MTR by 31/03/2018	planned by 31/03/2018	Milestone
AWP of Beneficiaries	F1	31/12/2016	31/12/2016	Milestone
AWP of Beneficiaries	F1	31/12/2017	31/12/2017	Milestone


Notes: To facilitate the transparency and the understanding of the current advancement of the project, we provide information about the overall status of each action compared to the schedule approved in the application.

The meanings of different categories are:

- *"Status: not relevant, start date"*= the action is not starting until the next reporting date
- *"Status: preparatory phase, in time"*= the action is not started yet, but will start until the next reporting date, therefore some preparatory activities have been made
- *"Status: ongoing, in time"*= the action is started and running as planned
- *"Status: ongoing, small delay"*= the action is not started as planned, or the performance is delayed
- *"Status: accomplished"*= the action is not started as planned, or the performance is delayed

New consolidated version of the Gantt chart, including the requested changes (with blue) (attached to the current report under annex 7.4 Gantt chart):

Action code	Action short name	Action status	Proposed in application file or in report												
			Achieved												Planned
			2016			2017				2018					
			II.	III.	IV.	I.	II.	III.	IV.	I.	II.	III.	IV.	I.	
	OVERALL PROJECT PROGRESS (REPORTING SCHEDULE)	planned	Mid-term			II. M-t				Progress					
		achieved	Mid-term			II. M-t				Progress					
A. Preparatory actions															
A.1	Establish the sustainable management of Roller nesting habitats	planned <i>small delay</i>	x	x	x	D									
A.2	Assessment of existing breeding opportunities	planned <i>small delay</i>	x	x	x	x	x	x	x						
A.3	National Action Plan	planned <i>in time</i>	x	x	x	x	x	x	x	M	x	x	x	x	x
A.4	Elaborate monitoring schemes and training of participants	planned <i>accomplished</i>													
A.5	Roller Visitor Center business plan	planned <i>accomplished</i>													
C. Concrete conservation actions															
C.1	Restoration of steppe habitats	planned <i>delay</i>	M	x	x	x	x	x	x	x	x	x	x	x	x
C.2	Restoration of wooded pastures	planned <i>delay</i>	M	x	M	x	x	x	x	x	x	x	x	x	x
C.3	Management of riparian forest	planned <i>in time</i>	x	M	x	x	x	x	M	x	x	x	x	x	x
C.4	Create nesting sites	planned <i>in time</i>	x	x	x	x	x	x	x	M	x	x	x	x	x
C.5	Plantation and maintenance of forest patches	planned <i>small delay</i>	x	x	x	M	x	M	x	x	x	x	x	x	x
C.6	Farmers for Roller Program	planned <i>in time</i>	x	x	x	x	x	x	x	M	M	x	x	x	x
C.7	Insulate dangerous pylons	planned <i>small delay</i>	M	x	x	x	x	M	x	x	x	x	x	x	x
C.8	Reveal threats during migration/wintering	planned <i>in time</i>	x	x	x	M	x	x	x	D	x	x	x	D	
C.9	Control activities to identify and proceed against illegal logging	planned <i>in time</i>	x	x	x	M	x	x	x	x	x	x	x	x	x
D. Monitoring															
D.1	Monitoring of habitat reconstruction actions	planned <i>in time</i>					x	x			x	x	x		D
D.2	Monitoring of Roller population	planned <i>not relevant</i>									x	x	x		
D.3	Assess the socio-econ. impact	planned <i>in time</i>			x				x					x	
D.4	Monitoring of the electric pylon insulation	planned <i>small delay</i>		x	M			x	x			x	x		
E. Public awareness															
E.1	Demonstration of foraging habitat management techniques for stakeholders	planned <i>small delay</i>					x	x	M		x				x
E.2	Prevent tree logging on Natura 2000 sites	planned <i>small delay</i>	x	x	x	x	x	x	D	x	x	x	x		M
E.3	Roller Visitor Center	planned <i>delay</i>	x	x	x	x	M								
E.4	Notice boards and educational trail	planned <i>delay</i>	x	x	x	x	x	x	x						
E.5	Communication materials	planned <i>in time</i>											x	x	D
E.6	Project website, Layman's report	planned <i>in time</i>	x	x	x	x	x	x	x	x	x	x	x	x	x
E.7	Continuous media coverage	planned <i>in time</i>	x	x	x	x	x	x	x	x	x	x	x		D
E.8	Technical communication	planned <i>in time</i>	x	x	x	x	x	x	x	x	x	x	x	x	x
E.9	International Species Action Plan	planned <i>not relevant</i>					x	x	x	x	x	M	D		
E.10	Bird friendly electric pylon design	planned <i>small delay</i>	x	x	x	M	x	x	x	M					

 ROLLER - LIFE13NAT/HU/000081 Gantt chart - 31/12/2017		Project start: Proposed in application file or in repo															
		01/09/2014						Achieved						Plann			
F.	Overall project operation																
F.1	Project operation and management	planned	x	x	M	x	x	x	M	x	x	x	M	x			
		<i>in time</i>	x	x	x	x	x	x	M								
F.2	After LIFE Conservation Plan	planned												x			
		<i>not relevant</i>															
F.3	Networking	planned	x	x	x	x	x	x	x	x	x	x	x	x			
		<i>in time</i>	x	x	x	x	x	x	x								
F.4	External audit	planned	x	x	x	x	x	x	x	x	x	x	x	x			
		<i>in time</i>	x	x	x	x	x	x	x								

A.1 Establish the sustainable management of Roller nesting habitats

Status: accomplished

Field works were carried out in 2015 and 2016 and the reports with the results both in Hungary and Romania were handed in with the 1st Mid-term Report.

In Hungary:

All of the study sites (HUKN10007, HUKN10008 and HUKN30003 SPAs) had significant population of cavity-maker species. The highest abundance was found in HUKN10007 SPA, where the estimated population size of Green Woodpeckers was 25-30 pairs and 11 in case of Black woodpeckers. The cavity-maker species often shared the same forest patches. The most important factor affecting the Green Woodpecker' occurrence was the area, the size and number of the old deciduous forests.

Ant survey was also carried out in two study sites HUKN10007 and HUKN10008 SPAs. Results indicated that the HUKN10008 SPA provides better conditions for Green Woodpeckers owing to the significantly higher abundance of ants both on territories of woodpeckers and control points. On both study sites, the density of ant nests was significantly higher on the territories of the Green Woodpecker than on control points without the nests of the Green Woodpecker. Diversity of ants was highest on territories of the Green Woodpecker of the HUKN10008 SPA, too.

The main suggested habitat and management guidelines to preserve breeding habitat for Green Woodpecker and Rollers are:

- plantation of soft wood patches, area 1-1,5 ha
- preserve dead wood in forest patches
- preserve at least 20 old trees (poplar or willow species) when the patch is deforested
- maintain high quality grasslands as foraging sites
- eliminate invasive tree species

In Romania:

Field works were carried out in Câmpia Crișurilor, Lunca Mureșului and Lunca Timișului SPAs in 2016. In the statistical analysis the surface of all habitat types and all woodpecker observations regarding the two target species were included. Species composition of trees and the circumference of the nearest trees to the points were also measured (5 trees from the dominant species and up to 3 trees from the subdominant ones, according to their frequency).

Conclusions:

- samples with Green Woodpeckers contain the highest percentage of suitable Roller habitat, that is an evidence of the connection between the two species
- the Roller habitat is very weakly represented in the study areas, which means that there is no more overlap remained between the Roller and the hole-making species, this will lead very shortly to the extinction of the species

- overlapping exists only in very small isolated areas, where old, scattered trees exist in pastures with closed forests nearby. Woodpeckers survived in the compact forests, and sometimes come out to the remaining pastures with scattered trees.
- woodpeckers don't breed in small forest patches
- suitable forest patches are not existing in the Western Plain anymore. Only 3.43% of this area is covered by forests, the percentage of those between 1 and 20ha area is only 0.02%.

The presence of following elements are critical for the Roller to survive in the Western Plain: The pastures, grasslands produce big size insects, reptiles, rodents, main food of the species, but also there is availability of ant species here, important food of the Green Woodpecker, the main hollow-maker species for the Roller. It is also crucial the presence of trees in this habitat, where hollow-making woodpecker species can breed, and Rollers can find these cavities for breeding.

There is a delay in both countries of delivering the habitat and forest management guidelines to the concerning authorities and stakeholders, this activity was rescheduled to the spring of 2018.

A.2 Assessment of existing breeding opportunities

Status: accomplished/small delay

In Hungary:

The number of estimated Roller breeding population in the project sites was 686 pairs and we detected 211 pairs in the 5 km buffer zone of the SPAs in 2015. We proved the breeding of altogether 897 Roller pairs, thus we will use this reference number as baseline data of indicators to evaluate the project achievements. We provided the breeding distribution of the population of each project SPA with buffer zone on table and maps attached to the Progress Report. For the updated data of following years please see Action D2 where we will regularly provide the up to date population estimates.

In Romania:

A study has been made about the nesting cavity supply in some target SPA's (identified natural woodpecker holes, woodpecker territories and existing nestboxes). The estimated Roller breeding population in the Romanian project sites was 60 pairs and we detected 24 pairs in the 5 km buffer zone of the SPAs (the detailed table was attached to the Progress Report). We proved the breeding of altogether 84 Roller pairs, thus we will use this reference number as baseline data of indicators to evaluate the project achievements. For the updated data of following years please see action D2 where we will regularly provide the up to date population estimates.

The handbook of nestbox installation methods is ready and available on the website in three languages. A printed copy was handed in with the Progress Report. (http://rollerproject.eu/sites/default/files/allando_tartalmak/Letoltesek/conservation_of_the_european_roller.pdf).

There is a delay according to the deliverable "Study on the potential range expansion of the species in Hungary". Since we planned to hand in a study published in scientific paper, we expect it to be published in autumn of 2018.

A.3 Elaborate National Action Plan for the species

Status: ongoing, in time

The action plan is in preparatory phase, data collection is underway (threats, exceptional breeding places etc.). MME staff organised a meeting under action E9 which was a good platform not only to discuss the international problems but to begin continuous consultations with Hungarian specialists about the national issues.

Organizing the workshop is in preparatory phase: list of participants is under finalisation, the workshop is planned to autumn, 2018.

Modification request:

We propose to reallocate 9000 EUR related to the monitoring of habitat reconstruction in 2018 in MME budget in action D1 to Action A3. This amount could be used to achieve a new goal, and secure the wide range implementation of the best practice habitat management methods defined or tested within the project in favour of the Roller. We could subcontract the review and analysis of current effect of agri-environmental measures on roller habitats. The external experts could analyse the viability of project treatment under action C1-C6, the different habitat and nest-site recommendations of project expert under action A1, C4 in the current agricultural policy. The main output could be a complex agri-environmental policy recommendation in favour of the Roller incorporated to and submitted together with the National Action Plan for the species under action A3.

Proposed deliverables and deadlines:

1. Review and policy recommendation of Roller habitat management in AES by 30/07/2019 developed together Annexed to the National Action Plan in Hungary
2. PPT slide show for farmers on the review on current AES subsidies and favourable Roller habitat management by 30/09/2018.

A.4 Elaborate monitoring schemes and training of participants

Status: accomplished

A detailed monitoring plan has been developed and handed in with the Progress Report. Altogether 6 trainings were held for the project participants, 4 in Hungary and 2 in Romania. Overall 94 /HU/ and 34 /RO/ persons participated to the events (documentation was attached to the Progress Report).

A.5 Develop the business plan for the sustainable management of the Roller Visitor Centre

Status: accomplished

The business plan of the Visitor Centre was handed in with the Progress Report.

