



LIFE11 NAT/SI/882

FINAL Report

Covering the project activities from 01/09/2012 to 31/12/2017

01/02/2018

Riparian ecosystem restoration of the lower Drava River in Slovenia

LIVEDRAVA

Project Data

Project location	NE Slovenia
Project start date:	01/09/2012
Project end date:	31/12/2017
Total Project duration	64 months
Total budget	4,098,910 €
Total eligible budget	4,066,910 €
EU contribution:	2,033,455 €
(%) of total costs	49.6
(%) of eligible costs	50

Beneficiary Data

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Abbreviations

AB – associated beneficiary

ARSO – Agencija RS za okolje = Slovenian Environment Agency

CB – coordinating beneficiary

CP – Common provisions 2011

DEM – short name of Dravske elektrarne Maribor d.o.o. (co-financer)

DOPPS – short name of DOPPS – BirdLife Slovenia (coordinating beneficiary)

DRAVA – short name of DRAVA Vodnogospodarsko podjetje Ptuj, d.d. (associated beneficiary)

HEP - Hrvatska elektroprivreda d.d. (HEP d.d.), Croatian company, manager of Lake Ormož

LIDAR – remote sensing technology that measures distance by illuminating a target with a laser and analyzing the reflected light

MIKE – software for hydraulic analysis

MOP – Ministry of the Environment and Spatial Planning
MKGP – Ministry of Agriculture, Forestry and Food
MKO – Ministry of Agriculture and Environment (MOP & MKGP were single Ministry MKO when project was applied. Later they were split to MOP and MKGP)
NR – Nature Reserve (Ormož Basins NR = Ormož Basins Nature Reserve)
PTUJ – short name of Urban Municipality of Ptuj (associated beneficiary)
RS – The Republic of Slovenia
SPA – Special Protected Area
TSO – Tovarna sladkorja d.d. = Sugar factory in Ormož
UE – Upravna enota = Administrative unit
VGB – short name of Vodnogospodarski biro Maribor d.o.o. (associated beneficiary)
ZGS – Zavod za gozdove Slovenije = Slovene Forest Service
ZRSVN – short name of Institute of the Republic of Slovenia for Nature Conservation

2. Executive Summary

The LIVEDRAVA project was implemented along the Drava River between Maribor and Središče ob Dravi in 2012-2017, encompassing the Natura 2000 site Drava. Almost the entire project area is located on alluvial plain called "Dravska ravan" in NE Slovenia. The riparian ecosystem of the Drava River has been degraded in the past, with populations of riparian ecosystems and qualifying Natura 2000 species either decreasing or disappearing.

With the project we were achieving four general objectives: (1) Preserve and enlarge populations of Natura 2000 qualifying species (typical birds of lowland rivers, fish and beetles) and habitat types with unfavourable conservation status along the Lower Drava River through restoration, management and improvement of habitats and establishment of protected areas, (2) Achieve positive impacts on Natura 2000 species and habitat types through long-term sustainable water management of the Lower Drava River regulated by national Danube River basin management plan, along with assuring public safety against floods, (3) Improve cooperation between the most important stake-holders along the Lower Drava River through implementation of common conservation activities and (4) Educate public about natural values of Natura 2000 sites along the Drava River and project activities aimed to increase knowledge and general awareness on the importance of nature conservation.

The core of the project were concrete conservation actions. Through purchase we permanently secured and protected 6.9 hectares of priority habitat type 91E0* forest fragment for nature-conservation purposes. Similarly, a smaller parcel (6747m²) was leased for 25 years through which we achieved the integrity of Ormož Basins NR, thus reducing disturbance at the stop-over site for migrating waterbirds. Complete monitoring was established for all target species, to be able to quantify the conservation effects. All the bird monitoring was carried out by the co-ordinating beneficiary, DOPPS – BirdLife Slovenia, all other monitorings were done by sub-contractors. Networking with 8 LIFE projects from 6 states (Austria, Croatia, Sweden, Cyprus, Slovakia and Italy) was carried out to improve our conservation work.

Ormož Basins, a 60 hectares wetland, were completely restored. Habitats for breeding and migratory birds were created (5 large islands, 77 small islands, 1,753m of channels excavated) and water supply system established. At the beginning, the system did not supply enough water to reach necessary conservation habitats, but in first half of 2017 additional system supplying 240L/sec was built and restoration was successfully finished. Recovery of waterbird populations after the restoration of their habitats is usually a long-lasting process, expected to yield target results only in the long-term. Nevertheless, the results achieved during the project are very promising. Soon after the restoration works, the surface of reedbeds, bulrush stands and other target vegetation types increased by several times (to 15ha). In the post- 2015 period, strong breeding populations of birds typical of these habitats and important within the scope of the entire SPA have bred here: the Great Reed-warbler (15-20 pairs), Savi's Warbler (5 pairs) and Reed Bunting (2-3 pairs), whereas the Basins are the only breeding location of the Common Reed-warbler and Sedge Warbler along the Pannonian part of the Drava River. A constant influx of water has enabled breeding of several endangered species that disappeared after the cessation of sugar production: the Gadwall, Garganey, Northern Shoveler, Common Little Bittern, Little Crake and Spotted Crake. Extensive stands of reed and bulrush are home to one of our largest populations of Western Water Rail (10-20 pairs). The quality of the restored habitat was further emphasized by the first breeding of Bearded Reedlings in 2017. Here, the Western Marsh-harrier has its only regular breeding site in Slovenia. An increase in the water levels in the basins in summer 2017 significantly improved conditions for migratory birds, too. In Sep 2017, 550 waterbirds that rely on the basins as an important stopover site during their migration were foraging in the 5th basin (mostly ducks and Common Coots).

Ormož Basins are being managed generally through regulation of water tables and animal grazing. Grazing management was completely established within the project. System of grazing units were prepared, 2,300 poles were erected, 12.7km of wire fences placed, 3 catching funnels built and a stable with 300m² ground plan. Water buffalos were purchased and released. All together 10 were purchased, but due own reproduction, 16 are at the site now. They turned to be very effective in habitat management and people like them, too. They became a trademark of the Reserve. Basins were declared a state Nature Reserve in May 2017 and opened for public in a public event.

Not only birds, beetles of priority conservation concern were targeted in the project as well. In the Ormož Basins ecological experiment was set to test management methods for the Flat Bark Beetle *Cucujus cinnaberinus*. We confirmed that the addition of dead wood mass can be an effective measure in improving the habitat for *C. cinnaberinus* and saproxylic beetle fauna, especially in younger and degraded forest stands. The greatest influence on the size of the *C. cinnaberinus* population has the quantity and type of dead wood mass.

One of the greatest successes of the project is abolition of illegal hunting at Lake Ormož which is bordering lake between Slovenia and Croatia. More than 3 decades of the excessive legislation violence at the site and all unsuccessful previous efforts to solve it were challenged in the project. We managed to remove illegal hunting hides at the Lake by formal legislative procedure, proving new changes in the field of respecting legislation in Croatia. After the abolition of illegal hunting at Lake Ormož, the populations of overwintering waterbirds significantly recovered. In the autumns and winters (Sep-Jan) of 2012/2013-2014/2015, only 2,300-4,300 waterbirds were recorded on the lake on average, whereas in the first season after the hunting abolition (2015/2016), this number rose to 7,300 waterbirds, with the highest numbers in November even exceeding 10,000 individuals.

Common Tern is highly endangered species and their existence in Slovenia is completely management dependent. To stabilize the population, management was improved. As a result, 118 pairs of Common Tern bred at Lake Ptuj in 2017, which is the largest number in the last 14 years. The average number of breeding pairs with the improved management in LIFE (2013-2017) was 82, whereas prior to it (2004-2012) the number was 54. Thus, the population at Lake Ptuj increased by 52% during the LIFE project. The construction of two gravel breeding islands (total surface 2,100m²) at Lake Ptuj in 2014 contributed considerably to this result, although this action was not financed as part of the project. At Lake Ormož unplanned breeding island was built and secured colony previously breeding at the hunting hides functioning as ecological traps. During the project (2013-2017) average Common Tern population size on the SPA Drava was 128, but before the project (2004-2012) 100. Black-headed Gull increased even more. In 2017 its population at SPA Drava was 853 breeding pairs – all at the Lake Ptuj on the managed island. During the project (2013-2017) average Black-headed Gull population size on the SPA was 707, but before the project (2004-2012) 343.

Following activities were carried out in the Drava River riverbed aimed to improve recognized past degradations. Three side arms of total length 3,800m were restored and connected to the main stream. This way fish spawning habitats were improved and Kingfisher's foraging habitat enabled. Fish monitoring revealed that the ecological conditions for the fish species improved after the carried out restoration. The Bitterling population became more stable and less vulnerable. The preservation of cut-off channels, side arms and deep sections of the Drava is crucial for the successful conservation of Bitterlings, Spined Loach and Asps. Along the side arms ecological conditions of app. 19ha of habitat type 91E0* were improved.

Manual creation of breeding walls at the riverbanks significantly helped populations of Sand Martin and Kingfisher. With this management together with side arms restorations we established 5 new breeding pairs (BP) of Kingfisher which is increase of SPA population by 25%. Besides Kingfisher, Sand Martin benefited from the management, too. Our efforts yielded an average of 574 BP of Sand Martins (in the 2013-2017 period), which is a threefold increase of the SPA population compared to the long-term average of 194 pairs in the 2000-2012 period. We planned to increase population at SPA Drava for 50-100%, but managed to increase it threefold or for app. 200%.

Overgrowing gravel bars were restored twice – vegetation was removed and shingle habitat restored. First time 8.2ha of shingle habitat was restored and in second time 10ha. Success showed immediately – removal of woody vegetation from overgrown gravel bars (C.11) resulted in an average 17 (35%) more BP of Little Ringed Plover and 6 (15%) of Common Sandpiper. Disturbances like illegal driving at the gravel bars were prevented at 7 sites. Ditches and road barriers were used and informative boards always placed to explain the meaning of the action. That way the disturbances were reduced for the first time ever on the SPA Drava and resulted in 4 (8%) new BP of Little Ringed Plover and 1 (2.5%) of Common Sandpiper.

Policy uptake was achieved regarding Drava River management. Guidelines for sustainable water management, focusing on reaching Natura 2000 goals and flood safety, of Drava River were prepared with extensive communication of all relevant stake-holders at the workshops. Final document – The Guidelines – were incorporated into the national Danube River basin management plan.

Dissemination and education was extensively present during the project. Besides placing of 6 project info boards in the project area, additional 4 educative boards were placed at Lake Ptuj. Ormož Basins NR has been equipped with visitor's facilities – 1.5 km long education trail was prepared, 4 observation points placed, all dangerous sites of the ex. factory were removed or fenced, and project office was established with the small classroom. 14 large and 17 small education boards were placed and so called "open-air museum" established to demonstrate nature-conservation practices for every home and garden. Model of the area for blind and visually impaired was placed in the Reserve. Similarly, at Lake Ptuj large observation hide equipped with education boards was built and opened by the minister, mayor of Ptuj Municipality and DOPPS' president in a public event.

Wider public was addressed through 20 minutes long documentary film that was broadcasted at the National TV 6 times, all together more than 150,000 people viewed it. Besides, two videoclips were used to promote the film and 5 additional short films were produced by the project staff and made public available. Two publications were produced - project brochure on 29 pages at the beginning of the project that was distributed among 53.653 households in the project area and 116 pages Guidebook to the Ormož Basins NR printed in 3 languages, Slovene, English and German. Number of copies were 3,000, 700 and 300, respectively. 2,000 posters and 2,500 leaflets were produced and distributed in Croatian to gain public support during removal of illegal hunting hides.

With education we focused on youth, general public and special target groups. For youth we organized two research camps participated by 38 young researches. Both ended with public presentation of the results. Lectures were carried out 21 times and covered 1,173 pupils. 38 excursions to the project area were organized and carried out for 1,554 pupils and students. Total number of youth participating the excursions was 2,727.

General public was addressed by 42 public presentations, 17 excursions and 7 exhibition displays. All activities reached more than 5,700 people. Project was presented to the specific expert groups, e.g. water engineers, at different occasions. The project and the Drava itself were extensively covered by the media. The project activities were presented in 257 media outlets (148 in newspapers, 49 on the radio, 12 on TV and 48 on the internet). Based on their reach, we estimate that the project details were made available to 1.8 million people in Slovenia, which is more than 85% of the national population. Furthermore, project news were regularly published on the project web page. In total, 367 news were published. Selected notices were published at DOPPS' Facebook profile and web page as well.

The results of socio-economic study indicate an increase in the social acceptance of project, which confirms that communication and educational activities have had a positive effect in the adoption of NATURA 2000 area as an opportunity zone, and was not perceived as an obstacle. The results of all included target groups in the study showed an increased awareness of the term Natura 2000 and an increased knowledge regarding the protected areas. Study further proved that the project significantly improved the public's knowledge of the Natura 2000 network, LIVEDRAVA project, Ormož Basins and DOPPS, as well as support to the Ormož Basins NR.

We evaluate general project management methodology as appropriate and the way of working of all beneficiaries cost-efficient. A summary of general tasks is as follows. Project consisted of 39 actions (7A, 2B, 12C, 5D, 9E, 4F). In 38 (97%) actions objectives were completely achieved within the project. Single action, C.5, was partly successful only - Nature Reserve was declared, but Nature Park not. In general 21 (54%) actions were carried out in planned time (± 3 months), 9 (23%) were delayed, but not significantly (<1 year), and 9 (23%) experienced larger delay (>1 year).

Declaration of Središče ob Dravi Nature Park is the only activity that we were not able to achieve. Through very democratic, open and inclusive procedure, many public events and discussions, excursions for the locals and presentations of best practices of protected areas from Slovenia and abroad, local public accepted the idea of Nature Park as their socio-economic opportunity. This can be proved by the use of the Nature Park term by them in the advertisements, promotion of municipality, applied projects, etc. But contrary to all, municipal councillors, being lobbied by few individuals, voted against Park on the very final meeting, where the Decree on the Nature Park was already harmonized within Municipality and Ministry and in principle accepted. There are still possibilities the Park will be declared in the near future.

Perspectives for the after-LIFE period are promising either for keeping the Natura 2000 populations in favourable conditions or for further developing socio-economic benefits on the project's basis. Ormož Basins were declared a Nature Reserve. Contract with the Ministry will be signed by DOPPS to secure conservation management of the Reserve following Management plan. Management include habitat management with water regulation and grazing management. The contract will cover costs for warden and basic consumables. We will continue bringing additional winter fodder for the buffalos from the Nature Reserve Iški morost that DOPPS established within LIFE project "Establishing Long-Term Protection of *Crex Crex* in Slovenia, LIFE03 NAT/SLO/77" some time ago. Through the contract we secured one FTE, a warden. The basic conditions for functioning of the Reserve in the after-LIFE and its conservation role are therefore met. However, we plan to develop it in other directions, too. We will use established contacts with schools and offer payable education packages in the Reserve. Single visit of the reserve is not charged, but we will charge for the groups. As DOPPS' staff have the warden licences and formal pedagogic education they will exercise control over the visitors and carry out education activities. We plan to further promote the reserve in the media, through the web page and include volunteers and locals in the management. For example, group of students from Second Gymnasium Maribor did volunteer practice in the Basins as preparation for their Uganda Networking under Erasmus project, recently. We expect further socio-economic development in the Reserve through cooperation with farmers. With the registered Ecological-social farm "Korenika" DOPPS developed common product from the Reserve and placed it to the market already. We are hoping to further develop this cooperation in extent, and with additional products co-finance the Reserve and its development. DOPPS is already holding the "ECO label" and through subsidies for ecological farming some income is secured, as well. Local action group (LAS) project is being prepared with the already agreed co-financing of Ormož Municipality to develop the didactical component of the Reserve. The call is expected in March 2018. Cooperation is already agreed with The Institute of the Republic of Slovenia for Nature Conservation (ZRSVN), as well, to include Ormož Basins as one of the project sites in their cohesion project "Drava" where additional education infrastructure will be placed (boards for dragonflies). The Basins could serve as breeding and donor site for European Pond Turtle or beetle *Graphoderus bilineatus* for repopulation in the Drava River. We are exploring the possibilities for such projects together with institutions from Slovenia and Croatia.

Besides securing Basins, conservation work will continue on other sites and species, too. DOPPS' volunteers will keep management of the breeding islands for Common Tern at Lake Ptuj following LIFE improved management. Even more, through gained Interreg project Slovenia-Croatia "ČIGRA" islands will be additionally secured, management equipment purchased and monitoring continued.

Monitoring and management knowledge will be transferred to sites in Croatia. Croatian colleagues will start management of the breeding island created at the Lake Ormož securing the very same population that was rescued with this project – from removed ecological traps. Moreover, within same project telescope will be placed in the observation tower at Lake Ptuj, promotion days organized, new education boards placed and exhibition produced. All mentioned activities will help to continue informing public about Natura 2000 and importance of conservation.

Prospects for the populations of the riverbed species are now better, too. In the project, techniques were tested for more efficient and biodiversity friendly implementation of the water maintenance works. As the project partner DRAVA was the company having concession for the works, LIFE improved techniques should become standard for the future. Management of the river banks to prepare breeding walls for Kingfisher and Sand Martin will continue by DOPPS' volunteers. Drava is the first river example where detailed nature-conservation guidelines were included in the formally accepted and obligate document – Water management plan. This nature-conservation policy uptake is now always bringing to the agenda Natura 2000, when water-engineering works are in question. This important achievement should be replicated to other Slovene rivers and is interesting for other countries, too. It will be presented by DOPPS as policy uptake example at the event of the Croatian LIFE project LIFE14 CAP/HR/14.

3. Introduction

The natural dynamics of the Drava River was heavily altered after the building of hydro-power plants at the project area – Natura 2000 area “Drava” (SI5000011 & SI3000220) between Maribor and Središče ob Dravi. Most of the water was diverted into the channels, while the prevailing discharges in the old riverbed were reduced drastically. Extensive network of river branches gradually diminished, the majority of them now remain unconnected to the main river and gravel bars are overgrowing. These changes caused the lack of suitable breeding/spawning habitat of several species. Sand Martin and Kingfisher are scarce as their requirements for large sand banks are not met. Alluvial forests (91E0*) were degraded and fish species like Bitterling, Asp, Spined Loach lost their habitats as well. Endangered beetle species like Flat Bark Beetle *Cuccujus cinaberinus* lost a lot of their habitats, but not very concrete data were available so far. A population decline of 62% has been ascertained for the gravel bar-breeding species, the Little Ringed Plover. On the remaining sites of conservation importance uncontrolled human activities are an additional factor influencing populations of Natura 2000 qualifying species - disturbances (gravel excavation, driving) reduce breeding success, illegal hunting at Lake Ormož disturbing wintering waterbirds. Population of Common Tern completely depends on conservation management of the artificial islands, but management had to be improved to provide populations’ viability. Concrete solutions for these problems were proposed and carried out: creating breeding banks, opening closed river branches, cleaning encroached gravel bars, preventing access to the gravel bars, stopping illegal hunting at Lake Ormož, forest management experiment and forest oxbow restoration aimed at beetle conservation, improving management of Common Tern breeding sites. All the actions significantly improved populations of mentioned species. However, with these actions we did not remove the general cause of the problems – namely, the “old way” of water-engineering works on the Drava River that were unfriendly to biodiversity. Intended to secure flood protection of humans and infrastructure, they often lacked firm justification in the past. Furthermore, the “before-LIFE” water management plans did not recognize national and international importance of the Drava River by considering its special protection status under the Natura 2000 network. This important issue has been tackled with efforts to change the current policy in the project area of the Drava River by incorporation of conservation measures for all targeted species and habitat types into obligatory future water management plans at the state level. And we succeeded. Project partnership including all relevant stake-holders – water engineers, water maintenance company, nature-conservation NGO – was the foundation for setting this future constructive solution which had happened for the first time in Slovenia in the project area. Moreover, one specific additional threat occurred in the last years in an already degraded area. Waste water basins of the ex. sugar factory in Ormož developed to a nationally and internationally important breeding area and stopover site for waterbirds in the past. After the closing down of the factory water supply to the basins stopped. The basins became unsuitable for most waterbirds. More than half of the 33 regularly breeding species completely disappeared from the site and some of them for that reason from the entire SPA Drava as well. Actions in the project – building of the new water supply system and habitat restoration – eliminated the threat and populations of most previously breeding species start to recover immediately. The site was declared as Nature Reserve by governmental decree, as well. A strong impact on the promotion has been achieved by the infrastructure placed during the project (education boards, observation hide at Ptuj Lake, Ormož Basins Nature Reserve) and by extensive educational activities for youth, special target groups and general public. So far, no such infrastructure existed in NE Slovenia but several indicators are showing that inquiry for such tourism products is growing fast. Through restored habitats, recovered populations, visitors’ infrastructure, new protected area and improved legislation we improved ecosystem services at the area and created many possibilities for the more sustainable development in the area.

