



LIFE Project Number  
**LIFE10NAT/HU/019**

**FINAL Report**  
**Covering the project activities from 01/01/2012 to 31/12/2016**

Reporting Date  
**14/04/2017**

LIFE+ PROJECT NAME or Acronym  
**HELICON LIFE**

Project Data

<b>Project location</b>	Hungary	
<b>Project start date:</b>	01/01/2012	
<b>Project end date:</b>	31/12/2016	<b>Extension date:</b> -
<b>Total Project duration (in months)</b>	60 months ( including Extension of 0 months)	
<b>Total budget</b>	€ 2 141 597	
<b>Total eligible budget</b>	€ 2 141 597	
<b>EU contribution:</b>	€ 1606 198	
<b>(%) of total costs</b>	75%	
<b>(%) of eligible costs</b>	75%	

Beneficiary Data

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## 2. Executive Summary

### 2.1 Introduction

The main objective of the project HELICON LIFE (i.e. HELIaca CONservation) between 2012 and 2016 was to maintain the increasing trend of the eastern imperial eagle population in Hungary through significantly decreasing the non-natural mortality caused by persecution incidents.

### 2.2 Administrative part

After the establishment of the project operational system and the signing of partnership agreements (Action E.2) an effective day-to-day operation of the various project actions, the coordination of associated beneficiaries and the appropriate reporting to the European Commission was managed by a full-time project manager, who was facilitated by a full-time project administrator (Action E.3).

The overall execution of project was managed according to the project application, although changes – both delays and extra results – have been occurred, as it is usual with large complex project with numerous beneficiaries.

### 2.3 Technical part

The best practice protocols, which covers the suggested veterinarian (Action A.1), forensic (Action A.4) and also field survey (Action C.5) methodology in case of bird crime incidents has been prepared and disseminated among relevant stakeholder groups. An Anti-Poisoning Working Group has been founded in the frame of the Hungarian Raptor Conservation Council (Action A.5).

A countrywide network of 31 trained veterinarians has been set up to undertake first-aid treatment of poisoned eagles (Action A.1).

The first anti-poisoning dog unit in Central Europe have been trained and involved effectively in field surveys. Altogether 547 surveys have been executed during the project, while 201 carcasses related to and further 60 suspicious for wildlife crimes were found (Action A.2 and C.5).

A Hot Line and the possibility of reporting bird crime incidents through the webpage have been created (Action A.3).

A detailed study investigating factors that affect game populations and efficiency of alternative legal predator control methods has been prepared (Action A.6).

The Jászság SPA Management Plan have been prepared and submitted to the HMRD together with a "Suggestion to create the JÁSZSÁG High Nature Value Farmland" and a "Suggestion to initiate specific agri-environmental measures for the creation and maintenance of optimal habitats for small game species" (Action A.7).

Ten house yards, covering 5.4 ha in total, have been purchased in the Jászság SPA and habitat rehabilitation works executed to create optimal habitats for eagles and game species (Action B.1 and C.6).

39 imperial eagles have been tagged by satellite transmitters and tracked continuously through a specially developed website (Action C.1 and D.10). The tags served ca. 500,000 GPS records already, therefore created the largest database of the species worldwide.

21 threatened imperial eagles nests have been guarded for 1339 days together with the help of 340 volunteers, and 33 chicks could fledge successfully from these nests (Action C.2).

A raptor feeding place has been operated by HNPD and MME at the Jászság SPA between September and March each year, where up to five imperial eagles were regular visitors and more than 4000 kg of meat was delivered for them seasonally (Action C.3).

One hundred artificial nests have been installed at the 20 project SPAs and surrounding areas (Action C.4).

Intensive survey activity at imperial eagle territories of project SPAs resulted 11,400 observations of the species and a high detection rate of bird crime incidents which are included in the Bird Crime Database. Thanks to the serious investigations, executed or helped by HNBI and the police protocol, seven perpetrators were prosecuted in five cases during the project. By the end of the project four trials were closed, in which all five suspects were found guilty and given suspended custodial sentence or significant financial penalty (Action C.5).

Intensive cooperation with three hunting societies has been executed, trainings organized and an active eagle-friendly predator controlling has been started in a 1600 ha sample plot. Two water management objects have been installed by HNPD to retain water at the Jászság SPA (Action C.6).

The project lobbied that the bird poisoning became a basic indicator at the National Plant Protection Action Plan. Lobby activities also helped that high representatives of hunting organizations initiated a wide agreement between hunter and conservation organizations and research institutes in order to increase small game populations and improve the conservation of protected species.

The project organized 79 workshops and conferences, held presentations at 55 further workshops and HHNC made report at 93 professional hunters trainings. Altogether 21,627 participants took part at these events. Special attention has been given to communicate with the most important stakeholders, like conservationists (3,213), hunters (12,162), farmers (1,380), police (594), prosecutors and judges. The project took part in the annual Hungarian Exhibition of Arms, Fishing and Hunting (FeHoVa), and in the National Agriculture and Food Exhibition (OMÉK) (Action D.1).

A bird-identification guide for hunters and an agri-environmental guide for farmers have been prepared. Specific detailed articles of the project have been included in the issues of the Vadászévkönyv (annual book of HHNC) and distributed annually to all 60,000 Hungarian hunters (Action D.2).

A communication plan, image, logos and an audio-visual archive containing more than 6000 photos have been prepared for the project (Action D.3).

All together 141 news about the project achievements were disseminated, out of which 12 were communicated via press conferences. The news of the project appeared in 1908 media reports (1226 online, 520 paper, 64 radio and 98 TV). The reported number of contacts by people with project in the media was much above 103 million and the advertisement value of the appearances was around 2.5 million €. (Action D.4).

A children booklet, imperial eagle leaflet, a poster and a wide range of PR products have been prepared by the project, all bearing the logo of the project, the LIFE and Natura 2000. Products were disseminated among volunteers, stakeholders and the participants of project events (Action D.5).

The project produced a project starting film (2013), a project closing film (2016), “The Bait” fictional nature movie (2016), the 20 parts of the HELICON short film series (2012-2016) and further eight short films, which length together reached 5 hours. The films have been watched for more than 74 thousand occasions on the special YouTube channels created in the frame of the project (Action D.6).

A mobile exhibition and two interactive exhibitions have been installed in Budapest Zoo and Jászberény Zoo (Action D.7).

The building of the Eagle Centre has been finalized by HNPD. An exhibition within the Centre and the two educational trails have been installed by MME. The Eagle Centre hosted already several project events, and it was visited by more than 2700 people (Action D.8 and D.9).

The project website ([www.imperialeagle.hu](http://www.imperialeagle.hu)) has been continuously developed by new contents. A special website was prepared for tracking satellite-tagged birds ([www.satellitetracking.eu](http://www.satellitetracking.eu)). Online camera systems have been broadcasting live on the Ustream channel of the project from eagle nests in summer and from the feeding place in winter. The project Facebook profile (<https://www.facebook.com/HeliconLife>) became popular with more than 3800 likes. Altogether the online platforms of the project reached the audience more than 5 million occasions (Action D.10).

Notice boards have been erected at all 20 project SPAs and all Hungarian Zoos (Action D.11).

Layman’s report has been produced with QR codes to link the readers with more detailed online contents and films of the project (Action D.12).

Genetic monitoring showed that the mortality rate of breeding birds was high (16-25%) at the beginning of the project, while it decreased and remained more or less stable during the project period (8-16%) (Action E.1).

Operational project team was established and partnership agreements were signed (Action E.2. and E.3). Steering Committee Meeting was held annually (Action E.4).

Several foreign LIFE and non-LIFE projects dealing with anti-poisoning campaigns or imperial eagle conservation have been contacted. The project team organized one and took part in several international conferences. All together the project team was visited in Hungary by more than

50 foreign experts from 20 different countries, while the project team and related experts has presented the project's results in 21 countries (Action E.5).

A large sample size (1200) opinion poll has been executed in 2012 and 2016. The polls showed that the general public in Hungary is strongly against illegal poisoning, and 28% of the population would even sentence the perpetrators of illegal poisoning incidents to jail. The polls also showed that the knowledge about imperial eagles, the problem of poisoning and conservation actions significantly increased during the project period (Action E.6).

The project co-organized an international bird conservation conference, which was the closing event of the HELICON project. Nearly 130 experts from 16 countries participated in the conference and altogether 26 presentations were held (Action E.7).

## 2.4 Comments on the financial report

The overall project expenditure from 1 January 2012 to 31 December 2016 is € 2,072,795 equal to 96.79% of foreseen total budget, consisting both the EC and own contributions.

The overall spending per cost category corresponds well with the budgetary plans. Only the project category "Land purchase" was overspent significantly, which deviation was noticed beforehand to and agreed by the Commission.

MME and project partners kept accurate and regular accounts of the implementation of the project using a double-entry book keeping system. The system is run in accordance with the accounting and bookkeeping policies and rules that apply in Hungary.

A project administrator at coordinating beneficiary is keeping contact with a financial team of associated beneficiaries. Incurred costs of a project partner are approved when all relevant documentation has been provided. A detailed Financial Guideline and an automatic Excel table was provided for the financial reports of the associated beneficiaries. An excel file, containing all important information about cost items, is regularly updated with approved costs.

The overall cost reporting for the HELICON LIFE project is done by the project administrator and approved by the project manager. For MME the final approval of incurred costs is done by the executive director.

Each partners 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. The project manager and the partner coordinators approve the expenses.

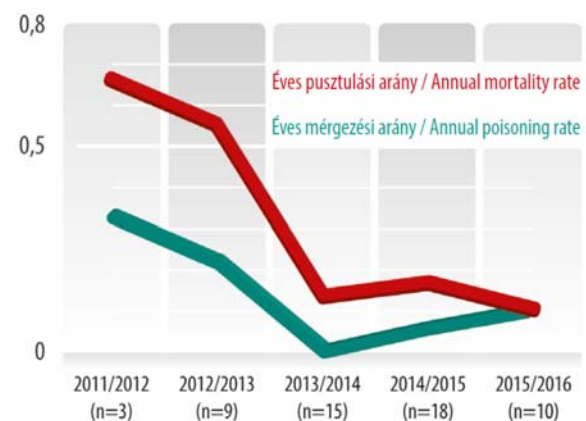
Timesheets are signed and dated by employee and validated by the supervisor during the first week following the month of registration. All the beneficiaries are using the model timesheet which is available on the LIFE website.

## 2.5 Fulfilment of objectives

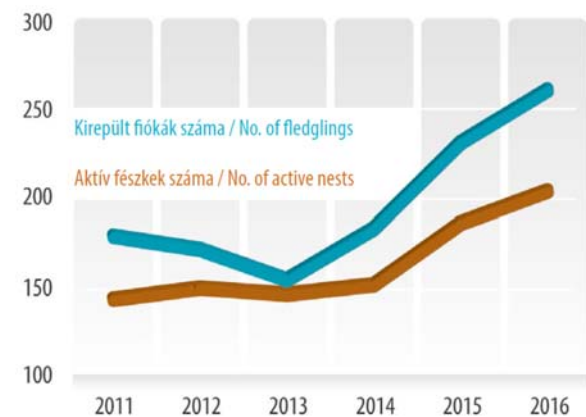
The improved methodology and complex field surveys of the project increased the detection efficiency of poisoning incidents at the beginning of the project (from 2011 to 2012). The wide range of actions contributed to the overall decrease of poisoning incidents in Hungary, which was especially remarkable in the case of imperial eagles in the East-Hungarian project areas (2012-2016).



In parallel with the decrease of poisoning incidents, the overall mortality rate of breeding imperial eagles also decreased as it was revealed by non-invasive genetic tracking. The overall mortality rate of non-breeding immature imperial eagles also decreased as it was revealed by satellite tracking (figure).



The extremely high number of illegal poisoning incidents resulted that the population growth of imperial eagles has stopped after 30 years of conservation efforts in Hungary by 2011. The decreased mortality of breeding and non-breeding birds during the project has created again the possibility for the population increase, which could happen by the last two years of the project.



By the end of the project the Hungarian population of Eastern imperial eagles has reached 205 nesting pairs, which was resulted by a 36% population increase during the project period.



### 3. Introduction

#### ***Which species and main conservation issues are targeted***

The eastern imperial eagle (*Aquila heliaca*) is a globally threatened bird species, of which Hungary holds the largest population in the European Union. Prior to the HELICON LIFE project the favourable conservation status of the imperial eagle in Hungary was seriously threatened by the exponentially increasing trend of persecution incidents, as between 2005 and 2010 at least 54 specimens became the victim of illegal poisoning and shooting.

#### ***Overall and specific objectives***

The main objective of the project HELICON LIFE (i.e. HELIaca CONservation) between 2012 and 2016 was to maintain the increasing trend of the eastern imperial eagle population in Hungary through significantly decreasing the non-natural mortality caused by persecution incidents. The following concrete objectives have been targeted by the project to handle the increasing prevalence of human-eagle conflicts in Hungary:

- decrease the direct adverse effects of persecution incidents on the Hungarian imperial eagle population;
- increase the chance of detecting illegal activities and imposing precedent judgments in the case of bird persecution incidents;
- increase stakeholder awareness about the overestimated effect of raptor species on game populations and about alternative eagle-friendly game management methods;
- increase public awareness about the conservational importance of imperial eagles and about the possible consequences of persecution incidents.

#### ***Which sites are involved***

The above mentioned objectives was targeted by 34 different actions executed mostly on those 20 Hungarian SPAs, which hold breeding territories or significant temporary settlement areas of imperial eagles.

#### ***Socio-economic context***

Some stakeholders, especially hunters overestimate the effect of natural predators on game populations, and they lack information on alternative eagle-friendly game management methods. In order to change the attitude of stakeholders quantitative data was panned to be gathered and disseminated on the relative importance of different factors affecting game populations (highlighting the significance of human land-use vs. predation), and about the efficiency of alternative legal predator control methods.

#### ***Expected longer term results***

- The Hungarian breeding population of eastern imperial eagles increased by >20% during the project period and it has reached >140 breeding pairs by 2016. The average breeding success of imperial eagles is above 1 fledgling per breeding pair during the project period, which has served the needed recruitment for the future increase of the population.
- The number of imperial eagles deaths due to persecution decreased during the project period and the annual number of affected specimens was <5 in average of the last years of the project. The annual mortality rate of breeding imperial eagles became less than 20% by the end of the project. Imperial eagles found injured, but alive in persecution incidents were rehabilitated with >30% success rate during the project period (including ≥5 specimens).
- Serious precedent judgements have been imposed and advertised in at least one of the bird crime investigations during the project.

- The project appeared in >1000 national media reports, which have reached the public audience by >10 million occasions. The project exhibitions in Hungarian Zoos were visited by >2 million people. The project website had >1 million visitors and the project films were seen by >2 million people as well. The Imperial Eagle Visitor Centre and Education Trail was visited personally by >2500 people belong to the specified target groups. This vast appearance of the project resulted in a significantly increased stakeholder and public awareness on the status of imperial eagle, on the conservational consequences of persecution incidents and on the importance of Natura 2000 network.

## 4. Administrative part

### 4.1 Description of the management system

#### **Action E.2: Establish operational project team and partnership**

Project manager was nominated at the beginning of the project by the director of MME. Continuous working contact with all partners established. Project team at MME and partners has been nominated, contracts has been signed by 31/03/2012. A detailed list and main tasks of project participants at all partners have been put together and sent to all partners. All partnership agreements have been signed.

#### **Action E.3: Project management, monitoring and reporting**

After the establishment of the project operational system and the signing of partnership agreements (Action E.2) an effective day-to-day operation of the various project actions, the coordination of associated beneficiaries and the appropriate reporting to the European Commission was managed by a full-time project manager, who was facilitated by a full-time project administrator (Action E.3). A system for project management and monitoring has been developed and updated monthly for all project partners and employees. The purchase of the needed equipment was done according to the application, although some small changes were initiated and accepted by the EC via email communication through the External Monitoring Team on 22/05/2013, 06/09/2013 and 10/10/2014.

The execution of projects actions, the achievement of milestones, the production of deliverables and the realization of proposed budget were continuously monitored by the project manager, who also took part personally in the realization of some activities. Regular meetings were held to coordinate those actions where more associated beneficiaries and/or subcontractors worked together (more than 200 internal meetings were organized). Overall progress of the project, and implementation of certain actions was evaluated annually by the Steering Committee Meetings (Action E.4).

An independent audit office has been contracted to monitor the financial realization of the project. According to the agreement signed with the office, controls were executed annually during the project execution.

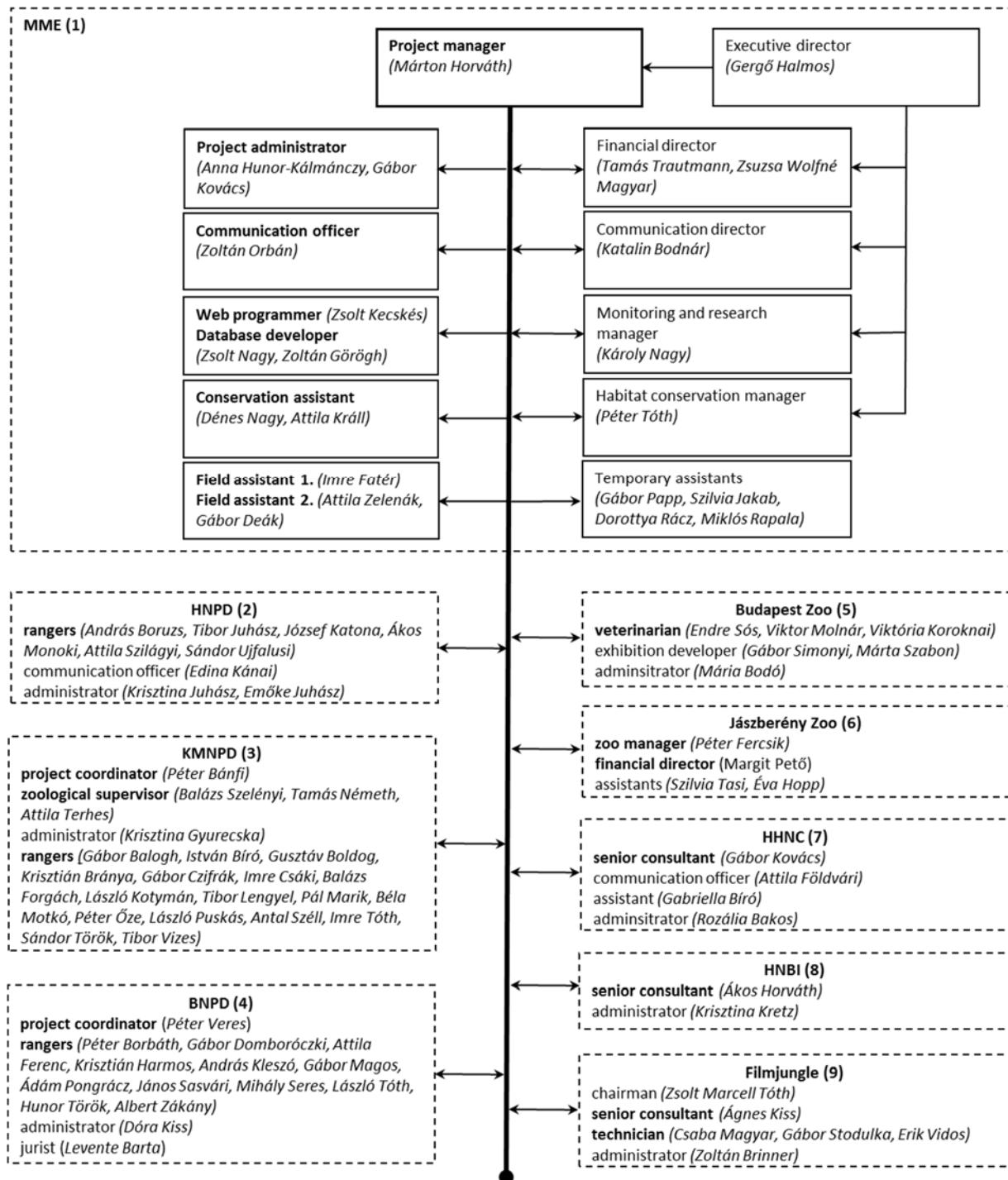
Bilateral and bilingual (Hungarian, English) partnership agreements were signed by every beneficiary by the end of April (date of signature): BNPD (22/02/2012), HNPD (22/02/2012), HNBI, (22/02/2012), JVV Zrt. (22/02/2012), KMNPD (05/03/2012), Filmjungle (10/04/2012), Budapest Zoo (19/04/2012) and HHNC (23/04/2012). The agreements also contained financial administrative annexes, forms, and descriptive guidelines how to fill in them. The copies of the partnership agreements were sent to the EC together with Inception report in September 2012.

A project stamp for every partner was prepared and distributed till March 2012, which they use in their own accounting of invoices. In the first quarter of the project one quarterly report was asked from the beneficiaries by 25 April 2012. Afterwards a monthly reporting period was agreed, with reporting deadlines set as the 25<sup>th</sup> day of the following month. The balance payments of the approved costs were made in a quarterly basis towards the associated beneficiaries, although in exceptional cases there was possibility for requiring pre-finance.

Two administrative changes happened in the partnership in case of the Zoological Park and Botanical Garden of Jászberény (Jászberény Zoo, Associated beneficiary No. 6) and

the National Bureau of Investigation (HNBI, Associated beneficiary No. 8), which were detailed and solved with the inception report.

The organigramme of the project system:



Positions involved with significant working time in the project performance are written in **bold**. The personnel costs of some employees, who had executed their work in the frame of their original contract, were covered from the Overheads of the given organization, therefore their working time is not included in the financial tables and they did not fill time-sheets for the project.

A change in the project reporting schedule is proposed and accepted in the inception report due to an administrative mistake overlooked in the project application. Therefore, the following reports were re-planned:

- *progress report* by 30/09/2015 (18 months after the mid-term report),
- *final report* by 31/03/2017 (three months after the project finalization, 18 months after the progress report).

The imperial eagle conservation actions of the project were executed according to the following permissions of the competent national authority:

- OKTVF 14/2583-5/2011 (2012-2015);
- OKTF-KP/56- 25/2015 (2015-2016).

### ***Improvements of the project inner communication and management***

An *email list* (helicon@mme.hu) was created with the participation of all employees working for the project at all nine beneficiaries. This list was proved to be an efficient tool for sharing information and for the harmonization of press releases before making it public.

Another important improvement was in the project management when a *cloud-based drive* (Google Drive, life.helicon) was created for the project in 2013. All documents and photos relating to the project performance were continuously uploaded, where all relevant project participants could reach, upload and edit them. At the end of the project there were more than 11 thousand files available at the drive.

In order to handle all significant delays happened at the first half of the project a detailed workplan was elaborated and disseminated among project participants. Official letters with a detailed list of actual actions and deadlines were sent to all partners of the project in September 2014. Since October 2014 the internal project team of MME and HNPD (5 employees together) has obligatory meetings in every two weeks in Jászberény, when the workplan is updated.

The partnership agreements, Gantt chart and a comprehensive list of the questions and answers raised by the EC in official letters are attached in ***Administrative Annexes***.

## 4. 2 Evaluation of the management system

The partnership created in the frame of the project was working well in general, all the needed information was provided by the partners to each other and all beneficiaries were dedicated for reaching the objectives of the project. The project team provided all directly requested information for the European Commission and the external monitoring team, although there were delays or gaps in the continuous monthly reporting.

Due to the ambitious project planning delays happened at the first half of the project, but thanks to the significant management and technical efforts the delays of the project could be handled by 2015. The project managed to reach and even exceed most of its original targets by the end of the project.

## 5. Technical part

### 5.1. Technical progress, per task

At each action description the references to the indicators, the significant modifications, delays or major problems encountered are underlined. The planned output and time schedule according to the application file are written in *italics and undelined* at the relevant part of the text for the comparison of planned and realized output and time schedule.

#### **Action A.1: Establish a specialised countrywide veterinary system and best-practice protocol for the treatment of birds injured or died due to persecution**

##### ***Veterinarian network***

The list of possible participants of the network has been put together with the help of the Hungarian Association of Wildlife and Zoo Veterinarians (MVÁÁT - Magyar Vad- és Állatkerti Állatorvosok Társasága). Two special veterinarian trainings were held in the frame of the project (*one was planned in the application till 31/12/2012*).

The first training was held on 31 May - 1 June 2013, where 21 participants (including 15 veterinarians) took part. The first day of the training was held at the Budapest Zoo, where several presentations were held by Dr. Endre Sós (chief veterinarian at Budapest Zoo) and Dr. Igal Horowitz (director of the Israeli Wildlife Hospital). At the second day the participants visited the Raptor Rehabilitation Centre of HNPD at Góré and get some experience in handling and treating raptors.

The second training took part at 27 March 2014 connecting to another workshop of the Hungarian Association of Wildlife and Zoo Veterinarians, in which 72 participants (including 55 veterinarians) took part at the Budapest Zoo.

The already existing veterinarian network was extended at the Annual Conference of the MVÁÁT and Budapest Zoo between 27-29 March 2015. At the coffee breaks of the conference the Helicon project films were projected and a special project desk was installed by Budapest Zoo to inform participants, to disseminate educational materials and to give declarations for signing to veterinarians. Altogether 145 participants were present at the conference.

Altogether 215 veterinarians and other related professionals were contacted directly by the project during the workshops and personnel visits. 31 veterinarians signed the declaration for joining the established veterinarian network, which covers almost all counties of Hungary (*20 veterinarians were planned in the application*). Till the end of the project only Somogy, Tolna and Zala counties (where there is no significant occurrence of imperial eagles) have no local participants, and here the Budapest Zoo veterinarians are nominated and executing medical services.

##### ***Veterinarian protocol***

The first full version of best practice veterinarian protocol was prepared by 30/09/2012 directly connected to the best practice protocols covering the forensic (Action A.4) and field survey (Action C.5) methodology (*same date was planned in the application*). The final version of best practice veterinarian protocol was prepared by December 2014 directly connected to the best practice protocols covering the forensic (Action A.4) and field survey (Action C.5) methodology. All new protocols entered into force by 1 January 2015 and they do not include

any elements, which need further support from the Helicon Life project, therefore they can be executed without significant problems also after the project period.

### ***Veterinarian investigations***

All together 63 imperial eagle specimens have been found injured or dead in Hungary during the reporting period (eggs and chicks are not incorporated).

Cause of recovery	Total specimens	% of cause	Found dead	Found alive	Mortality in captivity	Still in captivity	Rehabilitated and released	% of mortality	% of rehabilitation	% of rehabilitation among birds found alive
Intentional predator poisoning	34	54%	23	11	1	0	10	71%	29%	91%
Collission with vehicle	7	11%	6	1	0	1	0	86%	0%	0%
Electrocution	6	10%	6	0	0	0	0	100%	0%	-
Accidental lead poisoning	2	3%	2	0	0	0	0	100%	0%	-
Collission with power line	2	3%	0	2	1	0	1	50%	50%	50%
Shooting	1	2%	1	0	0	0	0	100%	0%	-
Disease	1	2%	1	0	0	0	0	100%	0%	-
Other physical injury	1	2%	0	1	1	0	0	100%	0%	0%
Unknown	9	14%	8	1	0	0	1	89%	11%	100%
<b>ALL</b>	<b>63</b>	<b>100%</b>	<b>47</b>	<b>16</b>	<b>3</b>	<b>1</b>	<b>12</b>	<b>79%</b>	<b>19%</b>	<b>75%</b>

This high number of specimens is partly resulted by the significantly increased survey efforts during the project (Action C.5). Thanks to the quick and effective [reaction of veterinarians](#) only 3 specimens died after finding, and 12 specimens could be released, which means a 75% of rehabilitation success (5-15 specimens and 30% success was planned in the application). 10 out of the 12 rehabilitated eagles could be tagged with satellite transmitter and released after the successful veterinarian treatment (Action C.1).