C.1 Restoration of steppe habitats

Status: delay

Cultivation works:

In February 2015 KNPD started the preparation and concertation of planned field works with the local directorate of water management (ATIVIZIG). Quotations for geodesy surveys

arrived in April; application for the declaration of trustees from the local directorate of water management (ATIVIZIG), contract signed with the subcontractor. After the geodesy survey and the implementation plan arrived from the subcontractor the plans with water rights licence were sent to ATIVIZIG, but it was suspended due to completing request for missing documents. The needed NFA owner permit and the completed geodesy survey were sent, but the remaining missing documents are still under preparation by Pro Aqua. For avoiding further time waste, KNPD requested for a statement where ATIVIZIG describes which activities are permitted. After receiving the statement of facts KNPD starts public procurement immediately.

Elimination of invasive trees:

KNPD requested the local forestry authority's permission for the planned elimination works in September 2015. However the permission arrived in December its validity expired in 31th December 2015 and a new request was handed in for 2016. Meanwhile KNPD ordered soil exploration at the restoration area to help the planning of tree plantations. The new request was prepared in accordance with the results of the habitat exploration. In 2016, while the tenant farmer sent the application and later the missing documents to the local forestry authority in regard of elimination of *E. angustifolia*, the legal background changed and a new permission was required. The new permission arrived in November, 2016 and its validity expired in 31th December, 2016 and the tenant farmer was not able to perform the elimination works. A new request for permission was handed in to the forestry authority, this time it arrived in May for the requested locations and the farmer could perform the elimination works within the determined deadline. For pictures about the works please see annex C1 where we also perform the maps EC requested in the 1st Mid-term Report letter Ref. Ares(2017)4173740 – 25/08/2017.

Based on the current status the delayed Milestone “End of investment phase of the habitat restoration works can be reached by autumn, 2018.

C.2 Restoration of wooded pastures

Status: ongoing, small delay

Elimination of invasive trees:

injection of invasive trees finished in autumn, 2017 on a total of 113 hectares. The total area of patches is 24 hectares but solitaire trees and smaller groups of invasive trees were also injected (for the locations please see map under Annex C2) in the most suitable time period when trees absorb substances the most effectively. Dried wood will be moved from the project site during 2018.

Establishment of wooded pasture:

grassland reconstruction was performed on parcels Tiszababolna 0125/5, 0125/6 and 0125/11 (which was created with a sharing procedure of parcel 0125/4 in 2016) on 35 hectares.

Deep ploughing was accomplished in autumn 2016. Preparation of soil and sowing seed mixture was performed in the following spring. The mixture contains native species: *Bromus inermis*, *Festuca pratensis* and *Trifolium pratense*. Part of the grassland was mowed in 2017 and the weedy area was managed with stem crashing.

Tendering procedure of plantation works finished in September, 2017, contracts were signed and works begun immediately. 24 000 seedlings were planted until 30th November in the following composition: Poplar: 50%, Crack willow – White willow: 15%, Oak: 15%, Elm,

Maple, Ash and other species for mixture: 15%, Fruit species: 5%. All species were planted for the most suitable areas in case of water supply and other soil conditions. Individual protective tools were installed around every sapling. The planned 800 meters long fence was also installed to avoid damage by games.

For pictures and maps about the locations of the restoration please see annex C2.

C.3 Management of riparian forest

Status: ongoing, in time

Dalerd Zrt. continued the works as planned. The elimination of invasive species completed and there was progression in the planned works such as cleaning the area, planting, mowing timber, road repairing works and manual and mechanical care of saplings, injection of herbicides. The table about the amount of finished works can be found as annex C3. Plantation of trees: There is still delay in the plantation of native trees at Csanytelek 3 B because of the water coverage at the project site by River Tisza again. Unfortunately the area is in a deep surface level which is covered with water very easily. Until the reporting period totally 118 900 pcs of saplings were planted. The rest of the planned number (63 900) of saplings serves as replacement in the future in accordance with weather conditions and the development of the planted saplings. For the details (regions, area sizes, sapling species etc.) see annex C3.

In autumn 2017 only care works were carried out, no plantations were implemented. Manual works were preferred where possible but mechanical cares were also important for achieving the best soil conditions. Despite that a significant loss was detected and the lost saplings will be replaced in spring, 2018. Game damage was remarkable contrary to preventive chemicals used. Also Dalerd is planning to plant Poplar species that are more tolerant to drought since mostly White willows died out. Combating invasive *Parthenocissus vitacea* continued with herbicides and clearings were mowed.

In the 1st Mid-term Report approval letter Ref. Ares(2017)4173740 – 25/08/2017 EC asked to submit identifiable locations of the action, please see the map under Annex C3. EC also asked to report about the survival rate of the saplings which was calculated by the foresters: 50,4%.

C.4 Create nesting sites

Status: ongoing, in time

In Hungary:

Altogether 1280 wooden concrete nestboxes were delivered to Hungary until November, 2016. Their placement finished in 2017. Most of them serve as a replacement of the old ones and the other portion means new nesting opportunity for the birds.

The number of placed nestboxes per area until reporting date:

- Kiskunsági NPI: 915
- Hortobágyi NPI: 250
- Körös-Maros NPI: 115

AB BNPD ordered the first portion (500 pcs) of nestboxes, the placed amount by locations until reporting date:

- BMTK (Borsodi-Mezőség): 235
- DHTE (Dél-heves): 123
- KTK (Kesznyéten): 75

For maps and pictures please see annex C4.

The project proposal aimed also to create artificial cavities to help cavity-making woodpecker species under the action. However studies showed that there are more natural cavities at the project area than expected, therefore the monitoring of these natural holes is more reasonable. This modification was approved by the EC in e-mail via TMO on 15/02/2017 and reported in the 1st Mid-term Report as well.

The monitoring started in 2017 with elaborating the protocol, specifying the target locations, testing the purchased tools (endoscope, climbing tools), test monitoring of Woodpecker species habitat following MAP protocol. 13 cavities were monitored and their data registered, for the data and map please see annex C4.

We plan to compare the collected data with the monitored potential habitats under action E2. We plan to carry out this activity in parallel with the repeat of the Woodpecker monitoring under action A1. This activity is scheduled between March and April in 2018 when we plan the detailed monitoring of 130-160 cavities and repeat in June-July 2018. The evaluation of the collected data is planned until October, 2018.

In Romania:

Nestbox installations are continuous, 459 nestboxes were placed on 15 SPAs until reporting date. 102 of them were occupied by Rollers and 71 successful breeding were recorded in them.

The prototype of the wood-concrete nestbox is produced and was technically inspected by experts, therefore Milvus ordered the first portion which are planned to be produced in spring.

C.5 Plantation and maintenance of forest patches

Status: ongoing, small delay

In Hungary:

The difficulties in the tender process of BNPD resulted in some delays. Finally, for the plantation works of action C2 and C5 BNPD signed the contracts with the subcontractors in August 2017. Plantations on HUBN10004 finished with the end of 2017 on 4 locations (Erdőtelek, Átány, Sarud, Tiszanána), 1000 saplings were planted with individual protection in the following composition: Grey and White Poplar: 50%, Narrow-leafed Ash: 16%, Penduculate Oak: 16%, Crack Willow and White Willow: 16%. The maintenance and the replacement (if needed) will start in 2018. Plantations on HUBN10002 started in September, 2017. Planting pits are hollowed for 10000 saplings and soil mixture is delivered. Until the end of 2017 3330 saplings were planted with individual protection and drainage that helps effective watering. The planted saplings are native species in the following composition: Poplar: 50%, Crack Willow and White Willow: 15%, Penduculate Oak: 15%, European white elm, Field elm, Field Maple, Narrow-leafed Ash: 15%, fruit species: 5%. Their distribution was in accordance with soil and water conditions of the locations. For maps, photos and locations of plantations please see annex C5_1.

KNPD did not start the plantations, the Beneficiary is currently in negotiation with the Forestry Authority on the mandatory replacement plantations in case of Székalj project site (KNPD was obligated to plant 6 pcs of patches sized 400-500 m² with native tree species (*Pyrus pyraeaster*, *Fraxinus angustifolia subsp. pannonica*, *Ulmus laevis*, *Quercus robur*, *Ulmus minor*, *Prunus spinosa*, *Cornus sanguine*, *Euonymus europaeus*, *Crataegus monogyna*) after 1st September in the permission for 2017) (see action C1 for details). For the planned locations of tree plantations see maps under annex C5_1.

In Romania:

Legal background and property issues of the plantations were clarified, the location of the 50 patches were selected and the permissions for these arrived (the database of the plantations and pole placing locations were attached to the 1st Mid-term Report). Communication with the relevant municipalities on the 14 SPAs where the plantations and the poles will be placed is continuous. There is a delay in the plantations because of the changes in the public procurement processes. For speeding up the procedure, an external expert was subcontracted and the public procurement process started in March, 2017. After an unsuccessful procedure the tender was repeated. Finally the second tender finished with success and a company was contracted in the end of 2017. The implementation of the plantations is scheduled in 2 sessions: the first 1000 saplings will be planted on 15-20 locations in spring, 2018 while the rest 2000 pcs will be planted in autumn.

Planting solitaire trees started, please see pictures under annex C5_2, the planned date of finishing is end of spring, 2018.

C.6 Farmers for Roller Program

Status: ongoing, in time

In Hungary:

MME contracted altogether 76 farmers. Until the end of 2017 2835 pcs of saplings were planted, 74 pcs of T woods installed and 43 pcs of nestboxes were placed for them. BNPD involved additional 30 farmers to the action and started to plant the 1500 saplings procured for them (50 pcs/farmer). 3 forums were held by BNPD, their documentations were sent with the Progress Report. A bird guide of farmland birds (1170 pcs) was also produced as PR material for farmers. The database of new farmers and their plantation locations, maps and pictures can be found under annex C6_1, for the design of the bird guide please see annex C6_2.

In Romania:

The procurement of saplings and plantations runs together with action C5 with the contracted subcontractor. After the approval of TMO to continue the action until the end of the project APMSM rescheduled the action, they plan to implement the plantations in 2 stages: the first portion (20 locations) in spring and the second (20 locations) in autumn. Until reporting date they have contracted 12 farmers but they rescheduled their forums to 2018 which will accelerate the action implementation.

C.7 Insulate dangerous pylons

Status: ongoing, small delay

To accelerate the action Milvus Group contracted an expert after the acceptance of the EC.

Baseline survey was carried out and a database was prepared about 1064 pylons with the following data: ID, photo ID, coordinates, pole type, pole material, head type, found corpses etc. (for the detailed table please see annex C7, for the result of the monitoring please see action D4). After the baseline study several consultations took place with ENEL which resulted in the preparation of documents about the suggested and the accepted technical solutions and the suggested list of insulators to purchase and the solutions that need further consultations (attached as Annex C7). The final list will be prepared in spring, ENEL scheduled the insulation works in their annual working plan and will be ready with the insulations in autumn of 2018.

C.8 Reveal threats during migration/wintering

Status: ongoing, in time

The planned contracts about checking the stopover sites and assessing the threats with the BirdLife partner NGOs signed (Bulgarian Society for the Protection of Birds, BirdLife Cyprus, Society for the Protection of Nature in Israel, Bird protection and study society of Serbia).

In 2017 altogether 1776 birds were ringed and 407 birds were tagged with colour rings too, 87 individuals were recaptured and 27 relisted. Altogether 90 adult birds were tagged with geolocators in Hungary (the planned costs allowed to increase the performance of this action and mark 90 birds with geolocators instead of the 30 individuals planned in the proposal). An additional 4 adults were deployed with PTTs in Hungary. From previous years only 1 bird can be tracked. In Romania 6 birds were tagged with PTTs and 25 birds were deployed with geolocators. From the tracked 11 birds only 4 arrived to the wintering grounds.