4. Administrative part

4.1. Description of the management system

The co-ordinating beneficiary of the project was DOPPS-BirdLife Slovenia. The first few months can be characterized the project starting phase. In that period, DOPPS organized meetings with associated beneficiaries and they appointed their coordinators and staff working on the project. Each beneficiary established a staff group working on the project. When coordinators were appointed, DOPPS carried out several meetings giving instructions especially about the correct implementation of financial and common LIFE+ project guidelines. In that period, DOPPS participated at the LIFE kick-off meeting. DOPPS prepared project timesheet forms and instructed partners about reporting. After that, the implementation phase started – every beneficiary prepared its detailed working plan with a list of activities and tasks for every action and the responsible personnel for that action. The plan is being revised regularly by DOPPS. Monthly reporting of project personnel was established using standard forms. DOPPS also carried out meetings with co-financers, discussing their arrangements and signing of the co-financing contracts. Every beneficiary was using their internal project management system independently but following LIFE guidelines.

DOPPS annexed or employed the following project staff: Damijan Denac – project manager, Nataša Šalaja – financial manager, Dominik Bombek, Bia Rakar and Eva Vukelič – education & PR officers, Polona Pagon – project assistant, replaced for 2014 maternity leave by Vitomir Horvat and Mitja Jež and for 2017 maternity leave by Tilen Basle, Luka Božič and Tilen Basle – conservation ornithologists, supported in the final project year/months by Urška Koce and Tomaž Mihelič, Nevenka Pfajfar – secretary, Matjaž Premzl – warden, supported in 2017 by Željko Šalamun. DOPPS coordinated work of the staff by regular correspondence and staff meetings. Božič, Bombek, Basle and Premzl worked mainly in the field and with the sub-contractors. As the central DOPPS office is in Ljubljana (central Slovenia) and project actions are carried out along Drava River (NE Slovenia) which is 140-200km away, a temporary project office was established in Ormož (E.4). Office was led by Bombek who was directly co-ordinating work of the field staff and was in daily contact with the project manager in Ljubljana. Coordination meetings were regularly organized and took place either in Ormož, Maribor or Ljubljana. As a rule, the project manager used time in NE Slovenia to carry out necessary meetings with associated beneficiaries' co-ordinators on the same day, as well.

VGB was responsible for 4 actions (A.1, A.2, A.6, C.12). They annexed the following project staff (as described under chapter 6.6 they annexed experienced senior project staff who were supported by younger and less experienced project staff): Smiljan Juvan – responsible designer, hidrology expert, who was supported by Nina Volkar – hydrology expert in 2013 and 2014, Alenka Kovačič – environment expert, who was supported by Matej Bukovnik – environment expert II, Tijana Mičić – hydraulics and sediment transport expert, Boštjan Rozman – designer I and Martin Kos and Iztok Čuješ – designer II, supported by Mitja Trop and Mojca Bratuša also acting as designer II, Timotej Mišič – GIS expert and Valerija Petrinec – habitat expert. Alenka Kovačič was the project group coordinator. VGB is a company following ISO 9001 certificate. They carry out regular internal coordination meetings for implementation of their actions where periodically the relevant DOPPS staff is present, as well. In 2014, VGB organized informal Drava boat trip for all beneficiaries, which was a nice event to strengthen beneficiaries' co-operation and understanding.

DRAVA was responsible for 2 actions (C.9 & C.11) and were involved in the field implementation of action C.12. They annexed the following project staff: Agata Suhadolnik – works coordinator, Rozalija Potočnik – technician, Drago Golob and Zdenko Zorič – geodesist/technician, Bernarda Štumpf – geodesist, Marjan Kolarič – responsible construction leader followed by Mitja Horvat in 2016, Bojan Ciglar, Alojz Štumberger and Branko Mlinarič – foreman I, and following 21 semi-skilled workers: Zdravko Teskač, Igor Macun, Vilko Zupanič, Zlatko Vučkovič, Slavko Spevan, Branko Markež, Damjan Bezjak, Janez Pilinger, Tadej Pesek, Janez Butolen, Ivan Črnivec, Alojz Pernek, Jožef Fosnarič, Jožef Hren, Jožef Šmigoc, Roman Šmigoc, Janez Valant, Peter Vesenjok, Zoran Meško, Jože Masten, Viktor

Šmigoc. Agata Suhadolnik was the project group coordinator. Drava is a company following ISO 9001-2000 and ISO 14001-2004 certificates. They carry out regular internal coordination meetings for implementation of their actions where periodically the relevant DOPPS staff was present, as well.

PTUJ was responsible for a single action – E.5. They annexed Klavdija Petek who was working on the action as senior consultant and was at the same time the coordinating person for the project. She had regular communication and meetings with DOPPS project staff.

Due to amendment no. 1 to Grant Agreement for the project, the Institute of the Republic Slovenia for Nature Conservation (ZRSVN) left the project before signing the associated beneficiary contract and Dravske elektrarne Maribor (DEM) changed their project role from associated beneficiary to co-financer.

All associated beneficiary and co-financer contracts were signed. After the amendment, Annexes were signed with DRAVA and VGB as some (parts) of the ZRSVN actions were taken over by them.

4.2. Evaluation of the management system

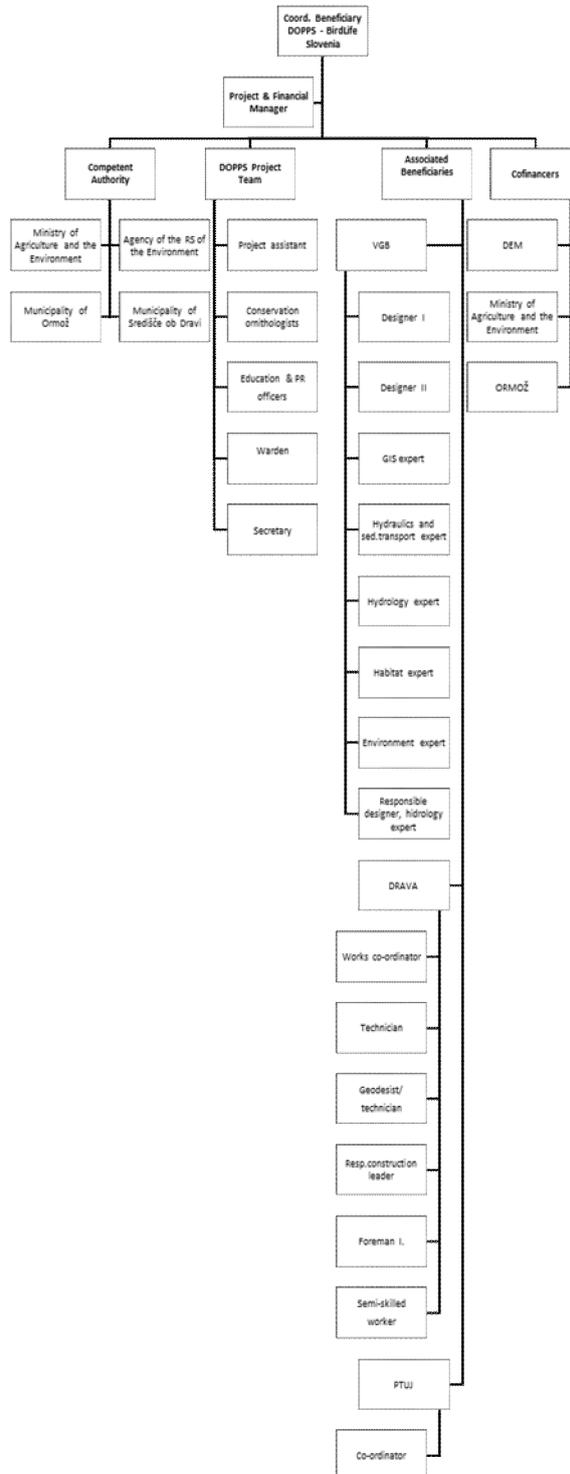
Generally, we evaluate the project management system as appropriate and functional. All beneficiaries are established, well known and serious organisations in Slovenia. All took their role in the project very responsibly, three of them being LIFE project beneficiaries for the first time and looked forward to gained best from this important reference. They all delivered results well. The partnership and project management system was challenged in the beginning of the project. Severe floods in 2012 changed the course of several actions and one beneficiary decided to leave the project. All the remaining beneficiaries were constructively searching for solutions and did everything to save the project. In a way, this event strengthened the communication and proved positive from recent perspective. Project modification request was prepared and later approved by the Commission. Amendment no. 1 was signed with the Commission. Since then there have been no changes in partnership and project as well. Every partner was following their duties and all contributed to the project realization. There were no deviations from the partnership agreement. Furthermore, the partnership itself should be seen as the project's added value. Especially partnership of NGO – DOPPS, water engineering company – VGB, and water maintenance company – DRAVA. Less than a decade ago DOPPS was vigorously arguing and using all legal means against certain water maintenance works that had negative effect upon biodiversity. Those efforts were definitely fruitful as some of the most inappropriate maintenance works were abandoned and even prohibited. But through that argumentations both sides were forced to listen to each other and got better insight into the arguments of each other, which were not only “black and white”. It became clear that only solutions appropriate for both flood protection and nature conservation are acceptable. Co-operation slowly started and we used LIFE+ application and project to strengthen it. All positively accepted the project invitation and took the challenge of working together.

The communication with the Commission and Monitoring team was very straightforward. We tried to solve minor problems by directly appointing questions to the Monitor. He was answering promptly, in the same day, always giving sound argumentation and direction towards the solution. His role was very supportive for the project. The Commission showed lot of understanding of objective circumstances and some problems during the project which we appreciate a lot.

Table 1: Data of signing of Partnership and Co-financer agreements and their submission to the Commission

Associated beneficiary	Date of signature	Submitted to the EC/date
VGB	27 th May 2013	Yes/1 st inception rep. – May 2013
DRAVA	30 th May 2013	Yes/1 st inception rep. – May 2013
PTUJ	11 th July 2013	Yes/22 nd July 2013
DRAVA, Annex 1	16 th Dec 2013	Yes, Midterm rep. – Sep 2014
VGB, Annex 1	16 th Dec 2013	Yes, Midterm rep. – Sep 2017

Co-financer	Date of signature
Municipality Ormož	30 th Oct 2012
DEM	26 th Nov 2013
MKO	18 th Feb 2013
MKO, Annex 1	30 th Jan 2014
MKO, Annex 2	30 th Jun 2014



Project's organigram

5. Technical part

5.1. Technical progress, per task

A.1 - Technical blue-prints for restoration works (ecological engineering measures)

Activities/outputs/by whom

Within the action technical blue-prints were produced and all permits obtained for the three groups of conservation activities: (1) Restoration of Ormož Basins NR, (2) Restoration of river branches and (3) Reducing human disturbance at the gravel bars.

(1) Restoration of Ormož Basins C.1-C.3

- DOPPS' and VGB's expert visit of the basins' area was carried out on 23rd Oct 2012 to recognize and discuss field details important for the blue-prints preparation.
- Meeting with the owner of the parcel (Croatian HEP), where water taking device was later installed, was organized by DOPPS on 13th Sep 2013 in Varaždin, Croatia. After harmonisation of blue-prints between HEP and VGB, HEP gave DOPPS the permission to build the water taking device on the bank of Lake Ormož on 28th Oct 2013. In Jun 2014 contract between DOPPS and HEP was signed, regulating all operational details of the water taking device.
- Application to get water permission (Slovene = vodno dovoljenje) from the governmental authorities for the water take-off from Lake Ormož was prepared on 11th Nov 2013 by VGB. ARSO issued the permission on 17th Feb 2014.
- Applications to get permissions for the restoration works and works in the nature (Slovene = poseg v naravo) from the Ormož Administrative Unit (Slovene = Upravna enota Ormož, UE Ormož) were prepared on 8th Jan 2014 by DOPPS. Ormož Administrative Unit issued the permissions on 28th Jan 2014 and 20th Feb 2014, respectively.
- Application to get water consent (Slovene = vodno soglasje) from the governmental authorities for the Ormož Basins restoration works was prepared on 26th May 2014 by DOPPS. ARSO issued the water consent on 9th Jun 2014.
- Geodesist's survey was carried out in Ormož Basins as the basis for the blue-prints' preparation for restoration purposes.
- Workshop of DOPPS' experts was carried out (12th Feb 2013) to define all the restoration parameters and conditions that should be considered during preparation of blue-prints. The final document for VGB was prepared on 30th Mar 2013.
- Technical blue-prints (projects for implementation) for the new water supply system (C.1) and for restoration of the habitats (C.2) were finished by VGB on 11th Dec 2013.
- The new water supply system was built in Oct 2014. However, our careful monitoring soon revealed something was wrong with it as it was not supplying required water quantities and it was constantly stopping. When after many interventions and smaller modifications of the supply system, it became clear, that the problems cannot be solved and were caused by larger engineers' mistake when designing the system. DOPPS sent reclamation to VGB on 12th Jun 2015 and VGB confess guilt (A1_1_TD).
- VGB started preparing on their own costs blue-prints for additional, robust enough and more reliable water supply system. Basic blue-prints for granting new permissions were finished in Mar 2016 and detailed in April 2017. Additionally, blue-prints were prepared for new water regulation system between basins.
- DOPPS obtained new permissions for building additional supply system - new nature-conservation consent on 14th Oct 2016 (A1_2_TD), water permission on 21st Nov 2016 (A1_3_TD),

new water consent on 16th Dec 2016 (A1_4_TD) and annex to existing contract with the land owner HEP (19th Apr 2017) (A1_5_TD).

(2) Restoration of river branches C.9

- Joint visits of DOPPS, VGB and DRAVA experts with administrative officers (ARSO) were carried out to the locations of restoration works, with the purpose to recognize and discuss field details important for the blue-prints preparation and permissions – on 9th Oct 2012 to all sites, on 29th Aug 2013 to all sites, on 12th Sep 2013 to Vurberk location, on 27th Dec 2013, 7th Jan 2014, 22nd Jan 2014 to Nova vas location.
- Blue-prints for the restoration of the river branches and removal of lateral embankment were finished. Location 1 – Vurberk, Jun 2014, Location 2 – Nova vas pri Markovcih, Apr 2015, Location 3 – Mala vas blue-prints were available before the project. They were all prepared by VGB.
- All necessary permissions for restoration of all 3 river branches and removal of riprap were obtained.

(3) Reducing human disturbance C.12

- Expert meeting between VGB and DOPPS was carried out on 23th Jan 2014 to find the best solutions for preventing human disturbance at the gravel bars. Common field excursions followed on 3rd Mar 2014 and 10th Jun 2014.
- Detailed implementation project – technical blue-prints – was prepared by VGB in Mar 2014.
- Applications for all necessary permits for the implementation of anti-disturbance measures were prepared by VGB. Issued were: water consent from ARSO, 26th Mar 2014, permission for works in the nature from ZRSVN, 9th Apr 2014, positive opinion from ZGS, 28th May 2014, and permit for works from UE Ptuj 30th May 2014. However, application for permission for works in protected forests was only partially approved by the Ministry of Agriculture and Environment, therefore detailed argumentation was send to the ministry on 23rd Jun 2014.
- Modification of technical blue-prints was required and finished by VGB in Sep 2014. Anti tank defenses were swapped for road gates (A1_6_TD).
- Ministry of Agriculture and Environment then issued final positive provision on 8th Oct 2014 (A1_7_TD).

Objectives, plans assessment/indicators

- Blue-prints for the restoration works for the Ormož Basins were finished. Water supply system had to be designed once again as original did not work properly. New design was finished in Mar 16 and we were able to finish the works within the project – we built additional water supply system that works fine and showed full restoration effect during the breeding and migrating season 2017.
- Blue-prints for all 3 river branches restorations were finished in time.
- Implementation project for the disturbance reduction was finished in time.
- All the necessary permits for the Ormož Basins restoration, for the river branch restoration and removal of lateral embankment at location Vurberg, and for the disturbance-reduction measures were obtained, too. For additional water supply system we obtained new permits.

Modifications

- Action C.7 was excluded from the project in our modification request, consequently blue-prints for the Common Tern breeding island were excluded as part of A.1 action, too.
- In our modification request we proposed new deadline for all technical blue-prints to be prepared in the period Dec 2013-May 2014. This was accepted.
- Commission was informed about problems with the water supply system and agreed with our solution - to prepare new design and build additional system within the project funds.

Problems/consequences/solutions

- Blue-prints preparation for the river branches restoration should have started between Sep 2012 and Feb 2013. Due to floods and changes in the riverbed it was impossible to prepare blue-prints using old LIDAR laser scans. We explained the problem in the modification request letter. LIDAR scans of the new situation at Drava River were available later than expected - in Feb 2014 and latest in Jun 2014 which influenced the preparation of blue-prints for the river branches opening. They were all expected for autumn 2013. But later we managed to make good a deficiency and last river branch was opened a year before than planned (see C.9).
- The costs for blue-prints preparation for opening of river branch at location Mala vas were not charged to the project. Uncertain whether this project will be approved or not VGB prepared them before the project start with other funds. Implementation however remained actual and was carried out through this project (C.9).
- Original design of the first water supply system turned to dramatically underestimate water loss through basins bottom and water plants. Besides, the pressure difference was too low and system was constantly stopping. Consequence was that we could not start managing the wetland area and creating habitats for birds as we were not getting water quantities necessary for conservation goals in the application. As solution additional system was designed and built in spring 2017. It is working well and bringing large enough quantities to start sound conservation management. Additional consequence was that new connection system between the basins was needed, too. It was built in 2017 together with the new supply system.
- Many unplanned administrative fees and taxes occurred during this action and were registered under category "Other direct costs".

Complementary actions/after-LIFE perspectives

- Despite the fact C.7 action was excluded from the project, we decided to realize it as complementary action. One island was initially planned, but 2 were constructed. Therefore blue-prints for two Common Tern breeding islands were prepared by VGB and action C.7 was carried out.