All the dead birds were investigated properly by the Budapest Zoo and the Animal Health and Diagnostic Department of the NÉBIH (act as subcontractor), and reports were delivered to the relevant National Park Directorates and HNBI. All the relevant 160 diagnostic reports produced during the project are archived and joined to the Bird Crime Database (Action A.3). The cause of death could be determined from the veterinarian investigations or from the field surveys in most of the cases, except those carcasses, which was already in a very bad condition at the time of finding, without any evident mortality causes (i.e. power line, railway, other poisoned carcasses) in its environment.

According to the project application the diagnostic investigation costs were covered by Budapest Zoo from the project during the initiation phase of the protocols till 2014. Afterwards according to the final best practice protocols (Action A.4), these costs were financed by the relevant national park directorates independently from the project from January 2015.

The [list of network participants](#), the [protocol](#) (both in English and Hungarian), and the veterinarian training material are available at the “**Downloads**” *menu of the project website*. Beside these documents, the programmes and participant lists of the workshops, the signed declarations, the veterinarian pathological investigation order form and an example pathological report are also attached in the **Technical Annex A.1**. The veterinarian training material is available at the **Dissemination Annex / Presentations**.

## Action A.2: Establish trained dog-units for searching carcasses and poisoned baits

The project team decided to create one dog unit with one leader, as it was accepted by the EC after the Inception report due to cost-effective reasons (three units with six dogs planned in the application).

The possibilities of establishing trained dog units has been evaluated with and bids were asked from the three most experienced Hungarian organizations in this field: the dog training departments of the National Tax and Duty Authority (NAV), the National Police Headquarter (ORFK), and a specialized private company, which is training the drug-searching dogs for the Budapest International Airport (Power Shield Special Service Ltd.). After the unforeseen delays detailed in the inception report, we chose the significantly cheaper bid of ORFK, which also had the best level of technical experience and infrastructural background.

From several applicants we choose a person (Gábor Deák) with the highest level of personal experience and enthusiasm for the position, who was already working with dogs and also helped the project as a volunteer nest guard in 2012 (Action C.2). Together with the experts of ORFK we choose two dogs with perfect capabilities out of more than 300 possible dogs offered by specialized working dog breeders. The four-month training started with the two dogs in April 2013, and after three weeks the one (called "Falco") with the even better performance was selected for the task. A special permission for the use of toxic chemicals for the training has been asked from and issued by the responsible National Food Chain Safety Office. The training was finished with a successful exam of the dog-leader and the dog on 9 August 2013, where the official certificate was issued by ORFK (30/09/2012 was planned in the application).

The officially founded dog unit has executed its work in the frame of Action C.5. The project team (MME, NPDs, HNBI) decided that the dog unit should work in secret for one year in order to collect as many evidences as possible for proper police investigations, and also to get an unbiased picture about the prevalence of bird crime incidents. Therefore, the first public appearance of "Falco" happened only in November 2014 in the frame of a [press conference](#), and afterwards the dog unit helped very effectively the communication actions of the project (Action D.4, D.7, D.10 etc.).

According to the police dog training standards two years after the training an extension course has been executed successfully by the dog unit of MME between 30 March to 10 April 2015 at ORFK.

The certificates of the dog and dog-leader and the permission for the use of toxic chemicals for the training are attached in **Technical Annex A.2**.



### **Action A.3: Establish Hot Line and Online Bird Crime Database for reporting and storing data on bird persecution cases**

A special Hot Line (+36-20-251-4404) and e-mail address (mergezes@mme.hu) to report bird persecution incidents were launched in February 2012 and advertised since then at the relevant forums and email lists (31/03/2012 was planned in the application). The [online anonym reporting possibility](#) is available both at the project and central MME websites (Action D.10), which is also sending an email to the mergezes@mme.hu email address. The emails are redirected automatically to the two full-time technical employees and the project manager, who are getting notice of emails in the field as well, so they can react immediately to reports. The Hot Line, email and database are managed by the same employee ("poisoning prevention coordinator") who is responsible for the dog unit (Action. A.2 and C.5), so all information flow is centralized.

The structure of the Bird Crime Database has been planned, programmed, filled up and up-dated with all available information on bird crime issues and all recorded mortality of imperial eagles since 1974 up till now. The database contained 1023 records about 2350 specimens, including 252 imperial eagles by the end of the project. Based on the suggestion of HNBI the project team decided not to put the raw database on the website, as the information could be misused by the perpetrators who are against the effective investigation of the cases. Anyway informative summarizing maps, diagrams and the originally planned main function of the online database (i.e. reporting possibility of bird crimes) are available at the [website](#). The raw Bird Crime Database was made available online at the Google Drive system of the project at 11/09/2013 for the authorized project participants (MME, HNBI, HNPd, BNPd, KMNPd) (30/09/2012 was planned in the application). In case of query from other organizations (ministries, local police, authorities, other national park directorates etc.) the poisoning prevention coordinator is preparing and sending the needed query or raw data, if it is authorized by the project manager and the project coordinator of HNBI.

The action was accomplished already in 2013. The public figures and maps are refreshed in an annual basis on the website.

Thanks to the lobbying activity of the project, and the involvement of the project manager as an invited expert in the National Plant Protection Council, the important issues have been integrated in the final version of the National Plant Protection Action Plan in 2013:

- the problem of illegal poisoning of protected animals among the main targets of the Plan,
- the number of poisoned protected animals as an indicator of the Plan,
- the Bird Crime Database of MME as one of the databases used for the monitoring of the Plan.

#### **Action A.4: Prepare a protocol about best practice methods and applicable legal tools for investigating bird persecution cases**

In the first project Steering Committee Meeting (17/02/2012, Szarvas) the relevant participants (Budapest Zoo, HNBI, HNPĐ, KMNPĐ, BNPD) agreed that three complementary protocols will be elaborated. The veterinarian protocol under Action A.1, while the field survey and police investigation protocols in the frame of this action (one protocol was planned in the application). The baselines of the three directly connected protocols were discussed at the meeting.

##### ***Field investigation protocol***

The first full version of the field investigation protocol in case of suspected bird crime has been produced by 30/09/2012 (same date was planned in the application). The protocol was updated based on the comments of the international participants of the "Workshop on the illegal killing of birds in the Pannonian region" at Felsőtárkány on 22/02/2013 (Action E.4 and E.5). The protocol was sent to all cooperating organizations and was detailed at the mailing list of Hungarian raptor conservation experts (raptor@mme.hu). An extra training and a half-day workshop was organized by the project team (MME and HNBI) for the rangers of the Kiskunság National Park Directorate (KNPD) on 28/03/2013, where most of the poisoning cases happened in 2013.

##### ***Police investigation protocol***

The methodology for proper police investigation and applicable laws in wildlife poisoning cases have been prepared by HNBI and sent to all Police County Headquarters in Hungary at the start of the project as a HNBI Directorial Reference No. 29015-84/2012 (19/01/2012). Anyway the project team faced that in several cases the police did not take crime scene investigations, did not start the official investigation procedure, or if they started they did not execute proper procedures during their investigations. Based on the materials provided by HNBI and as a result of the project's lobbying activity the deputy head of the Hungarian National Police gave an order No. 29022-18720/2014 (25/02/2014) for all police headquarters to execute obligatory crime scene investigations in case of wildlife poisoning. As a result of this order a significant progress has been observed in the investigation of the most cases. In parallel the public and internal version of the police protocol has been elaborated by HNBI in 2013.

All the three protocols have been finalised on the annual project meeting at 20 November 2014 in order to exclude LIFE financing from the official processes after 1 January 2015 (see details under A.5). At this meeting all 51 regional ranger districts of the 10 Hungarian national park directorates got a field unit package, which is a plastic box (35x20x15cm) containing (1) printed and laminated version of the field investigation protocol, (2) pathological investigation order forms of NÉBIH, (3) ID labels for carcasses and baits, (4) plastic bags to store carcasses and baits, (5) plastic gloves, (6) scissors, (7) tape, (8) plastic bundling straps, (9) pen and pencil (see *Audio-visual archive at Dissemination Annexes*).

The protocols were disseminated among key stakeholders, were published in the annual "Heliaca" of MME (attached in *Publications at Dissemination Annexes*), and were used as a base for the presentations at the relevant stakeholders' workshops (Actions A.5 and D.1). The field protocol and the public version of the police protocol are available in Hungarian and English languages at the *project website* and the full versions are attached in *Technical Annex A.4*. Due to security reasons the full version of the police protocol is only available at the police.hu intranet page, which is available for all organizations within the Hungarian police.

## **Action A.5: Establish an Anti Bird Crime Action Group including representatives of all main stakeholder groups for helping investigations**

### ***Agreement of cooperation between hunting and conservation organizations***

At the beginning of the project a professional discussion has been initiated involving all governmental, non-governmental and research organizations to create a common work-plan to reduce the conflicts between conservationists and game-managers. After several conferences, meetings and discussions (in which the project team actively participated) a detailed agreement has been signed between the HMRD, main hunting and conservation NGOs (including MME and HHNC) and research universities at the opening ceremony of the Hungarian Exhibition of Arms, Fishing and Hunting (FeHoVa 2012) on 16 February 2012. This agreement also declares that (1) the protection of all raptor species is non-questionable, (2) all organizations are fight together against illegal poisoning of wildlife and (3) the main common objective of the parties is to ensure the suitable quantity and quality of natural habitats in the Hungarian agricultural landscape.

### ***Foundation of the Anti-Poisoning Working Group in the frame of the Hungarian Raptor Conservation Council***

The Hungarian Raptor Conservation Council was funded in 2010 (in parallel with the preparation of the recent project application), with the participation of all relevant 28 organizations dealing with raptor conservation in Hungary, including the HMRD, the 10 national park directorates, Budapest Zoo, and further 16 main nature conservation NGOs. Besides a special agreement of cooperation about the decrease of bird poisoning incidents was signed between MME and the 10 national park directorates on 16/11/2010.

The member organizations of the Raptor Conservation Council and the signatory organizations of the above mentioned agreements were invited on the "Workshop on the illegal killing of birds in the Pannonian region" at Felsőtárkány on 22 February 2013 (Action E.4 and E.5), where representatives of 16 organizations were present. Here we discussed the need for establishing a separate Anti Bird Crime Action Group as it was proposed in the project application, but the representatives agreed that there is no need for the foundation of another separate "action group" in a topic where several agreements have been signed already. One of the main aims of the Raptor Conservation Council is also to decrease the raptor poisoning and persecution incidents (point 1. paragraph 3. of the foundation document, which was signed by the directors of all 26 founding organizations). The representatives voted to form the Anti-Poisoning Working Group in the frame of the Raptor Conservation Council on 22/02/2013 (31/12/2012 was planned in the application). This Working Group can fulfil all the objectives set in the project application file (such as defining tasks, accepting protocols, sharing experience, distributing technical documents etc.), so the project team accepted this initiation. Anyway the project team asked signed declarations of the different organizations of the Council in order to name the official representatives who take part in the Anti-Poisoning Working Group.

An important meeting of the Anti-poisoning Working Group was organized at 20 November 2014 in the Jászberény Zoo with 55 participants representing 26 different organizations (see Action A.4). The all-day meeting also incorporated the annual Project Steering Group Meeting (Action E.4).

The signed declarations, the program and report of the workshop where the Working Group was founded (2013) and the program of the 2014 Working Group meeting are attached in ***Technical Annex A.5.***

## **Action A.6: Prepare an objective study about factors affecting game populations and about alternative legal predator control methods**

An experienced subcontractor has been contracted by HHNC (SZIE VMI, Szent István University Institute for Wildlife Conservation) and a detailed study protocol has been agreed in the 2nd quarter of 2012 (1<sup>st</sup> quarter was planned in the application) by SZIE VMI, MME and HHNC through several meetings and discussions. A protocol for monitoring and trapping legally hunted predator species (fox, badger, corvids) has been prepared by SZIE VMI (see also Action C.6).

A 1660 ha sample plot for the small game (hare and pheasant) management and predator (fox and corvids) control study have been selected in the northern section of the Jászság SPA between Jászágó, Jászberény and Jászárokszállás settlements. A baseline game and predator survey were executed in autumn 2012 and spring 2013, which was repeated in 2013/2014 (within this action), in 2014/2015 and 2015/2016 (within Action C.6 and E.1) to monitor changes. Besides the field surveys annual data are collected in a systematic way from all local hunting associations on the estimated population sizes and kills of game and predator species.

Based on the discussions and the analyses of the baseline survey data it became clear for the project team that the original application was too optimistic, when proposed to gain valuable data on the efficiency of different predator controlling methods already from the first two years' surveys. Also the significant differences in the annual population of the hares hampers the informative comparison of single year datasets, so no conclusions could be gain for the hare populations in such a short term. Therefore, we decided to re-plan realistically the relevant outputs of this and C.6 action according to the followings:

1. Methodological study for the game and predator surveys (prepared in the frame of this action by 01/12/2013 – not planned in the application);
2. Report on the status of game and predator management in Hungary (prepared in the frame of this action by 20/12/2013 – 31/12/2012 was planned in the application)
  - analysing the long-term national 53 years (1960-2012) dataset of game species and analysing evident trends and relationships (as the "preliminary report" in the application),
  - analysing already available detailed regional 19 years (1994-2012) dataset of game populations at the four most important counties of the Hungarian Plain and evaluating statistically the biotic and abiotic factors affected them (including the hunting methodology);
3. Report of the first two years' (autumn 2012 - spring 2014) dataset of the Jászság sample area surveys of game and predator species, which gives a baseline for the monitoring of the population and interventions under Action C.6 (prepared in the frame of this action by 31/03/2014 – 30/06/2014 was planned in the application);
4. Report of the five years' dataset (autumn 2012 - autumn 2016) of the Jászság sample area, analysing all existing biotic and abiotic factors and the interventions of the project (in the frame of Action E.1 in 2016 – not planned in the application).

The revised detailed report (2.) could serve the needed information for the other related actions (D.1, D.2 and C.6), without including any incautious conclusions from the preliminary datasets of the Jászság sample area. This detailed (137 pages) report has been finalised by November 2013. According to the revised plan this action was finalised in May 2014 with the acceptance

of the report on the 2012-2014 baseline surveys (3.). The follow-up of the started monitoring is continued under Action E.1, so the results are detailed there.

The methodological study (1.) and the status report (2.) are available at the project websites. These two documents, a report on the sample area surveys (3.), and the agreement with local hunting units are attached in ***Technical Annex A.6***. A paper about the game studies are attached in ***Publications at Dissemination Annexes***.

## Action A.7: Preparation of Management Plan for Jászság Special Protection Area (HUHN10005)

The following main activities have been undertaken during the preparation of the Management Plan:

Date	Activities
30/06/2012	Structure of the Management Plan with draft texts and the inventory of needed databases have been developed by the Habitats and Sites Protection Department of MME
10/08/2012	Management Planning meeting at Szent István University, Gödöllő: - fields of responsibility were clarified and completed with subcontractors, - an external expert (Attila Králl) subcontracted by BirdLife Hungary to carry out operational management, - the Environmental Social Science Research Group (ESSRG) subcontracted for all of the communication tasks of the action (i.e. stakeholder analysis, field interviews, communication planning, organizing and conducting negotiations with farmers, etc.), - work plan and timetable of the action has been finalized.
06/09/2012	Management Planning meeting at the Hortobágy National Park Directorate, where the work plan was agreed; the contribution of the Directorate and the exchange of essential data were also obtained.
07/02/2013	ESSRG prepared the study analysing the social background and communication strategy for the management planning.
22/04/2013	First full version of the Management Plan prepared and published on the project website. Invitations for the First workshop sent to relevant stakeholders.
10/05/2013	First workshop about the Jászság Management Plan has been organised with 40 participants representing local hunting societies, conservation organisations, farmers, water management and forestry services, municipalities and plant protection companies.
29/05/2013	Suggestions of the first workshop summarized and invitations sent to stakeholders for the second workshop.
10/06/2013	Second workshop about the Jászság Management Plan has been organised with 35 participants representing local hunting societies, conservation organisations, farmers, water management and forestry services, municipalities and plant protection companies.
04/09/2013	Second version of the Management Plan prepared and published on the project website based on the workshops' results. The plan was sent again to all collaborators and relevant stakeholders for final comments.
21/10/2013	Third version of the Management Plan submitted to the HMRD.
22/04/2014	HMRD makes its comments for suggested modifications.
29/01/2015	Final version of the Management Plan submitted to the HMRD.
09/04/2015	HMRD formally approves the management plan.

Due to a mistake during the planning of the application, the same date was planned for the first version of the management plan and the finalization of the action.

The first full version of the Management Plan was prepared by 22/04/2013 (31/12/2012 was planned in the application). Afterwards the long process of communication with stakeholders, the harmonization of the text and the approval period of the HMRD took further two years, so HMRD formally approved the management plan only at 09/04/2015 (31/12/2012 was planned to finalize the action in the application).

All together four full versions of the Management Plan have been prepared based on the suggestions of the stakeholders participating on the workshops or sending their comments to the project team. Therefore, the final plan was a result of many compromise and was supported by all relevant stakeholders.

Besides the Management Plan a "*Suggestion to create the JÁSZSÁG High Nature Value Farmland*" was also prepared and submitted to the HMRD on 21/11/2013. This idea was welcomed and supported by the HMRD and they stated that it will be used in the recent planning of the Hungarian Rural Development Programme for 2014-2020 (approval letter on 17/12/2014). Thanks to the initiation of the project the JÁSZSÁG High Nature Value Farmland Area has been designated with the borders proposed by the project, thus the possibility for applying higher level agri-environmental commitments became available for farmers. This initiation could serve as the most important tool to accomplish the suggestions included in the Management Plan.

Moreover the procedure of the Management Planning gave the idea for a much wider initiation. The project team in cooperation with another project of MME (Swiss contribution SH4/8), created and submitted to the HMRD a "*Suggestion to initiate specific agri-environmental measures for the creation and maintenance of optimal habitats for small game species*". This initiation contained several important recommendations of the Jászság SPA Management Plan, and was partially built into the 2016-2020 Hungarian agri-environmental programme This initiation could be the most important country-wide measure to stop the decrease of small game species in the Hungarian agricultural landscape, and therefore could help to increase imperial eagle populations and to decrease human-eagle conflicts.

Although the project and MME in general made outstanding contribution to open new possibilities for nature friendly land use, and the farmers expressed their willingness to join higher level schemes, due to an unfavourable decision during the selection of agri-environmental applicants, the expected breakout is delaying. MME is continuously making significant efforts on changing the selection criteria of agri-environmental measures in various forums since then.

The final management plan and the two joined proposals for the HMRD are available at the project website. These three documents, the approval of the HMRD, the invitations and minutes of the two SPA forums, and the ESSRG study are attached in ***Technical Annex A.7***. Two papers about the socioeconomic studies undertaken during the planning process are attached in ***Publications at Dissemination Annexes***.

## Action B.1: Purchase abandoned house yards in the Jászság SPA for creating optimal breeding habitats for imperial eagles

The project team selected in GIS and surveyed in the field all 60 potential parcels (isolated house yards, so called "tanya") within the northern section of the Jászság SPA. The data of the owners were required from the land registry. Investigations started to find the owners, as many of them were in unknown locations, because only names and old addresses could be obtained. Negotiations started with the owners from the most to the less optimal yards. In many cases it was impossible to get an agreement, because the owners asked much higher prices than the market value of the parcel, the building and the wood on it. In other cases the owners could not be found, or a single yard had already more than five owners, which made any agreements impossible. And finally in case of a hardly reached agreement with the owners the obligatory procedures took another five months in each cases to accomplish and validate the purchase. Although the investigations, negotiations and agreements needed much more efforts and took much longer than expected the proposed ten isolated house yards could be purchased by MME by February 2014 (31/12/2012 was planned in the application).

The details of the purchased house yards are summarized in the following table:

No.	Settlement	Plot ID	Size of the yard (ha)	Data of sales contract	Selling price (EUR)	Selling price (HUF)	Unit price (EUR/ha)	Code of imperial eagle territory	Notes
1	Jászságó	056/3	0,2309	28/02/2012	445	140 000	1 929	J-02	Building. Existing trees already used by imperial eagles for perching.
2	Jászárokszállás	0184/2	0,2586	28/02/2012	954	300 000	3 690	J-02	Existing many small trees.
3	Jászárokszállás	0148/3	0,1924	28/02/2012	318	100 000	1 653	J-02	Ruin of building. Few trees.
4	Jászberény	0231/2	0,4657	09/11/2012	1 590	500 000	3 415	J-16	Existing trees already used by imperial eagles for nesting.
5	Jászságó	064/6	0,1500	21/12/2012	541	170 000	3 605	HS-24	Existing many small trees.
6	Jászságó	064/3	0,2755	21/12/2012	254	80 000	924	J-02	No trees or buildings. Owner supported the project.
7	Jászságó	052/2	0,1313	17/09/2013	572	166 751	4 354	J-02	Existing trees already used by imperial eagles for perching. Average parcel cost in the region.
8	Jászárokszállás	0183/2	3,1158	17/09/2013	13 565	3 957 066	4 354	J-02	Large area with many trees and grassland. Average parcel cost in the region.
9	Jászberény	0130/5	0,2937	15/11/2013	1 714	500 000	5 836	J-03	Trees, imperial eagle nest on a neighbouring tree. Camera system installed here.
10	Jászságó	053/2	0,2399	14/02/2014	2 177	650 000	9 073	J-02	Existing building, many trees. Imperial eagle nest on the neighbouring parcel.
<b>All purchased</b>		<b>10</b>	<b>5,3538</b>		<b>22 131</b>	<b>6 563 817</b>	<b>4 134</b>	<b>4</b>	

The unit prices agreed with the owners varied greatly between € 1653 and 9073 based on the amount of trees, the location (how important it is for imperial eagle conservation) and the state of the building. One owner sympathized so much with the general idea of the project that he sold the property for half of the calculated market price (€ 924).

An unusually large house yard was found for sale (Jászárokszállás 0183/2, 3.1 ha) just beside an already purchased yard (Jászárokszállás 0183/2, 0.3 ha), which created a unique opportunity to undertake larger scale habitat rehabilitation works in one plot (3.4 ha together), which would aim not only to promote nest sites for the eagles but would be also suitable for



game-friendly management. It is also important because this two, and another six yards (4.9 ha together) are located inside the game-predator study site, so the effects of habitat rehabilitation works on game species can be monitored (Action A.6 and C.6).

All together the 10 yards covering 5.35 ha were purchased for 22,131 € (10 yards covering 3.00 ha was planned to be purchased for 9,188 € in the application). The deviation from the proposed size and budget of land purchase was agreed preliminary by the Commission (agreement get via email through the External Monitoring Team on 17/05/2013). We could buy house yards overlapping with four imperial eagle breeding territories (five was planned in the application), as no properties were available at the fifth one (J-12) located in the northern section of the SPA.

The sales contracts with the decision of the land registry and the maps showing the location of house yards are attached in **Technical Annex B.1**.

### Action C.1: Satellite track imperial eagles to locate key human-eagle conflict areas

An experienced external expert team has been selected and subcontracted to arrange the purchase of satellite tags, the tagging of birds and the evaluation of satellite data in cooperation with the project team. All together 39 imperial eagles have been fitted with satellite transmitters between 2012 and 2016 (30 specimens were planned in the application), and 3 further specimens have been followed which were tagged in 2011 prior to the project. Most of the birds were captured for tagging as large chicks just before fledging. Five immature and two adult birds were found alive due to non-lethal poisoning, and could be rehabilitated and tagged thanks to the quick veterinary interventions (Action A.1). The tagging activities and mortality reasons are summarized annually in the tables below.

TAGGING / AGE	2012	2013	2014	2015	2016	ALL	%
Pullus or juvenile (1y)	9	10	9	2	1	31	79%
Immature (2y)	0	3	1	1	0	5	13%
Adult (>5y)	0	2	1	0	0	3	8%
ALL	9	15	11	3	1	39	100%

MORTALITY / ALIVE	2012	2013	2014	2015	2016	ALL	%
Poisoning	1	3	0	3	0	7	17%
Electrocution	2	0	2	0	0	4	10%
Collision with vehicle	1	0	1	0	2	4	10%
Unknown mortality	0	0	1	0	0	1	2%
Unknown (including transmitter failure)	1	1	4	6	1	13	31%
Alive with working transmitter	7	18	21	15	13	13	31%
ALL *	12	22	29	24	16	42	100%

\* including 3 birds tagged in 2011

During the five years of the project ca. 350,000 GPS data received (30,000 coordinates were planned in the application) from these birds, which, according to our knowledge, is the most comprehensive database on the species in the world. The project team immediately reacted when the problem was observed from the data of the birds, the sites were checked by the local fieldworkers assisting the project within 24 hours, but unfortunately in all cases only the carcasses could be found. In some cases, when we suspected problems, the local fieldworkers observed and photographed the alive and healthy birds, and no interventions were needed.

In order to reach higher public support, we named the eagles after Hungarian gold medallists of the London Olympic games in 2012 and after famous Hungarian zoologists/ornithologists in 2013. We were also using the data of three birds, which were originally tagged within another project (EAZA Carnivore Campaign) in 2011.

The tagged eagles can be followed at a special website: [www.satellitetracking.eu](http://www.satellitetracking.eu), developed by our project and most of the birds have a folder at our Facebook page as well (Action D.10).

During the five years we have recorded the mortality of 16 birds (10 cases were planned in the application) due to the following reasons: poisoning (7, the last 2 of them were found abroad), electrocution (4), hit by vehicle (4) and unknown mortality (1). In 13 cases we were not able to recognize if mortality happened or the tags failed, as it was not obvious from the data, and no carcasses were found at the last locations. Unfortunately, no tagged birds could be saved directly with the help of the tracking, as all of them recovered dead, in spite of the continuous monitoring and quick field surveys. On the other hand, the discovery of seven

poisoned specimens helped us to react on these previously unknown crime scenes (removal of poisoned baits and carcasses, intensive field scene investigations), which most probably helped to save several imperial eagle and other raptor specimens, although the exact numbers cannot be estimated (*5 saved specimens were planned in the application*).

At the end of the project 13 alive birds with active transmitters (31% of all tracked birds) were followed. The relatively high number of alive birds and the very high amount of data resulted higher data costs than expected, but the budget was not exceeding the critical threshold.

The distribution of the satellite tracking data is shown in the maps attached in **Technical Annex C.1**. A paper evaluating the data of GPS-tagged imperial eagles was elaborated in cooperation with Helicon project and was presented in a conference and published in the Hungarian journal on nature conservation (Természetvédelmi Közlemények, “How sufficient is the Natura 2000 network to conserve highly dispersive species?”). This and another paper are attached among the **Publications at Dissemination Annexes**.