For the annual reports about 2017 please see annex C8.

Modification request:

MME wishes to purchase satellite transmitters from a new company called “Icarus” and wishes to purchase 15 tags for 2018 which means one more device than the planned numbers in the project proposal. The main reason is the price and the technical quality:

Technical parameters: In short, basic ICARUS tags weigh <5 grams and in average solar conditions get 12 GPS points per day, as well as 3D-acceleration, 3D-magnetometer and temperature data. Expect one daily transmission of these data via satellite. Additional data (at good sunlight conditions) are written into the tag's memory for later readout with a portable base station.

Price (approximate costs)

- 500-700 € / basic ICARUS tag (price depends on number of pre-orders)
- 150 € annual service fee per tag for the ICARUS User Data Center

C.9 Control activities to identify and proceed against illegal logging

Status: ongoing, in time

At the beginning of 2015 the preparation of booklets finished, which are used in the field during the regular controls. These notes contain the following information: 1. detailed maps of the surveying routes, location of the control points; 2. table with trees seen from a certain point (species, number, direction from the point); 3. each point has a table to be filled in the field during controls, point coordinates, and two photo images showing the trees or tree patches in vegetation and non-vegetation period. A GPS track helps the fieldworker to travel

around the route. The field notes were attached to the Progress Report. During the continuous monitoring illegal logging was identified at ROSPA0097 project site in November 2015. After the documentation the crime was reported to Environment Department in Bihor county (Garda de Mediu – Comisariatul Județan Bihor). The documentation of recce with the colleagues of Environment Department and Environmental Protection Agency of Bihor county was attached to the Progress Report.

APMSM and Milvus Group requested to continue the action until the end of the project, which was kindly approved by the EC. Therefore the report about the illegal logging will be handed in with the Final Report.

For the up-to-date fieldnotes please see Annex C9.

D.1 Monitoring of habitat reconstruction actions

Status: ongoing, in time

The first report about 2015 was attached to the Progress Report, the report about 2016 was handed in with the 1st Mid-term Report, the report about 2017 can be find as annex D1.

In 2017 the study of habitat use of European rollers on project sites and neighbouring area was continued. Altogether 6 birds were tagged on C.1. and C.2. sites. Analyzing data of 9 individuals from 2015-16 showed significant difference between individuals in the breeding period, their average homerange was 282 ± 261 ha (MCP)(n=13) and $115,8 \pm 108$ ha (KHR) (n=13). There was a smaller deviation in the first 2 weeks of chick rearing period n=8, 50% KHR: $8,9 \pm 6,09$ ha; 90% KHR: $52,9 \pm 23,41$ ha; 95% KHR: $83,5 \pm 35,5$ ha). Homerange was also affected by grassland coverage, the homerange was smaller when more feeding sites were available.

The botanical monitoring of the C.3. site was conducted. Restoration of hay meadows in clearings of former forest patches with low natural value has the potential both to increase the naturalness of the landscape and provide proper habitat for the populations of the Rollers and other animal and plant taxa. The reptile monitoring continued in 2017 in C.2. sites, and the evaluation of base data was finalized.

However the elimination of invasive trees finished on C.1. site the reconstruction works are still on delay because of the delay in the permitting processes. There is progress in the reconstruction on C.2. site where the grassland reconstruction finished in spring and the plantations were ready by the end of 2017.

Since reconstruction works on C.1. site are beginning only in 2018 we ask the EC to give recommendations concerning the monitoring activities originally planned for two years after the investment phase. We propose to reallocate 9000 EUR related to the monitoring of habitat reconstruction in 2018 in MME budget. This amount could be used to achieve a new goal, and secure the wide range implementation of the best practice habitat management methods defined or tested within the project in favour of the Roller. For the details please see action A3.

D.2 Monitoring of Roller population

Status: preparatory phase, in time

Monitoring of Roller population runs continuous in all projects SPAs. However baseline data was determined in 2015, the breeding data was collected in 2016 and 2017 as well.

The number of breeding pairs in the SPAs and the buffer zones shows the following:

In Hungary:

ID	SPA			Buffer			Total		
	2015	2016	2017	2015	2016	2017	2015	2016	2017
HUDI10001	1	2	3	0	0	0	1	2	3
HUKN10007	45	61	54	27	31	29	72	92	83
HUKN10008	20	20	20	35	39	35	55	59	55
HUHN10003	44	38	45	8	8	8	52	46	53
HUBN10002	148	130	148	12	21	22	160	151	170
HUKN30001	0	0	0	7	11	10	7	11	10
HUKN10001	40	46	47	14	7	10	54	53	57
HUKN30002	0	0	0	6	8	8	6	8	8
HUBN10004	143	139	147	11	6	8	154	145	155
HUHN10002	120	119	123	34	34	35	154	153	158
HUKN30003	5	5	6	8	9	9	13	14	15
HUDI10004	7	11	11	4	5	5	11	16	16
HUHN10005	17	17	18	10	7	8	27	24	26
HUBN10005	26	26	27	3	2	3	29	28	30
HUKN10002	22	27	27	12	9	10	34	36	37
HUHN10001	0	0	0	0	0	0	0	0	0
HUKM10004	48	42	44	20	21	21	68	63	65
Total	686	683	720	211	218	221	897	901	941

In Romania:

Code	SPA			Puffer			Total		
	2015	2016	2017	2015	2016	2017	2015	2016	2017
ROSPA0016	0	0	0	0	0	0	0	0	0
ROSPA0067	1	1	0	0	0	0	1	1	0
ROSPA0103	0	1	0	0	0	0	0	1	0
ROSPA0097	3	10	12	1	1	1	4	11	13
ROSPA0015	30	36	39	6	4	7	36	40	46
ROSPA0014	1	2	0	0	2	1	1	4	1
ROSPA0069	18	32	28	15	8	12	33	40	40
ROSPA0047	1	1	0	0	0	0	1	1	0
ROSPA0078	0	0	0	0	0	0	0	0	0
ROSPA0142	1	1	3	1	2	1	2	3	4
ROSPA0144	2	2	0	0	1	1	2	3	1
ROSPA0095	0	0	0	0	0	0	0	0	0
ROSPA0128	3	3	0	1	1	1	4	4	1
ROSPA0126	0	0	0	0	0	0	0	0	0
ROSPA0127	0	0	0	0	0	0	0	0	0
Total	60	89	82	24	19	24	84	108	106

D.3 Assess the socioeconomic impact of the project actions

Status: ongoing, in time

In Romania: contract with the subcontractor signed in 2015. Data collected through questionnaires were analysed.

The study in 2017 showed that:

- The main sources of information among those who know about the project were public information and posters/billboards.
- Most respondents gave correct answers to the questions about the project, the proportion of those who have checked the “I don’t know” option is between 0% and 3.9%.
- More than half of respondents believe that the main benefit of the project is the increasing the number of the Roller.
- Nearly half of respondents say the fate of Roller is important to them.
- Compared the data to previous years the number of “do not know” answers decreased.

The surveys about 2015 were attached to the Progress Report, the survey about 2016 was handed in with the 1st Mid-term Report and the survey about 2017 can be found under annex D3_1.

In Hungary the subcontractor provided the baseline survey, since most forums, presentations and workshops have been rescheduled to the second half of the project the attitude change of target groups will be evaluated from 2018 onward. We are planning to carry out a multi-annual survey among farmers based on the surveys carried out with BNPD during the traditional spring cattle driving festival from 2014 to 2017. The surveys have investigated farmer’s perception and attitude toward agri-environmental schemes.

In general the majority of the farmers believe that the financial support in the AES is sufficient. Also the overwhelming majority of them are neutral or positive related to the statement that long-term economic sustainability is possible with AES practices. However, those who participated earlier tend to be more neutral than positive about long term economic sustainability.

On the other hand farmers have listed many perceived benefits of AES answering to open question. There were a high number of nature and environment related benefits, and many has mentioned healthy food and ecotourism. It seems that local farmers are quite conscious about the increased ecosystem services. There were many respondents who could not mention any disadvantage. Those who mentioned highlighted increased pest occurrence, difficult requirements and very often the difficulty and extent of needed paperwork.

Please find the whole study as annex D3_2.

D.4 Monitoring of the electronic pylon insulation

Status: ongoing, in time

In 2015 in Hungary 1704 pylons were surveyed in a total length of 158 km by project employees and volunteers, data was analysed by the Monitoring Centre of BirdLife Hungary. Only 1 roller was found among the 56 dead individuals of 18 taxa. In 2016 the monitoring continued: the number of surveyed pylons grew to 3793, and the participants found 182 individuals of 22 taxa, 8 of them were roller. In 2017 additional 566 pylons were surveyed on 75 km where 73 dead individuals were found of 13 taxa. Also a detailed map and a database was prepared about Balástya-Szatymaz SPAs pylon network to study the insulation conditions, for details please see annex D4_1, for the database please see annex D4_2.

The approved proposal text envisaged one baseline survey in 2015 and a second survey in 2019 in Hungary and the related reporting by 31.12.2019. However to ensure the best possible coverage of project sites with monitoring we decided to annually repeat the surveys which was approved by the EC.

In Romania: the action started with delay in 2017 because of the delay in action C7. 1064 pylons were surveyed in total and 71 dead individuals were found of 13 taxa, 1 Roller was found. For details please see annex D4_1.

5.2. Dissemination actions

5.2.1. Objectives

- E.1 Demonstration of foraging habitat management techniques for stakeholders
- E.2 Prevent tree logging on Natura 2000 sites
- E.3 Roller Visitor Centre
- E.4 Produce and erect notice boards
- E.5 Produce communication materials
- E.6 Develop and maintain project website, produce Layman's report
- E.7 Ensure continuous media coverage of the project
- E.8 Technical communication of project results
- E.9 Update the International Species Action Plan
- E.10 Promote bird friendly electric pylon design

The number of reaches by specific actions and by planned communication tools are continuously followed and specified at the relevant actions.

The main objectives planned in the proposal:

- action E1: 5-2-5 demonstrative workshops (1/year) at KNPD, BNPD and Dalerd habitat reconstruction sites with altogether 925 participants: farmers, foresters, participants of Farmers for Rollers program, concerning authorities, 20 presentations on local events and participation at 3 professional event to demonstrate the results. The project goals, habitat reconstruction methods and achieved results will be presented at local events where we can also demonstrate the treatments to that land owners who are not professional farmers, however they are interested in bird conservation opportunities. Non-specialist target groups such as students and local people will be informed about management techniques. On the demonstrative workshops a commitment will be signed by 50 participants that in case of available funding they are ready to use the presented methods in favour of the species.
- action E2:
 - In Hungary: Meetings will be organized for key stakeholders (farmers, local NGOs, general public), to promote Natura2000 network's general measures and Roller friendly forestry management. Leaflets will be delivered to increase stakeholders' awareness about Natura2000 network and the protection of tree-lines and old trees.
 - In Romania: Meetings will be organized for key stakeholders (farmers, local NGOs, general public, local authorities), to promote Natura2000 network's general measures and Roller friendly forestry management. Brochures and

leaflets will be delivered about Natura 2000, the target species and the importance of key habitats to increase stakeholders' awareness about Natura2000 network and the protection of tree-lines and old trees.