A.2 - Hydraulic analysis – flood and sediment transport modelling

Activities/outputs/by whom

- Software MIKE 21C, MIKE 11, MIKEFLOOD, and the working station were purchased by DOPPS. Equipment was delivered on 4th Feb 2014.
- VGB staff Tijana Mičić and Timotej Mišič accomplished MIKE software education that took place in Horsholm, Denmark, between 17th and 23rd Nov 2013.
- Inquiry to select granulometric study sub-contractor was made by VGB on 14th Oct 2013. Contract was signed on 22nd Oct 2013 with the company Lamela d.o.o. Study was delivered in time.
- Inquiry to select laser scanning (LIDAR) sub-contractor was made by VGB on 13th Jan 2014. Contract was signed on 3rd Feb 2014 with the company Geomnina d.o.o. Last LIDAR data were delivered on 10th Jun 2014.
- Inquiry to select river bed study (batimetry) sub-contractor was made by VGB on 10th Jan 2014. Contract was signed on 4th Feb 2014 with the company Iztok Slatinšek s.p. Study was finished.
- MIKE software was used in planning and blue-prints preparation for the opening of river branch in Vurberg (C.9), for removal of lateral embankment (C.9), for placing of artificial island (C.7), and for selection of locations for river banks for Kingfisher and Sand Martin (C.10).
- Hydraulic analysis and evaluation of past typical water-engineering measures on the Drava river section Maribor - Ptuj were carried out by using MIKE (Nov 2014). Hydraulic effect of combined

measures was modelled, which included lowering, reshaping and/or partial removal of gravel bars on 7 locations in the Drava River section between Maribor and Ptuj (i.e. gravel bars in Malečnik, Zrkovci, Dogoše). Measures also included partial vegetation removal on 8 gravel bars in this river section.

- Hydraulic analysis and evaluation of the entire vegetation removal on all 25 identified gravel bars in the Drava River section between Maribor and Ptuj. With this analysis only vegetation removal effect on flood protection was determined. Results were used for maintenance guidelines of gravel bars, proposed in the national Danube River basin management plan.
- New hydraulic model was built for the river section Maribor–Ptuj using latest survey data and calibration of the model for November 2014 flood event was carried out (Jan 2015).
- Analysis for 10yr, 100yr and 500yr flood events were modelled after the flood protection measures (construction of Dogoše and Vurberk–Duplek levees) were implemented in 2014/15 (Feb 2015).
- Flood risk maps were constructed for river section Maribor–Ptuj (Feb 2015).
- Hydraulic model for the Drava river section between Markovci and Ormož was built and calibration of the model was carried out (Mar 2015).
- Analysis for 100yr flood event was modelled for section Markovci–Ormož (Mar 2015).
- Locations in which the removal of old lateral river embankments, opening of side arms, formation of river islands and different groynes placement and extensions were proposed in the national Danube River basin management plan. These actions were subject to hydraulic testing under different discharge flows (Apr 2015). Analysis were carried out and later implemented in action A6.
- Meeting of DOPPS and VGB project teams was held on 22nd September 2015 to oversee progress of the action and discuss results obtained that far. Further directions for accomplishment of the action's remaining objectives were set and locations for modelling selected.
- Evaluation of recent water-engineering practices on the following river sections was carried out: lower part of the Drava River – removal of vegetation and associated measures on gravel bar at Borl (positive impact on biodiversity); upper part of the project area – three locations with various measures implemented, including lowering of gravel bar profile (mixed impact). All locations were evaluated from the flood safety perspective and in the case of negative biodiversity impact alternative solutions provided.
- Several water-engineering measures from the national Danube River basin management plan for the period 2016-21 were evaluated. These include proposed creation of two new semi-natural river branches for protection of adjacent settlements and agricultural areas against floods and unwanted erosion, and building of several groynes to prevent siltation of the side arm.
- Local hydraulic changes following removal of vegetation under C.11 action were evaluated. Assessment of effects of the action was carried out separately for all locations and their importance for improvement of cross section river flow and flood protection.

Objectives, plans assessment/indicators

- Objectives were achieved according to the project and time frame. All tasks were finished in Nov 2016. Equipment was purchased. Verified spatial model for predictions of morphological changes in the riverbed under different parameters of discharge has been built.

Modifications

- No

Problems/consequences/solutions

- No

Complementary actions/after-LIFE perspectives

- Results of this action are most promising in regulating water maintenance works in the future in a more nature-friendly way. Nature-conservation finally got “figures” and arguments.

A.3 - Technical blue-prints for the Ormož Basins Nature Reserve visitor facilities

Within the action blue-prints were produced and all permits obtained for the following facilities: (1) Visitor centre in Ormož Basins NR, (2) Entrance of the reserve, parking, observation points, cattle stable, and (3) Observation tower at Lake Ptuj.

Activities/outputs/by whom

- The action started with the preparation of the competition for the best architectural solution of the foreseen facilities (at the same time a call for tenders for the sub-contractor for the implementation of technical blue-prints according to the Slovene public tendering legislation). In Oct 2012, the conservation and project guidelines with the requested functionality and conservation limitations and the conditions for participation were prepared by DOPPS project staff and invitations sent out on 8th Nov 2012.
- By 7th Dec 2012, the deadline for the submission of elaborates, DOPPS obtained 3 complete elaborates with offers. They were checked and evaluated by the committee for the evaluation of elaborates, using technical and financial criteria. The committee signed its final report on 3rd Jan 2013, and selected the best architectural solution for the visitor facilities, prepared by architectural bureau Ravnika Potokar d.o.o., which obtained 91 points (the further two followed with 77 and 61 points).
- DOPPS negotiated with the selected sub-contractor for the preparation of the technical blue-prints and obtained the discount of 5.5% to the offered amount. The results of the competition were declared on 11th Jan 2013. After receiving no complaints by unselected tenderers, the contract with the selected sub-contractor was prepared and signed on the 13th Feb 2013.

(1) Visitor centre in Ormož Basins NR

- DOPPS sent the applications for the site plan information on 1st Feb and obtained the one for the area of Ormož Basins on the 12th Feb 2013.
- DOPPS carried out regular co-ordination meetings with the sub-contractor after signing the contract, aimed at checking the progress of the development of solutions and to direct the sub-contractor's work.
- Geologic research of the ground as well as geodetic scan at the micro locations of the buildings were ordered on 17th Apr 2013 and obtained by mid-May 2013.
- Blue-prints were finished in Nov 2015. After the revision of the project documentation by the professional supervisor for construction, additional geodetic study was carried out and foundation method was changed (Mar 2016). Blue-prints were corrected in Aug 2016.

(2) Entrance of the reserve, parking, observation points, cattle stable

- Construction blue-prints for the parking lot, entrance and observation points and for the stable in the Ormož Basins NR were finished in May 2014
- Building permit for the parking lot was given to DOPPS on 25th Nov 2014 (A3_1_TD) and for the stable on 20th Mar 2015 (A3_2_TD). Parking and observation points were built later under E.4 and stable under C.4 action.

(3) Observation tower at Lake Ptuj

- Site plan information was obtained for the area by DOPPS on 19th Feb 2013.

- The sub-contractor prepared the documentation at the project idea level for all the foreseen facilities and sent out the requests for the consents for the construction of the observation tower at Lake Ptuj to all consent authorities. All the authorities replied positively.
- The sub-contractor finished project for the construction of the observation tower at Lake Ptuj in Jan 2014 and on 23th Jul 2014 building permit was obtained.
- However, due to extremely difficult terrain (building in the water), conditions of Lake Ptuj manager (DEM) that no piloting is allowed in the Lake, and following geomechanic report, some project modifications were made in Oct 2014, but final in Apr 2016. Observation tower was built and finished in Oct 2016, see action E.5.

Objectives, plans assessment/indicators

- Objectives of the action were fulfilled and the action was successfully concluded.

Modifications

- Deadline to deliver blue-prints for the visitor facilities and stable was changed from 30th Apr 2013 to 31th Dec 2013 after the modification request.

Problems/consequences/solutions

- Several problems occurred in the action, caused some delay, but all were successfully solved.
- Observation tower. Obtaining the water consent for the construction of the observation tower at Lake Ptuj turned to be much harder problem than expected, and obtaining the building justice contract (Slovene = stavbna pravica) as the land is state owned, too. Later, after building permit has been already obtained, construction of the foundation was pointed out as potential problem from the professional supervisor. Two new variants were proposed by the architect and finally most secure approved. It was most necessary to follow best professional standards here, as the object is opened for the public and only completely safe and stable construction is acceptable.
- Cattle stable. Municipal Spatial Plan, adopted by the Municipality of Ormož in Apr 2013, was a new legislative moment which was not in force when we were applying this LIFE project in 2011. Upon this plan, DOPPS was obliged to prepare/obtain the Detailed Spatial Plan (Slovene = Občinski podrobni prostorski načrt - OPPN) for the area of Ormož Basins, describing all the spatial elements of the area. All building permits for the Ormož Basins restoration are conditioned with the adoption of this Detailed Spatial Plan. Detailed Spatial Plan was prepared by the sub-contractor, and was accepted by the Municipality not until Sep 2014. Consequently we could start with obtaining the building permits for the stable, entering point and observation points in Sep 2014 only, and this caused delay in the implementation of C.4 and E.4 actions, too. Before adoption of Detailed Spatial Plan the architect could not start with the projects for the construction for the visitor centre neither, as the basic dimensions were confirmed in the Detailed Spatial Plan only.

Complementary actions/after-LIFE perspectives

- We are looking forward for the construction phase of the visitor centre in Ormož Basins NR. Construction was not planned in this LIFE project. However, project application for the building of the visitor centre in Ormož Basins Nature Reserve was prepared by DOPPS in Apr 2013, and was included among regional list of projects for Podravje region for the new cohesion funding period (RRP 2014-2020). The decisions regarding selected projects for funding were not taken so far, but the project was included on the list that was sent to the Ministry of Economic Development and Technology by the Maribor Regional Agency on Jun 2014.

A.4 - Detailed grazing plan for the Ormož Basins Nature Reserve

Activities/outputs/by whom

- DOPPS selected the best tenderer and sub-contracted Cvetka Marhold s.p. to prepare a “Detailed grazing plan”.
- Two expert visits to the area where nature-conservation management is carried out by grazing of water buffalos was carried out. DOPPS’ experts visited National park Neusiedler See – Seewinkel in Austria on 14th Nov and 4th Dec 2013, met grazing experts from the park and discussed practical issues regarding water buffalos grazing. Agreement for the purchase of buffalos (for action C.4) was made during the visits.
- Additionally, Neusiedler See – Seewinkel experts visited Ormož Basins on 17th Oct 2014, checking our grazing infrastructure and cattle management.
- Sub-contractor finished and delivered the study – Detailed grazing plan, in Feb 2014.

Objectives, plans assessment/indicators

- DOPPS’s staff visited grazing experts at Neusiedler See – Seewinkel National Park in Austria twice and got all the necessary information to implement water buffalo grazing at the Ormož Basins NR. Objective was realized.
- A study - Detailed grazing plan, basis for grazing implementation – was produced, so the objective was fully achieved. It was planned to be finished in Jan 2014 but was delivered in the beginning of Feb 2014, which was acceptable as grazing management under action C.4 did not start until May 2014.

Modifications

- No

Problems/consequences/solutions

- No

Complementary actions/after-LIFE perspectives

- No

A.5 - Management plan for Ormož Basins Nature Reserve

Activities/outputs/by whom

- DOPPS organized three workshops to define conservation goals and sound management of the Ormož Basins NR. The third and final workshop during a course of management plan preparation was organised for members of the DOPPS project team on 8th January 2016. The aim was to review first year of management of the area according to the management plan. Modifications of concrete projects/actions were adopted.
- On the basis of workshop conclusions, the final version of the management plan (A5_1_DEL) was prepared by DOPPS and delivered to temporary project office in the Basins for operational use by staff in Jun 2017.
- Operational plan for management of Ormož Basins NR was prepared for Ministry of the Environment and Spatial Planning. This shortened version of management plan was required by the Ministry in the process of reserve declaration (C.5).

Objectives, plans assessment/indicators

- Objectives of the action were fulfilled.

Modifications

- No

Problems/consequences/solutions

- No

Complementary actions/after-LIFE perspectives

- DOPPS took advantage of being partner in Interreg project AdriaWet 2000 (Adriatic wetland for network Natura 2000, 2007-2013 Italy-Slovenia). Part of LIFE project staff participated workshop in the frame of Adriawet project in Koper, Slovenia on 3rd Oct 2014. Workshop was about "Management plans for wetland nature reserves" where we gained exactly the knowledge needed to prepare and improve management plan for Ormož Basins NR. Furthermore, on the next day, 4th Oct 2014, leader of the workshop, head of the sector for management plans at RSPB Mrs. Vivian Booth, visited Ormož Basins NR. She offered her valuable experiences and we thoroughly discussed several management issues checking real field situation in the basins.
- Ormož Basins were declared a Nature Reserve by the Slovene Government in May 2017 (C.5). Article 10 of the Decree is regulating that management in NR should follow 5-years management plan prepared by the reserve's manager. For the first management period (2018-2023) we have part of the management plan already prepared within LIFE. So, for the after-LIFE, preparation of management plans for every new 5-years period became obligatory and will therefore continue.

A.6 - Guidelines for sustainable water management of Drava River for the national Danube River basin management plan for period 2016-2021

Activities/outputs/by whom

- The action started with the introductory meeting of the staff of both beneficiaries, involved in the implementation of the action (VGB and ZRSVN) on 27th of Nov 2012. At the meeting they revised all important issues concerning implementation of the action and agreed about the tasks to be implemented by each of them.
- After the project modification VGB became responsible for the action and sub-contracted ZRSVN in Jan 2014 to carry out part of the action.
- ZRSVN made a review of all available public data relevant for the action, selected potential moderators for the stake-holder workshops, sub-contractors for the agriculture analysis, sub-contractors for the ecosystem analysis, and prepared draft of measures to improve conservation status of protected species and habitat types.
- VGB was organizing work for the action, carried out meeting with Darja Stanič, head of the team at the Ministry to prepare a new national water management plan 2016-2021, preparing regulations for water management and water engineering basis obligatory in water management.
- In Sep 2014 VGB called potential sub-contractors to give offers to prepare and implement a communication plan and analysis for agriculture, forestry and ecosystem services for the action.
- In Oct 2014 VGB and ISKRIVA signed a contract to prepare and implement a communication plan and analysis for agriculture, forestry and ecosystem services.
- Analysis for agriculture was finished in Mar 2015, analysis for forestry in May 2015 and for ecosystem services in Jan 2016.

- VGB, DOPPS and ZRSVN prepared the coordinated proposal guidelines considering nature-conservation and water management.
- Guidelines proposal was presented at Ministry of the Environment and Spatial Planning on 23rd of April 2015.
- Workshop for local stake-holders was carried out in Ptuj on 14th May 2015.
- Workshop for water management and conservation sector was carried out on 3rd Jul 2015.
- From Jun 2015 to Dec 2015, the proposal guidelines were coordinated between VGB, ZRSVN, DOPPS and the team at the Ministry to prepare a new national water management plan 2016-2021.
- In Dec 2015 concrete Guidelines (very detailed set of guidelines for maintenance works and other management measures) for sustainable water management of Drava River for national water management plan 2016-2021 were completed.
- Guidelines were presented to wider expert public at Mišičev vodarski dan 2015 on 4th of Dec 2015, to new Slovenian Water Agency (DRSV) in Feb 2016 and in Apr 2016 to Slovenian - Croatian Water Management Commission for Drava river.
- SWOT analysis was finished in February 2016.
- 2nd Workshop/presentation for local stake-holders was carried out in Maribor on 17th of June 2016 (Within Drava Festival).

Objectives, plans assessment/indicators

- All the objectives have been reached. The Guidelines were incorporated into the national Danube River basin management plan for the period from 2016-2021 by Nature conservation condition (No.:8-III-424 /2-O-15/MN, data 16.12.2015).
- Program of measures - Annex I - focuses on protection against harmful effects of water, measures for reduce the risk of flooding and measures for preserving populations of qualifying species and habitat types. It is available at the project webpage below.
- http://livedrava.ptice.si/wp-content/uploads/2016/08/2016_25_8_LIVEDRAVA-A6-PRILOGA-I-NUV-II.pdf

Besides, the Guidelines became obligatory for Drava River as were included under the Governmental decree.

- Governmental decree on Water management plan (Uredba o NUV II) was published in Official Gazette of the Republic of Slovenia no. 67/16 on 28th Oct 2016:
<http://www.pisrs.si/Pis.web/pregledPredpisa?id=URED6964>
- Complete text of the Plan is available on
http://www.mop.gov.si/fileadmin/mop.gov.si/pageuploads/podrocja/voda/nuv_II/NUV_VOD.pdf
- maps of the plan on
http://www.mop.gov.si/si/delovna_podrocja/voda/nacrt_upravljanja_voda/nuv_publikacijske_karte/
- and measures on:
http://www.mop.gov.si/fileadmin/mop.gov.si/pageuploads/podrocja/voda/nuv_II/program_ukr_epov_upravljanja_voda.pdf
- Obligatory Nature conservation guidelines, result of the A.6 action, are published on (see page 9 in the pdf for the LIFE reference):
http://www.mop.gov.si/fileadmin/mop.gov.si/pageuploads/podrocja/voda/nuv_II/Naravovarstvene_usmeritve_VO_Donava.pdf

Modifications

- After ZRSVN left the project as partner, VGB took over the action.

Problems and solutions

- No problems in this action.

Complementary actions/after-LIFE perspectives

- Cooperation between key stakeholders, especially conservationists and water engineers, along the Drava has significantly improved paving the road towards next common after-LIFE projects.
- Concrete restoration proposals for every part of the lowland Drava River were elaborated in the 31 page document http://livedrava.ptice.si/wp-content/uploads/2016/08/2016_25_8_LIVEDRAVA-A6-PRILOGA-I-NUV-II.pdf which is the core of the action. Preparatory phase for the coming concrete restoration projects in Drava riverbed is thus practically done and the document will stimulate more after-LIFE restoration projects. Proposals in preparation and confirmed projects (like Frisco 1, see <http://www.arso.gov.si/o%20agenciji/EU%20sofinancira/FRISCO1/> prove the statement).
- The action was presented more in details at the LIFE conference in Zagreb on 2nd Feb 2018 organized by Ministry of Environment and energy of Croatia under LIFE14 CAP/HR/14 project. Presentation with the title “Can we improve nature-conservation legislation through LIFE” has been given by Damijan Denac in the session “Examples of policy uptake in LIFE projects”. Video of the conference is published on YouTube channel (<https://www.youtube.com/channel/UCagHXeTsDXg5DOens2OH59Q>) and the photographs on the website (<https://lifeprogramhrvatska.hr/en/life-2018-conference-in-zagreb/>).

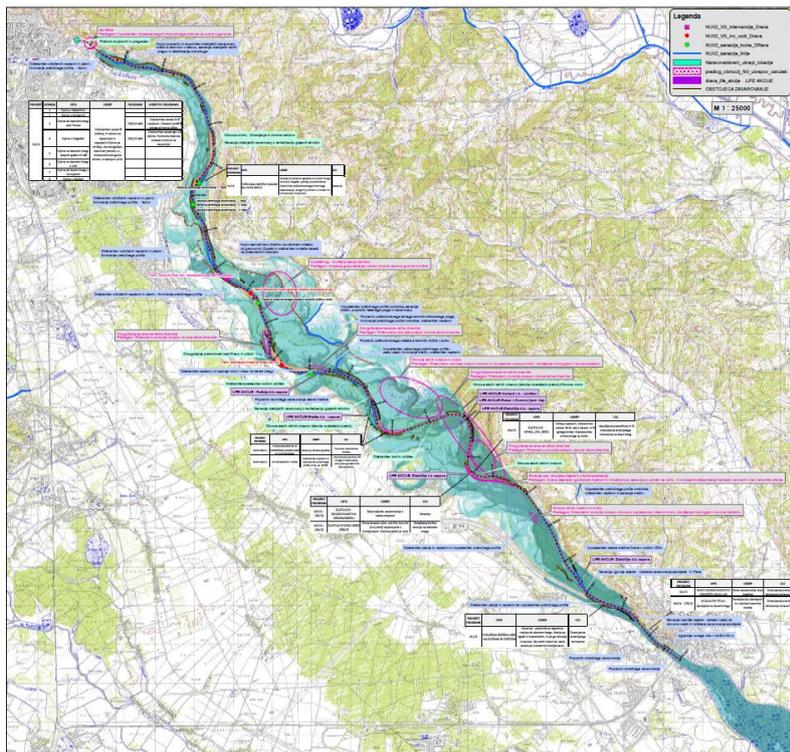


Fig. 1: Map from the Guidelines of sustainable water management of the Drava River, section Maribor-Ptuj.