## Action C.2: Guard endangered imperial eagle nest sites at key SPAs

The possible universities and schools from where volunteers can be recruited have been contacted from the beginning of the project. All the needed equipment purchased (tents, bicycles, telescopes etc.) and the methodology of the guarding has been set up, including the form of field datasheets, declaration of volunteers. The locations of the camping sites have been selected and harmonized with land owners and hunters for the most vulnerable nest sites in each March. Intensive campaigns have been undertaken in all years to recruit volunteers, including the placement of posters at schools, sending press release to the media, using the websites of the project and the partners, the Facebook and email lists. As a result of the intensive campaign all together 340 volunteers took part in 191 weeks of nest guarding (150-250 volunteers were planned for 125 weeks in the application). All together they have devoted an enormous 3158 volunteer days for the project, which was 80% more than expected. The guards followed the fledging of 33 chicks from 21 breeding attempts (20 chicks were planned in the application), and helped to rescue 4 (2x2) abandoned eggs. These eggs, together with 2 more eggs rescued by the project team, were transferred immediately to the Great Bustard Centre of KMNPD, where 2 chicks could be hatched artificially, while the remaining 4 eggs were infertile or dead already. The 2 chicks were placed back into guarded nests, from where they could fledge successfully (3 specimens were planned in the application).

The main data of the nest guarding are summarized in the table below.

Year	Guarded nest	Volunteers	Days of guarding	Volunteer days	No. of fledglings	Fledging success	Saved eggs/chicks
2012	3	46	170	342	7	2,33	0
2013	5	78	271	673	8	1,60	1
2014	5	158	331	874	6	1,20	0
2015	5	77	336	593	7	1,40	1
2016	3	90	231	676	5	1,67	0
<b>ALL</b>	<b>21</b>	<b>340</b>	<b>1339</b>	<b>3158</b>	<b>33</b>	<b>1,57</b>	<b>2</b>
<b>Planned</b>	<b>15</b>	<b>200</b>	<b>875</b>	<b>1750</b>	<b>20</b>	<b>1,15</b>	<b>3</b>
<b>Progress</b>	<b>140%</b>	<b>170%</b>	<b>153%</b>	<b>180%</b>	<b>165%</b>	<b>137%</b>	<b>67%</b>

The locations of nest guarding are summarized in the table below:

SPA	Territory	Year	Start	End	Success
Jászság	J-12	2012	1 April	29 June	3
Heves	HS-06	2012	6 May	29 June	2
Déaványa	Órhalom	2012	28 May	1 July	2
Jászság	J-12 & J-16	2013	5 April	26 July	3 + 2
Heves	Körösi-tanya	2013	3 May	26 July	2
Közép-Tisza	Tizapüspöki	2013	4 April	26 April	0
Déaványa	Varsányhát	2013	5 April	28 May	1
Jászság	J-12 & J-16	2014	11 April	30 July	3 + 0
Déaványa	Kérsziget	2014	14 April	25 July	2
Heves	Kápolna	2014	11 April	1 August	1
Közép-Tisza	Tizapüspöki	2014	11 April	25 April	0
Jászság	Négyszállás & J-2	2015	10 April	31 July	1 + 3
Déaványa	Kérsziget & Barcé	2015	10 April	31 July	2 + 0
Heves	Detk	2015	10 April	31 July	1
Jászság	J-12	2016	15 April	22 July	1
Borsodi Mezőség	Igrici	2016	15 April	22 July	2
Déaványa	Déaványa	2016	15 April	22 July	2

The number of guarding locations in a given week is set in accordance with the number of available volunteers, because we do not want to stop the guarding in a given location once it started (after the tents and guarding equipment were set up at the camping site it would be not cost-effective to remove and rebuilt it several times).

The volunteers came from Mátra Forestry, Agricultural and Game Management College, Szent István University Conservation Engineer and Biology Faculties, Eger Eszterházy Károly College, Gyöngyös Károly Róbert College, Debrecen University, Szeged University, MME, national park directorates and Nimfea NGO, but also many private people volunteered.

The project has organized a Volunteer meeting for the nest guards from 2012 and 2013 at the MME headquarters in Budapest on 14/09/2013. Presentations, poison searching dog show and games were organised. In spite of the rainy weather 25 volunteers came for the meeting and around 100 further participants took part on the programmes organized together with the "Family day" of MME. The volunteers got a certificate and several PR products of the project (T-shirt, cap, raincoat etc.) from the director of MME and the project manager.

As a closing event of the action the project team has organized a Volunteer Day at the Eagle Centre at 24 September 2016, when all nest guards between 2012 and 2016 were invited. The 90 participants of the meeting could take part in a field excursion and poison searching dog show, and they could watch raptors and ringed passerines in hand.

The call and poster for volunteers, the nest guarding datasheet template, the invitation for the Volunteer Day, the template of volunteer certificate, the complete list of volunteers and the volunteer contract template are attached in ***Technical Annex C.2***.

### **Action C.3: Create and operate safe feeding places for imperial eagles in the Jászág SPA**

The final location of the feeding place has been defined in two field visits by the project team (HNPD, MME, Filmjungle, HNBI). A permission for the HNPD was obtained from the NÉBIH for operating feeding place for raptors in the selected parcel on 30/10/2012. Several possible sources of carcasses (rabbit, turkey, pig) had been contacted by the project team and ways of cooperation were agreed. The site was prepared, the grass was cut in the field in October 2012, so the feeding could start from 01/11/2012 (30/09/2012 was planned in the application), as soon as the permission was issued. A solar powered electric fence was set around the feeding place to avoid the intrusion of foxes and dogs, but the fence was destroyed several times, so they could go to the feeding place and continuous reparations were needed. Two large refrigerators were purchased for the building of the future Imperial Eagle Visitor Centre and for a cooperating pheasant farm, so the needed food for the artificial feeding can be stored properly and the feeding could become continuous.

The feeding started every year (2012-2016) between September and November depending on the weather conditions and was continued till early March of the next year. The large amount (ca. 4000 kg per season) and continuous (at least once a week) food source resulted that nine bird species have used regularly the feeding site and sometimes up to 50 specimens were feeding. Imperial eagles were among the regular visitors on the feeding site as well, but their numbers greatly varied between seasons. The two members of the nearest breeding imperial eagle pair and single immature specimens were regularly observed every year. The maximum number of different specimens were observed at the winter 2013/2014, when even five imperial eagles could be observed at the same time on the feeding place. Based on the plumage characteristics and dispersal behaviour of the birds most probably more than 10 different specimens visited the feeding place during that winter.

A webcam was installed at the feeding site from the second season onwards (2013-2015) in the frame of Action D.10, so feeding also helped significantly the communication activities of the project. The webcam video shots of the 2013/2014 season have been analysed in details by a volunteer between 6 November 2013 and 19 March 2014. Altogether 4133 observation blocks have been registered in 541 hours length. An observation block was defined as a 1-20 minutes period when animals could be observed in the feeding place and they were behaving constantly. Common buzzards appeared in 2365 blocks (57%) with 5309 individual records. Imperial eagles were the second most frequent raptor visitors, as they have been recorded in 664 blocks (16%), covering 69 hours and 44 minutes, and consisting 865 individual records for a single season (20 occasions were planned for 5 years in the application).

The permission issued for HNPD for the operation of the feeding place is attached in ***Technical Annex C.3.***

### Action C.4: Install artificial nests at safe locations to prevent and compensate the effect of persecution in project SPAs

A new type of metal artificial nest platform for imperial eagles was designed by the project team (HNPD), which has several advantages comparing to previously used wooden models. This type can be installed more easily and stable on the trees as the shape of the platform can be formulated according to the given fork on the tree, the punctured side facilitate the fixing by nails and wires and the twelve metal spokes can be easily wattled around with branches. We installed two prototypes on trees in the Jászság SPA for testing in 2012. We had positive experience during the test installation, so we manufactured all the further 98 pieces.

The amounts planned for the project SPAs were transferred to the local national park directorates or MME headquarters and the installations have been started in January 2013. Based on the comments from the Monitoring Team we asked the partners to paint the metal platforms to natural brown colour. By early 2016 all the 100 platforms have been installed (100 were planned in the application).

The final amount of installed artificial nests are summarized according to the project SPAs in the table below:

No.	Code	SPA Name	National Park Directorate	Placed	Planned	Progress (%)
1	HUBN10002	Borsodi-sík	Bükk	5	3	167%
2	HUBN10003	Bükk-hegység és peremterületei	Bükk	3	3	100%
3	HUBN10004	Hevesi-sík	Bükk	10	10	100%
4	HUBN10006	Mátra	Bükk	3	3	100%
5	HUBN10007	Zempléni-hegység a Szerencsi-dombsággal és a Hernád-völgygel	Aggteleki	3	3	100%
6	HUDI10003	Gerecse	Duna-Ipoly	7	3	233%
7	HUDI10004	Jászkarajenői puszták	Duna-Ipoly	5	3	167%
8	HUDI30001	Vértés	Duna-Ipoly	2	3	67%
9	HUFH10001	Fertő-tó	Fertő-Hanság	0	3	0%
10	HUFH10004	Mosoni-sík	Fertő-Hanság	2	10	20%
11	HUFH30005	Hanság	Fertő-Hanság	0	3	0%
12	HUHN10002	Hortobágy	Hortobágyi	2	3	67%
13	HUHN10003	Bihar	Hortobágyi	7	3	233%
14	HUHN10004	Közép-Tisza	Hortobágyi	8	10	80%
15	HUHN10005	Jászság	Hortobágyi	15	15	100%
16	HUKM10001	Kigyósi-puszták	Körös-Maros	3	3	100%
17	HUKM10003	Déaványai-sík	Körös-Maros	10	10	100%
18	HUKM10004	Hódmezővásárhely környéki és csanádi-háti puszták	Körös-Maros	3	3	100%
19	HUKM10005	Cserebökényi puszták	Körös-Maros	3	3	100%
20	HUKN10007	Alsó-Tiszavölgy	Kiskunsági	3	3	100%
21	HUKN10001	Felső-Kiskunság	Kiskunsági	6	0	-
<b>ALL</b>				<b>100</b>	<b>100</b>	<b>100%</b>

The project team proposed some changes in the originally planned distribution of artificial nests due to the availability of potential sites and to the changing distribution of imperial eagles. As it was previously agreed with the desk officer and External Monitoring Team (email on 16/03/2015) some artificial nests were installed in the 7 km buffer zone of SPAs and 6 to the Felső-Kiskunság SPA, which was not involved as a project SPA, but the species started to breed there during the project period.

During the project period 10 breeding of strictly protected species (6 imperial eagles, 3 white-tailed eagles and 1 saker falcon) were recorded in the newly erected artificial nests (25 breeding attempts were planned in the application). The usage of the nests was under the numbers estimated in the proposal, but it is probable that many of the platforms will be used 3-10 years after installation.

The detailed list and a map showing the location of artificial nests are attached in *Technical Annex C.4*.

### **Action C.5: Detect and investigate bird crime incidents potentially affecting imperial eagles by specialised field surveys and by appropriate legal procedures at key SPAs**

The needed equipment (4x4 cars, telescopes, binoculars, GPS-PDAs, cameras etc.) were purchased in the first half year of the project. The survey methodology was fixed in the first project Steering Committee Meeting (17 February 2012, Szarvas). All field surveys and police investigations were executed according to the relevant best practice protocols (Action A.4).

#### ***Traditional field surveys***

All partners executing significant fieldwork (MME, HNPD, BNPD, KMNPD) planned and divided the survey areas among participants and the frequency of surveys was defined. All important imperial eagle habitats (both breeding and temporary settlement) and/or potential conflict areas (i.e. where wildlife crime cases were previously detected or suspected) were visited at least monthly on all project SPAs and their buffer zones. The efforts were much more prominent in the East-Hungary, where more than 90% of the national population can be found. Observations on imperial eagles and any wildlife crime cases were collected with GPS coordinates. Altogether data of ca. 11,400 imperial eagle observations and territory controls have been gathered and stored in GIS by ca. 5500 surveys (2600 car unit surveys were planned in the application).

Beside the regular controls of key habitats by the local rangers and “territory caretakers” two standard and synchronized surveys have been executed annually.

- (1) The National Winter Eagle Count was also co-organized and participated by the project team every year, so the first controls of the imperial eagle territories of the project SPAs was set for this date. Beside the project partners a vast number of volunteers and rangers (up to 400 annually) took part in the countrywide surveys.
- (2) The project team of MME and national park directorates systematically controlled 150-180 imperial eagle nesting sites (90% of the national population) in every June during the project in order to gather data on breeding performance and possible bird crime incidents, and to collect shed feathers of the breeding birds to monitor their annual mortality (Action E.1). During these visits most of the chicks were ringed and DNA samples were obtained from them.

The intensive field surveys helped to discover several bird crime cases (see below), but also natural causes (e.g. nest collapse by wind storms), when direct conservation measures could be undertaken and several eggs, chicks, immature and adult birds could be saved (see Action A.1 and C.2).

The field survey efforts were also recorded with different, but comparable methods among the partners according to their GIS capabilities (MME: daily tracklogs, HNPD: standard monthly tracklogs, BNPD: daily tracklogs and monthly UTM, KMNPD: monthly UTM). All type of survey effort data can be transferred to a unique 2.5 km x 2.5 km UTM based GIS, so this scale was used for recording survey efforts.

#### ***Dog unit surveys***

After the dog unit was trained (Action A.2) the field surveys begun immediately in August 2013. The dog naturally found a lot of carcasses not related to any wildlife crime (e.g. voles, roe deer etc.), and also proved to be extremely effective to find new evidences of wildlife crimes. Altogether 547 surveys have been executed during the project, while 201 carcasses related to and further 60 suspicious for wildlife crimes were found (420 dog unit surveys were planned in the application). The results of the surveys are summarized in the following table.



Type of survey	No. of surveys	No. of findings connected to wildlife crime	No. of findings suspicious for wildlife crime	Detection rate (wildlife crime findings / survey)
Wildlife crime scene - suspected new case	99	148	24	1,49
Wildlife crime scene - archive case	205	29	25	0,14
Random SPA survey	217	12	10	0,06
Search for disappeared GPS-tagged bird	20	4	1	0,20
Search warrant with police	6	2	0	0,33
<b>Total</b>	<b>547</b>	<b>201</b>	<b>60</b>	<b>0,37</b>

In many freshly reported wildlife crime scenes the unit found a significant number of signs, which were not observed by traditional methods (1.49 in average). It was also proved that the dog is able to find carcasses underground, or small poisoned baits in high grass. GPS tracklogs are registered during the surveys, in many cases both the leader and the dog carried a GPS, so the area covered could be well calculated. Besides the findings related to or suspicious for wildlife crime, just in the first two years of the operation 1700 other carcasses or animal parts (e.g. voles, roe deers, feathers etc.) were found in the field (after September 2015 these findings were not registered in order to decrease field administration).

Beside the active wildlife crime scenes, the unit undertook a significant number of random surveys at project SPAs and also surveyed the scene of previous wildlife crime cases. The dog unit also took part in search warrants together with the police (HNBI).

### ***Persecution incidents***

All together detailed data on 199 different wildlife crime or mortality cases affecting 823 bird and mammal specimens, have been collected in the Bird Crime Database between January 2012 and December 2016. These huge numbers are partly resulted by the significantly increased survey efforts of the project and by the better advertisement of the problem and the reporting system in the media (Action D.4).

Most of the detected bird crimes were resulted by illegal predator poisoning. All together 147 cases of predator poisoning case affecting 615 specimens, including 36 imperial eagles were detected. Besides the poisoned animals 135 poisoned baits were also found, which high number gave a much better chance for the investigations, comparing to those cases when only the poisoned specimens were found.

Besides the very high number of poisoning incidents "only" seven cases of illegal shooting were detected, including one imperial eagle as well. This relatively low number is probably resulted by the fact that in case of shooting the perpetrator can collect immediately the carcasses, therefore it is possible that this type of crime is also widespread in Hungary, but probably still causing much less damage in the wildlife than poisoning.

Besides poisoning and shooting two imperial eagle nests have been probably robbed, and one was destroyed intentionally during the project.

The number of specimens affected by poisonings are summarized in the following table.

### ***Police investigations***

All together min. 53 police investigations have been started during the project period in case of bird crime incidents (2012: 18, 2013: 22, 2014: 7, 2015: 6, 2016: 2). In almost all cases HNBI actively consulted with and the helped the local police investigations, executed field surveys and executed own investigations (4 cases). Thanks to the serious investigations, executed or helped by HNBI and the police protocol (Action A.4), seven perpetrators were prosecuted in

five cases during the project. By the end of the project four trials were closed, in which all five suspects were found guilty and given suspended custodial sentence or significant financial penalty (at least one precedent judgement was planned in the application).

Species	Illegal poisoning	Suspected poisoning	Accidental poisoning	Total
Common buzzard	152	36	2	190
Common crane			75	75
White-tailed eagle	32	17	7	56
Marsh harrier	44	8		52
Common raven	41	6		47
Imperial eagle	23	11	2	36
Red fox	31	5		36
Rook	17	1		18
Magpie	15	2		17
Feral dog	13		1	14
Pheasant	12			12
European hare			10	10
Roe deer	9			9
Hooded crow	5	1		6
Feral cat	3	2		5
Saker falcon	5			5
Badger	4			4
Hen harrier	3			3
Golden jackal	2			2
Rogh-legged buzzard		2		2
Tawny owl	2			2
Wood pigeon	2			2
Northern white-breasted hedgehog	2			2
Common jay	2			2
Golden eagle	2			2
Black kite		1		1
Lesser spotted eagle		1		1
Gerat cormorant	1			1
Beech marten	1			1
Great tit	1			1
Red kite	1			1
<b>Total</b>	<b>425</b>	<b>93</b>	<b>97</b>	<b>615</b>

Maps and diagrams (dog-unit surveys, imperial eagle observations and poisoning cases), the judgements and all veterinarian reports are attached in *Technical Annex C.5*. Papers including imperial eagle and anti-poisoning annual reports are attached in *Dissemination Annexes / Publications*.

## **Action C.6: Create exemplary eagle and game habitat management in cooperation with hunters and farmers at the Jászság SPA**

### ***Habitat rehabilitation of house yards***

The arrangement of the habitat rehabilitation works could start only in 2013 due to the delay in the purchase of the house yards (Acton B.1). All corners of the house yards have been geodetically surveyed and concrete pylons have been set up on the corners to avoid further problems with neighbouring parcels. House yards have been surveyed by the project team, and original habitat types have been mapped in GIS. A preliminary plan for the targeted habitat structure has been also prepared in GIS. Permission was asked for the works from the responsible Environmental and Water Authorities in December 2013, which gave the permissions in April 2014.

Based on the preliminary plan a detailed work plan and a bid for the rehabilitation of the house yards was asked from three experienced external company in November 2013 when the agreement on the last house yards could be fixed with its owner. Based on the plans and proposed budgets the most experienced and most cost-effective subcontractor has been selected and contracted in March 2014.

The works has started immediately after the contract signed at eight house yards, which were not used by imperial eagles for nesting. The first round of rehabilitation works has been accomplished at the eight yards by the end of April 2014 (30/06/2013 was planned in the application): invasive trees were cut off, grass was mowed, bushes and trees were planted (with wooden poles beside each and covered against games), irrigated and hoed regularly. Each house yard has a well, but some of them had to be cleaned to obtain suitable amount of water for irrigation.

The works on the two yards with active nest sites were started only in autumn 2014 in order to avoid the disturbance, and therefore the breeding failure of eagles. Invasive *Ailanthus altissima* populations have been treated with specific chemicals at autumn 2014 and the dead trees were logged at summer 2015 (Jászberény 0130/5). Due to the drought of summer 2014 some of the bushes planted in 2013 and 2014 died in spite of the irrigation efforts. New bushes have been placed instead of the dead ones in 2014/2015. Annually two aftercare (including hoe work and irrigation) of the planted trees and bushes have been executed by the subcontractor. One extra irrigation of the planted trees and bushes at the drought period of summer 2015 have been organised by the project team with the active participation of several volunteers, who took part in the nest guarding. Annually two cleaner mowing have been executed at the grassland habitat patches. Beside the originally planned tree species, 290 pieces of traditional type fruit trees have been also planted in some of the house yards, as they were also integral part of the Jászság landscape and could serve as temporary food and water source for several native species as well. The habitat construction works has been finalized by 31/10/2016 (31/03/2016 was planned in the application).

### ***Water management object***

HNPD started the planning of the small sluices planned on the SPA to ensure water for the dry summer seasons at the beginning of the project. The plans were prepared by an external architect and sent to the Environmental and Water Authority in summer 2013. After two complements asked and delivered, the meanwhile reconstructed Environmental Authority transferred the case to the newly founded Water Authority at 16/04/2014, which started the whole procedure from the beginning. After the long administrative procedure HNPD got the permission and the subcontractor could finish the building of the two sluices by September

2014, but their quality was not sufficient. The sluices were strengthened as it was asked by HNPD in October 2014 (30/06/2013 was planned in the application).

Afterwards the sluices worked well and kept the water in the channels in several hundred meters' length and also on the neighboring grasslands till late spring. The created wetland habitat served drinking possibility for game and protected animal species, and also created good resting and breeding habitats along the channel due to the much larger coverage of plants throughout the dry summer seasons. The management also served as a resting habitat for a flock of ca. 100 cranes (*Grus grus*), which species was not observed in such numbers previously in the Jászság.

### ***Demonstrative game management***

The project team (MME, HNPD, HHNC, HNBI) and SZIE VMI (subcontractor) prepared a detailed study and management plan for the two related actions (Action A.6 and C.6). Based on the advantage of a focused intensive small scale study versus a larger scale less intensive one, and due to the decreased budget for the trapping sets, the project team decided to concentrate the study and management efforts to a 1600 ha study area (see Action A.6) instead of the whole SPA. The project team contacted all the 10 hunting societies in Jászság SPA, and a cooperation was started for the elaboration of the Jászság SPA Management Plan, the Jászság High Nature Value Farming initiations and the lobby for specific game conservation agri-environmental subsidies (Action A.7 and D.1). The hunting societies took active part in the preparation of the above mentioned initiations.

The cooperation was more intensive with three hunting societies (Jászberény, Jászárokszállás, Jászágó), which covered almost the whole northern section of the Jászság SPA and overlapped with the selected 1600 ha study area for Action A.6. The project team agreed with the societies that:

- trap sets were delivered to them by HHNC;
- trapping trainings were held for them;
- they use and document all trapping and hunting efforts as it was suggested by the subcontractor for the game management study (Action A.6) and monitoring (Action E.1),
- fox burrowing with dogs was organized annually with the help of external volunteers;
- they inform immediately the project team about all relevant information regarding protected species or wildlife crimes.

Five meetings were held in Jászberény at the Lehet Hunting Society with the participation of the project team (MME, HNPD, HHNC, HNBI), SZIE VMI and the three hunting societies:

- 18/05/2012: General introduction of the project and the ways of cooperation agreed.
- 04/07/2012: Discussion on trapping techniques, planning the trap sets for the project with the participation of best national experts (Tibor Farkas, Péter Pál Hajas).
- 06/02/2013: All day trapping workshop (Action D.1) led by the national experts (see above). Representatives of all the ten Jászság hunting societies were invited and six of them were represented. The sets of traps were given to the three selected societies. A short film was produced and published about the workshop (Action D.6).
- 07/02/2014: Evaluation of the first year's experience on trapping and fox burrowing with dogs. Planning the annual work.
- 27/02/2014: Revision and continuation of the trapping training led by the national experts.

A protocol for monitoring and trapping legally hunted predator species (fox, badger, corvids) has been prepared by SZIE VMI and distributed among the hunting societies (Action A.6). The societies started to use the trapping sets effectively in the study area. In March-April (2013-2016) fox burrowing with dogs was organized with the help of specialist volunteer hunters from another region of Hungary, where this method is applied effectively to control fox populations.

The first results of increased alternative predator control resulted that the number of foxes could be hunted by the traditional method (i.e. shooting in late summer and autumn) decreased significantly by 2013, which definitely means a lower population size in the area.

Based on the experience gained in the frame of cooperation with the three selected hunting society in the first three years of the project, further traps were provided and a training was held by HHNC and subcontractors in Alattyán in 20 October 2015 for all the 10 hunting societies overlapping with the Jászság SPA.

### ***Game- and eagle-friendly agricultural management***

Most land users have been contacted in the area during the fieldworks (Action C.5), and during the interviews and the preparations for the management planning workshops (Action A.7 and D.1). The "game-chaser" chains planned in the application were not purchased by HNPD, because during the last four years it became obligatory for all farmers to use such equipment when haying on Natura 2000 grasslands.

Only a few farmers attended the workshops, but those were managing significant parts of the SPA and they actively cooperated in the preparation of the new Jászság High Nature Value Farming and suggestion for the agri-environmental scheme. Almost all farmers were showed interest in the new scheme available in the area, although we have no data how many of them submitted application or gain subsidies (see comments under Action A.7).

The authority permissions for the habitat management, the original and the planned habitat map of the house yards and the agreement with local hunting units are attached in ***Technical Annex C.6***.

## Action E.1: Monitor population parameters of target species and prevalence of bird crime incidents in project SPAs

### *Monitor the prevalence of bird crime incidents*

Data on bird crime incidents were gathered in the database established in Action A.3. The prevalence of bird crime incidents increased significantly (by 92% in average) in the first two years of the project comparing to 2011 (at least 25% was planned in the application), which was presumably caused by the significantly increased field survey efforts (Action A.2 and C.5). On the other hand, prevalence of bird crime incidents decreased by 37% in average by the last three years of the project (at least 25% was planned in the application), which was presumably connected with the complex activities of the project. This is underlined by the fact that the decrease was the most evident at the East-Hungarian project sites and in the case of the affected imperial eagle specimens, which were in the focus of the project activities. The different indicators are summarized in the table below.

Bird crime indicators	Base year	Project - 1st phase					Project - 2nd phase				
	2011	2012	2013	Average	Trend (comparing to base year)	2014	2015	2016	Average	Trend (comparing to 1st phase)	
Detected bird crime incidents	19	38	35	36,5	92%	17	33	19	23,0	-37%	
Detected illegal poisoning incident	15	35	33	34,0	127%	15	31	19	21,7	-36%	
Detected poisoned baits	2	36	32	34,0	1600%	9	34	23	22,0	-35%	
Affected animal specimens	64	111	129	120,0	88%	26	109	152	95,7	-20%	
Affected protected bird specimens	53	100	112	106,0	100%	23	80	101	68,0	-36%	
Affected imperial eagle specimens	8	18	11	14,5	81%	2	5	1	2,7	-82%	

### *Monitor the breeding population size and breeding success of imperial eagles*

In the frame of Action C.5 data are gathered on imperial eagle breeding territories at the project SPAs and their buffer zones. Cooperation in the frame of the Hungarian Imperial eagle Working Group is coordinated with other national park directorates and NGOs so >95% of the national population is monitored.