- action E3: opening a Visitor Centre with accommodation, an exhibition and conference room. Our plan is to host more than 15000 visitors till the end of the project.
- action E4:
 - In Hungary: 18 notice boards, 2 educational trails, 1 online camera system
 - In Romania: 30 information boards
- action E5: producing a high amount of PR materials that will be disseminated continuously in the Roller Visitor Centre (action E3), on workshops (action C6, E2), and on specific educational programmes organized for schools and kindergartens. Deliverable products are effective tools for raising the awareness of the general public, and especially of the young generations. The products will reach minimally 50 000 people, with a special emphasis on children and students.
- action E6: producing and maintaining a regularly updated trilingual website (we expect more than 1 million visitors during the project), produce a layman's report in both paper and electronic formats in 3 languages (HU: 2000, RO: 1000, ENG: 300). The paper version will be disseminated among decision makers, international partners and key stakeholders, while the electronic version will be freely available on the project website. The report will describe the project and its achievements in succinct, non-technical language.
- action E7: 3 press conferences, ca. 100 press releases, appearances in the most relevant TV and radio channels, and printed and online journals (>1000 media reports), producing a 50 min. film and 10x2 min. shortfilms disseminated on DVDs (2000 copies) and on TV channels
- action E8: For the dissemination of results 3 presentations or posters on international conferences will be held: (European Congress of Conservation Biology, International Ornithological Congress, Open Landscapes Conference, European Conference on Ecological Restoration). In addition 20 presentations or posters on workshops and national conferences will be held; 5 scientific publications will be written.
- action E9: produce the Updated International Species Action Plan of European Roller.
- action E10: 4 workshops and 12 trainings will be organized to demonstrate the proper installation of different bird protection tools (insulators, anti-collision systems) for the target groups (experts who take part in additional implementation of bird- friendly devices /insulators, anti-collision devices, bird diverters/ such as managers, engineers and professional fieldworkers of electric companies. Designers will be invited, as well.). Technical brochure and its online version will be published and regularly refreshed on the project website (action E7).

5.2.2. Dissemination: overview per activity

The media and the public are greatly interested in the project. Our press releases are well used by the media and appear in mainstream online and written magazines, TV and radio. The short films received a lot of positive feedback, and both the general public and roller experts found the website useful from all over the world. The interactive map showing the satellite tagged birds generated a great interest. Our events are well attended. We only had small challenges with the online nest camera: viewers became emotionally attached to the roller family and at times it was difficult to explain the natural processes happening in the nest.

E.1 Demonstration of foraging habitat management techniques for stakeholders

Status: ongoing, small delay

In 2015 Dalerd Ltd. held a demonstrative event in Alsó-Tisza-völgy SPA (HUKN10007) with 27 stakeholders (2015.06.17) (documentation were attached to the Progress Report).

In 2016 2 demonstrative events were held:

- KNPD held an event to demonstrate the project sites before the restoration works at 29th June, 2016 with 34 participants,
- Dalerd held an event at their project site at 22th September, 2016 with 70 participants (documentation were attached to the 1st Mid-term Report). Dalerd also took part in the project event of LIFEinFORESTS project LIFE13 INF/HU/001163 Living Forest Conference in Sopron at 21-22/03/2017.

Milestone of AB BNPD “Workshop for 100 persons (farmers)” is in delay because of the delay of the habitat reconstruction works, the workshop is rescheduled to autumn 2018 when changes of habitat can be demonstrated more spectacularly.

E.2 Prevent tree logging on Natura 2000 sites

Status: ongoing, in time

In Romania:

APMSM procured the equipments, the leaflets and brochures about Natura 2000 and illegal logging (see hardcopies as annex). A database was made about schools of Satu Mare, Bihor, Arad and Timiș counties where the awareness raising presentations can be held. In 2016, APMSM held presentations in 23 schools about the project and the Natura 2000 network. In Bihor county they made partnership with 7 education institutions.

In 2017 presentations were held in 30 schools, a summer camp for scouts and in offices of municipalities where approximately 950 children attended. (See pictures as annex E2_1)

In Hungary:

Mapping of forest-patches, solitude old trees and tree-lines started, preparation of database about suitable breeding and perching sites is underway, data of 112 trees were recorded as suitable breeding site until reporting date. For pictures, map and the first data please see annex E2_2 and E2_3.

E.3 Roller Visitor Centre

Status: delay

In November 2014 the project team started the acquisition of the necessary permits for all relevant activities (monitoring, habitat reconstruction – e.g. the elimination of dykes, canals and *Elaeagnus angustifolia*, and building watchtower, Visitor Centre, educational trail). KNPD started the procurement process to select the responsible architect for the works. Conceptual planning of the Visitor Centre were subcontracted, construction permit was obtained. The work version of the conceptual plan was attached to the 1st Mid-term Report.

KNPD subcontracted a public procurement expert to help speeding up the processes (it was approved by the EC) but closed the tender without success, all the proposals of potential subcontractors exceeded the budget significantly. Therefore the building of a new Center is unrealistic, KNPD wishes to renovate the existing building as detailed in the approved

proposal. This is a smaller work both in budget and time needed, therefore can fit in the budget and the time frame approved by the EC. Thus the rescheduled deadline of opening the visitor centre is still viable until the approved date (31/12/2018).

Modification request:

The delayed opening of the Roller Visitor Center hinder MME to achieve the number of visitors (15000 for 41 month, on average 366 visitors each month) set up as the indicator of action E3. As only 15 month of operation is envisaged after the opening of the facilities, the realistic final indicator could be 5500 visitors until the end of the project.

E.4 Produce and erect notice boards

Status: ongoing, small delay

The notice boards about the project are ready, 18 bilingual boards were installed in Hungary and 30 in Romania with different designs (milestone by 30/09/2015, documentation handed in with the Progress Report).

The planning of the interactive educational trail in HUBN10002 is underway, the wood material for the physical boards are ordered and the final design is in progress. Purchasing the online camera system is also underway, the installation will be ready until the breeding season in 2018.

The boards of the interactive educational trail in HUKN10007 are ready but the installation is delayed due to weather conditions, the installation will take place in spring, 2018. For the final design and the map about the planned locations of the tables please see annex E4.

E.5 Produce communication materials

Status: ongoing, in time

In Hungary:

1st and 2nd set of PR materials, educational toys and the general project demonstrating leaflet had been procured and reported with the 1st Mid-term Report.

In Romania:

APMSM produced the 1st set of PR materials in 2015 and a 2nd part in 2017.

The 2nd set contains (for pictures please see annex E5):

Product	pcs
mug	200
T-shirt	700
pencil/pen	500
linen bag	1000
fridge magnet	500
office calendar	300
USB 4 GB	300
calendars	250
backpack	50
key ring	300

E.6 Develop and maintain project website, produce Layman's report

Status: ongoing, in time

The trilingual central webpage of the project is ready: <http://rollerproject.eu/> and the Facebook site is also online (<https://www.facebook.com/rollerproject>). They are updated regularly with news in all 3 languages. Up to reporting date we have 77 project news (average 1.9 news/month). All beneficiaries prepared one page on their own sites to show their role in the Roller project, the collection was handed in with the Inception Report.

E.7 Ensure continuous media coverage of the project

Status: ongoing, in time

Major achievements and statistics up to the reporting date:

WEBSITE (www.rollerproject.eu):

- 77 project news (average 1,9 news/month)
- 16 601 viewer (5 continents, 121 countries)
- 53 954 page downloads (2,21 pages/user)

FACEBOOK (www.facebook.com/rollerproject):

- 112 uploaded news, timeline photo or photo gallery
- Likes: 1 745
- Active users: 20 530
- Talking about: 278 974

YOUTUBE: 13 130 views

In Hungary: 9 national, 21 local press appearances, 116 news on different webpages, 16 radio news and 2 tv reports. The production of the project films are subcontracted to an external company. 5 short films are ready and available online: https://www.youtube.com/watch?v=CAaK2g469AY&list=PLpISPejBNAbw7BJWfu-e_ueLFSEd-B15j&index=1

In Romania: APMSM and Milvus Group made 6 press releases, 12 news in national press, 72 online news, 9 TV appearances and 1 article in special paper (see the collection as annex E7).

E.8 Technical communication of project results

Status: ongoing, in time

The project was presented at the following events:

- the Kick-off meeting in Budapest,
- Acta Zoologica (article in vol. 63, 2017)
- IX. Magyar Természetvédelmi Biológiai Konferencia, Szeged, 20-23.11.2014
- VI. International Bio-logging Science Symposium, Lake Konstanz, Germany, 22-27.09.2017
- 11th European Ornithologists' Union Conference, Turku, Finland, 18-22.08.2017
- VII. Tájökológiai Konferencia, Szeged, 25-27.05.2017
- XI. Magyar Természetvédelmi Biológiai Konferencia, Eger 2-5.11.2017

(see them under annex E8).

E.9 Update the International Species Action Plan

Status: ongoing, in time

KNPD and MME held a conference between 19-21st January, 2017 (the documentation was handed in with the 1st Mid-term Report). 68 participants attended from 27 countries and they discussed the primary threatening factors and the international issues of the species. The presentations and their recordings are available online (<http://rollerproject.eu/hu/content/nemzetkozi-fajvedelmi-terv-konferencia-2017-kecskemet>). The first work version of the ISAP will be spread for comments among the international experts. The same event was used to develop the first draft of the Flyway Action Plan of the species which is ready and was adapted at the 12th Meeting of the Conference of the Parties (Manila, Philippines, 23-28. October 2017.) Please find the document as Annex E9.

E.10 Promote bird friendly electric pylon design

Status: ongoing, small delay

Since MME modified the pylon monitoring with annual repeats, the final conflict map will be prepared until 31st December, 2019. Until then a yearly updated map will be prepared about the studied lines, please find it as annex E10. Workshops and trainings are re-scheduled until 31st December, 2018. Until then we assess all pylon types and study the insulation methods and possibilities.

5.3. Evaluation of Project Implementation

Methodology applied in the project: The technics used are state of the art solutions, most of cases involves the leading experts and the most advanced solutions of the related fields. We had some difficulties with unexpected natural processes /woodpeckers seem not to use the natural cavities – see in action action A1 and C4. At least in the study site the regional (landscape scale) availability of natural cavities does not directly influence the number of breeding rollers. This fact has to be carefully evaluated in the Action Plans of the species under the threat of conservation dependency. Action C8: Rollers possess the agility of the famous showman Houdini and can “escape” from the harnesses, if this lateres are not set tightly enough. As captive testing is not an option, one has to be careful when deploying the first devices and give time to observe and evaluate the first harnesses made.

Action C1/C2/C5/E3: All public beneficiaries have to be very careful when planning actions targeting subcontracted works or procurements over the limit of national public tendering. Regular changes in the legal background, very complicated tendering processes and the change of market environment due to the elapsed time can seriously delay the implementation of the affected actions. We propose to hire special subcontracted staff for the procurements of such complex activities.

Some not foreseen changes were taken outside the scope of the project /eg. the legal background changes of procurements in both countries/. This may cause delays in the implementation, but the planned results are still achievable and are in harmony with the planned goals and the objectives set up in the proposal.

The effectiveness of the dissemination is judged to be satisfactory, number of participants in project events and the drawbacks of stakeholders indicate. This stage of the project does not allow deep analysis, further reports (especially the final report) will systematically check the achieved results and compare to the planned indicators.

Please find the achieved milestones and deliverables under 2.1 and 5.1 and under the technical actions descriptions where we compare the results achieved until reporting date against the objectives of the proposal.