A.7 - Geodetic survey and marking out the land (demarcation)

Activities/outputs/by whom

- DOPPS selected the best tenderer, the company ARM & GEO d.o.o., which carried out geodetic survey and land marking of the Ormož Basins NR.
- On 20th and 21th Dec 2012 the company requested landowners, whose land adjoins that owned by DOPPS, to attend the process of (border) demarcation. All landowners agreed with the borders. The company made elaborate arrangements for the borders of the parcels owned by DOPPS in the cadastral municipality Frankovci and Pušenci. Study of border arrangement has been forwarded to the Surveying and Mapping Authority on 17th Apr 2013.
- Surveying and Mapping Authority issued a decree on the agreed borders on 29th Aug 2013.

Objectives, plans assessment/indicators

- Geodetic survey was carried out by the sub-contractor, and borders were marked with boundary stones with the consensus of the owners of adjoining land/plots. The goals were achieved.
- Surveying and Mapping Authority issued the decree on the arranged border, the objective was reached.

Modifications

- No

Problems/consequences/solutions

- Due to overgrown terrain we could not start the field arrangements of the border in Oct and Nov 2012 as planned. The arrangement was possible after the first frost in Dec 2012.
- The company forwarded the study of border arrangements to the Surveying and Mapping Authority rather late (17th Apr 2013). The delay occurred because the legal representatives of the dead owners of neighbouring land parcels had to be found. Only with their approval (in our case, they needed confirmation of 4 new representatives) the process of obtaining a decree from the Surveying and Mapping Authority could continue. The authority finally issued a decree on agreed borders in Aug 2013. However, the delay did not negatively affect any project action or had any other negative consequence.

Complementary actions/after-LIFE perspectives

- No

B.1 - Purchase of flooded forest fragment (priority habitat type 91E0* - Alluvial forests)

Activities/outputs/by whom

- Sugar factory Ormož (Tovarna sladkorja Ormož d.d., TSO) in liquidation announced in Oct 2012 at the Administrative Unit of Ormož the intent of land sale (flooded forest fragment). During a period of 60 days DOPPS officially accepted the offer to purchase the land.
- On 21th Dec 2012 DOPPS and TSO d.d. in liquidation signed the sale contract.
- DOPPS sent to the Administrative Unit Ormož an application for approval of the legal transaction on 2nd Jan 2013. Administrative Unit Ormož approved the legal transaction on 25th Jan 2013, and on 27th Feb 2013 the contract between DOPPS and TSO d.d. was notary endorsed and came into force. DOPPS was entered as the new owner into the land/cadastral register in Mar 2013.
- There is a minor discrepancy in land surface size between purchased and planned in application. In the application, we wrote that app. 6 ha will be purchased for 53,202 EUR + 2% tax, but we

purchased 6.9 ha of flooded forest for 55,257 EUR + 2% tax. When planning, the flooded forest was part of large parcel owned by TSO and the size of forest part was roughly estimated. Before selling, TSO parcelled out the land and it turned out that the forest parcel is larger than we expected. In fact, the forest fragment extends over 4 parcels that were purchased. All parcels are adjoining each other and habitat on all of them is of large conservation importance. We managed to bring down the price from 0.88 EUR/ha agreed in application to 0.80 EUR/ha.

- The contract includes a conservation clause according to CP.
- Data on purchased parcels was entered into the DG Environment Land Purchase Database.

Objectives, plans assessment/indicators

- The objective was fully achieved, flooded forest fragment of significant nature-conservation value was purchased and is now owned by DOPPS.
- We started the action as planned in Oct 2012. The purchase was completed with notary approval of signed contract in Feb 2013, and DOPPS was entered as the new owner into the land/cadastral register in Mar 2013. This is an ordinary timespan for the land purchase of that type due to the length of administrative procedures.

Modifications

- No

Problems/consequences/solutions

- No

Complementary actions/after-LIFE perspectives

- Special forestry scheme exists in Slovenia under which forest owners can decide to declare part of the forest as so called “eco-cell” (no logging) and apply for state subsidy. The condition is that Slovenia Forest Service (Zavod za gozdove Slovenije) recognize forest as of significant conservation value. DOPPS applied for the scheme with part of purchased forest fragment under B.1 (2.083ha) and Forest Service approved the application. The contract with Slovenia Forest Service was signed for protecting habitat (measure 653) of Collared Flycatcher (*Ficedula albicollis*), Middle Spotted Woodpecker (*Dendrocopos medius*) and Black Stork (*Ciconia nigra*) for 20 years. Through the measure we additionally protected the site and gained some income for the after-LIFE conservation work.



Fig. 2: Purchased forest fragment of priority habitat type 91E0* - Alluvial forests. Photo: M. Lenarčič

B.2 - Purchase of a single parcel to reach the integrity of the restored area

Activities/outputs/by whom

- Contact with the parcel owner Mr. Torič was established by DOPPS and negotiations started.
- As land purchase turned to be impossible, DOPPS proposed a long-term lease as an alternative which was accepted by the commission in our modification request.
- Following that, an agreement was reached with the owner for the long-term lease. He submitted a formal lease offer on 25th Apr 2014. DOPPS accepted the offer on 7th May 2014 and the day after the owner formally received DOPPS statement on the acceptance of the lease conditions.
- Administrative Unit Ormož approved the legal transaction on 17th Jul 2014 and issued a decree on that on 29th Jul 2014.
- DOPPS and Mr. Torič signed a long-term lease contract on 10th Sep 2014. On the same day contract was notary endorsed and a statement was sent to the court to enter DOPPS to the land registry as a leaseholder until 2039.
- The contract includes a conservation clause according to CP.

Objectives, plans assessment/indicators

- A modified objective, to long-term lease the land (parcel no. 453, k.o. Frankovci, 6,747m²) instead of purchasing it, was reached. DOPPS leased the land for 25 years.

Modifications

- Long-term lease was proposed in a modification request instead of purchase and was accepted by the Commission.

Problems/consequences/solutions

- The owner of the parcel realized that his farm is under “protected farm” category and by the law he must not reduce the land surface by selling it. As he was otherwise willing to co-operate with us and “sell” the parcel we proposed 2 possible solutions he principally agreed with and were accepted by the commission: (a) that we purchase parcel of app. same size somewhere else and exchange it with him for the one we have in the project. In this way he will keep the surface of the farmland unreduced and by law he can exchange parcels. (b) That we lease his parcel for the long term for the amount we otherwise planned for the purchase. The lease period will be 20-30 years. The option (a) turned to be impossible as we could not find an appropriate exchange parcel despite thorough search. Therefore we carried out option (b), the long-term lease.
- After our original agreement with the owner, he changed his mind and after the approval of legal transaction he did not want to sign the contract. We engaged lawyer and after thorough negotiations he finally agreed to sign the contract. The negotiated price of long-term lease was raised to € 9,000 and thus the budgeted amount was slightly exceeded.

Complementary actions/after-LIFE perspectives

- The parcel was included by DOPPS in the system of “GERK” <http://rkg.gov.si/GERK/WebViewer/> which means that agri-environmental measures can be applied for. DOPPS as agriculture holding (KMG ID 100325669) applied “Ecological farming” measure and included surface of this parcel, too (GERK ID 5466544), as we carry out there conservation management with grazing.

C.1 - Construction of water supply and water regulation system in Ormož Basins Nature Reserve

C.2 - Restoration of the habitats for waterbirds in Ormož Basins Nature Reserve

As the timeframe, sub-contractor, and nature of the work were practically equal, and both actions depended on each other, we report on them together, pointing out what was done under each.

Activities/outputs/by whom

- After the blue-prints for both actions were finished, DOPPS started with the procedure of public inviting competitive tenders according to LIFE Common provisions and national legislation (Zakon o javnem naročanju ZJN-2, Off. Gazette RS 12/2013).
- DOPPS prepared a public call following the so called “open procedure” and published it at the public tendering portal and LIVEDRAVA web page on 13th Jan 2014. In the public call all implementation works for both C.1 and C.2 actions were included.
- On 19th Feb 2014 public opening of arrived bids took place at DOPPS. Four bids arrived. DOPPS selected the bid offering best value for money, issued a decree on that on 28th Mar 2014 and signed a contract with the sub-contractor company Cestno podjetje Ptuj d.d. (CPP) on 6th May 2014. There were no complaints from the unselected applicants.
- For the building supervision “REGNUM Tomislav Regent s.p.” was selected and put in charge of controlling the quality of implementation works of the sub-contractor. Supervision system was established. Supervisor was daily controlling the works at the building site and weekly organizing coordination meetings.
- According to the building legislation, working safety engineer “Vartis Janez Čuček s.p.”, who was in charge of the workers safety at the building site, was appointed.
- DOPPS sub-contracted a company that removed old pipelines and iron constructions from the basins in Aug 2013.
- DOPPS selected sub-contractor “GMG Elmont d.o.o.” to prepare the land surface before the restoration works. Preparing of the land included complete mulching of the basins area and removing of the biomass and was carried out between Jan and Feb 2014. Logged trees from the basins were offered for free to the local people as the region is socially weak. Due to rapid overgrowing DOPPS had to mulch the area once again before the restoration works started and unexpected costs for tractor fuel occurred.
- CPP started restoration works in May 2014. Construction of the new pipeline and restoration were completed according to the blue-prints in Dec 2014. Project of finished works (Slovene Projekt izvedenih del) was prepared and the subcontractor issued bank guaranty for the quality of the built materials and accomplished works.
- After recognizing that water supply system (C.1) is not supplying enough water to the basins, and cannot be modified or repaired, additional system was designed (see A.1, too). Prior to this, several attempts were made to repair it or raise underground water to flood the basins, but all failed. Blue-prints for additional water supply system and new connections between basins were therefore prepared in Mar 2016, and DOPPS immediately started obtaining new permissions but gained them no sooner then in Oct & Nov 2016 from Slovenia and in Apr 2017 from Croatia.
- For implementation of additional water supply system and connections between basins best price for value subcontractor was selected – Komunalno podjetje Ptuj d.d. and contracts signed. Works were split into three contracts with the same subcontractor to mitigate cash flow of the coordinating beneficiary. Two contracts (part of additional water supply system and new connections between basins) were signed by DOPPS and another (part of water supply system) by project partner VGP. Building supervisor and safety engineer were hired.
- Additional water supply system was operational in Jul 2017 and completely finished in Oct 2017. Connections between basins were operational in Aug 2017.

Objectives, plans assessment/indicators

- Habitats in the basins were restored and improved, creating optimal breeding and foraging habitats for breeding and migrating waterbirds. Basin I - large earth island was created (5,030m²), lowered and two deeper ditches excavated, 200 and 225m long. Basin II - three ditches of 275, 150 and 63m length were excavated. Basin III – one larger island was created (50m²) and seven smaller (20m² each), Basin IV – four ditches were excavated, terrain lowered on 5,900m² and large breeding island created (3,000m²) covered with gravel and sand. Basin V - two large islands were created (1,000m² each) 30 smaller with surfaces 1-5m². Basin VI - 640m of ditches were excavated and 40 small islands created. Island's sizes are 1, 2, 5 and 20m².
- Recovery of waterbird populations after the restoration of their habitats is a long-lasting process, expected to yield target results in the long-term. Nevertheless, the results achieved during the project are very promising. Soon after the restoration works, the surface of reedbeds, bulrush stands and other target vegetation types increased by several times (to 15ha). In the post- 2015 period, strong breeding populations of birds typical of these habitats and important within the scope of the entire SPA have bred here: the Great Reed-warbler (15-20 pairs), Savi's Warbler (5 pairs) and Reed Bunting (2-3 pairs), whereas the basins are the only breeding location of the Common Reed-warbler and Sedge Warbler along the Pannonian part of the Drava River. A constant influx of water has enabled breeding of several endangered species that disappeared after the cessation of sugar production: the Gadwall, Garganey, Northern Shoveler, Common Little Bittern, Little Crake and Spotted Crake. Extensive stands of reed and bulrush are home to one of our largest populations of Western Water Rail (10-20 pairs). The quality of the restored habitat was further emphasized by the first breeding of Bearded Reedlings in 2017. Here, the Western Marsh-harrier has its only regular breeding site in Slovenia.
- An increase in the water levels in the basins in summer 2017 significantly improved conditions for migratory birds, too. In Sep 2017, 550 waterbirds that rely on the basins as an important stopover site during their migration were foraging in the 5th basin (mostly ducks and Common Coots). Grazing habitat management (C.4) significantly contributed in restoration of waterbirds habitats in the Ormož Basins area.

Modifications

- Besides the one in the application, we built additional water supply system and new connections between basins. Additional pipeline conveys water from the Drava to the basins with a maximum flow rate of 240L/s. That amount of water allowed us to create all the planned habitats for waterbird conservation. Building of additional water supply system and new connections between basins within the available project funds was confirmed by the Commission.

Problems/consequences/solutions

- Construction of the first water supply system was a bit delayed. The delay (March/September 2014) was partly due to delayed blue-prints (A.1) and the fact that the pipeline could be finalized only when Lake Ormož is empty. The Lake manager is emptying the lake once per year in September, so there was no theoretical way we could finalize restoration works and enable water supply in Mar 2014. Unusually wet summer 2014 and consequently high underground water table caused the sub-contractor severe problems which contributed to the delay, too.
- First water supply system, finished in autumn 2014, was not enabling us optimal habitat management. Due to lack of water, not all created islands were functioning as breeding islands, overgrowing became problem again and we were able to create breeding habitats for project species only partly. Later, with additional water supply built in summer 2017 and new connections between basins full management potential was established. In a short period of

time we were able to create exactly the habitats proposed in project application and restoration and conservation objectives were finally fully reached.

Complementary actions/after-LIFE perspectives

- Before the restoration works started (on 22nd Feb 2014) DOPPS volunteers removed old Common Tern breeding rafts from the basins that served as the colony breeding site between 2001 and 2009. In that period, a total of 455 pairs of Common Terns and 188 pairs of Black-headed Gulls bred on the raft. Tractor was used, too, and some fuel costs occurred.
- Kopački rit Nature Park from Croatia kindly lend us special amphibian mowing machine. In Mar 2017 we carried out mowing trial with the machine in the Ormož Basins, but turned out not to be very successful as they did not have the right sickle-bar mower accessories.
- Ormož Basins became Nature Reserve (see C.5) and Ministry of Environment and Spatial Planning will sign a contract with DOPPS to continue conservation management on the area. Contract is agreed and will be signed in Jan 2018 granting DOPPS with 30,000 EUR annually for conservation management. Within the LIFE project all infrastructure was established allowing us continuation of conservation management – water supply system was built, system to control water table in all basins, grazing system to prevent overgrowing (water buffalos, fences, stable), basic machinery (tractor, trolley etc.).



Fig 3: Building of the additional water supply system in the Ormož Basins NR (left) & Ormož Basins before (right above) and after the restoration (right below). Photos: D. Denac, T. Basle, GURS

C.3- Habitat management in the softwood forest stands in Ormož Basins Nature Reserve

Activities/outputs/by whom

- DOPPS obtained a formal logging permission at first. Forestry Institute issued a decree on 14th Nov 2013 permitting DOPPS logging for nature-conservation purposes.
- In Oct 2013 National Institute of Biology, sub-contractor for the beetles monitoring under D.3 action, prepared parameters for the dead wood management experiment.
- DOPPS staff logged app. 40m³ of non-native hybrid poplars at the Ormož Basins site during Jan 2014. Dead trunks were left at two forest surfaces according to the project in such way that we created 30-40 and 10-20% increase of dead wood in the forest stands. The management experiment was finally set in Feb 2014. During logging and setting of experiment tractor purchased under C.4 action was intensely used and fuel costs occurred, too.
- On 9th Jan 2014 sub-contractor National Institute of Biology (action D.3) prepared parameters and conditions to be considered for the restoration of the forest oxbow.
- DOPPS selected a sub-contractor who carried out a restoration of 200m long ex. river branch in the area of Ormož Basins. Restoration was carried out in Mar 2014.

Objectives, plans assessment/indicators

- Forest management experiment was set and successfully carried out, the objective was reached. Realization of the action was a bit later than planned, but without influencing the results.
- Old river branch in a straight line was restored in a length of 200m. Straight embankments were removed and meanders created. The objective was reached. Restoration was carried out according to the project timeframe (Jan-Mar 2014) and habitat for water beetle was adequately established.
- In the renaturation experiment in the Ormož Basins NR was confirmed (monitoring D.3) that the addition of dead wood mass can be an effective measure in improving the habitat for the Flat Bark beetle *C. cinnaberinus* and other saproxylic beetle fauna, especially in younger and degraded forest stands. This effect has proved to be especially important for the *C. cinnaberinus* as the target species. The greatest influence on the size of the *C. cinnaberinus* population has the quantity and type of dead wood mass. In the wider area of the Lower Drava, logging and deforestation and the removal of dead wood from the forest is a key threat to the *C. cinnaberinus*.

Modifications

- No

Problems/consequences/solutions

- In application we proposed the start of the softwood forest experiment between Jan-Mar 2013. The action could not be carried out because of very hard winter conditions between Jan-Mar 2013 what was very unusual for this part of Slovenia. Constant blanket of snow was present throughout all 3 months. On 27 Mar 2013 there was still 20 cm of snow in the area and the stand of non-native hybrid poplars planned for logging was inaccessible to the machinery. After March we intentionally decided not to log because the breeding period of birds started. We carried out action then during the wintertime 2014, snow blanket was minimal, thus enabling works to be done.

Complementary actions/after-LIFE perspectives

- Before decommissioning of the concrete sinking basins of the ex. sugar factory, as part of the E.4, DOPPS organized volunteer student's action (9th & 10th May 2014) to rescue all animals trapped in the basins. All animals and aquatic plants were transferred to the restored river branch within action C.3. A year later (8th & 9th May 2015) similar volunteer action was carried out to bring additional native typical aquatic plants to the restored branch. Tractor was used and some fuel costs occurred.



Fig. 4: Setting ecological experiment for the Flat Bark Beetle *C. cinnaberinus*. Photos: D. Bombek, A. Vrezec.