The national population of imperial eagles were more or less stable at the beginning of the project between 2012 and 2014, while it showed a significant (36%) increase by 2015-2016 (at least 20% was planned in the application). The population increase was most probably resulted by the decreased mortality (see up and below), on which the project activities had significant effect. The breeding success also showed a moderate increase (9%) and it reached every year the long-term average of the population (1.14-1.39, over 1 fledgling per breeding pair was planned in the application). The national population size and breeding success is summarized in the table below.

Breeding population indicators	2012	2013	2014	2015	2016	Trend (2012-2016)
No. of active nests	151	147	152	187	205	36%
No. of breeding pairs	135	135	142	175	188	39%
No. of fledglings	172	154	183	232	262	52%
Breeding success (fledgling / breeding pair)	1,27	1,14	1,29	1,33	1,39	9%

### Monitor the mortality of breeding imperial eagles

Two experienced subcontractors were contracted and cooperated to execute genetic tracking of breeding imperial eagles. The project team already executed an intensive field survey prior to the project start in August-September 2011 in order to gain samples from these territories for comparison. The analyses of these samples have been executed to serve as a control year for the project period. The samples collected between 2012 and 2016 were analysed according to the following steps: (1) selection of appropriate samples for DNA extraction, (2) DNA extraction, (3) sexing, (4) selection of appropriate samples for DNA fingerprinting, (5) DNA fingerprinting (microsatellite fragment analyses using 10 locus). Mortality rate was estimated with a mark-recapture statistical model. The number of analysed samples are summarized in the table below.

Number of identified breeding individuals	2011	2012	2013	2014	2015	2016
Females	90	71	80	94	106	105
Males	39	38	39	31	40	31
All	129	109	119	125	146	136

The analyses showed that the mortality rate of breeding birds was high (16-25%) at the beginning of the project, while it decreased and remained more or less stable during the project period (8-16%, less than 20% was planned in the application). The model estimated continuously higher mortality for males than females.

Estimated mortality rate of breeding imperial eagles $\phi$ (CI)	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
Females	0,156 (0,091-0,254)	0,094 (0,039-0,209)	0,083 (0,03-0,205)	0,096 (0,036-0,234)	0,087 (0,019-0,321)
Males	0,249 (0,14-0,403)	0,157 (0,066-0,327)	0,14 (0,049-0,337)	0,161 (0,063-0,353)	0,146 (0,031-0,479)

### Monitor the mortality of immature imperial eagles

The data of satellite tracked birds (Action C.1) were used to estimate mortality rate of immature imperial eagles. Mortality was assessed by the data of those 1<sup>st</sup> to 3<sup>rd</sup> calendar year aged birds, which fate was completely known in 1 July in two consecutive years (i.e. birds with non-working loggers were excluded). The data shown, that an extremely high mortality (56-67%)

and poisoning rate (22-33%) was observed at the beginning of the project, which decreased to 10-17% and 0-10% respectively by the last three years of the project.

Please note that the average age of the tagged birds increased for the last two years (from 1.0-1.6 to 2.1-3.0 years in average), which could bias the results on overall mortality. Anyway similar number of juvenile birds (9-10) were tagged between 2012-2014, when the average age of the bird was between 1.0-1.6 years, so the sharp decrease at the first half of the project is most probably not affected significantly by the age effect. Moreover, poisoning is less age-specific, than other mortality factors of non-breeding birds, therefore the decrease of poisoning rate is a valuable indicator.

<b>Mortality rate of satellite-tracked immature imperial eagles</b>	<b>2011/2012</b>	<b>2012/2013</b>	<b>2013/2014</b>	<b>2014/2015</b>	<b>2015/2016</b>
<b>No. of individuals</b>	3	9	15	18	10
<b>Annual mortality rate</b>	0,667	0,556	0,133	0,167	0,100
<b>Annual poisoning rate</b>	0,333	0,222	0,000	0,056	0,100

### ***Monitor the population of small game and predator species in exemplary managed habitats***

The first two years' surveys have been executed under Action A.6, while the trends were monitored in the second half of the project under Action C.6. The subcontractors analysed the trends of European hare populations in relation to habitat structure and management. The study also compares the efficiency of different predator control methods. The 5-years dataset showed an increase in the population density of hares at the exemplary managed habitats (from 12 to 36 individuals/100 ha).

The reports of genetic tracking and game monitoring are attached in ***Technical Annex E.1***. A paper was elaborated together with the subcontractor about the genetic methods and results of turnover rate estimation (the paper was elaborated at the beginning of the project but refers data prior to the project). The paper is attached in ***Dissemination Annexes / Publications***.



#### **Action E.4: Hold Steering Committee Meetings**

All partner organizations and the HMRD were asked to nominate representatives to the Steering Committee of the HELICON project at the beginning of the project. All together five Steering Committee Meetings were held in each year of the project.

The first Steering Committee Meeting was held at the KMNPD visitor centre in Szarvas on 17 February 2012. This meeting was decided to be extended with all the participants of the project who carry out intensive field work and take part in the execution of the best practice protocols (even from a veterinarian, investigation or field survey point of view). All together 31 project participants took part in the meeting and the main output was the agreement on the draft for a common best practice protocol (Action A.1, A.4 and C.5).

The second Steering Committee Meeting was held on 22 February 2013 in Felsőtárkány. The meeting was linked to the "Workshop on the illegal killing of birds in the Pannonian region" (Action E.5) with the participation of eight beneficiaries, the HMRD and the audience of the workshop.

The third Steering Committee Meeting was organized at 20 November 2014 in the Jászberény Zoo with 55 participants representing 26 different organizations (see actions A.1, A.4, A.5). The all-day meeting included the 3<sup>rd</sup> Annual Project Steering Group Meeting.

The fourth Steering Committee Meeting was organized at 11 September 2015 at the Eagle Centre. The 11 participants represented 6 partner organizations.

The fifth Steering Committee Meeting was organized at 9 December 2016 linked to the closing workshop of the HELICON project. Exclusively the committee members and the active participants of the project were invited. The 35 participants represented 6 partner organizations and the HMRD.

The programmes and lists of participants are attached in *Technical Annex E.4*.

## Action E.5: Networking with other LIFE and non-LIFE projects

### *Networking with other projects*

The project team got in contact with 17 European organizations dealing with imperial eagle conservation or anti-poisoning campaigns, like Raptor Protection Slovakia (RPS), BirdLife Austria, Milvus Society (Romania), Provincial Institute of Nature Conservation in Serbia, Ukrainian Birds of Prey Research Centre, Bulgaria Society for the Protection of Birds (BSPB, BirdLife Bulgaria), Green Balkans (Bulgaria), Aquila Foundation (Macedonia), Natural History Museum of Crete (Greece), Doga Dernegi (BirdLife Turkey), Sociedad Española de Ornitología (SEO, BirdLife Spain), Gypaetus Foundation (Spain), Liga para a Protecção da Natureza (LPN, BirdLife Portugal), Royal Society for the Protection of Birds (RSPB, BirdLife UK), Scottish Raptor Study Group (UK), Israeli Wildlife Hospital, Ramat Gan (Israel), Sabuko (Georgia).

The project team got in direct contact with the following 22 LIFE projects in conferences, personnel visits or via e-mail communication (10 projects or organizations were planned in the application):

- LIFE14 NAT/NL/000901 (LIFE RE-Vultures) – information exchange
- LIFE14 NAT/FR/000050 (LIFE GYPCONNECT) – information exchange
- LIFE14 NAT/BG/001119 (LAND for LIFE) – information exchange
- LIFE14 NAT/BG/000649 (Vultures back to LIFE) – information exchange
- LIFE13 NAT/UK/000258 (LIFE hen harriers) – information exchange
- LIFE13 NAT/SK/001272 (LIFE ENERGY) – information exchange
- LIFE13 NAT/PT/001300 (LIFE Imperial) – information exchange
- LIFE13 NAT/IT/000311 (LIFE PLUTO) – information exchange
- LIFE13 NAT/HU/000183 (RAPTORSPREYLIFE) – overlapping beneficiaries
- LIFE13 NAT/FR/000093 (LIFE GypHelp) – information exchange
- LIFE12 NAT/BG/000572 (LIFE for safe grid) – information exchange
- LIFE11 NAT/HU/000926 (REDFOOT) – overlapping beneficiaries
- LIFE11 NAT/BG/000363 (LIFE FOR KRESNA GORGE) – information exchange
- LIFE10 NAT/BG/000152 (Return of the Neophron) – conference participation (BG)
- LIFE09 NAT/SK/000396 (APOMARINA\_SK) – conference participation (SK)
- LIFE09 NAT/HU/000384 (Falco cherrug B-H-R-S) – overlapping beneficiaries
- LIFE09 NAT/ES/000533 (Innovation against poison) – conference participation (ES)
- LIFE08 NAT/IT/000332 (SAVE THE FLYERS) – information exchange
- LIFE08 NAT/E/000062 (VENENO NO) – personnel visit (ES)
- LIFE08 NAT/BG/000278 (VULTURES' RETURN) – information exchange
- LIFE07 NAT/IT/000436 (ANTIDOTO) – conference participation (IT)
- LIFE07 NAT/BG/000068 (SAVE THE RAPTORS) – overlapping beneficiaries (BG)

The closest cooperation was formed with Spanish and Scottish researchers in the topic of field and forensic methods, which countries possess the largest experience in the fight against poisoning, while face similar challenges as Hungary (see details in the Mid-term Report). Ian Thomson (head of investigation, RSPB Scotland) spent three weeks in Hungary in March-April 2014 to help in the fieldwork and give presentations for the Hungarian conservation community. A similarly close cooperation was formed between Budapest Zoo and Israeli Wildlife Hospital veterinarians in the topic of diagnostics and treatment of poisoned birds.

All together the project team was visited in Hungary by more than 50 foreign experts from 20 different countries, while the project team and related experts has presented the project's results in 21 countries (travel costs to 11 of them were partly or completely funded by the project).

### ***Workshop to harmonize various ongoing LIFE+ projects dealing with bird crime incidents***

Instead of the originally planned Hungarian workshop the project team and Bulgarian colleagues (LIFE07NAT/BG/000068, LIFE08NAT/BG/000278 and LIFE10NAT/BG/000152) joined to the similar event organized by Gypaetus Foundation in Cordoba, Spain in the frame of the LIFE09NAT/ES/000533 project between 14-16 November 2012 ("International scientific and technical congress on the illegal use of poison baits in the natural environment: Effects on biodiversity and society", see details in the Mid-Term report).

The first "Workshop on the illegal killing of birds in the Pannonian region" was organized by the project team as the 8th event of the Hungarian Conservation Biology Conferences on 22 February 2013 in Felsőtárkány. The workshop was linked to the 8th annual Hungarian Raptor Conference (Sólyomcsalogató), which was held at the same location on 23 February 2013. All together 104 participants from 7 countries registered the meetings.

The "2<sup>nd</sup> Workshop on the illegal killing of birds in the Pannonian region" was organized and hosted by the HELICON project in the Eagle Centre at Jászberény (24 August 2015), where 14 participants from five countries were present. The participants agreed that a closer co-operation among the countries is needed in a regional scale, therefore they decided to start the elaboration of a common LIFE project application based on the positive experiences of the HELICON project. The project was latter approved by the EC and could already start in 2016 (PannonEagle LIFE, LIFE15NAT/HU/000902).

### ***Taking part in international conventions and initiations***

The project team provide information and presentations for HMRD experts, who have participated in the Working Group "Preventing Poisoning of Migratory Birds" of the *Convention on the Conservation of Migratory Species of Wild Animals (CMS)*. The project was presented at the Workshop of the Working Group on Minimizing the Risk of Poisoning to Migratory Birds (Tunis, Tunisia, 27-28 May 2013).

The project also contributed to the anti-poisoning work of the *Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention)* by assisting the national focal points of HMRD. The project and the Hungarian dataset (from the project's BirdCrime database) were presented at the

- 2<sup>nd</sup> Conference on Illegal killing, trapping and trade of birds (Tunis, 29-30 May 2013);
- Meetings of the Special focal points for Illegal Killing, Trapping and Trade of Wild Birds (2<sup>nd</sup>: Madrid, 24-25 February 2015, 3<sup>rd</sup>: Tirana, 14-15 April 2016);
- 5th Meeting of the Group of Experts on the Conservation of Birds (Strasbourg 12-13 October 2015).

The project team took active role in the preparation of the "*Best practice guide for monitoring illegal killing and taking of birds*" of *BirdLife International* (2015). The guide contains two detailed case studies taken from the HELICON project ("Employing a trained dog for gathering data on illegal poisoning in Hungary" and "Managing data on bird crimes in a database in Hungary").

The project also took part in the *European Network against Environmental Crime (ENEC)* launched by SEO (BirdLife Spain) and RSPB (BirdLife UK) with the support of Criminal

Justice Support Programme of the European Union. The project team participated in all three conferences and helped the elaboration of the outcomes listed below:

- I European Workshop on Environmental Crime: Illegal killing and taking of birds (Madrid, 11 February 2015): *Recommendations to eliminate illegal killing and taking of birds. Legal perspective;*
- II European Workshop on Environmental Crime: Illegal Poisoning of Wildlife (Barcelona, 6 November 2015): *A proposal for a EU Action Plan to prevent illegal poisoning of wildlife;*
- III European Workshop on Environmental Crime: Habitat Destruction (Edinburgh, 26 February 2016): *Recommendations to tackle habitat destruction in the European Union.*

The director of MME also took part at the *IUCN 2016 World Conservation Congress*, where a Preventing Wildlife Poisoning Knowledge Café was organised (5 September 2016, Hawaii, USA) and the IUCN resolution on “Combatting the illegal poisoning of wildlife” (Motion 010) was adopted.

Travel, subsistence and participation costs of these events were not covered by the project.

### ***Further conferences***

Besides the ones listed above the project team took part in the following further foreign conferences or meetings:

- *3<sup>rd</sup> European Congress of Conservation Biology*, Society for Conservation Biology, Glasgow, UK, 30 August 2012 (presentation by Márton Horváth)
- *Congress “The poisoning of wildlife in Europe. Impact on threatened species and tackling measures”*, October 24/25 2013, Assergi, Italy - organized by LIFE Antidoto (presentation by Tibor Juhász and Gábor Deák)
- *7<sup>th</sup> International Conference on the Conservation of the Eastern Imperial Eagle*, 2-5 October 2013, Bratislava, Slovakia (presentations by Márton Horváth)
- *American Association of Zoo Veterinarians (AAZV) Annual Conference*, 28 September – 4 October, 2013, Salt Lake City, Utah, United States of America (presentation by Endre Sós, communication about the partial coverage of participation costs were done via email through the External Monitoring Team on 06/09/2013)
- *I Worldwide Raptor Conference, Raptor Research Foundation Annual Conference*, 21-24 October 2013, Bariloche, Argentina (presentation by Márton Horváth, agreement of the EC to cover the partial costs of participation get via email through the External Monitoring Team on 17/05/2013)
- *Scottish Raptor Study Group Annual Conference*, 22 February 2014, Perth, UK (invited presentation by Márton Horváth)
- *Meeting and field survey with Aquila Foundation*, 25-27 November 2014, Kavadarci, Macedonia (visit by Gergő Halmos, agreement of the EC to cover the partial costs of a visit by MME to the get via email through the External Monitoring Team on 26/11/2014)
- *Workshop for developing a Flyway Action Plan for the Conservation of the Balkan and Central Asian Populations of the Egyptian Vulture*, 6 July 2015, Sofia, Bulgaria (LIFE10 NAT/BG/000152) (presentation by Márton Horváth)
- *Raptor Research Foundation Annual Conference*, 6 November 2015, Sacramento, USA (presentation by Márton Horváth, agreement of the EC to cover the local costs of participation get via email through the External Monitoring Team on 23/09/2015, the oversea flight costs were not covered by the project)
- *LIFE Nature Platform Meeting on Wildlife Poisoning*, 19 May 2016, Athens, Greece (presentation by Márton Horváth)

- *Workshop for the conservation of the Eastern imperial eagle in Georgia*, 16 July 2016, Tbilisi, Georgia (invited presentation by Márton Horváth, travel costs were not covered by the project)
- *Workshop at Israeli Wildlife Hospital, Ramat Gan, Israel*, 30 October– 4 November 2016 (presentation by Endre Sós, agreement of the EC to cover the partial costs of a visit by the Budapest Zoo veterinarians to Israel get via email through the External Monitoring Team on 13/10/2016)

Reports about almost all networking activities were published at the project website. The list of countries with which significant networking activities were undertaken are attached in ***Technical Annex E.5***. The complete list of presentations made during the project can be found under ***Technical Annex D.1***. A paper about the first Pannonian workshop in 2013 is attached in ***Publications at Dissemination Annexes***.

## **Action E.6: Monitor public and stakeholder awareness before and after relevant project actions**

One of the largest Hungarian poll company was selected and contracted for executing the "beginning-of-project" poll in November 2012 (2<sup>nd</sup> quarter of 2012 was planned in the application). The report of this national opinion poll undertaken was delivered by the external company, which analyses the answers of 1200 people to 10 questions about imperial eagles, illegal poisoning and the project itself. The poll was repeated as the "end-of-project" poll at November 2016 (3<sup>rd</sup> quarter of 2012 was planned in the application).

The extremely high number of poisoning incidents and the also very high number of connected media reports in the first quarter of 2012 biased the results of the first poll, which therefore cannot be handled as a real "beginning-of-project poll". Anyway the two polls with 4 years interval between, showed some remarkable and useful results, some of which are listed in the table below. Trends were handled as "increase" or "decrease" if the change exceeded +/- 5% respectively.

The results showed that the general awareness about the existence of raptor poisoning was already high in 2012 and did not change significantly during the project. On the other hand, the awareness about the imperial eagle, the details of poisoning incidents and the relevant conservation actions increased significantly.

The questions and the report of the polls are attached in **Technical Annex E.6**.

Main topics of the public opinion polls' questions	Result 2012	Result 2016	Trend
Names "imperial eagle" among the known raptor species by her/himself	8%	13%	<b>increase (+62%)</b>
Names "imperial eagle" as the raptor species, which has the largest population in Hungary in the EU	25%	30%	<b>increase (+20%)</b>
Knows about the poisoning of raptors	56%	55%	stable (-2%)
Knows that the poisoning of raptors is a crime	88%	85%	stable (-3%)
Names "hunters" as the possible perpetrators of poisoning incidents	34%	42%	<b>increase (+24%)</b>
Names "farmers" as the possible perpetrators of poisoning incidents	35%	39%	<b>increase (+11%)</b>
Names "pigeon fanciers" as the possible perpetrators of poisoning incidents	15%	20%	<b>increase (+33%)</b>
Names "livestock breeders" as the possible perpetrators of poisoning incidents	17%	17%	stable (0%)
Does not name any of these stakeholder groups as possible perpetrators of poisoning incidents	22%	14%	<b>decrease (-36%)</b>
Thinks that the appropriate punishment for the perpetrators of illegal poisoning incidents would be "imprisonment"	28%	28%	stable (0%)
Thinks that the appropriate punishment for the perpetrators of illegal poisoning incidents would be "a fine of 100,000 HUF"	38%	40%	<b>increase (+5%)</b>
Thinks that the appropriate punishment for the perpetrators of illegal poisoning incidents would be "a fine of 10,000 HUF"	24%	21%	<b>decrease (-9%)</b>
Thinks that the appropriate punishment for the perpetrators of illegal poisoning incidents would be "a fine of less than 10,000 HUF"	9%	8%	<b>decrease (-11%)</b>
Names "MME" among the organizations working with raptors	12%	17%	<b>increase (+42%)</b>
Names "National Park Directorates" among the organizations working with raptors	5%	7%	<b>increase (+40%)</b>
Knows about "winter feeding of raptors" as a conservation action	66%	64%	stable (-3%)
Knows about "satellite tracking" as a conservation action	46%	58%	<b>increase (+26%)</b>
Knows about "artificial nest installation" as a conservation action	44%	45%	stable (+2%)
Knows about "nest guarding" as a conservation action	31%	43%	<b>increase (+39%)</b>
Knows about "quick veterinary treatment" as a conservation action	41%	42%	stable (+2%)
Knows about "police investigation in poisoning incidents" as a conservation action	26%	34%	<b>increase (+31%)</b>
Knows about "poison searching dog units" as a conservation action	13%	20%	<b>increase (+54%)</b>
Would donate money for the conservation of raptors	31%	27%	<b>decrease (-9%)</b>
Average donation for the conservation of raptors (in HUF, among those people who would donate)	3511	3912	<b>increase (+11%)</b>

## **Action E.7: Organize International Conference on the Illegal Use of Poison in the Natural Environment**

MME in collaboration with MAVIR (the Hungarian Transmission System Operator Company Ltd.) and Herman Ottó Institute, organized an international bird conservation conference on 7-9 November 2016 (February 2016 was planned in the application). There were two major topics of the meeting: the prevention of mortality due to electrocution and poisoning. The fight against illegal poisoning was the topic of the second day, which section of the conference was the closing event of the HELICON project. On the 3<sup>rd</sup> day of the conference, participants could visit the Eagle Centre near Jászberény, where they had the opportunity to see the exhibitions and project films, inspect several injured birds of prey and try the educational trail. Nearly 130 experts from 16 countries participated in the conference and altogether 26 presentations were held (at least 100 participants from 10 countries were planned in the application).

The programme, the list of participants and the presentations at the two days of the conference are attached in *Technical Annex E.7*.



### **Action E.8: Development of After-LIFE Conservation Plan**

The After-LIFE Conservation Plan was prepared in collaboration with project partners and HMRD in 2016 and was finalised by December 2016 (30/09/2016 was planned in the application). The Plan details which actions of the project should be carried out after the project ends, by which responsible organization and from what the financial sources. The Plan was prepared in Hungarian and English language, it was printed in 100 copies and was sent to the relevant organizations taking part in the Imperial Eagle or Anti-poisoning Working Groups of the Hungarian Raptor Conservation Council.

The After-LIFE Conservation Plan is attached in *Technical Annex E.8*.

## 5.2 Dissemination actions

### 5.2.1 Objectives

#### **D.01 Organize workshops to inform and train key stakeholders**

At least 1000 participants will be reached directly through the 57 stakeholder workshops organized in the frame of the action. Further 500 professional hunters will be educated directly through the annual trainings organized by HHNC. Further 1000 hunters will be informed annually with the help of exhibition desk at the FeHoVa exhibition.

#### **D.02 Prepare and disseminate specific educational materials for key stakeholders**

Educational materials for hunters, farmers, police and jurists will be prepared and disseminated (3x2000 copies).

#### **D.03 Prepare a Communication Plan for the project**

The Communication Plan of the project is elaborated and updated annually, which ensures the proper execution of D actions and the effective usage of technical information gathered in A and C actions. Audio-visual archive is continuously updated to ensure easy access to high quality communication tools for the project staff.

#### **D.04 Ensure continuous media coverage of the project**

The 100 disseminated press releases and the 5 press conferences organized will result a continuous and massive appearance of the project in the media. All together more than 1000 media reports will be published in TV and radio channels, and printed and online journals, which will inform the public audience by >10 million occasions (meant as the approximate number of audience summed for each reports based on the statistical data of the given medium).

#### **D.05 Prepare and disseminate educational materials for the general public**

Deliverable products will be prepared by 30/09/2013, and will be disseminated fully and continuously during the project.

#### **D.06 Prepare and disseminate documentary films about the project and about the imperial eagle**

The total duration of completed television documentaries by the end of the project will exceed 75 minutes. The total duration of completed web videos, short films and reportages by the end of the project will exceed 50 minutes. Short and wildlife documentaries will be distributed on 1000 DVD copies to relevant stakeholders (by 31/12/2012 and by 30/06/2016 respectively).

#### **D.07 Develop interactive exhibitions and information points in Hungarian Zoos**

Exhibitions in the two partner Zoos and information points in the other eight Hungarian Zoos set up by 31/12/2012. During the project over 2 million visitors will visit directly the exhibition in Budapest Zoo, over 200 000 visitors the one in Jászberény Zoo exhibition, and over 1 million further visitors will see the information points at other Hungarian Zoos.

**D.08 Purchase and develop an Imperial Eagle Visitor Centre at the Jászság SPA**

The Visitor Centre purchased, developed and opened by 12/31/2012. The Centre hosted more than 2500 visitors till the end of the project.

**D.09 Develop an Imperial Eagle Educational Trail in the Jászság SPA**

The two educational trails are developed by 12/31/2012. The educational trails are visited by more than 2500 registered visitors till the end of the project.

**D.10 Develop and maintain project website including online camera systems**

The project website with available general information will be set up by 30/06/2012. All planned complex functions of the website will be operating properly by 31/12/2012. The various and unique actions visualized and presented spectacularly by the project website will result more than 1 million visitors during the project.

**D.11 Produce and erect notice boards at project sites**

24 notice boards are erected at project sites by 31/12/2012.

**D.12 Produce Layman's report**

The Layman's report will be printed and disseminated in Hungarian and English languages (in 2000-2000 copies) by 30/09/2016.

### 5.2.2 Dissemination: overview per activity

At each action description the references to the indicators, the significant modifications, delays or major problems encountered are underlined. The planned output and time schedule according to the application file are written in *italics* at the relevant part of the text for comparison.

#### **Action D.1: Organize and participate in workshops to inform and train key stakeholders**

The number, type and coverage of workshops where the project participated have been changed from the original proposal, anyway their results exceeded the planned numbers both in the number of events (227) and in the number of participants (21,627) for each stakeholder groups. Out of these 79 workshops have been directly organized or co-organized by the project where 6090 participants took part (*57 workshops with at least 1000 participants were planned in the application*). The project also took part with presentations and reports in several events organized by other organizations. The main results are detailed by the main stakeholder groups and summarized in the tables below.

#### **Hunters**

All together 10 special workshops have been organized for hunters in the frame of the project by HHNC and MME:

- Project starting (18/05/2012) and project closing (18/11/2016) workshops in the Jászság (hunters invited from all project sites)
- Four trapping trainings in the Jászság by HHNC (04/07/2012, 06/02/2013, 07/02/2014, 20/10/2015)
- Four regional hunter workshops at those counties (Békés, Hajdú-Bihar, Jász-Nagykun-Szolnok, Bács-Kiskun) where most of the poisoning incidents happened by NÉBIH Hunting Authority, MME, relevant National Park Directorates, HNBI (30/05/2014, 03/06/2014, 04/04/2016, 06/06/2014)

MME, responsible national park directorates or external collaborators of the project took part and held presentations about the project at 26 professional hunters' annual trainings, which were organized in the most important counties by HHNC.

On further 92 trainings HHNC or the local county's Hunters' Chamber informed the professional hunters about the project, so vast majority of the 3000 professional hunters heard directly about the aims of the project. All together more than 12,000 hunter participants took part at the project events and annual trainings (cumulative number).

Professional hunters were also invited and took part in the ringing of imperial eagle chicks in several SPAs (Jászság, Heves, Dévaványa, Zemplén).

#### **Police**

Seven regional trainings have been organized by the National Police Headquarters with MME and HNBI from September 2014 to April 2015 covering all counties of Hungary:

- 03/09/2014, Eger: Heves, Nógrád, Borsod-Abaúj-Zemplén
- 17/09/2014, Debrecen: Hajdú-Bihar, Szabolcs-Szatmár-Bereg, Békés
- 01/10/2014, Kecskemét: Bács-Kiskun, Jász-Nagykun-Szolnok, Csongrád
- 06/10/2014, Budapest: Budapest, Pest, HNBI
- 09/04/2015, Pécs: Baranya, Somogy, Tolna

- 21/04/2015, Veszprém Veszprém, Vas, Zala
- 28/04/2015, Tatabánya Komárom-Esztergom, Fejér, Győr-Moson-Sopron.