Task	Foreseen in the revised proposal	Achieved	Evaluation
A1/ Preparation of management guidelines in Hungary and Romania	Preparing guideline for both Hungary and Romania.	The planned 2 guideline is ready.	The guidelines include suggestions for stakeholders to preserve breeding habitat for cavity maker Woodpecker species and the Roller.
A1/ Delivering the management guideline to the authorities and stakeholders	Delivering the guidelines to authorities and stakeholders, which will help to improve nesting habitats of the Roller in the future.	The guidelines have not been handed to the stakeholders and the authorities yet.	The action is in delay, we urged the Beneficiaries to share these guidelines with the stakeholders as soon as possible.
A2/ Mapping nestboxes on the project sites	Assessing the existing breeding opportunities and their condition as a baseline data.	We provided the breeding distribution of the population on the SPAs and 5 km buffer zones with the Progress Report.	The data of baseline monitoring is secured, therefore will not hinder the evaluation of the effect of project measures.
A2/ Study on the potential range expansion of the species	A study prepared about the potential range expansion.	Not achieved yet.	There is a delay according to this deliverable since the Beneficiary planned to hand in a study published in scientific paper.
A3/ Develop a National Action Plan for Hungary	Elaborating and submitting a completely revised and updated National Action Plan to the Ministry of Agriculture in Hungary.	Not achieved yet.	The action plan is in preparatory phase.

A3/ Organizing workshop	A 2-day workshop will be organized by the group to exchange knowledge and experience among group members, to update participants on the current conservation actions to establish a working plan and compile a draft structure of the NAP.	Not achieved yet.	The workshop is planned to be held in autumn 2018.
A4/ Developing monitoring plan	A monitoring plan for all project sites to harmonise the activities of partners during the project period.	The monitoring plan was prepared.	The monitoring plan was handed in with the Progress Report and is/will be used in action C4 and D2.
A4/ Preparation of handbook about the nestbox installation methods	Preparing a handbook in 3 languages to harmonise the activities of project partners.	The handbook is ready in 3 languages and is available on the project website (rollerproject.eu).	Based on the feedback we received, the handbook is informative and useful for experts and volunteers as well.
A4/ Holding trainings	3 trainings to be organized for project staff and volunteers.	Altogether 6 trainings were held for 128 persons.	The species related actions are running fluently, the yearly population censuses are available from the whole country in Hungary and extends to the whole project area in Romania.
A5/ Develop the business plan for the sustainable management of the Roller Visitor Center	Preparing a business plan and management study that will be concerned in the Visitor's Centers' following 10 years of operation.	The business and management plan is ready.	Unfortunately there is a delay in opening the visitor centre, therefore the effectiveness of this action can't be evaluated until reporting date.

<p>C1/ Restoring 205 ha of grasslands in favour of Roller</p>	<p>Destroying 4,8 ha of <i>Eleagnus angustifolia</i> groves at the 205 ha of steppe habitat located in SPA. Elimination of 2210 meter long artificial ditch. (667 meter in Székalj and 1550 meter in Szaporhegy project site.), Elimination of a 2820 meter long dam-system in project-site of Macskási-gyep, Elimination of 6 pieces of old closing-water constructions in project-site Macskási-gyep.</p>	<p>KNPD performed the elimination works by 31/12/2017.</p>	<p>There was a delay in performing the elimination works but KNPD finished the task. The evaluation of effectiveness of this action can take place next year when the renewal of the formerly eliminated invasive trees can be monitored. The elimination of artificial constructions is in delay due to permitting difficulties.</p>
<p>C2/ Establishing 177 ha new wooded pasture and plough-land from <i>Eleagnus angustifolia</i> forest</p>	<p>Replacing <i>Eleagnus angustifolia</i> by plantation of native tree species:</p> <ul style="list-style-type: none"> - 12 ha <i>Eleagnus angustifolia</i> groves will be destroyed in the project site Borsodi-sík SPA (HUBN10002). 100 trees will be planted in every hectare in parkland forms. - <i>Eleagnus angustifolia</i> trees will be destroyed in the 113 hectares of project site in 5 years progressively, 100 trees will be planted in parkland forms, 800 meter long fence will be installed <p>24 hectare of wooded pasture will be established on a plough-land.</p>	<p>Until reporting date <i>E. angustifolia</i> was eliminated on 113 hectares in total, 24 hectares is the total area of contiguous patches but solitaire trees and smaller groups were injected as well. Grassland reconstruction was performed on 35 hectares with deep ploughing and sowing seed mixture of native species. Until reporting date altogether 24000 saplings were planted and the planned 800 m long fence was installed successfully.</p>	<p>The evaluation of this action start in 2018 and will be available in a later stage of the project when the longer term success of eliminating invasive <i>E. angustifolia</i>, the survival of the saplings and the quality of the grassland reconstruction can be monitored.</p>

<p>C3/ Transforming 105,17 ha riparian forest to suitable Roller breeding habitat</p>	<p>Destroying 19,7 ha of invasive tree species in the project site Alsó-Tiszavölgy SPA (HUKN10007) to create meadow patches as foraging site for Rollers, their trunks will be extracted by special machines in 2,7 ha. 182800 pcs of native trees will be planted, the new tree plantation will be cultivated in the next 3 years between May and August. 8, 05 ha meadows will be established.</p>	<p>Dalerd Zrt. finished the works as planned: the elimination of invasive species was completed, 118900 seedlings were planted. There is only delay in the plantation of native trees at Csanytelek 3B because of the water coverage at the project site.</p>	<p>The survival rate of seedlings is estimated to be 50,4 % therefore the remaining 63900 seedlings will provide the necessary replacement.</p>
<p>C4/ Creating nesting sites with nestbox installation</p>	<p>2280 new artificial nest boxes will be installed within Hungarian project SPA sites and additional 800 nest boxes (wooden-concrete) within the Romanian project SPAs.</p>	<p>The nestbox installations are running continuously: 1713 nestboxes were installed in Hungary and 459 nestboxes were installed in Romania until reporting date.</p>	<p>The effectiveness of this action can be evaluated from 2018 while monitoring nestbox occupancy by Rollers.</p>
<p>C4/ Creating artificial cavities by drilling old trees</p>	<p>100 artificial cavities made by manual method: drilling older trees in the Alsó-Tiszavölgy SPA (HUKN10007)</p>	<p>Natural cavity monitoring protocol elaborated, 13 cavities monitored.</p>	<p>Studies showed that there are more natural cavities at the project area than expected, therefore this task was modified to the monitoring of natural holes which is deemed to be more reasonable.</p>
<p>C5/ Plantation and maintenance of forest patches in Hungary</p>	<p>Planting and maintenance of 12 new forest patches of native trees on 4,58 ha in Alsó-Tisza-völgy SPA (HUKN10007). Altogether 38300 m long White Willow and White Poplar tree lines and 80 ha forest patches (mixed species) will be planted in Borsodi-sík SPA (HUBN10002). forest patches will be planted in Hevesi-sík SPA (HUBN10004) in 2 hectares.</p>	<p>Permission and tender procedures resulted in delay of the action in Hungary. Until reporting date plantations on HUBN10004 finished with the end of 2017 on 4 locations, 1000 saplings were planted with individual protection. Plantations on HUBN10002 started in</p>	<p>Delays are slowing down this action but plantations started in 2017 finally and expected to be finished before the end of 2018. The effectiveness of this action can be evaluated in 2019 when survival rate of planted trees can be monitored.</p>

		September, 2017. Planting pits are hollowed for 10000 saplings and soil mixture is delivered. Until the end of 2017 3330 saplings were planted with individual protection and drainage that helps effective watering.	
C5/ Plantation and maintenance of forest patches in Romania	50 small forest-patches - 0, 04 ha each –, 3000 solitaire trees will be planted and 200 wooden poles will be raised (to provide place for artificial nest boxes) in 14 SPAs to secure long term availability of nest sites.	Procurement and permitting difficulties resulted in delays of this action, but after a repeated tender the procurement process finished with success. The implementation of the plantations is scheduled in 2 sessions: the first 1000 saplings will be planted on 15-20 locations in spring, 2018 while the rest 2000 pcs will be planted in autumn. Planting solitaire trees started, the planned date of finishing is end of spring, 2018.	Despite of the delays caused by tendering and permitting difficulties the plantations started and are planned to be ready in autumn, 2018. This affects the time period of maintenance works which will be shorter than planned but hopefully this won't affect the long-term survival of the saplings. The monitoring of the survival rate will be secured in 2019.
C6/ Involving 60 farmers in Hungary and 40 farmers in Romania in the Farmers for Roller programme.	At least 60 stakeholders will be involved to develop their own land "Roller-friendly" in Hungary, altogether 15 forums will be held for farmers. At least 40 stakeholders will be involved to develop their own land "Roller-friendly" in Romania, 8 meetings will be held to identify stakeholders who would like to be involved.	MME contracted altogether 76 farmers. Until the end of 2017 2835 pcs of saplings were planted, 74 pcs of T woods installed and 43 pcs of nestboxes were placed for them. BNPD involved additional 30 farmers to the action and started to plant the 1500 saplings procured for them (50 pcs/farmer). 3	In Hungary the action is processing well, the number of involved farmers is far more than planned in the proposal. This positive attitude reflects the popularity of the project goals. The delays in Romania resulted in the rescheduling of the action but the proposed objectives are still achievable.

		forums were held. In Romania we rescheduled the action because of procurement difficulties. Until reporting date we have contracted 12 farmers and rescheduled the forums to 2018 which will accelerate the action implementation.	
C7/ Insulate dangerous pylons in Romania	1000 medium voltage pylon will be isolated.	A database about 1064 pylons is prepared, consultations with the electricity distributor are continuous.	There is a delay in the isolation works but with the help of a subcontracted expert the database of dangerous pylons was prepared and consultations about the necessary works speeded up. ENEL builds in the planned isolation works in their annual working plan therefore the modified deadline (30/11/2018) seems feasible.
C8/ Reveal threats during migration/wintering	30 Rollers equipped with PTTs in Hungary and 10 in Romania, and 30 with geolocators in Hungary and 50 in Romania to discover migration routes and wintering places and stopover sites.	Until reporting date altogether 6683 Rollers were ringed and 2503 birds were tagged with colour rings, too. 16 adult birds were tagged with PTTs in Hungary and 6 in Romania, 90 geolocators were deployed on adult birds in Hungary and 25 in Romania.	There are difficulties connected to the action since most tracked birds device stopped sending locations at an early stage of the migration, but 7 birds could be followed to the wintering grounds. In the continuation CB plans to purchase the devices from another company which may solve technical issues. Results of geolocation can be evaluated only from 2018 onward, since the locations can be identified after recapturing the tagged birds.
C9/ Monitoring of illegal logging	Standard routes will be selected in 4 project SPAs from western Romania where all the trees will be identified, located by GPS.	Regular controls are running on the planned 4 SPAs, 1 crime was identified and reported.	The action is running continuously and the ABs requested to continue the action until the end of the project which increases the efficiency of this action.