C.4 - Establishment of a grazing system for long-term and sustainable wetland management in Ormož Basins Nature Reserve

Activities/outputs/by whom

- DOPPS obtained all necessary permits for establishing the grazing system, especially for fencing of the grazing units. Particularly important was the permit from the Slovenia Forest Service (Zavod za gozdove Slovenije - ZGS) who exceptionally allowed grazing in the forest area. For that purpose new forestry plans were prepared by the forest service.
- DOPPS selected sub-contractor company "Slikopleskarska in splošna gradbena dela, Jurkovič SSGD d.o.o." to implement the grazing system in the Ormož Basins. Contract was signed on 8th Apr 2014.
- All grazing units were completely fenced by Mar 2015 and grazing system functional. In total 2,300 wooden poles were erected and 12,700m were wire fenced.
- DOPPS purchased the tractor and all equipment according to the project in Jan 2014.
- Through company specialized for animal trade and transport DOPPS purchased and imported to Ormož Basins first 5 water buffalos. Four cows and one bull were transported from Neusiedler see/Austria to Slovenia on 28th May 2014 and released to the basins on 31st May 2014. Animals were registered according to Slovene regulations and new grazing area for the cattle was formally registered by the Ministry for agriculture and environment on 11th Jun 2014, with the code G-MID: 100002908. Between Nov 2015 and Jan 2016 four offspring were delivered by the resident buffalos (three males and one female), so we managed to increase the original herd. Water Buffalos were successfully turning overgrown area into quality pasture of high nature-conservation value, showing their effectiveness and our right decision to select this kind of grazing animals for conservation management. Therefore, DOPPS decided to purchase additional 5 water buffalos from Neusiedler see/Austria which happened in Dec 2016. Purchase was confirmed by the Commission. By the end of 2017 litter of additional 2 calves happened, herd of buffalos numbering now 16. Five drinking/bathing ponds were excavated.
- DOPPS obtained fodder for the grazing animals for the winter times partly from the local farmers and at own meadows. DOPPS restored overgrown humped area of 1.2ha within the Ormož

Basins into the meadow for own fodder supply. The area was included into the register of so called GERK – Graphical land-use unit of the farm (Slovene = Grafična enota rabe zemljišča kmetijskega gospodarstva).

- DOPPS started the procedure of public inviting competitive tenders according to LIFE Common provisions and national legislation (Zakon o javnem naročanju ZJN-2, Off. Gazette RS 12/2013) for the building of the stable. Public call for tenders was published on 26th Sep 2014. Procedure of public inviting competitive tenders for building of the stable was successfully carried out. On 5th Nov 2014 opening of tenders took place, on 26th Nov 2014 DOPPS issued decree on selected tender and on 12th Feb 2015 the contract with selected sub-contractor was signed.
- Building supervision was subcontracted and in Apr 2015 building of the stable started. Stable was finished, functional and with all operational permissions in Oct 2015.
- In the spring 2016, an appropriate isolation funnel type for water buffalos (size, materials, setting) was selected as well as optimal positioning in the area of Ormož Basins NR (proper access for transportation).
- Building of the funnels was subcontracted and in Oct 2016 all three were finished and operational.

Objectives, plans assessment/indicators

- Action successfully finished and the objectives were reached. Grazing system was established, grazing animals released and closed wooden stable (27×10.8m ground plan) built. Isolation funnels for water buffalos were placed. Funnels were tested for the first time to vaccinate animals in Nov 2016, and performed perfectly.
- Moreover, we evaluate selection of grazing animals as very appropriate. Animals are easy to handle and very effective. Water buffalos grazing turned to be perfect management tool to control vegetation and manage habitats. Testing period of grazing (May 2014-Dec 2017) proved the right selection of grazing animals for the habitat management in the area.
- Besides creating waterbirds breeding & stopover habitats and effects in the Ormož Basins NR (especially in the basins no. 5 and no. 6), grazing helped establish one of the largest complexes of extensively managed grasslands in the Lower Podravje region, giving a home to 4-5 pairs of Red-backed Shrike.

Modifications

- In the modification request for this action additional purchase of tractor with the equipment was proposed and accepted.
- Use of barbed wire was proposed for the fencing in the project but we used the normal wire after consulting the grazing experts. Monitor approved the change in an e-mail on 18th Mar 2014.
- In Nov 2015 Commission was requested for permission to purchase additional 10 water buffalos. Permission was given to DOPPS, but later we decided to purchase 5 instead of 10 extra buffalos as they start to propagate successfully.

Problems/consequences/solutions

- Before and during implementation of restoration works (C.2) in the Ormož Basins not all fences were erected as they would disturb the restoration works. So, they were finished in Oct 2014 after finishing the restoration. There were no negative consequences as we could not use the area where restoration took place for the grazing neither.
- Under this action a stable should be built between Sep-Nov 2014. For the stable, building permit is necessary but we could not obtain it before the “Detailed spatial plan of the Ormož municipality” was accepted. See A.3/Problems. So we could not start with the stable building permit application before Sep 2014. Moreover, we could not start with the procedure of public inviting competitive tenders for the stable building before Sep 2014, either. This delay caused

that stable was finished a year later than originally planned. As grazing animals were already on the area we erected small provisional stable (shelter) for the winter 2014/2015 and solved the problem. It was built by DOPPS' staff using own wood, so the costs were minimal. Occurred costs were approved by the project's monitor.

- To obtain a building permit for the cattle stable, DOPPS obtained a necessary study - fertilizing plan (Slovene = gnojilni načrt) that was finished on Aug 2014.
- To carry out the testing period of grazing (bringing fresh water, cleaning stable, bringing fodder during the winter, maintenance of the grazing fences etc.) purchased tractor was necessary, and consequently monthly costs for the fuel occurred. Without tractor we would be unable to carry out the action. Besides tractor, we were using an old "all-terrain 4 wheeler Kawasaki" that was donated to Ormož Basins NR by a local supporter. It turned very effective, too, but service costs for it occurred. However, they compensate for the advantage of the vehicle.

Complementary actions/after-LIFE perspectives

- Short videoclip of the first buffalo born in the Ormož Basins NR was put on the project's web page and YouTube: https://www.youtube.com/watch?time_continue=1&v=TOPgqwoJGaU
- Lowland forest grazing disappeared in Slovenia soon after the world war II. Currently, it is not allowed although this is a traditional and very effective way of riparian forests management. Neophytes, huge problem in riparian forest in Slovenia, could be removed through grazing as well as flood risk could be reduced by reducing roughness of the shrubby layer. Therefore we are content that forest grazing was exceptionally allowed under this action in the forest fragment purchased under B.2, so we will be able to quantify and prove the nature-conservation effects of it.
- Part of the winter fodder for buffalos was transported from the "Iški morost Nature Reserve". Iški morost is a wet meadows reserve established by DOPPS within LIFE project "Establishing Long-Term Protection of *Crex Crex* in Slovenia, LIFE03 NAT/SLO/77 (<http://www.life-kosec.org/>)" that DOPPS still manage. As one of the problems of Iški morost is that it is difficult to give, sell or use the late-mown hay, we started to use the hay from this reserve as fodder for grazing buffalos in Ormož Basins NR, a win-win situation for both.
- DOPPS managed to get some sponsor funds and invested them in purchase of smaller parcel – a field - bordering to Ormož Basins NR (parcel 356/29 k.o. Pušenci 333, surface 1,231m²) in 2015. We grow buckwheat or cereals and test different nature friendly farming practices.
- Recognising that water buffalos are grazing at Ormož Basins, farmers already contacted DOPPS with the wish to co-operate in milking, mozzarella production, preparing workshops for other farmers, so we see the potential perspective for buffalo ecological products after the LIFE project.
- Contacts with other farmers were established and we offered one farmer the possibility of his animals grazing in the basins. Besides buffalos, two Lipizzan horses graze in the basins and help in grazing management.
- We started testing farming products produced ecologically and supporting biodiversity at the area of Ormož Basins NR. With 1st Jan 2015 DOPPS entered the agri-environmental scheme "Ecological farming" and obtained a certificate. In 2015, 300kg of buckwheat was produced and in 2016, 50L of elder syrup and 50kg of elder tea. We promote ecological and biodiversity-friendly farming with these products that were firstly all distributed for free as gifts. In 2017 we established cooperation with the "Eco-social farm Korenika" (<http://www.korenika.si/>) that resulted in common market product "Elder tea" that is already in the market. Tea is sold under "EKO label" as DOPPS is registered Eco-farm and the Korenika holds the certificates for drying and packing nature products. For the very first time DOPPS managed to produce "legal market product - food" with all the permissions. We see this an important pilot step as we learned the technology, established necessary co-operations, and we are looking forward to developing this segment more in the after-LIFE period.



Fig. 5: Grazing buffaloes and cattle stable in the Ormož Basins NR. Photos: T. Basle & A. Ploj

C.5 - Declaration of Ormož Basins Nature Reserve and Nature Park at the Drava River between Ormož and Središče ob Dravi

Activities/outputs/by whom

Declaration of Ormož Basins Nature Reserve

- In Jan 2013, DOPPS sent a note to the Ministry of Agriculture and the Environment, asking for a start of the procedure of the declaration of the Ormož Basins Nature Reserve. Already in 2010, DOPPS sent an initiative to ZRSVN, the responsible authority for the preparation of the professional groundwork for the declaration of all the protected areas in Slovenia and upon this, ZRSVN asked the Ministry to approve the suitability of the declaration of this area to start with the preparation of the groundwork. Upon this note, the Ministry resumed the activities and confirmed the preparation of the groundwork to ZRSVN.
- On 11th Feb 2013 DOPPS had a meeting at the Ministry about declaration procedure for the Nature Reserve.
- In Oct 2013 DOPPS sent to the ZRSVN a proposed regime of the Ormož Basins Nature Reserve.
- ZRSVN prepared expert argumentation for the Nature Reserve in Sep 2014 and sent it to the Ministry.
- On 12th May 2015 a working meeting between MOP, ZRSVN and DOPPS was carried out. At the meeting most important issues were harmonized to find best possible solutions for the preparation of the official document to declare Nature Reserve. Issues were: regime, management plan, financing and land ownership. Person at the ministry Ms. Jana Vidic was appointed as responsible for the case.
- Additional argumentation to the draft declaration was provided by DOPPS on 5th Jun 2015.
- Not before than on 17th May 2016 DOPPS received feedback from MOP, and prepared additional financial argumentation.
- On 1st Jul 2016 MOP prepared a new draft for the Government decree on Ormož Basins NR that should be further adjusted and harmonized (trade off limitations/benefits). Later on 6th Sep 2016 at the meeting the draft was adjusted and harmonized – final version of the decree.
- Final decree was presented to the Mayor of Ormož Municipality by MOP and DOPPS on 18th Oct 2016, and agreement was reached about public display in the “Občinski vestnik”.
- Public display procedure started on 28th Nov 2016 (web page MOP), 21st Dec 2016 (web page Ormož Municipality) and was finished on 23rd Jan 2017. Comments were answered, argued and decree further harmonized.
- After inter-ministerial coordination finished in Apr 2017, the decree was referred to the Government for a ruling.

- During the 133. regular session on 4th May 2017 Government of Republic of Slovenia adopted Governmental decree on Ormož Basins Nature Reserve. The decree was published next day, 5th May 2017, in the Official Gazette of the Republic of Slovenia, No. 23, on pages 3441-3445. The decree came into force on 20th May 2017.
- DOPPS organized public opening of the Nature reserve as part of E.9 action – public presentations and excursions on 8th Sep 2017.

Declaration of Nature Park at the Drava River between Ormož and Središče ob Dravi

- The leading local force of the Nature Park was respected and recognized local lawyer, Mr. Boris Kočevar. He was engaged in preparation of the action in project proposal in 2011, where the idea was that the project will support his volunteer work for the Park. Sadly, he did not live to see the approved project as he tragically died in 2012. We followed his work by ourselves, however this circumstance definitely influenced the action.
- DOPPS reviewed the procedures for the declaration of the Nature Park at the Drava River between Ormož and Središče ob Dravi.
- Nature Park 1st introductory meeting for all the stakeholders was organized in Središče ob Dravi village on 29th Jan 2014. At the meeting Nature Park idea was generally supported by the people.
- DOPPS informed Ministry on 18th Feb 2014 about the intent of Nature Park to be declared, and ministry responded on 3rd Apr 2014 with the letter of support.
- Municipality Središče ob Dravi formally accepted and published a resolution on starting the procedure for the declaration of the Nature Park.
- 2nd and 3rd meeting for all the stake-holders were organized by DOPPS and Municipality Središče ob Dravi on 31st Mar 2014 and 27th May 2014, respectively. Discussion about the Nature Park restrictions was opened by the locals on both meetings.
- DOPPS prepared Nature Park regime proposal in Jun 2014.
- 4th meeting for all of the stake-holders was organized by DOPPS and Municipality Središče ob Dravi on 14th Jan 2015. Mayors of both included municipalities – Mr. Alojz Sok – Municipality Ormož, and Mr. Jurij Borko – Municipality Središče ob Dravi – were present at the meeting. DOPPS presented modified border proposal for the Nature Park according to the suggestions and critics from the first three meetings. New border proposal is reduced in size but preserving the most important nature value of the area. New border proposal was principally much better accepted by the public, but still not completely.
- DOPPS collected comments of the local stakeholders on prepared Nature Park regime proposal and prepared updated version of the regime. In preparation of updated version ZRSVN was involved.
- Updated version of the regime was presented to the local stakeholders on 5th public meeting on 20th May 2015. At the 5th meeting there was no representative of the municipality of Ormož present. We started with the presentation of the regime of Nature Park. We collected comments on the regime from all the stakeholders on the meeting. At the end the civil initiative of Frankovci (Ormož municipality) showed to the rest of the participants the signatures of local people of Frankovci that they disagree with the Nature Park on Drava River between Ormož and Središče ob Dravi and they exit the procedure. After a meeting with the mayor of the municipality of Središče ob Dravi decision was taken that Municipality Središče ob Dravi will continue establishment of the Nature Park without Ormož Municipality.
- At the 6th public meeting (2nd Jul 2015), presentation of best practices in protected areas & harmonising the regime with locals was carried out.
- Excursion for the locals to the Nature park Goričko (18th Oct 2015) was organized to present the development opportunities of the Nature Park. Excursion was professionally lead by the Nature Park Goričko Staff.

- A meeting was carried out between Municipality, State Institute for Nature Conservation (ZRSVN), and DOPPS, to harmonize procedure, and Municipality was asked to intervene at MOP to include ZRSVN's work on Nature Park into their plan of regular duties (27th Nov 2015).
- ZRSVN prepared expert basis for the nature park for MOP in Mar 2017.
- On 7th public meeting (19th Apr 2017) ZRSVN presented expert basis for declaration of Nature Park in details.
- During the 8th session (on 4th Jul 2017) of the Municipal board for environment, agriculture and forestry the board discussed proposal of Municipal ordinance for Nature Park Središče ob Dravi and with majority of votes confirmed its suitability for considering at the Municipal council.
- During the 21. session (on 5th Jul 2017) Municipal council of Središče ob Dravi discussed the proposal of Municipal ordinance for Nature Park Središče ob Dravi (1st reading) and recognized it as appropriate to continue follow-up procedure for declaration, votes were 6 to continue, 1 against.
- On 25th Oct 2017 large public, 8th, meeting was organized presenting once again benefits of the Nature Park and best practices from other protected areas. See positive media feedback from the event in the local magazine "Sredica", Dec 2017, pages 4-5 (C5_1_TD): https://issuu.com/sredica/docs/sredica_4-2017
- During the session (on 22nd Dec 2017) Municipal council of Središče ob Dravi discussed the proposal of Municipal ordinance for Nature Park Središče ob Dravi (2nd reading) and voted against declaration, votes were 2 to continue, 6 against.

Objectives, plans assessment/indicators

Declaration of Ormož Basins Nature Reserve

- Ormož Basins were formally declared a Nature Reserve of state importance by the governmental decree. This very important objective has been achieved.

Declaration of Nature park at the Drava River between Ormož and Središče ob Dravi

- Nature park Središče ob Dravi was not designated by the municipality.

Modifications

Declaration of Ormož Basins Nature Reserve: No

Declaration of Nature park at the Drava River between Ormož and Središče ob Dravi

- From the original proposal of Nature Park between two municipalities, Ormož and Središče ob Dravi, Ormož municipality exit the procedure due to local contending early.
- During the public meetings and harmonisation of regime, border question was one of the most important. Borders were changed from the original proposal and proposed Nature Park area reduced. Commission was informed on this subject and agreed to continue declaration with reduced area size.

Problems/consequences/solutions

Nature Reserve

- After the elections in Jul 2014 Slovenia got new government. They split ex. Ministry of Agriculture and the Environment (MKO) into Ministry of the Environment and Spatial planning (MOP) and Ministry of Agriculture, Forestry and Food (MKGP). We argue the splitting and following new organisation of the governing bodies dramatically reduced ministries' working capability for significant time period. Not before May 2015 Ministry was able to organize first meeting on this topic because no staff was available before. Work continued normally but with some large "time gaps". E.g. ZRSVN needed one year (2014) to prepare obligatory expert basis and further year (half 2015, half 2016) we were waiting Ministry with the response regarding the draft decree. However, all the state bodies did their jobs correctly with lot of positive engagement and finally Government declared Nature Reserve which is a great success. But according to application declaration was delayed 2 years.

Nature Park

- Unfortunately, despite all the efforts we were not able to reach formal Nature Park declaration. After the failure on the Municipal council session we organized meeting with the mayor on 11th Jan 2018 to explore the causes and possibilities to continue. Mayor concluded that after shorter period, e.g. in March 2018, he will organize special meeting for the councillors trying to warm them up for the Nature Park again, but the outcome is uncertain.
- The “failure” turned to be very frustrating for all the LIFE project team, state authorities (MOP, ZRSVN) and mayor. After intensive work for 4 years (2014-2017), fully participative and democratic approach, with 8 public presentations where locals were maximally invited to contribute the idea or argue for/against, all presented examples of best practices from Slovenia and abroad, organized excursion to the Nature Park Goričko, all complementary Pegasus activities, and constant positive feedback from the locals, we were all sure the declaration was question of formalism only. Especially, as the councillors voted positively during the first reading of the decree, it was very unlikely the decree to be rejected during the second reading. We got reliable information that few farmers lobbied by councillors and conditioned their votes for them at the coming elections with the voting against Nature Park. Elections will happen in half year. The rejection of Nature Park gained a lot of media attention and we received lot of feedback from locals expressing their disappointment as the Park failed. See for example Mayor explaining the reasons for rejection of the Nature park decree (KTV Ormož), 8th Jan 2018, “Med nami povedano” (sequence 9:27 – 23): https://www.youtube.com/watch?time_continue=1395&v=-uxF-fXB6jE or article about the rejection in the “Ptujski tednik” journal from 7th Jan 2018: <https://www.tednik.si/politika/8892-sredisce-ob-dravi-vecina-svetnikov-proti-krajinskemu-parku> DOPPS, mayor and representative of municipal councillors gave interview about Landscape park on 25th Jan 2018 at 13:45 on Radio Ptuj. Loss for the Municipality because of the rejection has been exposed and discussed.

Complementary actions/after-LIFE perspectives

Nature reserve

- The reserve has been declared and governmental decree adopted. The decree defines that the MOP should sub-contract caretaker of the site who will prepare management plan, control the regime, and implement conservation management. Payment of the service is foreseen. DOPPS – BirdLife Slovenia, the legal owner of the site with extensive references in conservation management, will sign the contract with MOP as the caretaker. This way the basic funding for the functioning of the reserve is secured in the after-LIFE period and keeping the employed LIFE staff, as well. However, salary for one FTE (warden) will be secured by the contract with the MOP, only. The rest of the DOPPS’ LIVEDRAVA staff will remain employed at DOPPS working on other projects and duties.
- DOPPS prepared common project with the Ormož Municipality and will be applied during the next LAS project call, probably in Mar 2018. “LAS” means – local action group. DOPPS is part of the group and can apply local development projects. Projects are funded from The European Agricultural Fund for Rural Development (EAFRD) that supports European policy on rural development. Prepared project is about further development of conservation management in the Ormož Basins NR, preparation of the handbook for teachers and creation of additional nesting requisites (e.g. platforms).