In the frame of the trainings four presentations were held of which two were directly related to the project (the conservation importance of wildlife poisoning by MME and legal background and investigation methods of wildlife poisoning by HNBI), while the other two covered CITES (by HMRD) and animal protection issues (by Állatvédőrség NGO). The police protocol (Action A.4) was disseminated among the participants.

The Italian Environmental Police visited HNBI and a round-table discussion was organized at MME (05/11/2013). A workshop for dog-leader training participants was organized at the National Police Headquarter (Dunakeszi, 09/04/2015). A further workshop was organized in Csongrád county at 27 May 2015 by KNPD and the county police headquarter, where all the regional police offices of the county (i.e. the smallest administrative level) were present.

Altogether 10 police workshops and round-table discussions were organized by the project, where almost 600 police staff took part and represented all county and city headquarters of Hungary.

### ***Lawyers***

The Ombudsman Office (The Office of the Commissioner for Fundamental Rights) has been contacted by MME in order to build viable contacts with the prosecutors and judges. The relevant contacts both at The Office of the General Prosecutor and The Curia have been contacted officially by MME in order to organize common trainings in autumn/winter 2015 for prosecutors and judges

In a meeting with the Office of the General Prosecutor on 14 September 2015 their agreed to involve the topic of bird crime (especially raptor poisoning) in the training programme of prosecutors. At the same meeting the representative of the Curia agreed to send and support our proposal to the Hungarian Academy of Justice who are organizing the training for judges.

Based on the agreed protocol MME and HMRD hold presentations:

- at three Annual Trainings organized for judges by the Hungarian Academy of Justice in Budapest (01/02/2016, 15/02/2016, 22/02/2016) and
- at three Annual Trainings organized for prosecutors by the General Prosecutor's Office in Balatonlelle (28/04/2016, 24/05/2016, 06/10/2016).

Altogether at the six trainings 125 prosecutors and 46 judges took part.

### ***Farmers***

In the frame of six workshops organized by the National Chamber of Agro-economy ca. 1300 employees of the farmer advisory system (“falugazdász”) was informed between 14-22 September 2015 about the new agri-environmental schemes (2016-2020) for which farmers can submit their proposals in November 2015. MME took part in the organization of the workshops and held presentations in each workshops about the bird- and game-friendly agricultural schemes in the frame of the Swiss Natura 2000 and Helicon projects.

A focused workshop was organized at the Eagle Centre in 18 November 2015 to inform local farmers of the Jászság SPA about the new agri-environmental schemes (see Action A.7 and C.6).

Altogether on these seven workshop and other events of the project more than 1380 farmers took part.

### ***Annual national exhibitions for main stakeholders***

MME took part on the following eight large annual exhibitions of stakeholders with an own desk, including a poster and deliverables of the HELICON project:

- 19<sup>th</sup> Hungarian Exhibition of Arms, Fishing and Hunting (FEHOVA): 16-19/02/2012 (44'000 visitors)
- 20<sup>th</sup> Hungarian Exhibition of Arms, Fishing and Hunting (FEHOVA): 14-17/02/2013 (50'000 visitors)
- 21<sup>st</sup> Hungarian Exhibition of Arms, Fishing and Hunting (FEHOVA): 13-16/02/2014 (50'000 visitors)
- 22<sup>nd</sup> Hungarian Exhibition of Arms, Fishing and Hunting (FEHOVA): 12-15/02/2015 (55'000 visitors)
- 23<sup>rd</sup> Hungarian Exhibition of Arms, Fishing and Hunting (FEHOVA): 18-21/02/2016 (60'000 visitors)
- 76<sup>th</sup> National Agriculture and Food Exhibition (OMÉK): 18-22/09/2013 (92'000 visitors)
- 77<sup>th</sup> National Agriculture and Food Exhibition (OMÉK): 23-27/09/2015 (87'300 visitors)
- 34<sup>th</sup> AGROmashEXPO and 6<sup>th</sup> Agricultural Machine Show: 27-30/01/2016 (45'000 visitors)

In each exhibition several hundreds of people (especially hunters and farmers) talked with the MME staff and 100-150 people gave their data and signed the visitor's book of MME.

The complete list of workshops and presentations are attached in ***Technical Annex D.1***. The examples of presentations for each stakeholder group are attached in ***Dissemination Annexes/Presentations***.

<b>NO. OF EVENTS</b> Type of event / Project role	<b>Organizer</b>	<b>Co-organizer</b>	<b>Presentation</b>	<b>Report</b>	<b>Total</b>
International conference		1	10		<b>11</b>
International workshop	2	1	7		<b>10</b>
National conference		1	7		<b>8</b>
National festival			14		<b>14</b>
National workshop	7	9	5		<b>21</b>
Regional workshop	9	47	12	92	<b>160</b>
Round-table discussion	2			1	<b>3</b>
<b>Total</b>	<b>20</b>	<b>59</b>	<b>55</b>	<b>93</b>	<b>227</b>

<b>NO. OF PARTICIPANTS</b> Type of event / Project role	<b>Organizer</b>	<b>Co-organizer</b>	<b>Presentation</b>	<b>Report</b>	<b>Total</b>
International conference		130	1 673		<b>1 803</b>
International workshop	84	50	239		<b>373</b>
National conference		72	966		<b>1 038</b>
National festival			2 690		<b>2 690</b>
National workshop	358	295	255		<b>908</b>
Regional workshop	302	4 784	795	8 905	<b>14 786</b>
Round-table discussion	15			14	<b>29</b>
<b>Total</b>	<b>759</b>	<b>5 331</b>	<b>6 618</b>	<b>8 919</b>	<b>21 627</b>

<b>NO. OF PARTICIPANTS</b> Stakeholder groups / Project role	<b>Organizer</b>	<b>Co-organizer</b>	<b>Presentation</b>	<b>Report</b>	<b>Total</b>
Conservationist	398	268	2 533	14	<b>3 213</b>
Hunter	130	3 012	115	8 905	<b>12 162</b>
Farmer	30	1 300	50		<b>1 380</b>
Veterinarian	17	55	605		<b>677</b>
Police	49	525	20		<b>594</b>
Prosecutors		125			<b>125</b>
Judges		46			<b>46</b>
Other or not known	135		3 295		<b>3 430</b>
<b>Total</b>	<b>759</b>	<b>5 331</b>	<b>6 618</b>	<b>8 919</b>	<b>21 627</b>

## **Action D.2: Prepare and disseminate specific educational materials for key stakeholders**

The numbers and types of educational materials has been changed significantly from the original proposal, anyway the applied alternative solutions were more cost-effective and environment-friendly, while reached a much higher number of stakeholders. Therefore, the changes did not hamper the overall good communication with stakeholders and the details of changes are summarized below for each stakeholder group.

### ***Hunters' Annual Book***

The annual book of hunters (produced by HHNC) is an annex to the obligatory hunting ticket issued by the HHNC, so all the 60,000 hunters receive this spectacular book every year, therefore probably this is the most effective platform to reach the vast majority of hunters. Moreover, most of the hunters probably keep and read these book-series for a much longer time in average, than specific educational materials. Therefore, the project team decided to focus the written communication with hunters on these annual books of hunters, and five details articles were published about the project between 2012 and 2016:

- In the 2013 issue an 8-page article was published about the project and the role of HHNC (the proportional cost of printing was financed by the project).
- In the 2014 issue a 9-page article was published about the game study executed in the frame of the project in the Jászszág SPA sample area by the external experts (no printing or editing cost was charged to the project).
- In the 2015 issue a 6-pages article was published about the dog-unit operated by the project and its importance in the decrease of wildlife poisoning cases (no printing or editing cost was charged to the project).
- In the 2017 issue an 8-page article was published about the project and the role of HHNC (the proportional cost of printing was financed by the project). This issue was printed in 2016 and was distributed among hunters in the last months of 2016 and the first months of 2017.

### ***Hunters' Bird Guide***

The MME project team decided to cooperate with the Swiss Natura2000 project, in order to prepare a high-quality bird identification field guide for hunters instead of the previously planned educational leaflet. The text writing and editing costs of the 64-pages field guide was covered by the Swiss Natura2000 project, while the printing was covered by HELICON in 2016. The book contains information about the threat of illegal poisoning at all relevant raptor and corvid species and its last page is about the HELICON project and bird-crime reporting possibilities. The distribution of the 2000 copies of the guide was started in 2016 and will be finalized in 2017 with the help of HHNC, MME and national park directorates.

### ***“Madártávlat” quarterly magazine***

Similarly to the Hunters' Annual, we have also used the Madartávlat (quarterly journal of MME) to reach cost-effectively a large audience. This magazine is delivered to all ca. 10,000 members of MME, which contains most of the relevant professionals of the national park directorates as well. Therefore, several articles of the project was published there.

At the beginning of the project a special issue of Madartávlat has been prepared in January 2012, where three detailed articles introduced (1) the project, (2) the conflicts and cooperation possibilities between conservationists and hunters, and (3) the common buzzard as



the bird of the year 2012, and as the main conflict species with hunters and the most numerous victims of poisoning incidents (see details in Mid-term report). We have used this magazine to spread among hunters and farmers on workshops and personnel meetings in the first half of the project, therefore an extra 800 copies of the magazine were produced and disseminated by the project for these purposes (instead of the hunter and farmer leaflets planned by 30/03/2013 in the application). The rest 5000 copies of this issue for MME members were financed completely by the general budget of MME.

At the end of the project a detailed 6-pages article was published about the results in Madartavlat in December 2016 (the proportional cost of printing was financed by the project). The issue was delivered to all MME members in December 2016.

### ***Farmers***

A leaflet, a booklet and a poster were prepared by MME about the new game- and nature-friendly measures of the new national agri-environmental scheme (2015-2020) in cooperation between Swiss Natura 2000 and Helicon projects by August 2015 and was disseminated among all participants of the farmer trainings under Action D.1. Besides the personnel costs only the printing costs of 1400 posters were financed by the Helicon LIFE project, which is a re-edited and refreshed version of a poster already produced by MME several years ago (all further editing and printing costs were covered by the Swiss Natura 2000 project).

### ***Police and lawyers***

At the beginning of the project MME and HNBI decided to postpone the publication of the leaflet for police and lawyers until the police protocol will be not finalized (see Action A.4, originally the leaflet was planned to be published by 30/03/2013 in the application). Later, based on the discussions with the Office of the General Prosecutor, the Hungarian Academy of Justice and the National Police Headquarters before the trainings executed in 2015-2016 (see under Action D.1) we have decided to skip finally the original concept about the separate leaflet for these stakeholder groups. Each of the three groups indicated that they would prefer to have the detailed digital versions of the protocols and the presentations of the workshops instead of a leaflet. They indicated that they have no capacity to distribute printed materials among their colleagues, but they could easily make more detailed technical documents available at their intranet for all interested colleagues. Therefore, the project team decided to publish the text of the protocols in the 2014 issue of the “Heliaca” annual book of MME (printed in 500 copies in January 2016 without the financial contribution of the project), which was distributed among all members of the Anti-Poisoning Working Group and also available online.

All printed materials and relevant summarizing articles in annual books or magazines are attached in ***Dissemination Annexes/Educational materials***. A sample copies of each product are attached to the ***report package*** sent by mail.

### **Action D.3: Prepare a Communication Plan and Audio-visual Archive for the project**

The first version communication plan has been elaborated by MME at 31/03/2012 (same date as planned in the application). The project team decided not to update annually the communication plan, but it was significantly updated once and finalized in September 2013. The project team decided to change continuously the focus of the communication during the project period from highlighting the problems as the main message in the beginning, to the solutions in the meantime and to the results by the end.

The list of main media contacts has been prepared. A four-level system has been set up for categorizing reports:

1. *social media posts*: all interesting photos and everyday stories related to the project;
2. *web release*: all news, which can be interesting for conservation minded people about project performance, imperial eagle or persecution incidents, will appear in the project and MME websites and their Facebook profiles;
3. *press release*: significant news, which can be interesting for the public all people, and therefore most probably will bring the attention of media on the issue;
4. *press conference*: most important news which are presented to the media in an organized conference, especially when something spectacular can be photographed/filmed, or when interviews can be made with several significant participants (e.g. signing document by directors, showing carcasses, infrastructure, searching dog etc.).

A set of project logos (depending on the context of use) was prepared and used throughout the projects lifetime to identify specific products, results and equipment of the project.

A semi-professional set of camera and three normal cameras were bought for the project team in order to gain own high quality photos and videos. More than 6,000 photos and videos took during the project actions were gathered, selected and organized in the Audio-visual archive (Helicon google drive).

The communication plan is attached in **Technical Annex D.3**. All photos in the archive are attached on the DVD in a folder system organized by the actions of the project.

#### Action D.4: Ensure continuous media coverage of the project

Altogether 141 news (79 web release, 50 press release, 12 press conference) have been prepared by the project partners about project performance, imperial eagle or persecution incidents Between 2012 and 2016 (100 releases and 5 press conferences were planned in the application).

TYPE/YEAR	2012	2013	2014	2015	2016	ALL
Web release	14	21	20	12	12	79
Press release	7	6	14	11	12	50
Press conference	4	4	1	2	1	12
ALL	25	31	35	25	25	141

The largest Hungarian media observer company was contracted by MME in order to have up-to date and detailed list of appearance of the project in the media. Although this list is still not comprehensive, because the smaller media and radio appearances are underrepresented. The observed media reports related to the project are summarized in the table below.

Media reports	2012	2013	2014	2015	2016	Total
online	250	456	192	192	136	1226
paper	146	134	89	99	52	520
radio	6	23	5	13	17	64
TV	17	51	20	8	2	98
Total	419	664	306	312	207	1908

The 1,908 reports appeared in 246 different media (1,000 reports were planned in the application). The company also delivers other statistics, which numbers are also not comprehensive and the data of the most popular reports (e.g. news at the main TV channels) are not summarized. Anyway the estimated number of media consumers reached by the project news is over 103 million and the advertisement value of the appearances is above 769 million HUF (€ 2.48 million) (at least 10 million occasions were planned in the application).

Beside the press releases the project team also contacted directly several special journals, where more detailed articles were published for special stakeholders, like hunters, police, nature or dog lovers.

The list of the news of the project, the list and monthly distribution of observed media reports, some focused articles in magazines and the full content of observed media reports are attached in **Technical Annex D.4**.

### **Action D.5: Prepare and disseminate educational materials for the general public**

The type and amount of deliverable products were re-planned significantly as it was partially proposed in previous reports. We defined four categories based on the size and type of the targeted audience. The production of the materials happened according to the three main phases of communication activities of the project and all materials were produced by MME.

The first set of the products have been prepared in the beginning of 2013 (30/09/2013 was planned in the application), so they could be used for the communication at the different A and D actions and also as a gift for the volunteers taking part in the nest-guarding (Action C.2).

In the second phase several products (children booklet, imperial eagle leaflet and poster has) were produced in January 2015, so they can be used in the stakeholder workshops (Action D.1) and all activities related to the Exhibitions (Action D.7), Eagle Centre (Action D.8), and Educational Trails (Action D.9).

The rest of the products were manufactured in 2016 for the project closing events like the 2<sup>nd</sup> HELICON volunteer meeting (Action C.2), the project closing hunter workshop (Action D.1), the project closing workshop and steering committee meeting (Action E.4) and the international conference (Action E.7).

The comprehensive list of educational materials produced in the frame of D actions is attached in **Technical Annex D.5**. All printed materials are attached in **Dissemination Annexes/Educational materials**. Sample copies of smaller products are attached to the **report package** sent by mail.

## **Action D.6: Prepare and disseminate documentary films about the project and about the imperial eagle**

Filmjungle produced the following documentaries:

- project starting film (December 2013, 31/12/2012 was planned in the application),
- the project closing film (August 2016, 30/06/2016 was planned in the application),
- “The Bait” fictional nature movie (October 2016, 30/06/2016 was planned in the application),
- 20 parts of the HELICON short film series (2012-2016, annually 4-5 short films were planned in the application)
- further eight short films (2012-2015, not planned in the application).

The length of the documentaries together reached 5 hours (at least 125 minutes were planned in the application). The Hungarian and English subtitled versions of the films were uploaded on a special YouTube channel (“[Kamerával a madarakért](#)”) created in the frame of the project, but also to MME’s and Filmjungle’s own channels. The films have been watched for more than 74 thousand occasions on the three channels (250,000 views were planned in the application together with live webcams – see Action D.10 for the webcam results).

Three DVDs were produced during the project in 1000 copies (as it was planned in the application), which include all films and short films. The 1<sup>st</sup> DVD is including the project starting film and the first three short documentaries. A documentary film produced by the previous Hungarian imperial eagle conservation LIFE project (LIFE02NAT/HU/8627, 2002-2005) was also added as an extra to the DVD. The DVD was produced in 2013 so it could be used in the other communication actions, like workshops (Action D.1).

The 2<sup>nd</sup> DVD contains the project closing film and 9 short films, while the 3<sup>rd</sup> DVD contains “The Bait” nature movie and the remaining 8 short films. These DVDs were produced by September and October 2016 and could be used for the project closing events like the 2<sup>nd</sup> HELICON volunteer meeting (Action C.2), the project closing hunter workshop (Action D.1), the project closing workshop and steering committee meeting (Action E.4) and the international conference (Action E.7).

The project films won a certificate of merit at the Csodakút International Nature Film Festival in Serbia (2013), and won 3<sup>rd</sup> place for two times in the Gödöllő International Nature Film festival (2015, 2016).

The complete list of films and the analytics of the “Kamerával a madarakért” Youtube channel can be found in **Technical Annex D.6**. The three project DVDs are attached to the **report package** sent by mail.

## **Action D.7: Develop interactive exhibitions and information points in Hungarian Zoos**

An external company has been selected by the project team (MME, Budapest Zoo and Jászberény Zoo) and contracted to develop a complementary system of exhibitions (D.7 and D.8), educational trails (D.9) and notice boards (D.11). The planning work has been started already in August 2012, but the finalization of the exhibitions was delayed.

### ***Budapest Zoo***

The area of the Budapest Zoo was increased significantly with the area of the Budapest Amusement Park in September 2013, which areas became opened again for the public in April 2014. This resulted that the location of the project exhibition proposed by the Zoo changed three times since September 2012 (since the union of the two parks has been known), because the whole concept of the Zoo arrangements was changed. Besides the whole capacity of the developers of the Budapest Zoo had to be focused on the development of the many new installations at the previous area of the Amusement Park.

Due to this uncertainty and delay the project team decided to change the original concept and set up first a mobile indoor exhibition panel, which can be moved if the arrangement of the Zoo requires it. The exhibition panel is made of six parts: (1) showing the project background and objectives, the problems of (2) poisoning, (3) shooting, (4) collision and (5) electrocution, and the (6) rehabilitation of wild animals. The panels were set up next to the bird rescue station in the 1<sup>st</sup> quarter of 2013 (31/12/2012 was planned in the application), therefore many of the numerous Zoo visitors could see it almost during the whole project period

In parallel the concept, detailed text and preliminary design has been prepared by MME and the subcontractor for the originally planned interactive outdoor exhibition and agreed by Budapest Zoo. The exhibition was created in the new area of the Zoo (Holnemvölt Park). The implementation was started in May 2014 and finished by March 2015, when the 1<sup>st</sup> phase of the Holnemvölt Park development has been finished. The exhibition was visible for one year, then the reconstruction of the Holnemvölt Park started again and they have closed that area. Therefore, Budapest Zoo has moved the exhibition to the Margit-island Zoo (belongs to the Budapest Zoo) in spring 2016, where it is still visible for the numerous visitors of the small Zoo and the public park nearby. Budapest Zoo has promised to move back the exhibition to its final destination as soon as the reconstruction works finished (presumably in 2018).

### ***Jászberény Zoo***

The exhibition and conference room in Jászberény Zoo was equipped with general installations (shading equipment, tables, benches, chairs). The concept, detailed text and preliminary design has been prepared for the exhibition by MME and the subcontractor and agreed by Jászberény Zoo in 2013. The exhibition was completed by November 2014 (31/12/2012 was planned in the application). The exhibition at the educational center of the Zoo includes the following items:

- a large interactive game set on the wall;
- an interactive game showing the movement of eagles;
- a nest on a natural tree with an eagle sculpture, egg and a chick, which can be viewed by a mirror from the ground;
- two interactive wall boards showing the size of the eagle and other raptors when standing and flying;
- photo exhibition with 10 images on the imperial eagle.

The imperial eagle exhibition is also become part of the daily guided programs of the Jászberény Zoo.

Information boards for the two partner and nine other Hungarian Zoos with the same design as the notice boards had been also produced. The details can be found under Action D.11.

Tables of all exhibitions and the map of the Budapest exhibitions are attached in the ***Technical Annex D.7.***

### Action D.8: Purchase and develop an Imperial Eagle Visitor Centre at the Jászszág SPA

The main activities and problems during the construction of the visitor Centre are summarized in the table below.

Activities/Problems	Date	
	Started	End
<b>Partnership agreement (MME-HNPD)</b>	<b>02/01/2012</b>	<b>22/02/2012</b>
Original owners (Jászberény 0221/2) suddenly opposed to sell the originally selected house yard, in spite of the previous written agreement	02/01/2012	01/03/2012
Alternative locations for the Centre has been surveyed and owners contacted	02/01/2012	04/04/2012
Owners of the original house yard decided again to sell the property. A new, significantly lower price has been agreed, because of the delay and the fact that not only the half (as it was stated by the owners), but the total building was built of adobe, which made any modifications impossible (e.g. building attic above the first floor). Therefore the planning of the building became also more complicated and the renovations costs will be significantly higher than expected.	01/03/2012	04/04/2012
<b>Sales contract for Jászberény 0221/2 signed on 4 April 2012 between the previous owners and HNPD. It was approved by the responsible under secretariat of the HMRD (Dr. András Rácz) on 21 April 2012.</b>	<b>04/04/2012</b>	<b>21/04/2012</b>
Original owners moved from and emptied the property according to the sales contract	04/04/2012	31/05/2012
During the change of the ownership in the land registry it became clear that ÉMÁSZ (North Hungarian Electric Power Supplier) has an entry on the land registry due to a power line section crossing the property (this information was not appeared in previously got documents). This entry had to be removed before the ownership of HNPD could be registered. This administrative procedure caused another 3 months delay and the ownership of HNPD was registered only at 17 August 2012 (but with ex post facto from 11 May 2012).	04/04/2012	17/08/2013
<b>Entry of HNPD as owner in the land registry (Jászberény 0221/2)</b>	<b>17/08/2012</b>	<b>17/08/2012</b>
An experienced architect has been selected. During the detailed planning process it became clear that the budget of the construction of the building is significantly underestimated if all the proposed functions would like to be kept, moreover the significant costs of the planning, controlling, public procurement and authorization were not involved in the original budget. The HNPD decided to build anyhow the Centre with all the originally planned functions and allocated several budget from its own budget for the construction works. Anyhow the budget accounted for the LIFE project will not significantly exceed the originally planned.	25/04/2012	18/04/2013
A large amount of reconciliations had to be executed with Water Management and Environmental Authorities, because the parcel is part of the "flood protection zone" (i.e. it is on the border of a temporary emergency water reserve) and part of the Natura 2000 system, therefore many restrictions has to be applied during the construction works. The plans of the building have been modified several times due to the orders of the authorities.	01/06/2012	18/04/2013
<b>Building permission issued by the Jászberény municipality</b>	<b>18/04/2013</b>	<b>18/04/2013</b>
Public procurement procedure. According to the laws it had to be undertaken together with all ongoing procedures of HNPD, which resulted a long, eight months process.	22/01/2013	13/09/2013



Activities/Problems	Date	
	Started	End
Final planning of the construction. The architect could be contracted for the final planning right after the close of the public procurement procedure. The final plans accepted by the responsible authorities.	28/10/2013	06/01/2014
<b>The construction works began officially and registered at the Building Authority.</b>	<b>16/12/2013</b>	<b>06/01/2014</b>
The wrecking of the house accomplished.	06/01/2014	15/02/2014
The stay of the house constructed.	15/02/2014	01/04/2014
<b>Building of the Eagle Centre has been finalized</b>	<b>01/04/2014</b>	<b>15/01/2015</b>
<b>Official opening ceremony during the visit of EC LIFE Unit representatives</b>	<b>16/04/2015</b>	<b>16/04/2015</b>

The construction of the house was finalised by January 2015 (*31/12/2012 was planned in the application*). A press conference with an opening ceremony as organised in 17 April 2015 connected to the EC LIFE Unit visit to the project with ca. 40 participants (Action D.4). The above mentioned unexpected and unavoidable administrative constraints resulted a 2-years delay in the opening of the Centre, which means that the Centre can be used only for two years within the project period. Anyway the project team made significant efforts in all possible ways to use this period very effectively and thanks to the intensive campaigns the originally proposed visitor numbers could be exceeded even within this relatively short period. All together 2705 visitors (2500 were planned in the application) from 180 different Hungarian settlements and from 13 foreign countries were registered in the Eagle Centre between January 2015 and December 2016.

Moreover the finally agreed structure and quality of the Centre was much more extended than proposed (i.e. a completely new building instead of a renovated one, playground, accommodation and conference room for up to 30 people etc.), which serves as a perfect basis for the project. The costs of the construction works were significantly higher than expected, but the difference was covered by the Hungarian State through the HNPD, therefore we have used only proportionally the LIFE funding as it was agreed during the previous communication with the LIFE Unit.

An interactive exhibition with extensive wall-paintings have been set up in the conference room of the Eagle Centre. MME and HNPD contracted for the common operation of the Centre.

The first public program – called the 1st “Eagle Day” – was organized at the Eagle Centre on 17 January, with more than 160 participants coming from the neighboring and from several further settlements. The project team organized a “Chick Day” at the national Children’s day at the Eagle Centre on 31 May 2015. More than 100 participants, including many children, took part in the event. Both of the above mentioned two programs were organized again in 2016 and are planned to be organized every year in the future.

The Helicon project hosted several stakeholder and public meeting in the Eagle Centre during 2015 and 2016 (see detailed list under Action D.1). Besides the above mentioned organized events a lot of visitors came to the Eagle Centre during the Friday open days. The project team built active contacts with local schools and kindergartens, which have brought a lot of groups and classes to the Eagle Centre. The largest school of Jászberény has been organized a one-week camp at the Eagle Centre both years with more than 20 participants.

Thanks to the high publicity of the Eagle Centre, it has been started to operate also as a regional bird rescue station in cooperation with local veterinarians, who took part at the veterinarian training of the project (Action A.1). Altogether 309 injured specimens of 59 protected bird and mammal species has been brought to the Centre, including 8 imperial eagles during the project.

The sales contract, the plans and the building permission, the MME-HNPD agreement, the municipality permission for use, and a diagram showing monthly number of visitors are attached in ***Technical Annex D.8***.