<p>D1/ Monitoring of habitat reconstruction actions</p>	<p>Get baseline data about the home-range size and foraging habitat use, foraging efficiency and main prey abundances in 2015. 10 Rollers per each study sites (altogether 30 rollers) equipped with GPS logger with VHF download to locate the foraging sites within the territories. After the restoration works of study sites, the ex post monitoring will be carried out (in 2017-2018) to provide data about changes of foraging activity and main prey abundances of Rollers on these sites. During second survey 10 Roller per each study sites will be equipped with GPS logger with VHF download</p>	<p>Baseline data was collected on all study sites in 2015 and was repeated or completed in 2016. Altogether 18 loggers were deployed on adult birds to locate foraging sites.</p>	<p>The ex post monitoring is in delay because of delays of habitat reconstruction works, but the planned 2 years is still feasible on C2 and C3 sites. MME reallocate the not used budget for conservation goals.</p>
<p>D2/ Monitoring of Roller population</p>	<p>Monitoring in 2018 and 2019.</p>	<p>Roller monitoring is continuous on all project sites, therefore we collected breeding data in the first half of the project as well.</p>	<p>This action use the results of action A2 as baseline data, and will provide the final data for evaluate the population growth of Roller and the occupancy rate of the new nest boxes within the project area from 2018.</p>
<p>D3/ Assess the socioeconomic impact of the project actions</p>	<p>Continuous monitoring year by year.</p>	<p>The task is subcontracted to external experts in both countries. In Romania the annual reports were delivered. In Hungary the first report was delivered with the current Mid-term Report.</p>	<p>In Romania the project is very well known, 96% of all responders have information from the project. This ratio increased significantly during the project. In Hungary the subcontractor provided the baseline survey, since most forums, presentations and workshops have been rescheduled to the second half of the project the attitude change of target groups will be evaluated from 2018 onward.</p>

D4/ Monitoring of the electric pylon insulation	<p>In Hungary: survey the quality of installation of different bird protection tools and assess mortality caused by electrocution in 2015 and 2019.</p> <p>In Romania: evaluating the effectiveness of isolated powerlines.</p>	<p>In Hungary: the monitoring was annually repeated.</p> <p>In Romania: the baseline survey is ready.</p>	<p>In Hungary MME volunteers were involved to increase the performance and coverage of the monitoring. The professional staff focused on the project sites, while volunteers monitored other sections of powerlines. The latter is a complementary activity, therefore the annexed maps show the results of country wide monitoring.</p> <p>In Romania the action started with delay but the planned objectives are still achievable, the baseline study is ready and a monitoring will be carried out after the insulation works.</p>
E1/ Demonstration of foraging habitat management techniques for stakeholders	<p>12 demonstrative workshops on habitat reconstruction sites with altogether 925 participants, 20 presentations on local events and participation at 3 professional event to demonstrate the results.</p>	<p>3 events were held with altogether 131 participants.</p>	<p>Delays of the habitat reconstruction works caused delay of the planned demonstrative workshops. Eg. milestone of AB BNPD “Workshop for 100 persons (farmers)” is rescheduled to autumn 2018 when changes of habitat can be demonstrated more spectacularly.</p>
E2/ Prevent tree logging on Natura 2000 sites	<p>Meetings organized for key stakeholders (farmers, local NGOs, general public) to promote Natura2000 network’s general measures and Roller friendly forestry management. Leaflets to increase stakeholders’ awareness about Natura2000 network and the protection of tree-lines and old trees.</p> <p>In Hungary: map, 16 meetings, 2000 brochures.</p> <p>In Romania: 30 meetings, presentation in at least 90 schools, 3000 brochures and 3000 leaflets.</p>	<p>In Hungary: mapping of forest-patches, solitude old trees and tree-lines started, preparation of database about suitable breeding and perching sites is underway.</p> <p>In Romania: APMSM procured the equipment, the leaflets and brochures about Natura 2000 and illegal logging, held presentations in 53 schools, approximately 950 children attended.</p>	<p>The mapping started in Hungary and the preparation of the brochure is in preparatory phase. The organization of workshops wasn’t started before the deadline indicated, due to lack of capacity. Considerable future efforts will be made to speed up the implementation of the action and provide the planned results by 31/12/2018. Meanwhile the activity in Romania is progressing as planned, 950 children were already reached and educated about Natura 2000 and illegal logging.</p>

E3/ Roller Visitor Centre	Opening a Visitor Centre with accommodation, an exhibition and conference room, host more than 15000 visitors till the end of the project.	The renovation works started the rescheduled deadline of opening the visitor centre is still viable until the approved date (31/12/2018).	The delayed opening of the Roller Visitor Center hinder MME to achieve the number of visitors (15000 for 41 month, on average 366 visitors each month) set up as the indicator of action E3. As only 15 month of operation is envisaged after the opening of the facilities, the realistic final indicator could be 5500 visitors until the end of the project.
E4/ Produce and erect notice boards	In Hungary: 18 notice boards, 2 educational trails, 1 online camera system In Romania: 30 information boards	Notice boards about the project are ready, 18 bilingual boards were installed in Hungary and 30 in Romania.	There is a delay in the installation of the interactive educational trails on both project sites but the project boards are installed to spread information about the project activities on 48 sites.
E5/ Produce communication materials	Materials will be disseminated continuously in the Roller Visitor Centre (E.3), on workshops (C6, E2), and on specific educational programmes organized for schools and kindergartens.	2 sets of PR materials were produced in Hungary and Romania as well and are distributed on project events.	The task is progressing as planned in the proposal: the production of PR materials is continuous and the products are reaching a wide range of stakeholders from students to farmers.
E6/ Develop and maintain project website, produce Layman's report	Producing and maintaining a regularly updated trilingual website), produce a Layman's report in both paper and electronic formats in 3 languages (HU: 2000, RO: 1000, ENG: 300)	The trilingual central webpage of the project is ready and the Facebook site is also online They are updated regularly with news in all 3 languages. Up to reporting date we have 77 project news (average 1.9 news/month).	The webpage is ready and updated regularly in all 3 languages which maintains the interest of the target groups.
E7/ Ensure continuous media coverage of the project	3 press conferences, ca. 100 press releases, appearances in the most relevant TV and radio channels, and printed and online journals (>1000 media reports), producing a 50 min. film and 10x2 min. shortfilms disseminated on DVDs (2000 copies) and on TV channels	1 press conference, 9 national, 21 local press appearances, 116 news on different webpages, 16 radio news and 2 tv reports, 5 short films are ready and available online.	Communication through the media is continuous and we expect a steady growth since project results will be communicated in the second half of the project. The first half of the films are online and has reached 13000 viewers already.

E8/ Technical communication of project results	3 presentations or posters on international conferences 20 presentations or posters on workshops and national conferences 5 scientific publications	The project was presented on 5 conferences and 1 article was written.	The activity started but since results can be evaluated and communicated in the second half of the project this task will speed up only then.
E9/ Update the International Species Action Plan	Produce the Updated International Species Action Plan of European Roller	An international conference was held with 68 participants to discuss the primary threatening factors and the international issues of the species. The same event was used to develop the first draft of the Flyway Action Plan of the species which is ready and was adapted at the 12th Meeting of the Conference of the Parties.	Working on the International Species Action Plan begun and is in time, as a side result we prepared the Flyway Action Plan of the species as well which is already adapted.
E10/ Promote bird friendly electric pylon design	4 workshops and 12 trainings, technical brochure, conflict map	Annual maps of the pylon monitoring are produced and were handed in with the reports. Workshops and trainings are re-scheduled until 31st December, 2018	Annual maps of the pylon monitoring are prepared yearly, this part of the action is in progress. The workshops and trainings are in delay and were rescheduled until 31/12/2018. We expect that after assessing all pylon types and study the insulation methods and possibilities more effective trainings can be held for electric specialists.

Envisaged progress until next report

Overview of main achievements of the project as planned in the proposal until the next report cut-off date (30.11.2018).

Name of the milestone	Action code	Deadline (planned)	Deliverable/ Milestone/ Report
Study on the potential range expansion of the species in Hungary	A2	planned by 28/02/2018	Deliverable
Meeting of participants	A3	31/03/2018	Milestone
End of investment phase of the habitat restoration	C1	28/02/2018	Milestone
Nestboxes installed, artificial cavities made	C4	31/03/2018	Milestone
Plantation of forest patches and erection of wooden poles	C5	planned by 31/03/2018	Milestone
Plantation of solitaire trees in western Romania	C5	planned by 31/03/2018	Milestone
Plantations are in place	C6	31/03/2018	Milestone
Nestboxes and T-woods installed	C6	30/04/2018	Milestone
Powerlines selected for nestbox installation isolated in western Romania	C7	planned by 30/11/2018	Milestone
Results of PTT and geolocator data analysis	C8	planned by 28/02/2018	Milestone
Report about illegal logging	C9	planned by 31/03/2020	Milestone
BNPD workshop for 100 persons (farmers)	E1	31/11/2018	Milestone
Report on tree logging	E2	planned by 31/12/2018	Deliverable
Opening of the Roller Visitor Centre	E3	planned by 31/12/2018	Milestone
Meeting of country representatives	E9	30/09/2018	Milestone
Conflict map of bird electrocutions	E10	final map by 31/12/2019	Deliverable
Workshops and trainings completed	E10	planned by 31/03/2018	Milestone

Colour marked milestones are postponed from the current reporting period, therefore the deadline indicates the re-planned situation.

5.4. Analysis of long-term benefits

5.4.1. Environmental benefits

- a) Direct / quantitative environmental benefits: The Carpathian Basin holds the core population of European roller in the eastern part of the European Union. The project directly improves 727589 hectares of Natura 2000 key habitat (1530 "Pannonic salt steppes and salt marshes and 6250 "Pannonic loess steppic grasslands") and indirectly the other habitats surrounding. Tree plantations are implemented all over this area and altogether 1755 nestbox were already installed in the project sites. Additional site related specific treatments and habitat reconstructions are to be taken place on altogether 459 hectares (Actions C1, C2, C3).
- b) Policy: European rollers are top predators of various invertebrate taxa. The viability of roller population can be used as general indicators of agro-biodiversity of these habitats. Therefore Roller is used as flagship species in the conservation of open lowland habitats of the EU. The development ISAP has primary importance (see action E10) and we are also committed to help the cross-border conservation of the species. When CMS launched the African-Eurasian Migratory Landbirds Action Plan (AEMLAP) process and Roller has been chosen as flagship species. We are proud to participate to the development of the Flyway Action Plan and host the event in January 2017 together with the scheduled international conference under Action E10.

5.4.2. Long-term benefits and sustainability

- a) Long-term / qualitative environmental benefits: European rollers are easily accepted by citizens and stakeholders as target species of conservation efforts. The migratory behaviour of rollers helps to build the network of conservationists working together in daily basis. This later may have an outmost importance in the future to make further concrete steps on the way designated by international policies, acts and climate mitigation processes.
- b) Long-term / qualitative economic benefits: Natural value of economically less developed regions is usually higher. Rollers inhabit this unfavourable regions where industry, commerce and profit oriented sectors are less active. The restoration of biodiversity function of such habitats and the development of the traditional agriculture through agricultural policies may help to stabilize the economic viability of these regions.
- c) Long-term / qualitative social benefits: The project itself gives work to local workers as subcontractors. We also aim to develop a more nature friendly view of farmers. We are especially proud to give work to a high number of woman, mainly as administrative/office staff.
- d) Continuation of the project actions by the beneficiary or by other stakeholders: The beneficiaries are committed to continue the project actions. To help this goal we built most of the actions to achieve a self-sustainable stage at the end of the project period. All necessary commitment will be provided in the After-LIFE Conservation Plan annexed to the final report of the project.

5.4.3. Replicability, demonstration, transferability, cooperation:

Generally we tried to document all aspects of our conservation efforts. We are in close relation with NGOs and state agencies working in the field of conservation. All our protocols, the regular update of events, the achieved goals (eg. technical reports) are

refreshed in 3 languages on our website, rollerproject.eu. We will submit scientific publications to ensure the high quality and the replicability of our work.

5.4.4. Best practice lessons learned by the half of the project:

We summarized the best practice of nest site creation methodology and monitoring for the species in Action A2 and A4 respectively. We proposed guidelines for forest management in Roller key SPAs in Action A1.

5.4.5. Demonstration value of the project:

In this stage of the project, even if the demonstration actions are started, they are expected to reach their full performance only in the rest of the project period. - Local farmers are interested to learn more from nature friendly farming tools and related agricultural treatments (Actions C1, C2, C3, C6). People are always fascinated by the nature, especially bird migration and new technologies making the demonstration of the results easier (Actions C8, E6, E8).