Nature Park

- With our knowledge and experience we supported Nature Park Središče ob Dravi through the project Pegasus (EU’s Horizon 2020 research and innovative programme, grant agreement No. 633814, <http://pegasus.ieep.eu/>). DOPPS proposed the selection of Nature Park Središče as a

pilot site among 34 sites in EU in the Pegasus project to the Biotechnical Faculty who is the Slovene project partner. DOPPS supported the faculty as part of BirdLife who is project partner, as well (C5_2_TD). The project aims to develop innovative approaches and new ways of thinking about the way farmland and forests are managed in order to stimulate a long-lasting improvement in the provision of public goods and ecosystem services from agricultural and forest land in the EU. Workshops were carried out with locals and information gathered to prepare innovative and perspective solutions for the farmers. Results were presented at a public event that supported the promotion of the proposed Nature Park. Through the Pegasus project international promotion, knowledge access, networking and support to our LIFE project action was achieved.

- DOPPS became member of the so called “LAS – local action group UE Ormož”, that groups together local stakeholders who can apply local development projects on national calls that are funded from The European Agricultural Fund for Rural Development (EAFRD) that supports European policy on rural development. DOPPS and Municipality Središče ob Dravi applied common project to develop touristic offer based on the natural heritage. Project was confirmed and contract will be signed in Jan 2018. It will last for one year.
- Municipality Središče ob Dravi was included into cohesion project “Drava” prepared by Maribor Development Agency and ZRSVN. Large portion of riparian forests will be purchased by the state from the locals to secure conservation objectives at Natura 2000 Drava and additional education infrastructure will be placed in the site. The nature-conservation activities remains present and viable in the municipality. The project will start in spring 2018.

C.6 - Removal of illegally built fishing and hunting platforms at Lake Ormož

Activities/outputs/by whom

- DOPPS sent tender call and contract draft for this action to 2 Croatian organisations on 13th Feb 2013. We received 2 complete offers in time. Organisation offering best references and value for the money – BIOM – was selected as the sub-contractor. Contract was signed.
 - Association BIOM provided report on their activities:
 - Leaflet (2,500 copies) and poster (2,000 copies) were produced in 2013 and digital copy was uploaded for free download at <http://www.biom.hr/vijesti/plakat-i-letak-livedrava/>
 - Printed materials were distributed among local organisations:
- | | |
|---|---------------------------|
| Zaštitarsko-ekološka organizacija Nobilis (local NGO) | 300 posters, 600 leaflets |
| Udruga Franjo Košćec-Varaždin (local NGO) | 200 posters, 400 leaflets |
| Varazdinska County public institutions | 50 posters, 100 leaflets |
| Medjimurska County public institutions | 50 posters, 100 leaflets |
| Hotel Podravina (Koprivnica) | 50 posters, 100 leaflets |
| ŠRK Cestica (local recreational fishing organisation) | 200 posters, 200 leaflets |
| Prva Gimnazija Varaždin (high school in Varaždin) | 50 posters, 50 leaflets |
| Druga Gimnazija Varaždin (high school in Varaždin) | 50 posters, 50 leaflets |
| Udruga mladih Hiperaktivni Cestica (local NGO) | 50 posters, 50 leaflets |
- Contact with the Directorate for Nature was established. In the beginning of Jan 2014 contact with two environmental NGOs, Zaštitarskoekološka organizacija Nobilis and Udruga Franjo Košćec-Varaždin, was established. Their members showed interest for future cooperation and they stated their willingness to help. On 4th Feb 2014 BIOM send two letters to the local representatives of the national electricity company Hrvatska Elektroprivreda (HEP) and to the national water management company Hrvatske vode (HV). Both were asked to clarify their responsibilities at Lake Ormož and to give their positions on illegally erected hunting platforms. In the end of Feb 2014 replies were received. Hrvatske vode stated they are not related in any way with Lake Ormož area. HEP stated they are the only one responsible for management of the

Lake Ormož area. HEP was planning to build an artificial island on Lake Ormož in order to solve the problem of the accumulated sediment. For that action HEP established a working group whose members were representatives of various state and public institutions and companies (Public institution for the management of protected areas of Varaždinska County (PI), Hrvatske vode, State Institute for Nature Protection (SINP), etc.). Most important information from the above mentioned letter is that HEP never approved or supported building of hunting platforms and that those are illegally built.

- BIOM went regularly to the Lake Ormož area in order to monitor illegal killing of birds. Group of at least three BIOM members visited the area on 4th Jan, 11th Jan, 18th Jan, 19th Jan and 26th Jan 2014. In all five occasions no illegal killing of birds occurred although signs of poaching were recorded (wire fences on gravel islands).
- DOPPS members produced *ad hoc reports* from the field regarding problems we were solving in this action.
- Nature protection inspector Mr. Hrvoje Stunković was approached to prepare an official act order for HEP – Hrvatska Elektro Privreda (Lake Ormož manager) to remove the platforms. Additionally, as HEP had to make Appropriate Assessment for their maintenance works on Lake Ormož, State Institute for Nature Protection (SINP) was contacted to include removal of illegally built platforms as the mitigation measures. By the end of July 2014 two official documents were issued giving obligation for HEP to remove illegally erected platforms.
- In Nov 2014, during the maintenance works, HEP removed all illegally built platforms at Lake Ormož. After the removal of platforms contact was established with Hunting inspectors. Between 17th and 22nd Nov 2014 multiple phone conversations took place with inspectors Vedran Zlatar and Davor Cesarec.
- There were no signs of hunting activities between Nov 2014 and Dec 2016. However, DOPPS' ornithologists recorded during regular monitoring (D.2) that larger amount of corn was placed on the lake's dyke as the duck bait, and new hunting hide was erected on the Croatian side. After informing responsible Croatian authority the hide and corn were immediately removed on 16th Dec 2016.

Objectives, plans assessment/indicators

- BIOM, a Croatian non-governmental organization and a BirdLife partner engaged in implementing actions at Lake Ormož. They took care of the official procedures and managed to achieve the removal of all illegally built platforms in 2014. Additionally, they performed an extensive awareness raising campaign, in which 2,000 posters and 2,500 leaflets were distributed in order to inform the wider public about the importance of the Drava River and abolition of illegal hunting.
- After the abolition of illegal hunting, the populations of overwintering waterbirds significantly improved as showed DOPPS' monitoring (D.2). In the autumns and winters (Sep-Jan) of 2012/2013-2014/2015, only 2,300-4,300 waterbirds were recorded on the lake on average, whereas in the first season after the hunting abolition (2015/2016), this number rose to 7,300 waterbirds, with the highest numbers in November even exceeding 10,000 individuals.
- The action reached its main objective even before planned. According to the project we had to remove platforms by Oct 2015 but we managed to remove them a year before.

Modifications

- No

Problems/consequences/solutions

- It took us slightly more time than expected to find an appropriate sub-contractor in Croatia, therefore they started to work with a delay (contract signed 15th Apr 2013) regarding planned in application - Oct 2012.

- Therefore, a minor delay was present in printed informational and educational materials – planned to be finished by the end of April 2013, but were in May 2013.
- There was significant, and according to some ex. events well grounded (hunter's inspector being killed by poachers not so long ago), fear present prior to removal of the platforms. Responsible persons and workers were afraid that local poachers will revenge. However, luckily, so far no such actions happened after the removal of platforms.

Complementary actions/after-LIFE perspectives

- The action is the first legal case of such a type in Croatia and a precedent considering nature-conservation regulation in Croatia. We hope it will be followed by similar initiatives elsewhere in Croatia.
- DOPPS' staff Luka Božič was witness for the prosecution at the Croatian court case of illegal bird killing at the Lake Ormož. Final trial was on 5th Sep 2014. For the first time after more than 30 years of illegal killing at the Lake Ormož offender was convicted guilty.
- In Oct-Nov 2014, a breeding island was created for the Common Tern in the Croatian part of Lake Ormož, thus critically contributing to the realization of the project goals, even though the action was not financed by the project but stimulated and supported with DOPPS' experiences from Lake Ptuj.
- Ecological traps for the Common Tern at Lake Ormož were removed and an average of 63 pairs bred annually on the newly constructed island in 2015-2017.



Fig. 6: Removal of illegal hunting hide and poster printed in the campaign against illegal hunting.
Photo: HEP

C.7 - Creation of new artificial breeding island for Common Terns at Lake Ptuj

In project modification the action was excluded but it was carried out anyway and independently by DEM as the project's added value. Despite that fact, we briefly report on its realisation.

Activities/outputs/by whom

- DEM published a public call (JN10990/2013) at the public tendering portal on 30th Aug 2013, deadline for bids was 17th Sep 2013. In the part E of the call, building of 2 gravel breeding islands for Common Terns was ordered.
- Contract was signed with the best offerer, company FIRA d.o.o.
- Works started in summer 2014 and were finished by Sep 2014.
- 2 breeding islands were built on Ptuj Lake, of total surface 2,100m². Islands are covered with fine gravel layer.

- On 3rd Sep 2014 final technical check was carried out by the investor, building company, engineers and DOPPS, where it was concluded that islands are suitably built according to the nature-conservation requirements.

Objectives, plans assessment/indicators

- Objectives were reached. Even more. In our first application building of a single island was planned. Now two such islands were built. Position of one of them is exactly on the planned place, in such a way that the observation tower built under action E.9 directly face the Common Terns' colony.

Modifications

- In project modification this action was excluded from the project due to partnership changes. DEM, originally project partner, changed its role to co-financer. And as this was their action it was removed from the project.

Problems/consequences/solutions

- No problems. Originally, building of a single island was planned for Jul-Oct 2013 and covering it by final gravel layer by Sep-Oct 2014. In reality, building and finishing with gravel of both islands was carried out from Jul-Sep 2014.

Complementary actions/after-LIFE perspectives

- Islands present a new and important tourist attraction of Ptuj Municipality and will contribute to the development of nature-conservation tourism in the region.

C.8 - Conservation management of the breeding islands at Lake Ptuj

Activities/outputs/by whom

- DOPPS purchased equipment needed to carry out the action – one motor schyte (brushcutter) and 2 motor chains. To carry out the action, we used rubber boat with motor and car trailer for boat transportation purchased under D.2, too.
- According to the proposal, DOPPS carried out 5 total autumn cleanings of vegetation (20th Oct 2012, 28th Sep 2013, 20th Sep 2014, 27th Sep 2015, 17th Sept 2016), and 5 spring preparations of the breeding islands (2nd Apr 2013, 14th Mar 2014, 1th Apr 2015, 1st Mar 2016, 24th Mar 2017). Spring preparation included mowing, placing of foil and strings to favour Common Terns on part of the breeding island, setting wire fence to prevent chicks falling into the water and placing chick shelters to increase survival rate. Additionally, on 20th Nov 2015, two New islands at Lake Ptuj were wire fenced as part of the management of Common Tern breeding habitat.
- Impact of conservation management focusing especially on effect of different management techniques has been thoroughly analysed and evaluated by DOPPS staff at the internal workshop. After final analysis in Mar 2017, guidelines were prepared for the most effective continuation of the management, which is crucial to preserve population of Common Tern in Slovenia.

Objectives, plans assessment/indicators

- Existing “old” islands (Large island, Small island) were mown and cleaned of vegetation twice per year and breeding ground prepared for the Common Tern breeding. The objective was fully realized.
- We planned to mow New island built under C.7 for the first time in Sep 2014. As two new islands were built in Sep 2014 there was no need to mow them in Sep 2014, but it was necessary to

remove vegetation in the next years. Therefore, we cleaned them on 27th Sep 2015 and 17th Sep 2016. As already mentioned, during the monitoring in the breeding season 2015, it turned out that placing of wire fence could improve performance of the breeding habitat. We fenced both New islands on 20th Nov 2015.

- As a result of improved management, 118 pairs of Common Tern bred at Lake Ptuj in 2017, which is the largest number in the last 14 years. The average number of breeding pairs with the improved management in LIFE (2013-2017) was 82, whereas prior to it (2004-2012) the number was 54. Thus, the population was increased by 52% during the LIFE project. Altogether, 55 volunteers and staff participated in the management, and invested 661 man-hours to preserve the Common Tern. The construction of two New gravel breeding islands (total surface 2,100m²) at Lake Ptuj in 2014 contributed considerably to this result, although this action was not financed as part of the project.

Modifications

- No

Problems/consequences/solutions

- No

Complementary actions/after-LIFE perspectives

- At Lake Ptuj some Common Tern and Black-headed Gull pairs breed on two concrete power line platforms, too. The platforms function as ecological traps if not designed or equipped as safe breeding sites. As old platforms, that were turned to safe breeding sites by DOPPS in the past, were destroyed and new built during the time of LIFE project, we had to fit new ones with wire fences and chick shelters again. On 1st Mar 2016 wire fence and chick shelters were placed on two power-line platforms. The action was carried out in cooperation with ELES company responsible for Slovenia's electric power transmission system. ELES staff even joined DOPPS team on the action and together we placed fences and shelters on the platforms.
- We included volunteers into the management to give them the opportunity to do concrete hands-on conservation by themselves and to raise their awareness about importance of conservation management. People of all profiles joined the conservation work. We prepared short motivation film from the Common Tern islands' management (<https://youtu.be/P3clVII-PA>). Picture from the action has been published in the publication of the EU "LIFE and new partnerships for nature conservation" (page 24) to illustrate how volunteers are vital to success of LIFE Nature and Biodiversity.
- Short animation film was prepared by DOPPS' youth about conservation problematic of Common Tern at Lake Ptuj and presented at the public youth event in Ormož on 25th Nov 2012. Animation is available at: <https://www.youtube.com/watch?v=qTrfql-HehQ>
- Continuation of the management with Common Tern breeding sites at Lake Ptuj is secured through our strong network of volunteers willing to contribute their time and skills and through DOPPS' strong dedication to preserve the Tern population. Later manifested in establishment of Slovenia-Croatia cross-border group of researchers and conservationists interested and active in Common Tern conservation. The group successfully applied Interreg Slovenia-Croatia project "ČIGRA" ("Čigra" meaning in Slovene and Croatian "Tern") that started in Sep 2017 and will end in Feb 2020 (<http://ptice.si/cigra-2017-2020/>). Our LIFE results – guidelines for Tern management - were of significant importance during the project preparation as we will transfer our LIFE experiences of Tern conservation to Croatian colleagues within the ČIGRA project. Besides knowledge transfer and common Tern database, DOPPS will continue conservation management of the islands, promote Tern's conservation through international education camp with young, organize Tern "open-days", place additional education boards at Lake Ptuj, publish magazine dedicated to Common Tern, continue and extend research within the ČIGRA project. So in the

next years of after-LIFE period we will even intensify our work on Common Tern including conservation, research, promotion/education and capacity building aspects.

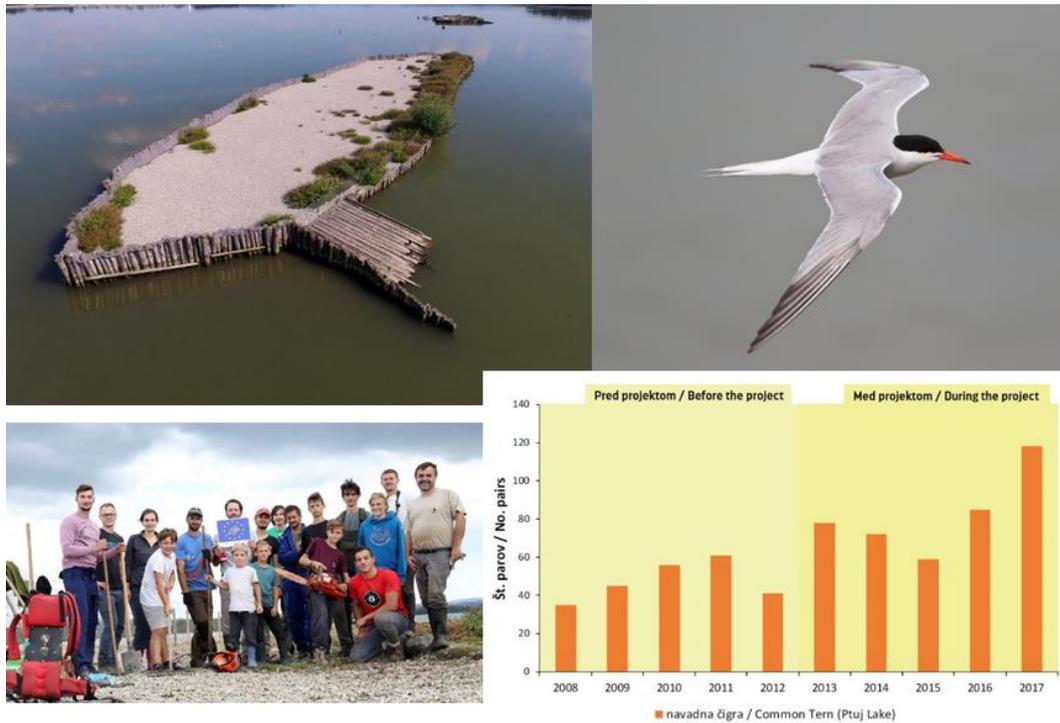


Fig. 7: Improved management of the Common Tern breeding islands resulted in significant increase of the Tern's population at the SPA Drava. Photos: T. Basle, J. Novak, D. Denac

C.9 - Restoration of the river branches

Activities/outputs/by whom

- After normalization of large discharge that caused severe floods in Nov 2012, DOPPS staff carried out a field survey (on 28th Nov 2012) to check the effect of the flood on the river branches and gravel bars. We found out that despite the large discharge the branch at location Vurberg (both names are correct Vurberk and Vurberg, but Vurberg seems to be more proper) remained closed and the restoration action was necessary.
- Opening of the river branch along the right bank of the Drava River near Vurberg began in Aug 2014 and continued into the autumn and winter months. Firstly, undergrowth was cleared and biomass removed by truck. Later the sediments and alluvium were dug and removed. The river branch and the surroundings were organized and cultivated mechanically. The silt sediments with organic matter (roots, grass clippings) were removed from the riverbed and gravel material was placed on the surface of the dunes embankment. The flow in the river branch was re-established in Feb 2015.
- Between Nov 2014 and Jan 2015 on the left bank of the Drava River («Zumrova jama») there was the stone embankment insurance (riprap) removed. Bare and steep slope was made, temporary access roads were removed.
- In Jul 2015 preparations for restoration of the river branch at location Nova vas pri Markovcih (or just Markovci) started and in Aug 2015 started the field works – clearing of vegetation, arrangement of access roads, excavation and removal of redundant material and levelling of the river banks. At the line of river branch Markovci three objects were built, road passage, pipe passage and an inflowing object. All the works at the river branch were executed in the timeframe from Aug until the end of Oct 2015.

- In the second half of Oct 2015 the works of setting-up of the river branch at the right river bank of Drava, opposite to Mala vas in Gorišnica Municipality, began. After studying of the project documentation, joint field supervision and harmonization meeting the field works started – tracing of the terrain, clearing of the vegetation, excavation of the river bed, removal of redundant material, setting-up of the river banks and levelling of all surfaces. At the closure of the works the cut-off of the access road was made and the access obstacle was set-up (tree trunk was placed). All the works on the river branch Mala vas were completed by the end of Jan 2016.
- In Apr and May 2016 the restoration of damaged pipe passage at the river branch Markovci was done, according to renewed design and plan.

Objectives, plans assessment/indicators

- Objectives were reached and the action was successfully concluded. Three river branches (side arms) that were connected to the riverbed in the past and were fully or partially silted, were opened, restored and reconnected to the Drava River. Two were opened downstream (Vurberg, Mala vas) and are now functioning as river branches, whereas one was opened upstream (Markovci pri Ptuju), and is now functioning as a side arm. Their lengths are 500, 800 and 2,500m, respectively. Restoration works took place in 2014 and 2015. During the restoration, the ecological requirements of Natura 2000 qualifying fish species were carefully considered, i.e. the Bitterling, Spined Loach, and Asp.
- Fish monitoring revealed that the ecological conditions for the fish species improved after the carried out restoration. The Bitterling population became more stable and less vulnerable. The preservation of cut-off channels, side arms and deep sections of the Drava is crucial for the successful conservation of Bitterlings, Spined Loach and Asps. In the immediate vicinity of all three sites, 1-2 Kingfisher territories were re-established after engendering their optimal foraging habitat, amounting to 3-5 pairs in the entire project period, which mean 15% increase of the SPA Drava population.
- Habitat type 91E0* - Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*) is listed in Annex I of HD. This priority habitat type covers 13.2km² of SCI Drava. With the opening of sidearms we enhanced ecological conditions along all three branches, in total length 3,800m and app. 50m wide, which is 19ha surface area and more than planned (app. 15ha).