### **Action D.9: Develop an Imperial Eagle Educational Trail in the Jászság SPA**

A minor change in the route of the pedestrian educational trail was agreed in a field visit by project team (HNPD, MME, HNBI, Filmjungle). The concept, text and preliminary design of the information boards has been prepared by MME and the subcontractors in 2013, but the boards were not manufactured due to the delays of the Visitor Centre (Action D.8). The educational trails could not be used effectively without the Visitor Centre as the main station of both trails, so the project team decided not to install them until it can operate fully.

The tables of the educational trail have been produced and were exhibited at the Eagle Centre on the Eagle Day at January 2015 (31/12/2012 was planned in the application). The 10 tables of the pedestrian “Imperial Eagle” educational trail and the 10 tables of the bicycle “Jászság” educational trail have been installed in the field by March 2015. Since then almost every group visiting the Eagle Centre are taking a full-length or partial guided tour at the educational trails. At the organized public events a horse carriage was called to carry visitors along the pedestrian trail. We have no exact statistics on the number of visitors, as the trails are in an area open for the public, so visitors could visit them also without entering the Eagle Centre. Anyway more than 2000 visitors visited the trails directly from the Eagle Centre and many more without registration (2500 were planned in the application).

The concept of the trails (2013), the tables and map of the two trails are attached in ***Technical Annex D.9***.

### Action D.10: Develop and maintain project website including online camera systems

The various online tools applied by the project resulted that at least half million different visitors from 158 countries have been reached by more than 5 million times during the project period (*1 million was planned in the application*). The results of different online platforms are summarized in the table below.

	START OF ANALYTICS	END OF ANALYTICS	Page view	Unique visitor	Like/Follow	Countries
Imperialeagle.hu/Parlagisas.hu	2012.06.05	2016.12.31	589 614	166 967	n.a.	158
Satellitetracking.hu	2012.06.04	2016.12.31	1 309 489	191 361	1 400	149
Facebook - Helicon	2013.04.10	2016.12.31	2 069 031	477 577	3 852	n.a.
Facebook - Falco	2015.03.05	2016.12.31	127 923	2 688	1 434	n.a.
Facebook - Eagle Centre	2015.01.15	2016.12.31	245 596	8 262	1 135	n.a.
Youtube	2012.12.18	2016.12.31	74 370	n.a.	147	144
Ustream - Eagle nest 1.	2013.06.10	2016.12.31	159 883	n.a.	150	n.a.
Ustream - Eagle nest 2.	2013.09.01	2016.12.31	156 681	n.a.	68	n.a.
Ustream - Feeding site	2013.09.01	2016.12.31	268 487	n.a.	256	n.a.
Ustream - Eagle Centre	2016.05.01	2016.12.31	5 167	n.a.	8	n.a.
<b>TOTAL</b> <i>(summation for page view, maximum for other statistics)</i>			<b>5 006 241</b>	<b>477 577</b>	<b>3 852</b>	<b>158</b>

#### *Imperialeagle.hu / Parlagisas.hu*

The [www.imperialeagle.hu](http://www.imperialeagle.hu) website is operating continuously since January 2012 (it was the website of the previous LIFE02NAT/HU/8627 project as well) and it was changed by the recent project's website with a temporary design at 30 June 2012 (*same date as planned in the application*). Both websites are owned by MME. The elements of the previous project's website are still available under the "Projects" menu and also directly by the link: [www.imperialeagle.mme.hu](http://www.imperialeagle.mme.hu).

The first design and functions of the webpage were not satisfactory so a new design has been prepared by the same graphic who produced the logo (Action D.3), and educational materials (Action D.5) for the project to keep the general image of the project. The new website was launched at May 2013 (*31/12/2012 was planned in the application*) and thanks to the online camera system set up in June a vast number of visitors visited the new site just after launch. As the main communication of the project is in Hungarian the project team decided to launch also the [www.parlagisas.hu](http://www.parlagisas.hu) website, so the same content in Hungarian is available here, while the English content remained at the [www.imperialeagle.hu](http://www.imperialeagle.hu) "mirror" site.

The website includes an online tool to report BirdCrime incidents and also publishes the annual results of the different databases built in the frame of the project (Action A.3). The most popular part of the website was the "Webcam" menu (see below). The "News" menu was set as the starting page of the site, where 141 relevant news of the project were published in Hungarian and English language (see details under Action D.4).

#### *Satellitetracking.eu*

The visualization of satellite tagged birds' movement needed the most complex website programming, therefore the project team decided to launch it as a separate website by 30 June 2012 ([www.satellitetracking.eu](http://www.satellitetracking.eu), *not planned in the application*). The technical programming of this website was developed in the frame of this Helicon LIFE project and the data of all imperial eagles tagged in Action C.1 are uploaded regularly. In parallel the design elements of the

website were developed in the frame of another project of MME (“Birds without borders”, Hungarian-Slovakian Cross Border Cooperation), therefore the logos of both projects are visible at the bottom of the page. As the site was created not to be species-specific, the project team offered the free usage of the site for different national and international projects and organizations (Action E.5). By 2015 it became the most comprehensive website of satellite-tracked birds in Central and Eastern Europe, which recently contains the data of almost 300 satellite-tagged birds of 18 species, including the data collected in the frame of several other LIFE projects as well. The selected birds (up to 10) can be viewed with a direct link, so we can use it as a tool for communication at the project’s and other websites, and for Facebook news if we would like to refer the route of selected eagle specimens.

### **Online camera**

The hardware and software for operating the online camera systems has been put together by an external company contracted by Filmjungle. Altogether four webcam systems were installed in the Jászág SPA, but maximum two of them were operating simultaneously. The receiver antenna system was installed at the tower of MVM Zrt. (Hungarian Electricity Ltd.) in Jászberény, which company also offered a high speed internet connection for the project. The antenna system has been moved to the Eagle Centre after the finalization of the construction works.

Online broadcasting have been produced of:

- active imperial eagle nests (June – September, 2013, 2014, 2015);
- active imperial eagle feeding station (September – March, 2013/2014, 2014/2015, 2015/2016);
- inactive imperial eagle nest, visited by imperial eagles and occupied by several other species (continuously from September 2013 with some gaps);
- Eagle Centre aviary with rehabilitated imperial eagles (continuously from April 2016).

### **Facebook**

The “HELICON LIFE” Facebook profile was launched in April 2013 by MME, and since than 634 news and photos were uploaded regularly (<https://www.facebook.com/HeliconLife>). It has reached 3852 “likes” by December 2016 and it became the most effective online communication tool of the project.

Besides the Helicon Life site, two more project Facebook pages have been launched by MME in the first quarter of 2015. At the site of “Falco” the poison searching dog (<https://www.facebook.com/Falco-808314389245409>) 50 news were posted and it has reached 1434 likes. At the site of “Sasközpont/Eagle Centre” (<https://www.facebook.com/saskozpont>) 101 news were posted and it has reached 1135 likes.

At the end of the project MME wanted to continue the active communication with the numerous followers. The PannonEagle Life project has started in parallel with the finalization of the Helicon project, in similar topic but in a wider geographic area, therefore it was reasonable to continue the operation of the site in the frame of this latter project. Therefore the name of the site has been changed to PannonEagle Life (<https://www.facebook.com/PannonEagleLIFE/>), so recently all archives of the HELICON project can be found under this url. For those users who are searching for the Helicon project we have re-created the HELICON Life Facebook page as well, with a clear guidance that the archives and the news are available at the new site. The other two sites are operating at the same link.

## **YouTube**

A special YouTube channel was launched by Filmjungle where all the films of the project have been uploaded. See details under Action D.6.

## **Ustream**

Five special Ustream channels were launched by Filmjungle where all the online broadcastings and also the films of the project were available (due to re-organization of the channels not all links are available already):

- Feeding site  
<http://www.ustream.tv/channel/parlagi-sas-webkamera-imperial-eagle-webcam>
- Nest 1. (not used by eagles for breeding)  
<http://www.ustream.tv/channel/parlagi-sas>
- Nest 2. (used by eagles for breeding)  
<http://www.ustream.tv/channel/parlagi-sas-f%C3%A9szek-kamera>
- Short films broadcasted (active between 2013-2015)  
<http://www.ustream.tv/channel/parlagi-sas-kisfilmek-imperial-eagle-short-films>
- Aviary in the Eagle Centre  
<http://www.ustream.tv/channel/skHJ8dXUpqn>

The web analytics of the websites are attached **Technical Annex D.10**. The comprehensive list of project news and imperialeagle.hu website links can be found in **Technical Annex D.4** (HELICON\_D4\_Project\_reports\_2012-2016.pdf).

**Action D.11: Produce and erect notice boards at project sites**

The development of the notice boards has been undertaken in cooperation with the same subcontractor of other connected actions (Action D.7, D.8, and D.9). Twenty different notice boards have been produced by MME and placed on the project SPAs by the relevant national park directorates by December 2014 (31/12/2012 was planned in the application).

Further 12 notice boards with the same design have been erected at the two partner (2-2 in each in 2014) and at further eight Hungarian Zoos (1 in each in the first quarter of 2016). A smaller notice board showing the support of LIFE program was installed on the wall of the Eagle Centre (Action D.8).

The list, layout and map of the 20 SPA, 12 Zoo and the Eagle Centre notice boards are attached in ***Technical Annex D.11***.

**Action D.12: Produce Layman's report**

The text and layout of the bilingual (Hungarian and English), 24 pages Layman's report was prepared by MME in the second half of 2016, while it was corrected with the project's final numbers in December 2016. The summary of the project background, actions and results were detailed in 48 short chapters, and for each topic we inserted specific QR codes as well. These codes are linked to project news and films in order to give possibility for the reader to get more detailed information in the particular topic.

The bilingual report was printed in 2000 copies in December 2016 and it was distributed among project partners and cooperating organizations in the beginning of 2017 (2x2000 copies were planned by 31/12/2016 in the application).

The Layman's report is attached in *Dissemination Annex / Layman's report*.



### 5.3 Evaluation of Project Implementation

The ambitious project proposal proved to be too optimistic in time-planning of some actions, which in reality took significantly more time than estimated. The management system has been strengthened and the administrative barriers have been overcome by the second half of the project. Therefore, in spite of the delays occurred in the implementation of several actions in the first half of the project, all the proposed significant results have been achieved, and even exceeded in most of the cases.

The numerical analyses of the most important indicators are shown under Action E.1.

A detailed Gantt chart analysing the status and implementation of the project actions during the project period is attached in *Administrative Annexes*.

The largest success of the project is that the enormously high prevalence of predator poisoning, which was revealed at the beginning of the project, could be decreased significantly by the end of the project (Action A.2, C.5). In parallel the mortality of both breeding and non-breeding imperial eagles has decreased, which resulted a significant population growth for the last two years of the project (Action E.1).

Valuable contacts have been established with all main stakeholders (conservationists, hunters, veterinarians, farmers, police, prosecutors and judges), which based a long-term cooperation far beyond the project period (Action A.1, A.4, A.5, A.6, D.1, D.2).

Meanwhile the project could also reach regularly a very high proportion of the public through the media and online surfaces, which resulted that it became one of the most well-known conservation project in Hungary (Action D.4, D.6, D.10).

The largest delays happened with some dissemination actions, but all their proposed indicators could be fulfilled within the project period. The building of the Eagle Centre (Action D.8) and zoo exhibitions (Action D.7) delayed two years due to the significantly underestimated administrative and bureaucratic processes. The delay of the educational trails was directly connected with the Eagle Centre building, as their operation is also linked (Action D.9).

Some educational materials for the stakeholders (Action D.2) and public (Action D.5) were delayed or their concept was changed during the communication with stakeholders, but these delays also did not cause any gaps for the communication, as there were always enough materials to provide at stakeholder meetings or public events.

In general, we believe that the project was cost-effectively accomplished not only comparing to the EU average, but also to the national standards if we compare the extension of the numerous actions with their particular budget.

The results of almost all project actions were immediately visible, although the Jászág management planning together with the agri-environmental schemes (Action A.7), artificial nests (Action C.4) and the habitat rehabilitations (Action C.6) will bring most of their results in the upcoming 5-10 years.

The results achieved are compared against the objectives in the following table.

<b>Task</b>	<b>Foreseen in the revised proposal</b>	<b>Achieved</b>	<b>Evaluation</b>
A.1 Establish a specialised countrywide veterinary system and best-practice protocol for the treatment of birds injured or died due to persecution	<ul style="list-style-type: none"> <li>- network of 20 trained veterinarians</li> <li>- best practice protocol</li> <li>- 5-15 imperial eagle specimens could be released</li> <li>- 30% of rehabilitation success</li> </ul>	<ul style="list-style-type: none"> <li>- network of 31 trained veterinarians</li> <li>- best practice protocol</li> <li>- 12 imperial eagle specimens could be released</li> <li>- 75% of rehabilitation success</li> </ul>	<ul style="list-style-type: none"> <li>- exceeded (++)</li> <li>- done without significant delay (+)</li> <li>- done without significant delay (+)</li> <li>- exceeded (++)</li> </ul>
A.2 Establish trained dog-units for searching carcasses and poisoned baits	<ul style="list-style-type: none"> <li>- three units with six dogs created</li> </ul>	<ul style="list-style-type: none"> <li>- one unit with one dog created</li> </ul>	<ul style="list-style-type: none"> <li>- done with delay or change (0)</li> </ul>
A.3 Establish Hot Line and Online Bird Crime Database for reporting and storing data on bird persecution cases	<ul style="list-style-type: none"> <li>- special Hot Line and e-mail launched</li> <li>- Online Bird Crime Database created</li> </ul>	<ul style="list-style-type: none"> <li>- special Hot Line and e-mail launched</li> <li>- Online Bird Crime Database created</li> </ul>	<ul style="list-style-type: none"> <li>- done without significant delay (+)</li> <li>- done with delay or change (0)</li> </ul>
A.4 Prepare a protocol about best practice methods and applicable legal tools for investigating bird persecution cases	<ul style="list-style-type: none"> <li>- a protocol about best practice methods and applicable legal tools prepared</li> </ul>	<ul style="list-style-type: none"> <li>- field investigation protocol prepared</li> <li>- police investigation protocol prepared</li> </ul>	<ul style="list-style-type: none"> <li>- done without significant delay (+)</li> <li>- done with delay or change (0)</li> </ul>
A.5 Establish an Anti Bird Crime Action Group for helping investigations	<ul style="list-style-type: none"> <li>- Anti Bird Crime Action Group established</li> </ul>	<ul style="list-style-type: none"> <li>- Anti-Poisoning Working Group in the frame of the Raptor Conservation Council established</li> </ul>	<ul style="list-style-type: none"> <li>- done without significant delay (+)</li> </ul>
A.6 Prepare an objective study about factors affecting game populations and about alternative legal predator control methods	<ul style="list-style-type: none"> <li>- objective study about factors affecting game populations and about alternative legal predator control methods prepared</li> </ul>	<ul style="list-style-type: none"> <li>- Report on the status of game and predator management in Hungary prepared</li> <li>- Report of the first two years' dataset of the Jászság sample area prepared</li> </ul>	<ul style="list-style-type: none"> <li>- done with delay or change (0)</li> <li>- done with delay or change (0)</li> </ul>
A.7 Prepare Management Plan for the Jászság SPA	<ul style="list-style-type: none"> <li>- Management Plan prepared</li> </ul>	<ul style="list-style-type: none"> <li>- Management Plan prepared</li> <li>- Suggestion to create the JÁSzsÁG High Nature Value Farmland prepared</li> <li>- Suggestion to initiate specific agri-environmental measures for small game species prepared</li> </ul>	<ul style="list-style-type: none"> <li>- done with delay or change (0)</li> <li>- exceeded (++)</li> <li>- exceeded (++)</li> </ul>

Task	Foreseen in the revised proposal	Achieved	Evaluation
B.1 Purchase key eagle and game habitat patches at the Jászág SPA	<ul style="list-style-type: none"> <li>- 10 house yards purchased</li> <li>- 3 ha purchased</li> </ul>	<ul style="list-style-type: none"> <li>- 10 house yards purchased</li> <li>- 5.35 ha purchased</li> </ul>	<ul style="list-style-type: none"> <li>- done with delay or change (0)</li> <li>- exceeded (++)</li> </ul>
C.1 Satellite track imperial eagles to locate key conflict areas and decrease the mortality of immature specimens	<ul style="list-style-type: none"> <li>- 30 imperial eagles tracked</li> <li>- 30,000 coordinates gathered</li> </ul>	<ul style="list-style-type: none"> <li>- 39 imperial eagles tracked</li> <li>- 350,000 coordinates gathered</li> </ul>	<ul style="list-style-type: none"> <li>- exceeded (++)</li> <li>- exceeded (++)</li> </ul>
C.2 Guard endangered imperial eagle nest sites at key SPAs	<ul style="list-style-type: none"> <li>- 125 weeks of nest-guarding organized</li> <li>- 150-250 volunteers participated</li> <li>- 20 chicks fledged from guarded nests</li> <li>- 3 specimens rescued</li> </ul>	<ul style="list-style-type: none"> <li>- 191 weeks of nest-guarding organized</li> <li>- 340 volunteers participated</li> <li>- 33 chicks fledged from guarded nests</li> <li>- 2 specimens rescued</li> </ul>	<ul style="list-style-type: none"> <li>- exceeded (++)</li> <li>- exceeded (++)</li> <li>- exceeded (++)</li> <li>- underachieved (-)</li> </ul>
C.3 Create and operate safe feeding places for imperial eagles in the Jászág SPA	<ul style="list-style-type: none"> <li>- feeding place operated annually between September and February</li> <li>- imperial eagles visited the feeding place for 20 occasions</li> </ul>	<ul style="list-style-type: none"> <li>- feeding place operated annually between September and February</li> <li>- imperial eagles visited the feeding place for several hundred occasions</li> </ul>	<ul style="list-style-type: none"> <li>- done without significant delay (+)</li> <li>- exceeded (++)</li> </ul>
C.4 Install artificial nests at safe locations to prevent and compensate the effect of persecution in project SPAs	<ul style="list-style-type: none"> <li>- 100 platforms installed</li> </ul>	<ul style="list-style-type: none"> <li>- 100 platforms installed</li> </ul>	<ul style="list-style-type: none"> <li>- done without significant delay (+)</li> </ul>
C.5 Search carcasses and poisoned baits with trained dog-units at key SPAs	<ul style="list-style-type: none"> <li>- 2600 car unit surveys executed</li> <li>- 420 dog unit surveys executed</li> <li>- at least one precedent judgement sentenced</li> </ul>	<ul style="list-style-type: none"> <li>- 5500 car unit surveys executed</li> <li>- 11,400 imperial eagle observations gathered</li> <li>- 547 dog unit surveys executed</li> <li>- 201 carcasses related to wildlife crimes were found</li> <li>- four trials were closed, five suspects were found guilty</li> </ul>	<ul style="list-style-type: none"> <li>- exceeded (++)</li> <li>- exceeded (++)</li> <li>- exceeded (++)</li> </ul>
C.6 Create exemplary eagle and game habitat management in cooperation with hunters and farmers at the Jászág SPA	<ul style="list-style-type: none"> <li>- habitat construction works have been finalized at 10 house yards</li> <li>- one sluice has been established</li> <li>- alternative game management trainings held for and equipment gave to hunters</li> </ul>	<ul style="list-style-type: none"> <li>- habitat construction works have been finalized at 10 house yards</li> <li>- two sluices have been established</li> <li>- alternative game management trainings held for and equipment gave to hunters</li> </ul>	<ul style="list-style-type: none"> <li>- done without significant delay (+)</li> <li>- done with delay or change (0)</li> <li>- done without significant delay (+)</li> </ul>

<b>Task</b>	<b>Foreseen in the revised proposal</b>	<b>Achieved</b>	<b>Evaluation</b>
D.01 Organize workshops to inform and train key stakeholders	- 57 workshops with at least 1000 participants organized	- 79 workshops with 6090 participants organized	- exceeded (++)
D.02 Prepare and disseminate specific educational materials for key stakeholders	- educational materials prepared for hunters - educational materials prepared for farmers - educational materials prepared for police and jurists	- educational materials prepared for hunters - educational materials prepared for farmers - educational materials were not prepared for police and jurists	- done with delay or change (0) - done with delay or change (0) - underachieved (-)
D.03 Prepare a Communication Plan for the project	- Communication Plan prepared	- Communication Plan prepared	- done without significant delay (+)
D.04 Ensure continuous media coverage of the project	- 100 press releases disseminated and 5 press conferences held - 1000 media reports published - audience reached by at least 10 million occasions	- 79 web and 50 press releases disseminated and 12 press conferences held - 1908 media reports published - audience reached by more than 103 million occasions	- exceeded (++) - exceeded (++) - exceeded (++)
D.05 Prepare and disseminate educational materials for the general public	- educational materials prepared and disseminated	- educational materials prepared and disseminated in three phases	- done with delay or change (0)
D.06 Prepare and disseminate documentary films about the project and about the imperial eagle	- project starting film published - project closing film published - wildlife film published - at least 20 short films published - 250,000 online views	- project starting film published - project closing film published - “The Bait” fictional nature film published - at least 20 short films published - 74,000 online views	- done with delay or change (0) - done without significant delay (+) - done with delay or change (0) - done without significant delay (+) - underachieved (-)
D.07 Develop interactive exhibitions and information points in Hungarian Zoos	- Budapest Zoo interactive exhibition developed - Jászberény Zoo interactive exhibition developed	- an indoor and an outdoor interactive exhibition developed at Budapest Zoo - Jászberény Zoo interactive exhibition developed	- done with delay or change (0) - done with delay or change (0)
D.08 Purchase and develop an Imperial Eagle Visitor Centre at the Jászság SPA	- Imperial Eagle Visitor Centre developed - 2500 visitors registered	- Eagle Centre developed - 2705 visitors registered	- done with delay or change (0) - done without significant delay (+)
D.09 Develop an Imperial Eagle Educational Trail in the Jászság SPA	- two educational trails are developed	- two educational trails are developed	- done with delay or change (0)

<b>Task</b>	<b>Foreseen in the revised proposal</b>	<b>Achieved</b>	<b>Evaluation</b>
D.10 Develop and maintain project website including online camera systems	<ul style="list-style-type: none"> <li>- project website developed</li> <li>- online camera systems developed</li> <li>- at least 1 million online visits</li> </ul>	<ul style="list-style-type: none"> <li>- project website developed</li> <li>- online camera systems developed</li> <li>- over 5 million online visits</li> </ul>	<ul style="list-style-type: none"> <li>- done without significant delay (+)</li> <li>- done without significant delay (+)</li> <li>- exceeded (++)</li> </ul>
D.11 Produce and erect notice boards at project sites	<ul style="list-style-type: none"> <li>- 21 notice boards erected at SPAs</li> <li>- 10 notice boards erected at Zoos</li> </ul>	<ul style="list-style-type: none"> <li>- 21 notice boards erected at SPAs and the Eagle Centre</li> <li>- 12 notice boards erected at Zoos</li> </ul>	<ul style="list-style-type: none"> <li>- done without significant delay (+)</li> <li>- done without significant delay (+)</li> </ul>
D.12 Produce Layman's report	<ul style="list-style-type: none"> <li>- Layman's report produced</li> </ul>	<ul style="list-style-type: none"> <li>- Layman's report produced</li> </ul>	<ul style="list-style-type: none"> <li>- done without significant delay (+)</li> </ul>
E.1 Monitor persecution and key population parameters of imperial eagles in project SPAs	<ul style="list-style-type: none"> <li>- prevalence of bird crime incidents increased by at least 25% in the first years and decrease by at least 25% by the last years of the project</li> <li>- national population of imperial eagles increased by at least 20% by the end of the project</li> <li>- mortality rate of breeding birds decreased to less than 20% by the end of the project</li> </ul>	<ul style="list-style-type: none"> <li>- prevalence of bird crime incidents increased by 92% in the first two years (vs. 2011) and decreased by 37% for the last three years</li> <li>- national population of imperial eagles increased by 36% by the end of the project</li> <li>- mortality rate of breeding birds decreased to 8-16% by the end of the project</li> </ul>	<ul style="list-style-type: none"> <li>- exceeded (++)</li> <li>- exceeded (++)</li> <li>- done without significant delay (+)</li> </ul>
E.2 Establish operational project team and partnership	<ul style="list-style-type: none"> <li>- project team and partnership established</li> </ul>	<ul style="list-style-type: none"> <li>- project team and partnership established</li> </ul>	<ul style="list-style-type: none"> <li>- done without significant delay (+)</li> </ul>
E.3 Project management, monitoring and reporting	<ul style="list-style-type: none"> <li>- continuous project management and monitoring accomplished</li> <li>- reports delivered for the EC</li> </ul>	<ul style="list-style-type: none"> <li>- continuous project management and monitoring accomplished</li> <li>- reports delivered for the EC</li> </ul>	<ul style="list-style-type: none"> <li>- done without significant delay (+)</li> <li>- done with delay or change (0)</li> </ul>
E.4 Held Steering Committee Meetings	<ul style="list-style-type: none"> <li>- Steering Committee Meetings held annually</li> </ul>	<ul style="list-style-type: none"> <li>- Steering Committee Meetings held annually</li> </ul>	<ul style="list-style-type: none"> <li>- done without significant delay (+)</li> </ul>
E.5 Networking with other LIFE and non-LIFE projects	<ul style="list-style-type: none"> <li>- the project got in direct contact with at least 10 organizations or projects</li> </ul>	<ul style="list-style-type: none"> <li>- the project got in direct contact with 17 organizations and 22 LIFE projects</li> </ul>	<ul style="list-style-type: none"> <li>- exceeded (++)</li> </ul>

<b>Task</b>	<b>Foreseen in the revised proposal</b>	<b>Achieved</b>	<b>Evaluation</b>
E.6 Undertake opinion polls to assess public and stakeholder attitudes to project themes before and after relevant project actions	<ul style="list-style-type: none"> <li>- "beginning-of-project" poll organized</li> <li>- "end-of-project" poll organized</li> </ul>	<ul style="list-style-type: none"> <li>- "beginning-of-project" poll organized</li> <li>- "end-of-project" poll organized</li> </ul>	<ul style="list-style-type: none"> <li>- done with delay or change (0)</li> <li>- done without significant delay (+)</li> </ul>
E.7 Organize an International Conference on the Illegal Use of Poison in the Natural Environment	<ul style="list-style-type: none"> <li>- international conference organized with at least 100 participants from 10 countries</li> </ul>	<ul style="list-style-type: none"> <li>- international conference organized with 130 participants from 16 countries</li> </ul>	<ul style="list-style-type: none"> <li>- exceeded (++)</li> </ul>
E.8 Development of After-LIFE Conservation Plan	<ul style="list-style-type: none"> <li>- After-LIFE Conservation Plan developed</li> </ul>	<ul style="list-style-type: none"> <li>- After-LIFE Conservation Plan developed</li> </ul>	<ul style="list-style-type: none"> <li>- done without significant delay (+)</li> </ul>

## 5.4 Analysis of long-term benefits

### **Environmental benefits**

The national population of the imperial eagle has been increased from 151 (2012) to 205 (2016) breeding pairs, equal to +36% in 5 years. Hungary holds the largest population of eastern imperial eagles in the European Union, as the more than 205 nesting pairs of the country represents ca. two-third of the total EU population. Moreover, the Great Hungarian Plain is also holding the most important temporary settlement areas of immature imperial eagles coming from other EU countries (i.e. Slovakia, Austria and the Czech Republic), as it was proved by ringing and satellite-tracking studies. Therefore, the conservation status of the species in Hungary is also directly affecting these countries' populations, which together with Hungarian breeding pairs represents 90% of the total EU population. Therefore, the population increase observed during the project period in Hungary resulted a more than 20% increase of the EU population as well.