5.4.6. Long term direct indicators of the project success are the number of breeding pairs of European roller in the project area, and the Carpathian Basin. The first three years Roller show a stable population size in the studied area, with some signs of slight increase in Romania due to the recently installed nestboxes. In case if the targeted increase of the Roller population (min. 20%) can be achieved within the duration of the project, the most relevant long term indicator of the project success will be the sustainability of this population with low (or zero) recurring conservation cost.

6. Comments on the financial report

6.1. Summary of Costs Incurred

The planned project duration is 67 months, this reporting period covers 40 months, meaning that 59,70 % of the project timespan is over.

As shown in the expenditure summary table, the overall project expenditure from 01.09.2014 to 31.12.2017 is 2 417 302 € which is 47,9 % of total budget. The received pre-financing payment is 2 270 743,20 €. This means that the project cost 106,45% of the received funding. The reason to proportional under spending of the budget compared to the current project phase is mainly due to the delay in some investment actions (C1, C2, C5, C6, C7, E3). However in case of Action C2, C5, C6 the technical progress made so far (eg. the contracts signed after long public procurement processes) will result in the short time catch up of the financial plan.

The main tasks that cause underspending:

- C1/KNPD, Restoration of steppe habitats: planned budget: 162 458 €, accounted: 10 000 €. Since the delayed investments only start after reporting date most expenses will be realised in a later stage of the project.
- C2/BNPD, Restoration of wooded pastures: planned budget: 148 000 €, accounted: 28 754 €. The works started before reporting period but the expenditure will be realized after finishing the fieldworks.
- C5/Plantation and maintenance of forest patches:
 - o APMSM: Planned budget: 186 025 €, accounted: 30 442,45 €. The plantation and maintenance was subcontracted before reporting date but the fieldworks will only be accounted after finishing the scheduled works which are now in progress.
 - o BNPD: Planned budget: 293 150 €, accounted: 142 784 €. Plantations are in progress, the expenditures will be accounted after finishing the works.
 - o KNPD: Planned budget: 41 265 €, accounted: 200 €. KNPD is in delay with the plantations but will realize the works after receiving permission.
 - o MILVUS: Planned budget: 49 690 €, accounted: 19 772 €. The plantations are also in progress.
 - o Total planned budget of C5: 570 958 €, accounted: 193 198 €.
- C6/Farmers for Roller
 - o APMSM: Planned budget: 91 248 €, accounted: 12 945 €. APMSM procured most of the equipments but they started the plantations in spring.
 - o BNPD: Planned budget: 61 750 €, accounted: 23 650 €, the plantations and organizing meetings will be realized only after reporting period.
 - o KNPD: Planned budget: 13 492 €, accounted: 677 €. No reported activity so far.
 - o MME: Planned budget: 83 210 €, accounted: 75 453 €.
 - o Total planned budget of C6: 258 408 €, accounted: 117 137 €.
- C7/ MILVUS: Promote bird friendly electric pylon design and insulate dangerous pylons. Planned budget: 90 870 €, accounted: 5856 €, however the database and the

baseline study is ready the expenses of the subcontractor will be realized after reporting date.

- E3/ Roller Visitor Center:
 - o KNPD: Planned budget: 185 291 €, accounted: 16 466 €. Since the subcontracting of the construction works can be realized after reporting date most of the expenses will occur in a later stage of the project.
 - o MME: Planned budget: 104 265 €, accounted: 26 190 €. MME could purchase only the equipment that can be used outside the visitor centre.
 - o Total planned budget of E3: 289 556 €, accounted: 42 657 €.

Spending of the different cost categories are mostly in accordance with the time phase of the project.

PROJECT COSTS INCURRED				
Cost category	Budget according to the grant agreement	Officially approved budget with modifications	Costs incurred within the project duration	%**
1. Personnel	1 393 555 €	1 394 455 €	716 675 €	51,39%
2. Travel	374 950 €	358 210 €	140 839 €	39,32%
3. External assistance	1 355 395 €	1 100 009 €	445 474 €	40,50%
4. Durables: total <u>non-depreciated</u> cost	881 735 €	1 145 261 €	723 609 €	63,18%
- <i>Infrastructure sub-tot.</i>	181 120 €	388 120 €	138 908 €	35,79%
- <i>Equipment sub-tot.</i>	700 615 €	757 141 €	584 701 €	77,22%
- <i>Prototypes sub-tot.</i>	0 €	0 €	0 €	
5. Consumables	609 630 €	611 330 €	201 545 €	32,97%
6. Other costs	114 648 €	120 648 €	46 132 €	38,24%
7. Overheads	316 184 €	316 184 €	143 028 €	45,24%
TOTAL	5 046 097 €	5 046 097 €	2 417 302 €	47,90%

*) If the Commission has officially approved a budget modification indicate the breakdown of the revised budget. Otherwise this should be the budget in the original grant agreement.

***) Calculate the percentages by budget lines: e.g. the % of the budgeted personnel costs that were actually incurred

We have realized some reallocation in the project budget between cost categories since the I. Midterm Report.

The following reallocations did not exceed 30 000 € or the 10%:

CB **MME** reallocated 1100 € from action E7/Personnel to action E4/Equipment to prepare a more effective educational trail with English translation. This was approved by the EC in e-mail via TMO on 22/01/2018.

AB **MILVUS** reallocated 12 000 EUR from Travel A1, A2, A4 to External C7. This additional subcontracted expert would help the fluent implementation of the electric pylon insulation works. This was approved by the EC in e-mail via TMO on 25/04/2017.

Also the MILVUS reallocated 6000 EUR from Travel A1, A2, A4, to Other C4. This was approved by the EC in e-mail via TMO on 25/04/2017.

AB **KNPD** reallocated 15 300 € from E3/Infrastructure to E3/Equipment for furnishing and 9 700 € from E3/Infrastructure to E3/Equipment for outdoor furniture. This was approved by the EC in e-mail via TMO on 22/01/2018.

The following reallocations did exceed 30 000 € or the 10%:

In the Inception Report we asked the EC to allow us to recategorize 279 300 € from External to Infrastructure to fulfill the accounting rules in Hungary which was kindly approved by the EC. Since then national law of tendering procedures has changed, therefore internal accounting rules of **BNPD** changed as well, which means that BNPD has to account the 33 600 € budget of grassland reconstruction under action C2 in External category as planned originally.

6.2. Accounting system

Project partners have established their own separate system for managing finances exclusively for the project. Every beneficiary uses a definite code which ensures that these costs are easily tracked within the accounting system.

The codes are the following:

- APMSM: Personnel: 123, Travel: 128, Invoices: 125, Payments: 124
- Dalerd Ltd: 7170107 (expenses) and 47502 (advance)
- Milvus Group: 112
- BNPD: LI04 (project), sources: LIFE: 105, MoA: 1012, MoA residual: 0041, BNPD: 107, BNPD residual: 0047
- KNPD: LIFE: SZALAKÓTA LIFE+EU, MoA: SZALAKÓTA LIFE+, own source: SZALAKÓTA LIFE +
- MME: Personnel: 81-190001, Travel: 81-190002, External: 81-190003, Equipment: 81-190004, Land purchase: 81-190005, Consumables: 81-190006, Other: 81-190007, Overhead: 81-190008

There is severe emphasis on controlling, as checking wouldn't happen only by Associated Beneficiary internally, but between the AB and the CB. All relevant documentation is checked monthly or quarterly by the CB's project administrator. It is responsibility of all beneficiaries to guard the original financial documentation and send official copies to the CB (except in case of the time sheets, where CB asks for originals). Incurred costs of project partners are approved by CB only if all relevant documents are provided along with the technical reports or other technical document (deliverables, technical annex etc.) that are requested by the project management. Financial sources are distributed in accordance with the Annual Working Plan and budget.

Work time registration systems had also been set up or adjusted to comply with LIFE's regulations. Partners use day-to-day paper-based time-sheets to keep track of worked hours – action codes on which the person is working also need to be marked on the sheets. Validation of time sheets is done by the program coordinator (or by the direct supervisor in case of the coordinator himself/herself).

All costs connected to the project undergo a 3-steps approval system. The first and second steps are the local program coordinator and the responsible person at the financial department. The third step is the control check at the CB.

A Financial Guideline was prepared specifically for this project based on the Common Provision and presented to the ABs at the beginning of the project. The CP was also sent to the ABs.

We emphasized the necessity of the project reference code LIFE13 NAT/HU/000081 on the relevant contracts, invoices etc. Each partner got a project stamp with the ID code that is also applied on the project documents in case the invoice provider should fail to fulfil this requirement for some reason – mainly on low cost invoices.

EC requested for partner statements about their bookkeeping codes in the 1st Mid-term Report letter, please find them as Annex 8.2. to this report.

6.3. Partnership arrangements (if relevant)

No change has occurred since the last report.

Monthly or quarterly financial reports are revised by the CBs financial administrator, accounting tables are filled by ABs. Financial reports of the Hungarian partners are translated by CBs financial administrator. When the reports and the corroborative documents are correct AB prepares the payment request concerning the accounting period. The administrator of the CB verifies the professional and technical fulfilment with the project management team. ABs receive LIFE contribution as post-financing in accordance with the Partnership Agreements and the Financial Guidelines after the reports and the documentations were judged to be proper by the CB.

6.4. Auditor's report/declaration

Auditor's data:

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6.5. Summary of costs per action

Action no.	Short name of action	1. Personnel	2. Travel and subsistence	3. External assistance	4.a Infra-structure	4.b Equipment	4.c Prototype	5. Purchase or lease of land	6. Consumables	7. Other costs	TOTAL
A1	Sustainable management of nesting habitats	36 088	2 040	27 364		1 321					66 813
A2	Assessment of existing breeding opportunities	60 139	20 084						274		80 496
A3	National Action Plan	4 332	1 593	0							5 925
A4	Monitoring schemes and trainings	8 082	799								8 881
A5	Business plan for the Roller Visitor Center	73	23	2 917		0					3 012
C1	Restoration of steppe habitats	428	40	8 048						1 503	10 019
C2	Restoration of wooded pastures	2 337	851	14 442		11 123					28 754
C3	Management of riparian forests	33 897	6 906	182 798		177 143			13 931	26	414 702
C4	Create nesting sites	80 527	33 172	238		148 741			84 536	16 584	363 798
C5	Plantation and maintenance of forest patches	31 735	4 269		138 908	16 123			43	2 120	193 199
C6	Farmers for Rollers Program	48 193	11 390	2 436		38 319			16 589	211	117 137
C7	Insulate dangerous pylons	4 477	1 379						0		5 856
C8	Reveal threats during migration/wintering	15 668	5 433	17 103		118 850			21 722	21 806	200 583
C9	Proceed against illegal logging	34 277	12 702								46 979
D1	Monitoring of habitat reconstruction actions	210	70	35 512		40 230			0		76 021
D2	Monitoring of Roller populations	23 286	7 927			6 792			446		38 452
D3	Assess socioeconomic impact			970					0		970
D4	Monitoring of the electric pylon insulation	2 085	484						0		2 570
E1	Demonstration of habitat management techniques	41	86	1 761						384	2 273
E2	Prevent tree logging on Natura2000 sites	11 056	1 160			2 531			4 981		19 729
E3	Roller Visitor Center	14 331	1 915	121		9 064			884	582	42 657
E4	Notice boards and educational trail	9 247	86	16 658		8 565			676		35 232
E5	Produce communication materials	22 095	70						56 494		78 659
E6	Project website, Layman's report	17 786		416					0		18 202
E7	Ensure media coverage of the project	15 050	1 351	6 954					58		23 412
E8	Technical communication of the results	1 721	2 578	20					17	1 981	6 318
E9	Upgrading the International Species Action Plan	8 832	6 933	11 246					0		27 012
E10	Promote bird friendly pylon design	12 665	2 533						0		15 198
F1	Project management	217 405	14 321	114 488	0	5 897			894	933	353 938
F2	After-Life conservation plan								0		0
F3	Networking with other projects	616	644								1 260
F4	External audit			1 980							1 980
Overheads	Overheads										143 028
	TOTAL	716 675	140 839	445 474	138 908	584 701	0	0	201 545	46 132	2 417 302

The modifications listed below were sent to monitor previously in the monthly reports with details and justification and were approved by the EC or the TMO in e-mail.