Modifications

- In the modified project there was a new timeframe to reach the action's objectives:
- Aug-Oct 2014 - To restore river branch at location Vurberg and remove lateral embankment at the same location. This was carried out with slight delay, river branch was connected to the main stream in Feb 2015, and riprap completely removed in Jan 2015.
- Aug-Oct 2015 - To restore river branch at location Markovci. Carried out as planned.
- Aug-Oct 2016 - To restore river branch at location Mala vas. Carried out before planned, by the end of Jan 2016.

Problems/consequences/solutions

- The main problem was the fact, that the year 2014 was exceptional in terms of frequency and intensity of rainfalls and water levels in rivers. Planned works were executed in the Drava River, but the wet terrain obstructed the access of construction machinery. Extreme water levels of the river temporarily stopped the execution of the plan. In Aug, Sep, Oct and Nov the rainfall amount was much above average, in the period between 6th and 10th November there were floods around the Drava River. At this time it was necessary to withdraw all construction machinery from the riverbed and to fully stop the work. The stream flow reached 1,318m³/s. The major part of the mechanical work was therefore executed in Jan 2015, in autumn 2014 it was only possible to carry out the manual work - chopping and sawing of vegetation. In mid-Feb all planned work

was completed successfully. However, the insignificant delay of the implementation of actions near Vurberg and »Zumrova jama« did not affect the objectives.

- During the works at the river branch Markovci increased discharge damaged pipe passage at the river branch in autumn 2015. After discharge normalization the pipe passage was repaired. In Nov 2015 the pipe passage was damaged again by larger discharges. VGB redesigned the passage, which predicted reinforced protection with concrete and the addition of geotextile. In Apr and May 2016 pipe passage was rebuilt according to renewed design.
- Although unplanned, supervision of VGB engineers turned to be important at the working sites (engineers' supervision) to assure works were carried out following the blue-prints.

Complementary actions/after-LIFE perspectives

- A larger lateral stone enforcement, riprap, was removed on the Drava left bank at Vurberg, enabling the natural creation of a sand bank. This pioneer action, performed for the first time in Slovenia, is paving the way for more sustainable water maintenance works in the riverbed, serving a double function of flood safety and nature conservation.
- Local fishermen appreciated opening of river branches, especially at the Markovci location, arguing that such habitat restorations should be more frequent as fish populations dramatically declined after the hydropower plants what they experienced by themselves.



Fig. 8: River branch at location "Mala vas" before (above left) and after (above right) the restoration. Positive effect on populations of Asp (left), Bitterling (middle) and Kingfisher (right) was achieved. Photos: D. Denac, L. Božič, M. Govedič, M. Tiefenbach, J. Novak.

C.10 - Preparation of the river banks for breeding of Kingfisher and Sand Martin

Activities/outputs/by whom

- 2013: 8 breeding sites for Kingfisher and Sand Martin were created along the Drava River. Four on 6th Apr 2013 – one close to Zlatoličje channel (length 100m), and three between Starše and Zumrova jama (two smaller 25m long, and one larger 150m long). Three breeding sites were created on 13th Apr 2013 – all close to the village Središče ob Dravi (each site 100m long), and one on 19th Apr 2013 in a gravel pit Jurkovec close to Drava River in Ormož (100m long).
- 2014: 7 breeding sites were created. (1) on 5th Apr 2014 – in Hajdoše, length 50m, (2) on 6th Apr 2014 in Zlatoličje, length 125m, (3) on 6th Apr 2014 in Zumrova jama I, length 10m, (4) on 6th Apr 2014 in Zumrova jama II, length 20m, (5) on 6th Apr 2014 in Mala vas, length 20m, (6) on 19th Apr 2014 in Središče ob Dravi I, length 20m, and (7) on 19th Apr 2014 in Središče ob Dravi II, length 20m. 20 volunteers were involved in the creation of all sites.
- 2015: 5 breeding sites were created. Two on 28th Mar 2015, one at Zumrova Jama (20m long) and one near Zlatoličje (90m long). One breeding site was created in gravel pit Jurkovec near Drava River in Ormož on 21th Mar 2015 (10m long) and one near Mala vas on 6th May 2015 (20m long). One breeding site was excavated near Hajdoše in April 2015 (50m long). More than 15 volunteers were involved in the creation of all sites.
- 2016: 4 breeding sites were created. Two on 10th Apr 2016 – one at Mala Vas (60m long) and one near Zlatoličje (10m long). One breeding site was created in gravel pit Jurkovec near Drava River in Ormož on 17th May 2016 (10m long). Breeding site was also excavated near Hajdoše in April 2016 (50m long). More than 19 volunteers were involved in the creation of all sites.
- 2017: 3 breeding sites were created. One on 25th Mar 2017 at Mala Vas (45m long) and two more - in Hajdoše (50m) and Jurkovec (10m). 21 volunteers were involved in the creation of breeding walls.
- Using data from the bird monitoring D.2 and documentation from the annual river bank management, the success of the management was analysed.

Objectives, plans assessment/indicators

- Our efforts yielded an average of 574 breeding pairs of Sand Martins (in the 2013-2017 period), which is a threefold increase of the SPA population compared to the long-term average of 194 pairs in the 2000-2012 period. After more than 20 years, the Sand Martin is once again a regular breeder along the Drava River between Maribor and Zavrč. The number of cleaned banks varied annually from 2 to 8, whereas their total length was a max. 700m. In the same period, the Kingfisher population increased by 25%.
- With the action we exceeded planned conservation effect in the Sand Martin population. We planned to increase population at SPA Drava for 50-100%, but managed to increase it threefold or for app. 200%. Conservation effect in the Kingfisher population was exceeded, too. We planned increase in the project area by 10-20% but reached 25%.

Modifications

- No

Problems/consequences/solutions

- It turned out difficult to find 3 sites 300m, 200m and 150m long to create breeding places for the two species every year. During the monitoring for the Little Ringed Plover we mapped all suitable (right material, normal access, size) river banks for the creation of breeding walls. Situation was changing between years but all suitable banks were prepared every year under this action.

Complementary actions/after-LIFE perspectives

- Students regularly attended volunteer actions to prepare the breeding banks for Sand Martin and Kingfisher. In 2014, student Kim Fijok prepared a short film from this project action that she used as part of her seminar exam at the courses of “Introduction to nature conservation” at the Faculty of Natural Sciences and Mathematics in Maribor. Film is available on: <https://www.youtube.com/watch?v=DgwA5G4ABek>
- Short trailer “Volunteers for river bank management” was filmed at Mala vas on 10th April 2016 and was uploaded on YouTube: <https://youtu.be/NuL5U1nlfNs>
- Continuation of river bank management and annual cleaning of breeding walls for Sand Martin and Kingfisher is secured through DOPPS’ network of volunteers.



Fig. 9: With the management of river banks – creation of sand walls – we increased population of Sand Martin (left) threefold. Photos: T. Basle, J. Novak

C.11 - Management of gravel bars for the breeding of the Little Ringed Plover

Activities/outputs/by whom

- Removal of vegetation and creation of optimal breeding habitat for Little Ringed Plover and Common Sandpiper at the gravel bars has been foreseen twice in the project: (1) 2013-2014, (2) 2015-2016.

First removal

- DOPPS applied for all the necessary permits to carry out vegetation removal on gravel bars in Sep 2013. All permits were obtained, but due to the short timeframe – works were allowed until 15th Nov only – DRAVA could not carry out the action in the field on all gravel bars.
- In Oct 2013 vegetation at location Mala vas was removed only.
- Following DOPPS' monitoring an exceptional period (until 15th Apr) was given by the authorities to carry out the action. In the period 1st-7th Apr 2014 DRAVA managed to remove vegetation on one more gravel bar - at location Starše.
- DOPPS obtained all permits for the vegetation removal at the remaining 3 gravel bars. Removal of vegetation at locations Vurberk, Hajdoše and Dravci was carried out in Oct and Nov 2014.

Second removal

- DOPPS obtained all permits for the second removal of vegetation. The second removal was carried out by DRAVA at four gravel bars (locations Starše, Vurberg, Borl (replacement site) and Mala vas) in Oct and Nov 2016.

Objectives, plans assessment/indicators

- At selected gravel bars in the locations of Starše, Vurberg, Hajdoše, Dravci, Borl and Mala vas, woody vegetation encroaching upon the gravel bars was removed in an innovative way, thus maximizing the surface of bare gravel - shingle habitat - without the admixture of soil and minimizing its further encroachment. Vegetation was removed twice: in 2013/2014 and 2016. Shingle habitat was significantly improved. Cleaned gravel bars are now serving as optimal habitat for Little Ringed Plovers. Objectives were reached.
- In application we planned to create 7ha of shingle habitat. In the first removal we created 8.2 and in second 10ha of it, so we managed to exceed values planned in the project (Table 1).
- With the action we managed to increase the number of breeding Little Ringed Plovers at these gravel bars from an average of 8 pairs before the management (for the years 2006, 2009-2013) to an average of 25 pairs afterwards (for the years 2014-2017). We thus increased the total population of the Little Ringed Plover at the SPA Drava by 35%. In application we forecasted 30 - 40% increase. Furthermore, 6 pairs of Common Sandpiper also bred at these locations (circa 20% of the entire SPA population). New methods of maintaining bare gravel bars were developed, simultaneously enhancing Natura 2000 species and ensuring better flood safety.
- Results of bird monitoring at the gravel bars and effect of the action upon populations of the indicator riverbed breeding species were thoroughly elaborated and published in the scientific article in peer reviewed journal *Acrocephalus* (see D.2).

Table 2: Data about surfaces of gravel habitat at the gravel bars under management in LIVEDRAVA

Gravel bar location	Gravel habitat before 1st resoration (m ²)	1st restoration	Gravel habitat in first breeding season after 1st restoration (m ²)	Gravel habitat before 2nd restoration - situation 2016 (m ²)	Year of 2nd restoration	Gravel habitat in first breeding season after 2nd restoration - situation 2017 (m ²)
Starše	2540	2014	8958	1350	2016	13516
Vurberg	2617	2014	16639	10718	2016	19838
Hajdoše	784	2014	5459	1571		671
Dravci	3807	2014	8081	5376		5026
Borl				7671	2016	15400
Mala vas	6910	2013	43279	37274	2016	45715
Total	16658		82416	63960		100166

Modifications

- In the original application, the first phase of bush removal was divided into 2 years - 2012 and 2013. After the modification we prolonged the first phase to 2013-2014.

Problems/consequences/solutions

- During the evaluation process, the Commission financially reduced this action by 90%. Details were described in the project modification request.
- It turned out that the part of first bush removal was planned unrealistically too early – between Sep-Oct 2012. It was impossible to get all the permits for the management of gravel bars so soon after the beginning of the project.
- It turned out as well – after our discussions with staff of similar LIFE project in Austria - that manual removal of tree stumps from the gravel bars will not be possible. Therefore we proposed relocation of funds for this action within project modification request.

- There were no technical problems in implementation of the action. However, we need to expose the influence of flood on gravel bar situation in 2014. Large discharge and flood occurred on Drava River between 6th and 11th Nov 2014, soon after the works in Oct 2014. Largest discharge (1,300m³/sec) happened on 7th Nov 2014 and it completely flushed away gravel bar at Dravci location where removal of vegetation took place. On the other hand, the same flood significantly enlarged (from 0.34ha to 0.7ha) another gravel bar nearby by bedload transport from the gravel bar managed under the action), and enlarged both two gravel bars in Vurbeg and Hajdoše from 1.5 to 2ha and from 0.55 to 0.8ha, respectively. All mentioned events must be seen as a natural process of the Drava River. Flood improved fine habitat structures on all gravel bars, too. During the large floods morphological changes in the riverbed are unpredictable and we evaluate effects of this flood positive. In total available and optimal surface area for the Little Ringed Plover is now significantly larger.
- There was no need to start second removal in 2015 already as the first removal was very successful and practically no bushy vegetation was present in 2015 at the gravel bars. Therefore we carried out second removal completely in 2016.
- However, selection of gravel bars included in second removal of vegetation was partially modified for the following reasons: (1) monitoring under D.2 revealed that vegetation progress at site Dravci, managed in October 2014 was only very slight. As of breeding season 2016, gravel bar was still an optimal nesting habitat for Little Ringed Plover and Common Sandpiper and it was judged currently no management is needed. (2) Surface area of gravel bar at Hajdoše was significantly reduced during last floods and it was no longer an important nesting site for either of the targeted species (no breeding pairs in 2016).
- The newly included replacement gravel bar at location "Borl" ranks among the most important sites for targeted species along the entire project area. Up to 9 pairs of Little Ringed Plovers and 3 pairs of Common Sandpiper nested here in previous years. In 2016, however, substantial encroachment of woody vegetation was detected on higher part of the gravel bar, while downstream section was almost entirely covered by tall herbs initiated on firmly established layer of organic matter. It was assessed that appropriate management is required on time to restore its predominantly vegetation free, bare shingle habitats for years to come. Moreover, area of replacement gravel bar is 1.9ha, more than both omitted sites together (1.5ha).

Complementary actions/after-LIFE perspectives

- Mala vas was among 5 locations where gravel bars' management was foreseen in the project. That specific gravel bar was cleaned in Oct 2013 by DRAVA but the costs did not be charge to the project. As described above, the budget in this action was significantly reduced by the Commission in the original application and DRAVA was not able to carry out all project goals with that funds. To keep and realize objectives they decided to clean that gravel bar through "2012 flood intervention funds" (Slovene = Sanacijski program po poplavih 2012) of the Ministry for Agriculture and Environment.
- Project partner DRAVA implementing this action is at the same time responsible for the maintenance works in the Drava River riverbed. As our tested management turned in LIVEDRAVA to be more successful in preventing encroaching of gravel bars than the old way, DRAVA is convinced to use improved management in the after-LIFE period during regular maintenance works.

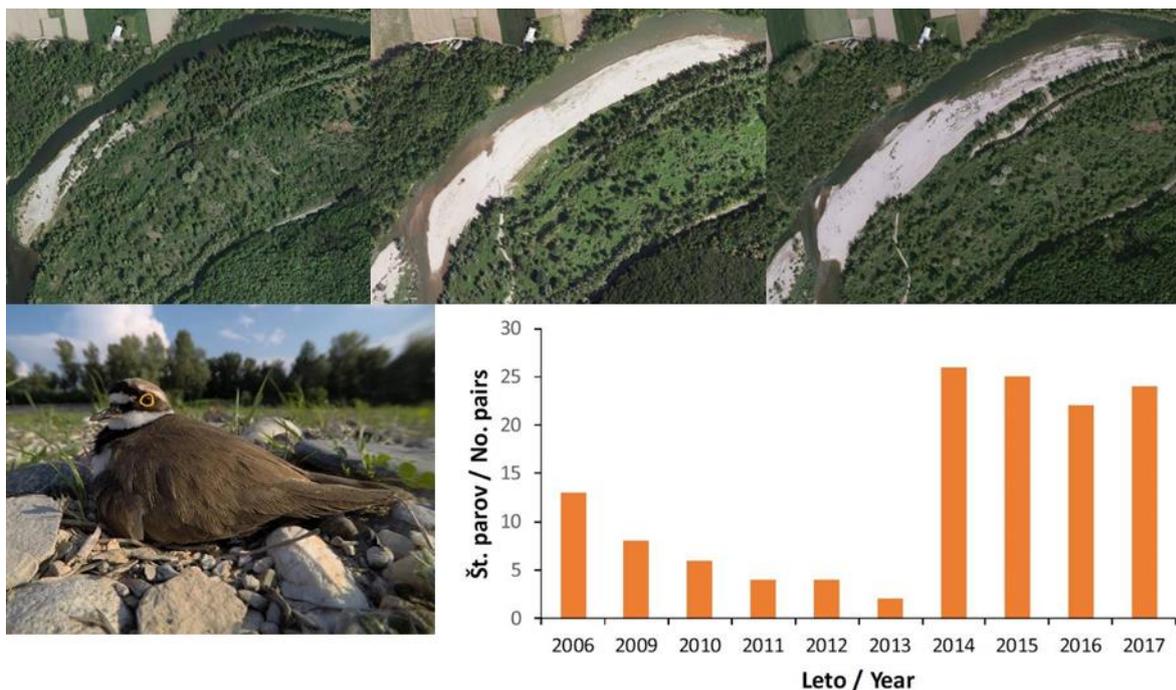


Fig. 10: Management of gravel bars – above gravel bar “Mala vas” before restoration (left), after first (middle) and second (right) removal of vegetation – increased Little Ringed Plover breeding population at the SPA Drava by 35%. Photos: GURS, T. Basle

C.12 - Reduction of human disturbance and destruction of bird breeding habitat at gravel bars.

Activities/outputs/by whom

- Co-ordination meeting was carried out on 23rd Jan 2014 between DOPPS and VGB where details were discussed regarding appropriate solutions for every location.
- Field excursion of VGB and DOPPS experts was carried out on 3rd Mar 2014 to check all locations.
- VGB prepared detailed description of works needed for every location in Mar 2014.
- In Mar 2014 VGB purchased anti-tank defenses that were planned as barriers at some locations.
- VGB obtained all necessary permits for the action, however Ministry for Agriculture and the Environment issued a decree allowing the placing of road gates only instead of anti-tank defenses. Despite our argumentation they did not change their position and the detailed implementation project had to be changed.
- In Nov 2014 VGB contacted potential sub-contractors to give offers to make road gates. JANEZ HORVAT s.p. was selected and a contract signed.
- In Dec 2014 DOPPS produced a proposal for the design of the notice boards.
- In Jan 2015 VGB organized transport of anti-tank defenses from army training area in Apače to Ormož Basins NR.
- In Jan 2015 VGB collected offers to print notice boards and to install them with road gates. Contract was signed with PINK OBLIKOVANJE s.p. to print the boards and with GRADBENI REMONT d.o.o. for installing them.
- After road gates and notice boards were finished, DRAVA started with implementation. At 5 locations (Starše, Hajdoše, Vurbek, Rošnja, Placerovci) ditches were excavated, at 1 location (second site Starše) earth was deposited and at 3 locations (Zumrova jama, Dvorjane and Placerovci) road gates were placed. At the same time GRADBENI REMONT d.o.o. placed notice boards at all 7 sites. Additionally, single notice board was placed at location Dravci to influence people’s behaviour at the site and potentially reduce negative disturbance impact. All works

were carried out in Feb 2015, except for the Placerovci location, where ditch was excavated in Sep 2015.

Objectives, plans assessment/indicators

- We prevented access to five gravel bars (Rošnja, Starše, Krčevina pri Vurbergu, Hajdoše, Placerovci) by excavating ditches that simultaneously function as smaller side arms or water bodies, thus improving local biodiversity, too. Access to three gravel bars (Dvorjane, Zumrova jama, Placerovci) was prevented by a road gate. At all locations, informative signs were erected to illustrate the importance of the measures.
- The extent of human disturbance at gravel bars decreased significantly – during the project, 4 pairs of Little Ringed Plover and 1 pair of Common Sandpiper on average bred as a result of this action.