The number of annually poisoned and found imperial eagles has been decreased from 18 (2012) to 1 individual by 2016. If we compare the average annual number of poisoned imperial eagles at the first two years of the project (14.5) with the last three years (2.7) it is equal to -82% decrease in 5 years. Similarly, the estimated annual mortality of adult birds (from 16-25% to 8-16%) and the poisoning rate of immature birds (from 22-33% to 0-10%) also decreased. We believe that the project results contributed greatly to the decreasing trend of poisoning incidents, and therefore to the increasing survival and population size of imperial eagles in Hungary.

The Management Plan for the Jászság SPA prepared by the project helped not only the management of the given SPA, but also gave suggestions for all similar habitats of the Hungarian Natura 2000 network, as many new management plans are prepared recently in the upcoming years.

Poisoning is listed in Appendix IV. of Bern Convention (Convention on the Conservation of European Wildlife and Natural Habitats) under “Prohibited means and methods of killing, capture and other forms of exploitation”, therefore downscaling the problem in Hungary clearly meet with the aims of the Convention.

### **Long-term benefits and sustainability**

In case if the project would be not implemented we risk the further increase of wildlife poisoning and other illegal activities, which would directly cause the further increase of non-natural mortality of imperial eagles in Hungary in short-term, and therefore most probably the decrease of the EU population in long-term.

The outlook and the planned continuation of the actions are detailed in the After-LIFE conservation Plan (Action E.8).

The long-term economic and social benefits of the project are different to assess as the project was primarily targeting a special conservation issue, with relatively low effect on the economy and socioeconomics. Anyway e.g. the Eagle Centre definitely gave a new eco-touristic destination for the Jászság, which will probably increase slightly the number of visitors in the region. Also the new game management techniques promoted by the project and the increase

of the local game population will help the sustainability of game-management in the Jászság area, and hopefully in other areas where similar methods will be applied.

### **Replicability, transferability, cooperation**

All project actions are well documented, and thanks to the extensive professional network of the project, most actions are already known and several of them are already utilized by the raptor conservation network throughout Europe (Action E.5).

### **Best practice lessons**

The main best practice lessons learned and demonstrated during the project:

- Veterinary interventions of injured imperial eagles are undertaken according to the best-practice protocol elaborated by the most experienced veterinarians within the Action A1.
- Trained dog units established (Action A.2) and used in field surveys (Action C.5) were proved to be a state-of-the-art methodology for detecting illegal bird crime activities in other countries (e.g. Spain and Italy), and by now in Hungary as well.
- Hot Line established (Action A.3) was proved to be a state-of-the-art methodology for gathering information on illegal activities from the public in other countries (e.g. in Austria).
- Protocol on the best practice methods and applicable legal tools for investigating bird persecution cases (Action A.4) are used widely in bird crime investigations (Action C.5), largely facilitating the success of the procedures.
- The recommendations of the study on the management practices of small game species and predators (Action A.6), of the Management Plan of the Jászság SPA (A.7) and the experience gained by the exemplary habitat management (Action C.6) summarize the available best practice methods for reconciling agricultural and game management with conservational needs, and also how funding can be achieved for such purposes.
- Satellite tracking of large birds is proved to be the best practice method to locate the most important conflict zones and determine their mortality, but also to raise the attention of the public on the target species and problems (Action C.1).
- Artificial feeding (Action C.3), installation of artificial nests (Action C.4) and guarding endangered nest sites (Action C.2) are shown to be best practice methods to increase the survival and breeding success of endangered raptors.
- The intensive communication actions of the project (D.1-12) apply state-of-the art methods experienced by the project team itself, or by the international conservation community, for disseminating information most effectively among stakeholders and the general public, and an unusually high number of people can be targeted.

### **Innovation and demonstration value**

Probably the most important innovation of the project (i.e. which was never used previously elsewhere according to our knowledge), was the method developed for the estimation and monitoring of the annual mortality of the breeding imperial eagle specimens (Action E.1.). The modern genetic techniques together helped by the intensive feather collection in the field proved that non-invasively collected samples can be used to estimate mortality much more accurately than any other indirect methods.

The purchase of abandoned house yards at the Hungarian Plain was also firstly used for conservation purposes in the frame of this project. These house yards have an important role to



maintain biodiversity in the agricultural landscapes, so most probably several other initiations will use them for these purposes in the future.

### **Long term indicators of the project success**

The following possible indicators can be used to assess the long-term success of the project:

- breeding population size of the imperial eagle in Hungary (calculating with a 5% average annual increase, it should reach at least 330 pairs by 2026);
- annual mortality of breeding imperial eagle specimens (based on the recent experiences it seems that, if the annual mortality can be kept constantly under 20%, it could make the base for the population increase);
- annual mortality of non-breeding imperial eagle specimens (based on the recent experiences it seems that, if the annual mortality can be kept constantly under 20%, it could make the base for the population increase);
- annual number of imperial eagle specimens found due to persecution, including intentional poisoning and shooting (it should be kept under 5 specimens per year in average).

All of these values should be defined more precisely by a detailed population viability study. Such a study is planned in the PannonEagle LIFE project between 2017 and 2021.

## 6. Comments on the financial report

### 6.1. Summary of Costs Incurred

As shown in the expenditure summary table, the overall project expenditure from 1 January 2012 to 31 December 2016 is € 2,072,795 equal to 96.79% of foreseen total budget, consisting both the EC and own contributions.

Coordinating beneficiary has contributed 1.17% to the project, associated beneficiaries have contributed 16.40%, and the co-financers' contribution is 8.66%.

Most of the partners (BNPD, HHNC, HNBI, KMNPD, MME) cannot reclaim VAT therefore their total costs were accounted on the project. Their declarations were attached with the mid-term report.

PROJECT COSTS INCURRED			
Cost category	Budget according to the grant agreement*	Costs incurred within the project duration	%**
1. Personnel	739 564	700 055	<b>94,66%</b>
2. Travel	275 562	259 150	<b>94,04%</b>
3. External assistance	322 622	349 228	<b>108,25%</b>
4. Durables: total <u>non-depreciated</u> cost			
- <i>Infrastructure sub-tot.</i>	291 485	253 995	<b>87,14%</b>
- <i>Equipment sub-tot.</i>	245 254	249 037	<b>101,54%</b>
- <i>Prototypes sub-tot.</i>	0		
5. Land purchase / long-term lease	9 188	24 016	<b>261,39%</b>
6. Consumables	113 715	100 138	<b>88,06%</b>
7. Other costs	4 704	3 149	<b>66,94%</b>
8. Overheads	139 503	134 028	<b>96,08%</b>
<b>TOTAL</b>	<b>2 141 597</b>	<b>2 072 795</b>	<b>96,79%</b>

The overall spending per cost category corresponded well with the budgetary plans. Only the project category “Land purchase” was overspent significantly according to the percentage, but it was also below the 30,000 € threshold.

Each cost categories are detailed in separate paragraphs below.

The following items were previously consulted directly with the EC or via the external monitoring team. These items were originally not planned in the application or included travel costs outside the EU.

Date	Type of correspondence	Topic of permission
31/01/2013	Inception Report follow-up letter	Printing of 800 unforeseen copies of the Madártávlát journal
31/01/2013	Inception Report follow-up letter	LIFE networking workshop in Spain on 14-16 November 2012
17/05/2013	e-mail via the external monitor	Buying a large parcel, therefore exceed the land purchase cost category
17/05/2013	e-mail via the external monitor	Raptor Research Foundation conference participation and travel costs (Argentina, November 2013)
23/05/2013	e-mail via the external monitor	Purchase of unforeseen equipment for BNPD (2 GPS, 1 small telescope)
06/09/2013	e-mail via the external monitor	American Association of Zoo Veterinarians conference participation by Budapest Zoo (USA, October 2013), purchase of two unforeseen laptops for KMNPD
10/12/2013	Project Visit letter	Budget reallocation among PR materials (cancelling the calendar and the jug)
10/10/2014	e-mail via the external monitor	Purchase of 1 pcs grass cutter (STIHL FS 410 C-E)
26/11/2014	e-mail via the external monitor	Travel costs to the Balkans to check satellite-tagged birds by MME
23/09/2015	e-mail via the external monitor	Raptor Research Foundation conference participation (USA, November 2015)
13/10/2016	e-mail via the external monitor	Veterinarian workshop participation by Budapest Zoo (Israel, November 2013)
19/12/2016	Project Visit letter	Education materials changes (Thematic field guide for hunters)
19/12/2016	Project Visit letter	Covering the partial printing costs of the Madártávlát magazine (Project closing article in Winter 2016 issue)

## Personnel

Total expenditure on Personnel stands at 94.66% of the budgeted amount. The personnel costs were calculated according to the CP.

We have gathered those personnel costs, where the planned and realized daily rates differed by more than 20%. The differences were partly caused by the higher qualification and working years of personnel than it was expected in average (e.g. the salary of rangers, as civil servants, is fixed by the law based primarily on these parameters). On the other hand, the average salaries were also increased continuously since 2010, when the application was elaborated.

## Travel & Subsistence

Travel & Subsistence costs incurred to 31 December 2016 are 94.04% of the overall planned budget. We use a unit cost for the company cars according to travel internal rules. The unit cost includes fuel fees, service costs, insurance, highway fees, excluding amortisation. Partners declared their unit costs by car which were used for the project. These unit costs were used to calculate the project costs multiplying the justified km of the given day and the unit costs.

## External assistance

In the external assistance budget category the following items were overspent, although significant saving occurred in other items, so the overall difference was not significant.

The genetic monitoring was enhanced in order to increase the sample size. We found very few male samples, therefore we decided with the subcontractor to involve the analyses of chick samples as well for selected nest sites, from which they could identify the male birds in many cases (see results at Action E.1).

The relatively high survival of tagged birds, the re-usage of tags found, and the increased amount of data thanks to the new methods (GPS-GSM system instead of Argos satellite data) resulted in a higher data costs than expected. Although the costs increased by less than 90%, the overall amount of data for the analyses increased by 10 times compared to the planned amounts (see results at Action C.1).

HHNC allocated some funds to external assistance for travel category, because they had to use more external sources than expected originally. The increased external services resulted higher quality reports and more intensive training of hunters (Actions A.6 and C.6).

The additional costs of filmmaking by Filmjungle were caused by unfavourable weather conditions (in two years of the project) and by the underestimated time needed to film the natural behaviour of eagles (Action D.6).

### **Durables**

Infrastructure subcategory was under spent mostly due to the lower costs of habitat rehabilitation executed under Action C.6.

Equipment subcategory was spent according to the application with some minor differences communicated with the EC previously (see table in the previous pages).

### **Land purchase**

Originally a small amount was planned for that 9 188 EUR (0.43%) and it was the only cost category which was significantly overspent 24 016 EUR (261.39%), due to the unique possibility of buying a large parcel (Action B.1). The deviation was noticed beforehand to and agreed by the Commission.

### **Consumables**

The consumable category was under spent due to several savings occurred during the purchase of materials among different beneficiaries.

### **Other costs**

The other cost category was under spent, as Filmjungle did not need to pay Authors and music rights.

### **Overheads**

Overheads are indirect costs and have been calculated according to the Common Provisions at 7% of direct project costs (excluding land purchase costs).

## 6.2. Accounting system

MME and project partners kept accurate and regular accounts of the implementation of the project using a double-entry book keeping system. The system is run in accordance with the accounting and bookkeeping policies and rules that apply in Hungary.

A project administrator at coordinating beneficiary is keeping contact with a financial team of associated beneficiaries. Incurred costs of a project partner are approved when all relevant documentation has been provided. A detailed Financial Guideline and an automatic Excel table was provided for the financial reports of the associated beneficiaries. An excel file, containing all important information about cost items, is regularly updated with approved costs.

The overall cost reporting for the HELICON LIFE project is done by the project administrator and approved by the project manager. For MME the final approval of incurred costs is done by the executive director.

According to the accepted financial report, the coordinating beneficiary transfers the requested costs directly to the associated beneficiary's bank account in quarterly. In case a partner is lacking cash-flow, by using the related form they can ask for advance payment from LIFE-source. Next advanced payment can only be applied if the last quarterly report is approved.

The accounting software used is compatible with the accounting standards. There is a separate cost account for the management of the project. Our project codes are 89-120001, 89-120002 etc. according to the given cost category. It's a basis for the project ledger.

Each partners 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. The project manager and the partner coordinators approve the expenses.

Timesheets are signed and dated by employee and validated by the supervisor during the first week following the month of registration. All the beneficiaries were using and electronically completed the model timesheet which is available on the LIFE website.

### 6.3. Partnership arrangements

The associated beneficiaries send to the coordinating beneficiary monthly:

- financial reporting file
- copies of all expenditure documentation (purchase orders, invoices, etc.),
- copies of calls for tender, contracts, offers if necessary, etc.
- monthly timesheet of the personnel signed by a staff member and associated beneficiary leader.

The crosscheck with the approved budget and verifying the corresponding actions are done by the project administrator of the coordinating beneficiary who is also responsible for communicating with the partners' administrative staff, approving the payment requests from the financial side and make the formal control of the documentation as well.

Each of the associated beneficiaries was filling in the information on incurred costs in a separate financial table. The associated beneficiaries were delivering their financial tables to the coordinating beneficiary monthly. All the financial information was accumulated and the overall incurred costs were compiled in one financial table by the project administrator of the coordinating beneficiary.

### 6.4. Auditor's report/declaration

Auditor Data:

Name: KOLBE Könyvvizsgáló Kft. (Kolbe Accounting LTD)  
Address: 1137 Budapest, Szent István park 14.  
Contact person: Mrs. Tünde Kolbe  
Licence No.: 01-09-260371

## 6.5. Summary of costs per action

As requested, we have prepared to allocate actual costs to specific action codes in order to complete the table shown below.

Use of funding by action is mostly in balance with the original plan. Most of the costs have been incurred in Action C5, which represented a large proportion of the personnel and travel capacities of the project, just as it was planned in the application.

The costs of following actions has increased by more than 10% compared to the application.

### **B.1 Purchase house yards**

The actions costs increased mostly due to the unique possibility of buying a large parcel (Action B.1). The deviation was noticed beforehand to and agreed by the Commission.

### **C.1 Satellite tracking**

The relatively high survival of tagged birds, the re-usage of tags found, and the increased amount of data caused higher data costs than expected (see explanation above under External assistance category and results at Action C.1).

### **C.5 Search carcasses**

The higher personnel costs of rangers and the higher intensity of field surveys resulted an 11% overspending compared to the application. The results of enhanced surveys and investigations are detailed under Action C.5.

### **D.02 Educational material for stakeholders**

The rearrangement of the communication tools (using existing annuals and magazines instead of separate leaflets) caused a 33% overspending, although the number of reached stakeholders was increased by several times (see details under Action D.2).

### **D.06 Film**

The additional costs of filmmaking by Filmjungle were caused by unfavorable weather conditions (in two years of the project) and by the underestimated time needed to film the natural behaviour of eagles (Action D.6).

### **D.08 Visitor Centre**

As the previous building at the same parcel could not be used as a base for the Eagle Centre, the costs became significantly higher than expected in the application. According to the suggestion by the EC after the Visit to the project on 25-26 September 2013 (letter date 10/12/2013) we agreed with HNPD that the costs will be shared pro rata between the project and other sources of HNPD. Based on the detailed architectural and financial plan prepared for the works we fixed that 43% of the costs will be financed from the project for all invoices related to the building of the Centre. This amount together with administrative costs became again higher due to unforeseen circumstances (see details under Action D.8). In parallel MME agreed to pay the furniture and materials needed for the basic operation of the Centre, which was not planned in the application.

### **E.1 Monitoring of persecution of eagles**

The genetic monitoring was enhanced in order to increase the sample size (see explanation above under External assistance category and results at Action E.1).

Action no.	Short name of action	1. Personnel cost	2. Travel cost	3. External assistance	4.1 Infrastructure	4.2. Equipment	5. Land purchase	6. Consumable	7. Other Cost	TOTAL
A1	Veterinary system	10 562,71 €	1 365,69 €	8 270,57 €				- €		20 198,97 €
A2	Establish dog-unit	3 588,45 €	1 774,99 €	2 469,50 €		959,86 €				8 792,80 €
A3	Establish Hot Line and Database	2 355,30 €	54,32 €					15,87 €		2 425,49 €
A4	Protocol of legal tools	3 627,01 €								3 627,01 €
A5	Action Group establishment	2 299,84 €								2 299,84 €
A6	Game-predator study	3 927,62 €	215,34 €	15 148,25 €						19 291,21 €
A7	Jászság Management Plan	6 008,66 €	442,16 €	6 767,97 €						13 218,78 €
B1	Purchase house yards	2 581,37 €	1 604,19 €				24 016,28 €	156,73 €		28 358,57 €
C1	Satellite tracking	11 710,46 €	2 730,83 €	64 769,11 €		84 538,13 €		615,71 €		164 364,24 €
C2	Nest guarding	15 905,48 €	20 413,16 €			4 128,51 €		3 350,87 €		43 798,02 €
C3	Feeding place	4 212,41 €	2 894,68 €			642,53 €		1 012,42 €		8 762,03 €
C4	Artificial nest	3 080,87 €	2 384,94 €					4 944,80 €		10 410,61 €
C5	Search carcasses	293 876,05 €	157 371,97 €	3 028,33 €		140 249,65 €		14 840,09 €		609 366,10 €
C6	Exemplary management	11 869,02 €	9 211,62 €	12 868,88 €	48 186,58 €			8 607,55 €		90 743,66 €
D1	Workshop	20 827,95 €	2 052,57 €	828,75 €					1 566,36 €	25 275,63 €
D10	Website and online camera	31 444,00 €	274,71 €	3 257,48 €		2 039,11 €		879,95 €		37 895,25 €
D11	Notice boards	818,66 €	522,96 €	1 365,98 €				6 934,70 €		9 642,31 €
D2	Educational material for stakeholders	7 483,70 €		8 025,81 €						15 509,50 €
D3	Communication Plan	1 726,97 €								1 726,97 €
D4	Media	12 109,69 €	61,98 €	17 310,68 €				57,07 €		29 539,42 €
D5	Educational material for public	2 578,03 €		3 773,86 €				42 844,98 €		49 196,87 €
D6	Film	20 427,02 €		113 903,26 €		168,90 €		128,64 €		134 627,82 €
D7	Exhibitions	12 891,32 €	419,28 €		25 854,06 €	597,88 €				39 762,53 €
D8	Visitor Centre	4 846,85 €	1 707,86 €	995,29 €	179 953,99 €	10 355,90 €		9 607,33 €		207 467,22 €
D9	Educational Trail	5 283,89 €	306,63 €	16 302,55 €		240,29 €		3 785,46 €		25 918,82 €
E1	Monitoring of persecution of eagles	33 690,91 €	9 811,65 €	39 298,70 €		666,55 €				83 467,82 €
E2	Establish project team	5 890,85 €	125,52 €							6 016,37 €
E3	Project management	159 792,77 €	26 722,73 €	16 255,49 €		4 449,42 €		2 339,41 €		209 559,83 €
E4	Steering Committee	2 840,13 €	1 297,35 €	378,43 €						4 515,91 €
E5	Networking	362,80 €	14 685,57 €					16,13 €	1 582,31 €	16 646,82 €
E6	Opinion polls			7 290,95 €						7 290,95 €
E7	International workshop	105,54 €	538,49 €	2 797,38 €						3 441,40 €
D12	Layman's report	1 328,83 €		4 120,68 €						5 449,51 €
Over-heads										134 027,52 €
	<b>TOTAL</b>	<b>700 055,16 €</b>	<b>259 150,14 €</b>	<b>349 227,89 €</b>	<b>253 994,63 €</b>	<b>249 036,71 €</b>	<b>24 016,28 €</b>	<b>100 137,72 €</b>	<b>3 148,67 €</b>	<b>2 072 794,73 €</b>



## 7. Annexes

The 244 Annexes of the report are attached according to the checklist attached to the report and detailed in the next chapters.

## 7.1. Administrative annexes

No.	Type / Folder	Action	Document / Product name	Pages/ Items	Hard copy	E- mail copy	DVD copy	Available at website
Annex 1	7.1 Administrative Annex - Partnership agreements	E.2	HELICON_E2_Partnership_agreement_BNPI	16			1	
Annex 2	7.1 Administrative Annex - Partnership agreements	E.2	HELICON_E2_Partnership_agreement_FANK	16			1	
Annex 3	7.1 Administrative Annex - Partnership agreements	E.2	HELICON_E2_Partnership_agreement_HNPI	16			1	
Annex 4	7.1 Administrative Annex - Partnership agreements	E.2	HELICON_E2_Partnership_agreement_JVV Zrt	16			1	
Annex 5	7.1 Administrative Annex - Partnership agreements	E.2	HELICON_E2_Partnership_agreement_KMNPI	16			1	
Annex 6	7.1 Administrative Annex - Partnership agreements	E.2	HELICON_E2_Partnership_agreement_NNI	16			1	
Annex 7	7.1 Administrative Annex - Partnership agreements	E.2	HELICON_E2_Partnership_agreement_OMVK	16			1	
Annex 8	7.1 Administrative Annex - Partnership agreements	E.2	HELICON_E2_Partnership_agreement_T_hu	16			1	
Annex 9	7.1 Administrative Annex - EC questions and answers	E.3	HELICON_E3_EC_questions_and_answers	20			1	
Annex 10	7.1 Administrative Annex - Gantt chart	E.3	HELICON_E3_Gantt_chart_140430	2			1	
Annex 11	7.1 Administrative Annex - Audit report	-	LIFE10NAT-HU-019_INDEPENDENT_AUDIT_REPORT	19	1		1	
Annex 12	7.1 Administrative Annex - EC requested documents	-	AAZV_Annual_conference_USA_participant_list_2013	4			1	
Annex 13	7.1 Administrative Annex - EC requested documents	-	AAZV_Annual_conference_USA_programme_2013	12			1	
Annex 14	7.1 Administrative Annex - EC requested documents	-	AAZV_Annual_conference_USA_report_2013	1			1	
Annex 15	7.1 Administrative Annex - EC requested documents	-	AM8SB9020870_REVIR_NONPROFIT_KFT	1			1	
Annex 16	7.1 Administrative Annex - EC requested documents	-	CZIFRAK_GABOR_TIMESHEET	12			1	
Annex 17	7.1 Administrative Annex - EC requested documents	-	JUHASZ_TIBOR_TIMESHEET	12			1	



No.	Type / Folder	Action	Document / Product name	Pages/ Items	Hard copy	E-mail copy	DVD copy	Available at website
Annex 18	7.1 Administrative Annex - EC requested documents	-	KLESZO_ANDRAS_TIMESHEET	12			1	
Annex 19	7.1 Administrative Annex - EC requested documents	-	ORBAN_ZOLTAN_TIMESHEET	12			1	
Annex 20	7.1 Administrative Annex - EC requested documents	-	SZIE2013015313_SZENT_ISTVAN_EGYETEM	2			1	
Annex 21	7.1 Administrative Annex - EC requested documents	-	SZIE2014007848_SZENT_ISTVAN_EGYETEM	2			1	
Annex 22	7.1 Administrative Annex - EC requested documents	-	SZIE2014011494_SZENT_ISTVAN_EGYETEM	3			1	
Annex 23	7.1 Administrative Annex - EC requested documents	-	YK2SA4215286_PATKOS_GABOR	1			1	
Annex 24	7.1 Administrative Annex - Partner certificates	-	LIFE10NAT-HU-019_FINAL_Certificate_for_Nature_and_Biodiversity_BNPD	1	1		1	
Annex 25	7.1 Administrative Annex - Partner certificates	-	LIFE10NAT-HU-019_FINAL_Certificate_for_Nature_and_Biodiversity_Budapest_Zoo	1	1		1	
Annex 26	7.1 Administrative Annex - Partner certificates	-	LIFE10NAT-HU-019_FINAL_Certificate_for_Nature_and_Biodiversity_Filmjungle	1	1		1	
Annex 27	7.1 Administrative Annex - Partner certificates	-	LIFE10NAT-HU-019_FINAL_Certificate_for_Nature_and_Biodiversity_HHNC	1	1		1	
Annex 28	7.1 Administrative Annex - Partner certificates	-	LIFE10NAT-HU-019_FINAL_Certificate_for_Nature_and_Biodiversity_HNBI	1	1		1	
Annex 29	7.1 Administrative Annex - Partner certificates	-	LIFE10NAT-HU-019_FINAL_Certificate_for_Nature_and_Biodiversity_HNPD	1	1		1	
Annex 30	7.1 Administrative Annex - Partner certificates	-	LIFE10NAT-HU-019_FINAL_Certificate_for_Nature_and_Biodiversity_Jaszbereny_Zoo	1	1		1	
Annex 31	7.1 Administrative Annex - Partner certificates	-	LIFE10NAT-HU-019_FINAL_Certificate_for_Nature_and_Biodiversity_KMNPD	1	1		1	
Annex 32	7.1 Administrative Annex - Partner certificates	-	LIFE10NAT-HU-019_FINAL_Certificate_for_Nature_and_Biodiversity_MME	1	1		1	
Annex 33	7.1 Administrative Annex - Partner cost statements	-	LIFE10NAT-HU-019_FINAL_Consolidated_Cost_Statement_signed	1	1		1	
Annex 34	7.1 Administrative Annex - Partner cost statements	-	LIFE10NAT-HU-019_FINAL_Individual_Cost_Statement_BNPD_signed	1	1		1	
Annex 35	7.1 Administrative Annex - Partner cost statements	-	LIFE10NAT-HU-019_FINAL_Individual_Cost_Statement_Budapest_Zoo_signed	1	1		1	
Annex 36	7.1 Administrative Annex - Partner cost statements	-	LIFE10NAT-HU-019_FINAL_Individual_Cost_Statement_Filmjungle_signed	1	1		1	
Annex 37	7.1 Administrative Annex - Partner cost statements	-	LIFE10NAT-HU-019_FINAL_Individual_Cost_Statement_HHNC_signed	1	1		1	