Personnel cost:

Some personnel changes have occurred since the progress report, which are shown on the organigramme, too.

MME:

- Employment of Zsolt Ampovics continued on actions A3, E2, E10. This was approved by the EC in e-mail via TMO on 22/01/2018.
- Employment of Zsolt Kecskés continued on action E6 (~1 day / month) on the budget of the personnel cost of the communication officer. This was approved by the EC in e-mail via TMO on 22/01/2018.

BNPI:

- Róbert Enyedi left the project, Dóra Kecskés is employed as project coordinator currently.

Reallocations:

MME:

- reallocated 1100 € from action E7/Personnel to action E4/Equipment to prepare a more effective educational trail with English translation. This was approved by the EC in e-mail via TMO on 22/01/2018.
- reallocated 35 000 € from action C4/Personnel to action C8/Personnel to geolocator and PTT placement and blood sampling. This was approved by the EC in e-mail via TMO on 22/01/2018.

APMSM:

- reallocated 1620 € from action A4/Personnel to action C9/Personnel. This was approved by the EC in e-mail via TMO on 15/02/2017.
- reallocated 810 € from action E2/Personnel to action C8/Personnel to reach the goals of action C8 (PTT and geolocator placement). This was reported to TMO in the monthly report of July.

Travel cost:

Reallocations:

MME:

- reallocated 11 500 € to action F1/Travel from action A2/ Travel 1800 €, A3/Travel 2600 €, C4/Travel 4100 €, C6/Travel 3000 €. This was approved by the EC in e-mail via TMO on 22/01/2018.
- reallocated 7000 € to action C8/Travel from action C6/ Travel. This was approved by the EC in e-mail via TMO on 22/01/2018.

APMSM:

- reallocated 750 € from action A4/Travel to action C9/Travel. This was approved by the EC in e-mail via TMO on 15/02/2017.
- reallocated 675 € from action C5/Travel to action C8/Travel to reach the goals of action C8 (PTT and geolocator placement) This was reported to TMO in the monthly report of July.

External cost:**MILVUS:**

Reallocated 12 000 EUR from Travel A1, A2, A4 to External C7. This additional subcontracted expert would help the fluent implementation of the electric pylon insulation works. This was approved by the EC in e-mail via TMO on 25/04/2017.

Infrastructure:**KNPD:**

Reallocated 15 300 € from E3/Infrastructure to E3/Equipment for furnishing and 9 700 € from E3/Infrastructure to E3/Equipment for outdoor furniture. This was approved by the EC in e-mail via TMO on 22/01/2018.

Equipment cost:**MME:**

- A mobile phone was purchased for 210 € under action E5 because of amortisation of the device of the communication officer. This was approved by the EC in e-mail via TMO on 22/01/2018.
- We reallocated 1100 € from action E7/Personnel to action E4/Equipment to prepare a more effective educational trail with English translation. This was approved by the EC in e-mail via TMO on 22/01/2018.

APMSM:

Reallocated 1000 € from C6/External to C6/Equipment. This was approved by the EC in e-mail via TMO on 15/02/2017 and 17/02/2017 with detailed budget.

BNPI: in the proposal BNPD planned altogether 4 PDAs for fieldwork: 2 pcs under action C2 and 2 pcs under action C4 for 4800€. Meanwhile a better solution was found for data recording therefore they purchased 6 tablets for fieldworkers (Hunor Török, Nándor Seres, László Tóth, Péter Borbáth, János Sasvári, Attila Ferenc) for 3193€ which was preliminary approved by the EC after the monitor visit.

Consumables:**APMSM:**

Reallocated 1000 € from C6/External to C6/Equipment. This was approved by the EC in e-mail via TMO on 15/02/2017 and 17/02/2017 with detailed budget.

Other costs:

MILVUS

6000 EUR from Travel A1, A2, A4, to Other C4. This was approved by the EC in e-mail via TMO on 25/04/2017.

We ask the EC to kindly approve the following modifications:

Daily allowance of rangers András Kleszó (BNPD), Albert Zákány (BNPD) and Sándor Kovács (KNPD) exceeded the planned budget with 26 %, but these persons are only accounted for a few days each year to the project.

- **APMSM** wishes to reallocate Personnel costs:

- In case of the project coordinator

From	To	Amount	Reason
C6	C5	2 520 € (28 days)	Complications of public procurement needed more working days than planned. The project coordinator was busy with this action and on action C6 remained enough working days to continue the action and reallocate working days for the problematic actions.
E2	F1	4 500 € (50 days)	The remained 44 working days won't be enough to fulfil the action and the remaining working days (102) after the reallocation will be enough for implementing action E2.

- In case of the project assistant

From	To	Amount	Reason
E2	C6	1 350 € (15 days)	The remaining 20 working days on action C6 won't be enough to identify farmers, organise meetings and supervise planting activities. Meanwhile action E2 is proceeding well and the continuing activities won't cover the remaining 210 working days.
E2	F1	1 620 € (18 days)	42 working days left on action F1 is deemed not to be enough for the second half of the project.
E2	C5	1 800 € (20 days)	Action C5 required more working days than planned, meanwhile action E2 is progressing well and the remaining working days seems to be more than the activities need.
E7	F1	1 620 € (18 days)	Administrative works require more working days than planned, while action E7 is progressing well and the remaining working days are enough to cover the planned activities.

- **Milvus** wishes to reallocate Personnel cost from action E2 to C9. EC approved to continue action C9 until the end of the project. The originally planned travel costs are enough but the action needs more working days therefore more personnel cost. Action E2 is in advanced stage therefore the colleagues deemed necessary to reallocate 54 working days from E2 to C9 which still allows them to continue the works on action E2.
They also wish to reallocate 600 € from action C5/consumables/trees to materials for protection in the same budget category. The purchasable trees are cheaper than expected therefore they wish to purchase more effective protection tools which are drainage tubes (that helps to water the trees right to the roots) and safety nets.
- **MME:**
 - Under action C8 MME wishes to purchase satellite transmitters from a new company called “Icarus” and wishes to purchase 15 tags for 2018 which means one more device than the planned numbers in the project proposal. The main reason is the price and the technical quality:
 - Technical parameters: In short, basic ICARUS tags weigh <5 grams and in average solar conditions get 12 GPS points per day, as well as 3D-acceleration, 3D-magnetometer and temperature data. Expect one daily transmission of these data via satellite. Additional data (at good sunlight conditions) are written into the tag's memory for later readout with a portable base station.
 - Price (approximate costs)
 - 500-700 € / basic ICARUS tag (price depends on number of pre-orders)
 - 150 € annual service fee per tag for the ICARUS User Data Center
 - MME wishes to reallocate 1 000 € from action E6/Personnel cost category/Communication Officer to action E6/External category to develop an independent website for the visitor center. This is necessary for increasing the number of visitors, to expand the scope of social groups involved in the education, increasing the marketing of the LIFE project.
 - MME wishes to purchase 12 binoculars (instead of the planned 10) to the Visitor Centre under action E3 for the planned budget without any budget modification. It would help to improve the experiences of the future visitors in the Visitor Centre during the awareness raising and education events planned there. This modification was requested in the monthly report of August but has no answer from TMO since then.
 - MME propose to reallocate 9000 EUR related to the monitoring of habitat reconstruction in 2018 in MME budget in action D1 to Action A3. This amount could be used to achieve a new goal, and secure the wide range implementation of the best practice habitat management methods defined or tested within the project in favour of the Roller. We could subcontract the review and analysis of current effect of agri-environmental measures on roller habitats. The external experts could analyse the viability of project treatment under action C1-C6, the different habitat and nest-site recommendations of project expert under action A1, C4 in the current agricultural policy. The main output could be a complex agri-environmental policy recommendation in favour of the Roller incorporated to and submitted together with the National Action Plan for the species under action A3. For the details please see the relevant actions.

7. Annexes

Our list of annexes attached in electronic format:

7.1 Administrative annexes:

- F1 Documents of the partner meeting

7.2 Technical annexes:

- C1 Restoration of steppe habitats
- C2 Maps and pictures about the wooded pasture reconstruction
- C3 Maps and pictures about the riparian forest habitat reconstruction at Dalerd Ltd
- C4 Maps, pictures and table for action C4
- C5_1 Plantations in Hungary
- C5_2 Plantations in Romania :
 - C5 Milvus summary and maps
 - C5 Pictures about the plantations in Romania
 - C5 Plantation location database APMSM
- C6_1 Documentation of FFR programme
- C6_2 Bird guide for farmers
- C7 Insulating dangerous pylons
 - C7 Database of dangerous pylons
 - Milvus recommendations
 - Milvus summary
- C8 Bird tagging activities in Hungary and Romania
- C9 Fieldnotes of illegal logging monitoring
- D1 Monitoring report 2017
- D3_1 Socio-economic studies in Romania
- D3_2 Socio-economic studies in Hungary
- D4_1 Monitoring of electric pylon insulation
- D4_2 Database of studied pylons on Balástya-Szatymaz SPA

7.3 Dissemination annexes:

- E2_1 Pictures about the educational activity in Romania
- E2_2 Mapping of forest-patches, solitude old trees and tree-lines in Hungary
- E2_3 Mapped trees and forest patches in Hungary
- E4 Educational trails
- E5 Communication materials
- E7 Media appearances
- E8 Conference posters, scientific publication
- E9 European Roller Flyway Action Plan
- E10 Map about the studied lines under action E10

7.4 Gantt chart

8. Financial report and annexes

Our list of annexes attached in electronic format:

- Certifications of CB and ABs
- Financial reports of CB and Abs (electronic only)
- Financial statements of CB and ABs
- Payment request
- Consolidated cost statement
- Summary of costs per action

9. Annexes to the cover letter

Our list of annexes requested by the EC in the 1st Mid-term Report letter Ref. Ares(2017)4173740 - 25/08/2017 attached in electronic format:

- MTR letter – 3 – Locations of action C1, C2 and C3
- MTR letter – 5 – Locations of nestboxes
- MTR letter – 6 – Plantations in Hungary
- MTR letter – 7 – Farmers For Roller Programme
- MTR letter – 9 – Socio-economic studies:
 - D3_1 Socio-economic studies_Romania
 - D3_2 Socio-economic study_Hungary
- MTR letter – 10 – Baseline survey in Romania for the pylon insulations
- MTR letter – 12 – Educational trails
- MTR letter – 13 – Latest available Annual Working Plans of CB and ABs
- MTR letter – 17 – VAT declarations
- MTR letter – 18 – Accounting procedures of CB and ABs
- MTR letter – 19 – Personnel documentation:
 - Personnel documentation of Adriana Culda
 - Personnel documentation of Dr. Béla Tokody
 - Personnel documentation of Róbert Enyedi
 - Personnel documentation of Melinda Forgó
 - Personnel documentation of Tamás Papp
 - Personnel documentation of Péter Sütő
- MTR letter – 23 – External documentation:
 - Documentation of Consulex Kft.
 - Documentation of SM Consulting Kft.
- MTR letter – 24 – Equipment documentation:
 - Declaration of Dalerd Ltd.
 - Documentation of SEPII crusher
 - Documentation of VALKON