No.	Type / Folder	Action	Document / Product name	Pages/ Items	Hard copy	E- mail copy	DVD copy	Available at website
Annex 38	7.1 Administrative Annex - Partner cost statements	-	LIFE10NAT-HU-019_FINAL_Individual_Cost_Statement_HNBI_signed	1	1		1	
Annex 39	7.1 Administrative Annex - Partner cost statements	-	LIFE10NAT-HU-019_FINAL_Individual_Cost_Statement_HNPD_signed	1	1		1	
Annex 40	7.1 Administrative Annex - Partner cost statements	-	LIFE10NAT-HU-019_FINAL_Individual_Cost_Statement_Jaszbereny_Zoo_signed	1	1		1	
Annex 41	7.1 Administrative Annex - Partner cost statements	-	LIFE10NAT-HU-019_FINAL_Individual_Cost_Statement_KMNPD_signed	1	1		1	
Annex 42	7.1 Administrative Annex - Partner cost statements	-	LIFE10NAT-HU-019_FINAL_Individual_Cost_Statement_MME_signed	1	1		1	
Annex 43	7.1 Administrative Annex - Partner financial guide	-	HELICON_E2_Partner_financial_guide	15			1	
Annex 44	7.1 Administrative Annex - Partner financial guide	-	HELICON_E2_Partner_financial_guide_annexes	7			1	
Annex 45	7.1 Administrative Annex - Partner financial guide	-	HELICON_E2_Partner_financial_monthly_report_form	32			1	
Annex 46	7.1 Administrative Annex - Standard payment request	-	LIFE10NAT-HU-019_FINAL_Standard_Payment_Request_signed	1	1		1	
Annex 47	7.1 Administrative Annex - VAT declarations	-	HELICON_E3_VAT declaration of MME	1			1	
Annex 48	7.1 Administrative Annex - VAT declarations	-	HELICON_E3_VAT declaration of HNBI	1			1	
Annex 49	7.1 Administrative Annex - VAT declarations	-	HELICON_E3_VAT declaration of HHNC	1			1	
Annex 50	7.1 Administrative Annex - VAT declarations	-	HELICON_E3_VAT declaration of Budapest Zoo	1			1	
Annex 51	7.1 Administrative Annex - VAT declarations	-	HELICON_E3_VAT declaration of BNPD	1			1	
Annex 52	7.1 Administrative Annex - VAT declarations	-	HELICON_E3_VAT declaration of KMNPD	1			1	

## 7.2. Technical annexes

No.	Type / Folder	Action	Document / Product name	Pages/ Items	Hard copy	E-mail copy	DVD copy	Available at website
Annex 54	7.2 Technical Annex	-	HELICON Map of project areas	1			1	
Annex 55	7.2 Technical Annex	A.1	HELICON A1 Veterinarian network declaration form	1			1	
Annex 56	7.2 Technical Annex	A.1	HELICON A1 Veterinarian network declaration signed	27			1	
Annex 57	7.2 Technical Annex	A.1	HELICON A1 Veterinarian network list 2016 WEB	3			1	1
Annex 58	7.2 Technical Annex	A.1	HELICON A1 Veterinarian pathological investigation order form WEB	1			1	1
Annex 59	7.2 Technical Annex	A.1	HELICON A1 Veterinarian pathological investigation report example	3			1	
Annex 60	7.2 Technical Annex	A.1	HELICON A1 Veterinarian protocol 2014 EN WEB	4			1	1
Annex 61	7.2 Technical Annex	A.1	HELICON A1 Veterinarian protocol 2014 HU WEB	4			1	1
Annex 62	7.2 Technical Annex	A.1	HELICON A1 Veterinarian workshop participants 2013-2015	4			1	
Annex 63	7.2 Technical Annex	A.1	HELICON A1 Veterinarian workshop program 20130531-0601	1			1	
Annex 64	7.2 Technical Annex	A.1	HELICON A1 Veterinarian workshop program 20140327	1			1	
Annex 65	7.2 Technical Annex	A.1	HELICON A1 Veterinarian workshop program 20150327-29	3			1	
Annex 66	7.2 Technical Annex	A.2	HELICON A2 Chemical use permission 20130613	17			1	
Annex 67	7.2 Technical Annex	A.2	HELICON A2 Dog leader training certificate 2013	1			1	
Annex 68	7.2 Technical Annex	A.2	HELICON A2 Dog leader training certificate 2016	1			1	
Annex 69	7.2 Technical Annex	A.2	HELICON A2 Dog training certificate 2013	1			1	
Annex 70	7.2 Technical Annex	A.2	HELICON A2 Dog training certificate 2015	1			1	
Annex 71	7.2 Technical Annex	A.4	HELICON A4 FINAL Police protocol 2014 EN	4			1	1
Annex 72	7.2 Technical Annex	A.4	HELICON A4 FINAL Police protocol 2014 HU	4			1	1
Annex 73	7.2 Technical Annex	A.4	HELICON A4 FINAL WEB Field investigation ID label 2014 HU	1			1	
Annex 74	7.2 Technical Annex	A.4	HELICON A4 FINAL WEB Field protocol 2014 EN	2			1	1
Annex 75	7.2 Technical Annex	A.4	HELICON A4 FINAL WEB Field protocol 2014 HU	2			1	1
Annex 76	7.2 Technical Annex	A.5	HELICON A5 Anti-poisoning Workshop report Heliaca 2013	2			1	1
Annex 77	7.2 Technical Annex	A.5	HELICON A5 Working Group declarations 2014	13			1	
Annex 78	7.2 Technical Annex	A.5	HELICON A5 Working Group workshop 2013 Felsotarkany 130222	1			1	
Annex 79	7.2 Technical Annex	A.5	HELICON A5 Working Group workshop 2014 Jaszbereny 141120	1			1	
Annex 80	7.2 Technical Annex	A.6	HELICON A6 Game-predator study 1st report 2014	22			1	
Annex 81	7.2 Technical Annex	A.6	HELICON A6 Game-predator study methodology 2013	32			1	1
Annex 82	7.2 Technical Annex	A.6	HELICON A6 Jaszszag SPA hunting unit agreements 2013.pdf	7			1	
Annex 83	7.2 Technical Annex	A.6	HELICON A6 Status of game and predator management Hungary 2013	137			1	1
Annex 84	7.2 Technical Annex	A.7	HELICON A7 Game conservation agri-environmental initiation submitted 2013	14			1	1
Annex 85	7.2 Technical Annex	A.7	HELICON A7 Jaszszag High Nature Value Farming plan submitted 2013	47			1	1
Annex 86	7.2 Technical Annex	A.7	HELICON A7 Jaszszag SPA management plan 2015 WEB	115			1	1
Annex 87	7.2 Technical Annex	A.7	HELICON A7 Jaszszag SPA management plan communication background study 2013	34			1	
Annex 88	7.2 Technical Annex	A.7	HELICON A7 Jaszszag SPA management plan forum 20130510 invitation	2			1	
Annex 89	7.2 Technical Annex	A.7	HELICON A7 Jaszszag SPA management plan forum 20130510 minutes	13			1	

No.	Type / Folder	Action	Document / Product name	Pages/ Items	Hard copy	E-mail copy	DVD copy	Available at website
Annex 90	7.2 Technical Annex	A.7	HELICON A7 Jaszrag SPA management plan forum 20130610 invitation	2			1	
Annex 91	7.2 Technical Annex	A.7	HELICON A7 Jaszrag SPA management plan forum 20130610 minutes	3			1	
Annex 92	7.2 Technical Annex	A.7	HELICON A7 Jaszrag SPA management plan Ministry approval 2015	2			1	
Annex 93	7.2 Technical Annex	B.1	HELICON B1 House yards map	1			1	
Annex 94	7.2 Technical Annex	B.1	HELICON B1 Sales contract Jászágó 052 2 130957	7			1	
Annex 95	7.2 Technical Annex	B.1	HELICON B1 Sales contract Jászágó 064 3 130008	3			1	
Annex 96	7.2 Technical Annex	B.1	HELICON B1 Sales contract Jászágó 064 6 130007	3			1	
Annex 97	7.2 Technical Annex	B.1	HELICON B1 Sales contract Jászágó 056 3 120660	4			1	
Annex 98	7.2 Technical Annex	B.1	HELICON B1 Sales contract Jaszarokszallas 0148 3 120228	4			1	
Annex 99	7.2 Technical Annex	B.1	HELICON B1 Sales contract Jászárokszállás 0183 2 130958	5			1	
Annex 100	7.2 Technical Annex	B.1	HELICON B1 Sales contract Jászárokszállás 0184 2 120661	4			1	
Annex 101	7.2 Technical Annex	B.1	HELICON B1 Sales contract Jászárokszállás 053 2	3			1	
Annex 102	7.2 Technical Annex	B.1	HELICON B1 Sales contract Jászberény 0130 5	5			1	
Annex 103	7.2 Technical Annex	B.1	HELICON B1 Sales contract jászberényi 0231 2 120950	5			1	
Annex 104	7.2 Technical Annex	C.1	HELICON C1 Imperial eagle tracking map	1			1	
Annex 105	7.2 Technical Annex	C.2	HELICON C2 Nest guarding call for volunteers 2014	2			1	
Annex 106	7.2 Technical Annex	C.2	HELICON C2 Nest guarding datasheet	1			1	
Annex 107	7.2 Technical Annex	C.2	HELICON C2 Nest guarding invitation for volunteers day 2016	1			1	
Annex 108	7.2 Technical Annex	C.2	HELICON C2 Nest guarding poster for volunteers 2014	1			1	
Annex 109	7.2 Technical Annex	C.2	HELICON C2 Nest guarding volunteer certificate 2013	1			1	
Annex 110	7.2 Technical Annex	C.2	HELICON C2 Nest guarding volunteer contract	3			1	
Annex 111	7.2 Technical Annex	C.2	HELICON C2 Nest guarding volunteer list 2012-2016	12			1	
Annex 112	7.2 Technical Annex	C.3	HELICON C3 Feeding place permission 20121030	2			1	
Annex 113	7.2 Technical Annex	C.4	HELICON C4 Artificial nest list	4			1	
Annex 114	7.2 Technical Annex	C.4	HELICON C4 Artificial nest map	1			1	
Annex 115	7.2 Technical Annex	C.5	HELICON C5 Dog-unit survey maps	5			1	
Annex 116	7.2 Technical Annex	C.5	HELICON C5 Imperial eagle observation map	1			1	
Annex 117	7.2 Technical Annex	C.5	HELICON C5 judgement Boldog 1st degree 20151019	4			1	
Annex 118	7.2 Technical Annex	C.5	HELICON C5 judgement Boldog 2nd degree 20160701	7			1	
Annex 119	7.2 Technical Annex	C.5	HELICON C5 judgement Szabadszallas 20141213	4			1	
Annex 120	7.2 Technical Annex	C.5	HELICON C5 judgement Tiszavarkony 20151104	3			1	
Annex 121	7.2 Technical Annex	C.5	HELICON C5 Poisoning cases maps	2			1	
Annex 122	7.2 Technical Annex	C.5	HELICON C5 Veterinarian pathological investigation reports 2012	62			1	
Annex 123	7.2 Technical Annex	C.5	HELICON C5 Veterinarian pathological investigation reports 2013	96			1	
Annex 124	7.2 Technical Annex	C.5	HELICON C5 Veterinarian pathological investigation reports 2014	72			1	
Annex 125	7.2 Technical Annex	C.5	HELICON C5 Veterinarian pathological investigation reports 2015	107			1	
Annex 126	7.2 Technical Annex	C.5	HELICON C5 Veterinarian pathological investigation reports 2016	37			1	
Annex 127	7.2 Technical Annex	C.6	HELICON C6 Game management Hunting societies	10			1	
Annex 128	7.2 Technical Annex	C.6	HELICON C6 Habitat management permission 1	4			1	

No.	Type / Folder	Action	Document / Product name	Pages/ Items	Hard copy	E-mail copy	DVD copy	Available at website
Annex 129	7.2 Technical Annex	C.6	HELICON C6 Habitat management permission 2	4			1	
Annex 130	7.2 Technical Annex	C.6	HELICON C6 Habitat management plans	18			1	
Annex 131	7.2 Technical Annex	D.1	HELICON D01 Workshops presentations	16			1	
Annex 132	7.2 Technical Annex	D.3	HELICON D3 Communication plan	16			1	
Annex 133	7.2 Technical Annex	D.4	HELICON D4 focused article Foldgomb magazine	9			1	
Annex 134	7.2 Technical Annex	D.4	HELICON D4 focused article Hot magazine	2			1	
Annex 135	7.2 Technical Annex	D.4	HELICON D4 focused article Kutya magazine	3			1	
Annex 136	7.2 Technical Annex	D.4	HELICON D4 focused article Turista magazine	5			1	
Annex 137	7.2 Technical Annex	D.4	HELICON D4 focused article Zsaru magazine	2			1	
Annex 138	7.2 Technical Annex	D.4	HELICON D4 Media observer reports 2012-2016	2191			1	
Annex 139	7.2 Technical Annex	D.4	HELICON D4 Media report list 2012-2016	58			1	
Annex 140	7.2 Technical Annex	D.4	HELICON D4 Media report monthly diagram 2012-2016	1			1	
Annex 141	7.2 Technical Annex	D.4	HELICON D4 Project reports 2012-2016	7			1	
Annex 142	7.2 Technical Annex	D.5	HELICON D5 Educational materials 2012-2016	1			1	
Annex 143	7.2 Technical Annex	D.6	HELICON D6 Films 2012-2016	3			1	
Annex 144	7.2 Technical Annex	D.6	HELICON D6 Youtube analytics 2012-2016	4			1	
Annex 145	7.2 Technical Annex	D.7	HELICON D7 Budapest Zoo exhibition concept 2013	6			1	
Annex 146	7.2 Technical Annex	D.7	HELICON D7 Budapest Zoo exhibition map	1			1	
Annex 147	7.2 Technical Annex	D.7	HELICON D7 Budapest Zoo exhibition tables 2015	5			1	
Annex 148	7.2 Technical Annex	D.7	HELICON D7 Jaszbereny Zoo entrance leaflet 2015	2			1	
Annex 149	7.2 Technical Annex	D.7	HELICON D7 Jaszbereny Zoo exhibition concept 2013	6			1	
Annex 150	7.2 Technical Annex	D.7	HELICON D7 Jaszbereny Zoo exhibition tables 2014	3			1	
Annex 151	7.2 Technical Annex	D.8	HELICON D8 Eagle Centre 20120404 Sales contract	6			1	
Annex 152	7.2 Technical Annex	D.8	HELICON D8 Eagle Centre 20121101 Building plans	6			1	
Annex 153	7.2 Technical Annex	D.8	HELICON D8 Eagle Centre 20130418 Building permission	10			1	
Annex 154	7.2 Technical Annex	D.8	HELICON D8 Eagle Centre 20160108 HNPd-MME contract for operation	4			1	
Annex 155	7.2 Technical Annex	D.8	HELICON D8 Eagle Centre 20160118 Permission for use	8			1	
Annex 156	7.2 Technical Annex	D.8	HELICON D8 Eagle Centre monthly visitor numbers 2015-2016	1			1	
Annex 157	7.2 Technical Annex	D.9	HELICON D9 Bicycle educational trail	10			1	
Annex 158	7.2 Technical Annex	D.9	HELICON D9 Educational trail concept 2013	16			1	
Annex 159	7.2 Technical Annex	D.9	HELICON D9 Educational trail map	1			1	
Annex 160	7.2 Technical Annex	D.9	HELICON D9 Pedestrian educational trail	10			1	
Annex 161	7.2 Technical Annex	D.10	HELICON D10 Web Analytics Imperialeagle 2012-2016	7			1	
Annex 162	7.2 Technical Annex	D.10	HELICON D10 Web Analytics Satellitetracking 2012-2016	7			1	
Annex 163	7.2 Technical Annex	D.11	HELICON D11 Eagle Centre notice board	1			1	
Annex 164	7.2 Technical Annex	D.11	HELICON D11 list SPA notice boards	1			1	
Annex 165	7.2 Technical Annex	D.11	HELICON D11 SPA notice boards	20			1	
Annex 166	7.2 Technical Annex	D.11	HELICON D11 SPA-Zoo notice board map	1			1	
Annex 167	7.2 Technical Annex	D.11	HELICON D7 Zoo notice boards	11			1	

No.	Type / Folder	Action	Document / Product name	Pages/ Items	Hard copy	E- mail copy	DVD copy	Available at website
Annex 168	7.2 Technical Annex	E.1	HELICON E1 Game-predator monitoring report 2014	10			1	
Annex 169	7.2 Technical Annex	E.1	HELICON E1 Game-predator study final report 2016	45			1	1
Annex 170	7.2 Technical Annex	E.1	HELICON E1 Genetic monitoring report 2011	1			1	
Annex 171	7.2 Technical Annex	E.1	HELICON E1 Genetic monitoring report 2012	1			1	
Annex 172	7.2 Technical Annex	E.1	HELICON E1 Genetic monitoring report 2013	2			1	
Annex 173	7.2 Technical Annex	E.1	HELICON E1 Genetic monitoring report 2014	5			1	
Annex 174	7.2 Technical Annex	E.1	HELICON E1 Genetic monitoring report 2015	5			1	
Annex 175	7.2 Technical Annex	E.1	HELICON E1 Genetic monitoring report FINAL 2011-2016	7			1	1
Annex 176	7.2 Technical Annex	E.4	HELICON E4 2012 Szarvas SCM PARTICIPANTS 120217	1			1	
Annex 177	7.2 Technical Annex	E.4	HELICON E4 2012 Szarvas SCM PROGRAM 120217	2			1	
Annex 178	7.2 Technical Annex	E.4	HELICON E4 2013 Felsotarkany SCM Bird Crime workshop PARTICIPANTS 130222	1			1	
Annex 179	7.2 Technical Annex	E.4	HELICON E4 2013 Felsotarkany SCM Bird Crime workshop PROGRAM 130222	1			1	
Annex 180	7.2 Technical Annex	E.4	HELICON E4 2014 Jaszbereny SCM Working Group PARTICIPANTS 141120	2			1	
Annex 181	7.2 Technical Annex	E.4	HELICON E4 2014 Jaszbereny SCM Working Group PROGRAM 141120	1			1	
Annex 182	7.2 Technical Annex	E.4	HELICON E4 2015 Jaszbereny SCM PARTICIPANTS 150911	3			1	
Annex 183	7.2 Technical Annex	E.4	HELICON E4 2015 Jaszbereny SCM Working Group PROGRAM 150911	1			1	
Annex 184	7.2 Technical Annex	E.4	HELICON E4 2016 Jaszbereny SCM Working Group PARTICIPANTS 161209	2			1	
Annex 185	7.2 Technical Annex	E.4	HELICON E4 2016 Jaszbereny SCM Working Group PROGRAM 161209	1			1	
Annex 186	7.2 Technical Annex	E.5	HELICON E5 Networking country summary	1			1	
Annex 187	7.2 Technical Annex	E.6	HELICON E6 Opinion poll questions 201211	4			1	
Annex 188	7.2 Technical Annex	E.6	HELICON E6 Opinion poll report 201211	10			1	
Annex 189	7.2 Technical Annex	E.6	HELICON E6 Opinion poll report 201611	18			1	
Annex 190	7.2 Technical Annex	E.7	HELICON E7 International conference Registered participants	4			1	
Annex 191	7.2 Technical Annex	E.8	HELICON After-Life Conservation Plan EN	16	1		1	1
Annex 192	7.2 Technical Annex	E.8	HELICON After-Life Conservation Plan HU	17	1		1	1



### 7.3. Dissemination annexes

No.	Type / Folder	Action	Document / Product name	Pages/ Items	Hard copy	E- mail copy	DVD copy	Available at website
Annex 194	7.3.2 Dissemination Annex - Educational materials	D.2	HELICON_D2_AKG_farmer_poster_2015	1			1	1
Annex 195	7.3.2 Dissemination Annex - Educational materials	D.2	HELICON_D2_AKG_MTET_farmer_booklet_2015	13	1		1	1
Annex 196	7.3.2 Dissemination Annex - Educational materials	D.2	HELICON_D2_Hunter_bird_identification_guide_2016	34	1		1	1
Annex 197	7.3.2 Dissemination Annex - Educational materials	D.2	HELICON_D2_Madartavlat_2012_1_Helicon_starting_article	4	1		1	1
Annex 198	7.3.2 Dissemination Annex - Educational materials	D.2	HELICON_D2_Madartavlat_2013_3_Dogs_for_conservation_article	4			1	1
Annex 199	7.3.2 Dissemination Annex - Educational materials	D.2	HELICON_D2_Madartavlat_2015_3_Dog-unit_article	2			1	1
Annex 200	7.3.2 Dissemination Annex - Educational materials	D.2	HELICON_D2_Madartavlat_2016_4_Helicon_closing_article	6	1		1	1
Annex 201	7.3.2 Dissemination Annex - Educational materials	D.2	HELICON_D2_Vadaszevkonyv_2013_Helicon_starting_article	8			1	1
Annex 202	7.3.2 Dissemination Annex - Educational materials	D.2	HELICON_D2_Vadaszevkonyv_2014_Game_management_article	9			1	1
Annex 203	7.3.2 Dissemination Annex - Educational materials	D.2	HELICON_D2_Vadaszevkonyv_2015_Dog-unit_article	6			1	1
Annex 204	7.3.2 Dissemination Annex - Educational materials	D.2	HELICON_D2_Vadaszevkonyv_2017_Helicon_closing_article	8			1	1
Annex 205	7.3.2 Dissemination Annex - Educational materials	D.5	HELICON_D5_Eagle_and_man_childern_book_2015	16	1		1	1
Annex 206	7.3.2 Dissemination Annex - Educational materials	D.5	HELICON_D5_Imperial_eagle_leaflet_2015	2	1		1	1
Annex 207	7.3.2 Dissemination Annex - Educational materials	D.5	HELICON_D5_Imperial_eagle_poster_2015	1	1		1	1
Annex 208	7.3.3 Dissemination Annex - Presentations	A.1	HELICON_A1_veterinarian_training_material_HUN_2014	47			1	1
Annex 209	7.3.3 Dissemination Annex - Presentations	D.1	HELICON_D1_farmer_training_material_HUN_2015	11			1	1
Annex 210	7.3.3 Dissemination Annex - Presentations	D.1	HELICON_D1_hunter_training_material_HUN_2016	42			1	1
Annex 211	7.3.3 Dissemination Annex - Presentations	D.1	HELICON_D1_police_training_material_HUN_2014	21			1	1

No.	Type / Folder	Action	Document / Product name	Pages/ Items	Hard copy	E-mail copy	DVD copy	Available at website
Annex 212	7.3.3 Dissemination Annex - Presentations	D.1	HELICON_D1_prosecutor-judge_training_material_HUN_2016	48			1	1
Annex 213	7.3.3 Dissemination Annex - Presentations	D.1	HELICON_D1_project_technical_summary_ENG_2016	45			1	1
Annex 214	7.3.3 Dissemination Annex - Presentations	E.7	HELICON_E7_International_conference_presentations (24 files)	711			1	1
Annex 215	7.3.3 Dissemination Annex - Presentations	D.1	HELICON_D1_project_technical_summary_HUN_2016	46			1	1
Annex 216	7.3.4 Dissemination Annex - Publications	A.4	HELICON_A4_Horvath_2016_Heliaca_Anti-poisoning_protocols	8			1	1
Annex 217	7.3.4 Dissemination Annex - Publications	A.6	HELICON_A6_Ujhegyi_2015_Termeszettvedelmi_Kozlemanyek_Game_management	11			1	1
Annex 218	7.3.4 Dissemination Annex - Publications	A.7	HELICON_A7_Fabok_2015_Termeszettvedelmi_Kozlemanyek_Eagle-human_conflict_analysis	12			1	1
Annex 219	7.3.4 Dissemination Annex - Publications	A.7	HELICON_A7_Kovacs_2016_Land_Use_Policy_Eagle-human_conflict_analysis	11			1	1
Annex 220	7.3.4 Dissemination Annex - Publications	C.1	HELICON_C1_Harsanyi_2015_Cinege_Satellite-tracking_report	7			1	1
Annex 221	7.3.4 Dissemination Annex - Publications	C.1	HELICON_C1_Prommer_2015_Termeszettvedelmi_Kozlemanyek_Satellite-tracking_report	10			1	1
Annex 222	7.3.4 Dissemination Annex - Publications	C.5	HELICON_C5_Deak_2017_Heliaca_Anti-poisoning_report_2015	6			1	1
Annex 223	7.3.4 Dissemination Annex - Publications	C.5	HELICON_C5_Horvath_2014_Heliaca_Imperial_eagle_report_2011	4			1	1
Annex 224	7.3.4 Dissemination Annex - Publications	C.5	HELICON_C5_Horvath_2015_Heliaca_Imperial_eagle_report_2012	6			1	1
Annex 225	7.3.4 Dissemination Annex - Publications	C.5	HELICON_C5_Horvath_2015_Heliaca_Imperial_eagle_report_2013	4			1	1
Annex 226	7.3.4 Dissemination Annex - Publications	C.5	HELICON_C5_Horvath_2016_Heliaca_Imperial_eagle_report_2014	6			1	1
Annex 227	7.3.4 Dissemination Annex - Publications	C.5	HELICON_C5_Horvath_2017_Heliaca_Imperial_eagle_report_2015	4			1	1
Annex 228	7.3.4 Dissemination Annex - Publications	D.2	HELICON_D2_Gondocs_2014_Madartavlat_Nest-guarding_article	1			1	
Annex 229	7.3.4 Dissemination Annex - Publications	D.2	HELICON_D2_Molnar_2014_Madartavlat_Webcam_article	2			1	
Annex 230	7.3.4 Dissemination Annex - Publications	D.2	HELICON_D2_Orban_2013_Madartavlat_Webcam_article	2			1	
Annex 231	7.3.4 Dissemination Annex - Publications	E.1	HELICON_E1_Vili_2013_Acta_Zool_Acad_H_Sci_Turnover_rate	17			1	1



No.	Type / Folder	Action	Document / Product name	Pages/ Items	Hard copy	E- mail copy	DVD copy	Available at website
Annex 232	7.3.4 Dissemination Annex - Publications	E.5	HELICON_E5_Horvath_2015_Heliaca_HELICON_LIFE_Workshop_2013	2			1	1
Annex 233	7.3.5 Dissemination Annex - Photographs	D.3	Photos and images seleted and organized in folders by actions and topics	6579			1	
Annex 234	7.3.6 Dissemination Annex - Promotional products	D.5	Bookmark	1	1			
Annex 235	7.3.6 Dissemination Annex - Promotional products	D.5	Car sticker	1	1			
Annex 236	7.3.6 Dissemination Annex - Promotional products	D.5	Document folder	1	1			
Annex 237	7.3.6 Dissemination Annex - Promotional products	D.5	Freezer magnet	1	1			
Annex 238	7.3.6 Dissemination Annex - Promotional products	D.5	Pencil	1				
Annex 239	7.3.6 Dissemination Annex - Promotional products	D.5	Pin	1	1			
Annex 240	7.3.6 Dissemination Annex - Promotional products	D.5	Sticker	1	1			
Annex 241	7.3.6 Dissemination Annex - Promotional products	D.10	DVD 1.	1	1			
Annex 242	7.3.6 Dissemination Annex - Promotional products	D.10	DVD 2.	1	1			
Annex 243	7.3.6 Dissemination Annex - Promotional products	D.10	DVD 3.	1	1			



#### 7.4. Final table of indicators

No.	Type / Folder	Action	Document / Product name	Pages/ Items	Hard copy	E- mail copy	DVD copy	Available at website
Annex 244	7.4 Final table of indicators	E.1	LIFE10NAT-HU-019 Final table of indicators	3			1	

## 8. Financial report and annexes

In the electronic format of the report the financial report is attached in separate MS excel sheets.

The financial annexes are attached in Administrative Annexes according to the list provided in the checklist attached to the report. The signed declarations of the financial report are also presented in hard copy and among the Administrative Annexes