Modifications

- VGB became beneficiary for the action after the modification.

Problems/consequences/solutions

- We have foreseen nine locations in application where we planned to prevent access to the gravel bars for motor vehicles. After normalization of large discharge that caused severe floods in Nov 2012 DOPPS staff carried out a field survey to check the effect of the flood on the accesses to the gravel bars. It was found that at two locations (Šturmovci, Dravci) the access on gravel bars is no longer possible, so additional measures were no longer necessary (except installation of notice board near of the previous accesses to the gravel bars by Dravci). Therefore 7 locations remained where access prevention measures were carried out.
- As already mentioned we had to change the original plan due to the Ministry decree. This caused some delay but without significantly influencing implementation and effect of the action.
- At location Placerovci excavation of ditch was planned in autumn 2014, but the works were not realized due bad weather. We finished the works between Aug-Sep 2015.
- For the very first time concrete measures were implemented on Drava River to reduce human impact due illegal gravel extraction and off-road driving. As people were never penalized for that destructive practices in the past they got used on them and we expected some “backfire” after starting arranging matters. In Mar 2015 notice board and road gate were damaged at location Placerovci. Damage was reported to the police. Road gate was repaired and board erected again. Soon after that the board was completely damaged and is not existing any more. All other boards were by the end of the project (Dec 2017) still fine and in function. However, when controlling gates, we noticed that lockers at 2 road gates were missing, at Dvorjane and Vurberg. New were placed.

Complementary actions/after-LIFE perspectives

- Road gates, boards and ditches will be regularly checked by DOPPS' volunteers during the field work in the Drava riverbed in the after-LIFE period. In case of silted ditches after the floods we will either try to open them by volunteer “hands-on actions” or, if not possible, try to achieve their opening during regular maintenance works in the riverbed for which DRAVA is in charge.



Fig. 11: Road gates and excavated ditches were used to prevent disturbances at the gravel bars.
Photos: U. Orešič, L. Božič, D. Denac, D. Bombek

D.1 - Evaluation of the habitat and species monitoring results (ecosystem approach)

Activities/outputs/by whom

- Activities were carried out by DOPPS' staff.
- General concepts of ecosystem services assessment were investigated (TESSA, CICES and MAES).
- Detailed examination of reports from actions D.2 to D.5 was done.
- Monitoring results from actions D.2 to D.5 were examined, compiled and analysed as necessary.
- An overview of project site elements, threats and conservation activities was done.
- Detailed, semi-quantitative assessment of impacts of project conservation activities on ecosystem structure and processes was elaborated.
- A detailed, qualitative assessment of ecosystem services within the SPA Drava was elaborated according to standardized CICES classification (general overview).
- A detailed, qualitative assessment of impacts of project conservation activities on ecosystem services in SPA Drava was added to the general overview of ecosystem services in SPA Drava.
- Final report was prepared in Dec 2017 (D1_1_DEL).

Objectives, plans assessment/indicators

All following objectives were achieved and tasks carried out:

- Assessment of cumulative effect of project activities on ecosystem services.
- Results of all monitoring actions (D.2–D.5) integrated in general ecosystem overview.
- The effect of project conservation activities assessed using standardized population indexes of the target species.
- The ecosystem services assessment carried out for the entire project area (SPA Drava).
- A report on the effect of project activities on ecosystem services of project area was produced.

Modifications

- No

Problems/consequences/solutions

- No

Complementary actions/after-LIFE perspectives

- No

D.2 - Impact of project actions on bird species

Activities/outputs/by whom

- Six types of bird indicators/specific monitoring were proposed in the project. DOPPS was responsible for all of them and prepared final bird monitoring report (D2_1_DEL).
- (1) Monitoring of waterbirds at Lake Ptuj, Lake Ormož and Ormož Basins NR was established. We purchased the necessary equipment – 5 binoculars, 2 telescopes. Protocols for standardized counts and maps were prepared, and regular counts carried out during entire project period in 10-day intervals. As verification we attached database with data from all counts for all 3 sites (D2_2_DB to D2_7_DB).

(2) Monitoring of the breeding numbers of Common Tern and Black-headed Gull was established. Rubber boat with motor and car trailer were purchased to carry out this monitoring and to carry out action C.8. Counting of the number of clutches were carried out during two visits (first in April - gulls, second in May - terns) in the managed breeding colonies every year. During the May count in 2014 a group of Common Tern researchers from Sweden joined us as part of LIFE networking (F.2). A camera system was installed on the Large island (see map C.8 in application) in March 2014 focusing on the Common Tern colony. Compilation of recordings from years 2014 and 2015 are available on the project web site and YouTube.
2014: https://www.youtube.com/watch?v=TSk1rtS5_oc
2015: https://www.youtube.com/watch?time_continue=3&v=gCJnClNBzi0
With this monitoring we were able to analyse the effects of action C.8 – conservation management of the breeding islands. As verification database is attached (D2_8_DB).
- (3) Monitoring of breeding riverbed birds was established. Counts were carried out with rubber boat without use of engine. For this monitoring we purchased one additional lighter small rubber boat without engine. We argue this decision by the fact that boat for the river monitoring should be light as it is often necessary to carry it, and not very valuable as it gets damaged usually on sharp stones and branches. The purchase was price effective, we did not exceed the costs for the boat, and the boat turned out to be very useful.
- Two to three counts were carried out every year in the riverbed of Drava River between Maribor and Zavrč. For this purpose entire section was divided into 3 sectors. Through this monitoring we evaluated the effect of actions C.10, C.11 and C.12. As verification source we attached database for Little Ringed Plover, Common Sandpiper, Kingfisher (D2_9_DB) and for the Sand Martin (D2_10_DB). Besides, we published an article “Population dynamics of five river bed breeding bird species on lower Drava River (NE Slovenia)” where we presented all the data from this monitoring in details (D2_11_TD).
- (4) Monitoring of all qualifying species for SPA Drava at Ormož Basins NR using mapping method was established. Mapping in the Basins was carried out annually between 2013-2017 (D2_12_DB to D2_15_DB) and in the forest part of the Reserve in 2013 (D2_16_DB).
- (5) Survival of Little Ringed Plover. Upon our request Slovenian Environment Agency (ARSO) issued us a permission (no. 35601-53/2013 – 4, dated 18th Apr 2013) for the performance of ecological study on Little Ringed Plover described under D.2 action, point 5. In the study, capture-recapture, colour ringing and placing of geolocators was done for which such a permission is needed. Purchase of geolocators was approved by the monitor. In the beginning of

2014, a detailed plan of the study and protocols were prepared, some experts consulted and equipment for ringing purchased. Colour- ringing scheme was coordinated with International Wader Study Group (reference no. 3094). Field work was carried out between early April and early August in years 2014, 2015, 2016. In total, 177 nests were found (most in early stage of incubation or during egg-laying) and their fate followed in 4-day intervals until hatching or failure. Outcome was carefully documented and possible causes of failure determined. In total 292 chicks were trapped immediately after hatching and ringed with brood-specific combination of one colour and metal ring. All broods were then checked every 4 days until failure of the last chick or until c. 25 days old, when we considered chicks fledged. In the case of failure the cause was determined when possible. Furthermore, total 113 adult birds were trapped during advanced stages of incubation period, using funnel traps and individually marked with a combination of 3 colour and 1 metal ring. The main purpose of this was to determine adult annual survival by measuring the return rate of marked individuals. At all potential or actual breeding sites in the study area human disturbance was monitored on a regular basis and classified according to the type, extent and impact.

- (6) Physiognomic characteristics of vegetation – mappings were carried out in November every year. Analysis is in the final bird monitoring report.

Objectives, plans assessment/indicators

- All objectives were reached. We got numbers, distributions and habitat use data of breeding and non-breeding populations of targeted bird species. We were able to evaluate effect of concrete conservation actions – C.1 & C.2, C.4, C.6, C.7, C.8, C.9, C.10, C.11, C.12 and published article on Population dynamics of five river bed breeding bird species on lower Drava River. For the first time we carried out detailed demographic study of the population of Little Ringed Plover and results are of significant conservation importance for this species. Not only for Slovenia, but for entire Middle Europe.

Modifications

- No

Problems/consequences/solutions

- Camera for monitoring of Common Tern colony was placed at the Large island that we managed under C.8 and was working in the years 2014 and 2015. Solar power station for the camera was demolished by the strong wind In Feb 2016. Reparation was impossible due to start of the breeding season. Therefore, the system did not work in 2016. However, two new Common Tern breeding islands were built in 2014. As the colony of Common Terns moved to the New (gravel) island #1, we repaired and displaced entire system to the New island in Mar 2017 where it was operational again.
- It was planned in the proposal that monitoring will end on 31th Aug 2017. However, as the additional water supply system start to work in Jul 2017, and it was clear that immediately diversity start to recover, we decided to continue monitoring by the end of the project and record the changes in this important phase. If not continuing monitoring we would be unable to argue improved stopover importance in the first waterbirds migration period after restoration – autumn 2017.
- Several unexpected but cheaply consumable costs occurred during the monitoring – printing of maps for mapping, strings for geolocators placing, wires and accessories for Little Ringed Plover traps etc.

Complementary actions/after-LIFE perspectives

- We will be able to continue part of the monitoring of the Common Tern population through the Interreg Slovenia – Croatia project “Čigra”. We explained more about the project under after-LIFE perspectives of C.8 action.
- During the grazing management works (C.4), European Pond Turtle (*Emys orbicularis*) was re-discovered in Jun 2017 in the Basins after more than 20 years, which is contributing to the overall conservation importance of this site. The last known data from the area was from the period 1990-1995. See article: Govedič, M, Vogrin, M., Bordjan, D., Bombek, D., Denac, D., Gregorc, T, Janžekovič, F., Kirbiš, N. & Vamberger, M. (2017): New data on distribution of the European pond turtle *Emys orbicularis* (Linnaeus, 1758) in the Podravje region (NE Slovenia). - NATURA SLOVENIAE 18(2): 77-82.

D.3 - Impact of project actions on beetle species

Activities/outputs/by whom

- A tender call was carried out to search for an appropriate sub-contractor for beetle monitoring. We received two offers, selected National institute of Biology (NIB) as the sub-contractor, and signed a contract in 2013. Additionally, call was carried out to find the best sub-contractor for the water habitat features monitoring. Contract was signed with the University of Ljubljana, Biotechnical Faculty in 2014.
- NIB started field work in 2013. Fieldwork included sampling for the inventory of species along the Drava River (*Cucujus cinnaberinus*), monitoring of abiotic and biotic parameters on experimental area of renaturation (*Cucujus cinnaberinus*) and supporting research of ecology of *Graphoderus bilineatus* at the location Spodnje Krapje along the Mura River. Examination of fallen trees was carried out to check the occupancy by *Cucujus cinnaberinus* larvae in the area of Ormož Basins NR. The larvae were found. In the area 5 intercept window traps were set in each site defined under C.3 action – semi-optimal, sub-optimal and optimal. All together 15 traps were set and weekly checked. Traps for water beetles were set in the area.
- Subcontractor produced intermediate reports for 2013, 2014, 2015, 2016 and final in Dec 2017 (D3_1_DEL). Besides report, database and data locations are attached (D3_2_DB & D3_3_DB).
- For the spatial modelling and conservation management outlines for *G. bilineatus* and *C. cinnaberinus* additional sub-contractor, Slovenian Museum of Natural History, was selected in 2016. Subcontractor delivered final report in Dec 2017. (D3_4_TD)
- University of Ljubljana Biotechnical Faculty finished study for the water habitat features in Aug 2017. (D3_5_TD)

Objectives, plans assessment/indicators

- Monitoring explained effects of ecological experiment under C.3 action and generally contributed the knowledge and conservation importance of beetle fauna for Natura 2000 Drava. All together more than 170 beetle taxa were recorded in the area, among them 87 saproxylic taxa. One species was recorded for the first time for Slovene beetle fauna - *Acupalpus interstitialis*.
- In the Ormož Basins NR between 2014 and 2016, *G. bilineatus* species was not confirmed, but five other water beetle species of conservation concern: *Dytiscus dimidiatus*, *Hydrophilus piceus*, *Hydrophilus atterimus*, *Cybister lateralimarginalis* and *Agabus bipustulatus*. The highest number of taxa (46) was found at Basin III in all four years.
- With the research the presence of Flat Bark Beetle (*Cucujus cinnaberinus*) was confirmed, both with the review of underbark fauna along the Drava River as well as with the traps positioned in the area of renaturation in Ormož Basins NR. Based on the data obtained from the overview of

saproxylic beetle fauna, kernel density for the display of population strongholds of the *C. cinnaberinus* was calculated. The flood forest between the gravel pit and the Ormož Basins NR and the lowland forest Šturmovci turned out to be the most important population strongholds of the *C. cinnaberinus* on the lower Drava.

- Within the framework of the sampling in 2014, the Hermit Beetle (*Osmoderma eremita*) was confirmed for the first time along the Drava River at two locations: Videm by Ptuj and Markovci.
- Study of Slovenian Museum of Natural History is a complement to the research and monitoring of three species of beetles of European conservation concern in the project area of LIVEDRAVA, with a special emphasis on the Ormož Basins NR: *Graphoderus bilineatus*, *Cucujus cinnaberinus* and *Osmoderma eremita*. The report deals with the guidelines for the renaturation of the habitat and the renaturation experiment for *G. bilineatus* and *C. cinnaberinus*, which were carried out within the LIVEDRAVA project in the Ormož Basins NR. Based on the results of the experiment and the comprehensive inventory of all three selected species along the Drava River, a management plan is included for each species, which includes (1) a proposal for environmental measures, (2) a monitoring scheme, and (3) a key research proposal to supplement the management plan.

Modifications

- No

Problems/consequences/solutions

- To calculate the actions' value, offer from the largest research institution – National Institute of Biology (NIB) was obtained during the application. Since that time staff changes in researchers team (of NIB) happened so it was completely unlikely that they or any single sub-contractor in Slovenia could realize the action as a whole. Therefore we split the order to logical parts that can be executed by different groups of researchers. These parts were – (a) beetle monitoring, (b) water habitat features monitoring, (c) spatial modelling.
- Mentioned in C.3 action the softwood experiment was set in winter 2013/2014 and not between Jan-Mar 2013. Explained by the experts - from the monitoring point of view this was even better as the “zero state” was measured in 2013 and the effect of the experiment could be evaluated more accurately.

Complementary actions/after-LIFE perspectives

- Three articles from this study were published (D3_6_TD to D3_8_TD) and in all LIFE project funding is acknowledged. They are:

Vrezec, A., de Groot, M., Kobler, A., Ambrožič, Š. & Kapla, A. (2014): Ekološke značilnosti habitatov in potencialna razširjenost izbranih kvalifikacijskih gozdnih vrst hroščev (Coleoptera) v okviru omrežja Natura 2000 v Sloveniji: prvi pristop z modeliranjem. Ecological characteristics of habitats and potential distribution of selected qualification species of beetles (Coleoptera) in the scope of Natura 2000 network in Slovenia: the first modelling approach. - Gozdarski vestnik 72 (10): 452-471.

Ambrožič, Š., Kapla, A. & Vrezec, A. (2015): Razširjenost in status vrst rodu gladkih plavačev, *Graphoderus* (Coleoptera: Dytiscidae), v Sloveniji. Distribution and status of species in the genus *Graphoderus* (Coleoptera: Dytiscidae) in Slovenia. - Acta Entomologica Slovenica 23 (2): 69-92.

Vrezec, A., Ambrožič, Š., Kobler, A., Kapla, A. & de Groot, M (2017): *Cucujus cinnaberinus* (Scopoli 1763) at its terra typical in Slovenia: historical overview, distribution patterns and habitat selection. Nature Conservation 19: 191-217.

D.4 - Impact of project actions on fish species

Activities/outputs/by whom

- DOPPS selected the best tendering firm and selected "Center za kartografijo favne in flore (CKFF)" as the sub-contractor for the action in Aug 2013. Contract was signed in Sep 2013.
- Field work was carried out. Using electrofishing method from the boat, river was sampled after a stable discharge and weather. Sampling was carried out at Drava River sections from Rošnja to Ptuj and Markovci to Zavrč. At this sections restoration works were carried out (action C.9).
- Subcontractor delivered two mid-term (2014, 2015) and a final report (2017) (D4_1_DEL). Besides report, database is attached (D4_2_DB).

Objectives, plans assessment/indicators

- Fish species assemblages and species densities were obtained and conservation action C.9 evaluated.
- Sampling proved the presence of the majority of expected species, but for the first time at Drava River the Golden Spined Loach (*Sabanejewia balcanica*) was found. It is listed among Annex II species of Habitat Directive.
- Fish monitoring revealed that the ecological conditions for the fish species improved after the carried out restoration. The Bitterling population became more stable and less vulnerable. The preservation of cut-off channels, side arms and deep sections of the Drava is crucial for the successful conservation of Bitterlings, Spined Loach and Asp.

Modifications

- No

Problems/consequences/solutions

- No

Complementary actions/after-LIFE perspectives

- Golden Spined Loach *Sabanejewia aurata* is listed on the Habitat Directive. Different species were lately recognized under "aurata", like *Sabanejewia balcanica* that has been discovered in the Drava River during the project's fish monitoring for the first time. However, fish experts estimate that according to this data its Drava River population is not large enough to be included into the SDF for Drava (SI3000220). But as it might increase in the following years the species should be further monitored.
- Invasive spiny-cheek crayfish (*Orconectes limosus*) was found during the study and article was published on this (D4_3_TD). LIFE is mentioned in acknowledgements. Govedič, M. (2017): First record of the spiny-cheek crayfish (*Orconectes limosus*) in Slovenia – 300 km upstream from its known distribution in the Drava River. - Knowledge & Management of Aquatic Ecosystems 7: 418.

D.5 - Study of the socio-economic impact of the project actions

Activities/outputs/by whom

- For the study of socio-economic impact of the project actions DOPPS selected the best tendering firm - Maribor Development Agency (MRA). We signed a contract with MRA as sub-contractor in Feb 2013.

- MRA carried out the first evaluation in 2013 before the majority of project actions started. In the study they used several public parameters and they carried out interviewing of selected target groups. MRA analysed data from the first evaluation and prepared a detailed study on it.
- The basis for the initial assessment were the statistical data of individual municipalities of the broader project area (the entire Drava region). An analysis of objective socio-cultural, environmental and economic indicators of sustainable tourism development (population, GDP, registered unemployment, education level, data from tourist and agricultural activities) was prepared. Besides, the subjective indicators of sustainable tourism development were given based on the results of the questionnaires distributed among pupils and employees in primary and secondary schools, randomly selected tourists, key representatives of local communities, societies, associations and other public organizations and tourist companies as well as randomly selected residents in the project area.
- In Oct 2016 the meeting between DOPPS and sub-contractor MRA has been taken with intention of discussion about the further activities (second phase) of the monitoring of the impact of the project activities.
- In Oct 2016 MRA overviewed the project territory and the results of the project actions. MRA started preparing interviews for the target groups.
- Second evaluation was carried out in 2016, after finishing majority of project actions. Comparison between both periods was presented in the final report delivered in 2017 (D5_1_DEL).

Objectives, plans assessment/indicators

- The results indicate an increase in the social acceptance of project activities, which confirms that communication and educational activities have had a positive effect in the adoption of NATURA 2000 area as an opportunity zone, and was not perceived as an obstacle. The results of all included target groups showed an increased awareness of the term Natura 2000 and an increased knowledge regarding the protected areas.
- A socio-economic study made at the beginning and at the end of the project proved that the project significantly improved the public's knowledge of the Natura 2000 network, LIVEDRAVA project, Ormož Basins as an important bird area and DOPPS, as well as support to the Ormož Basins NR.

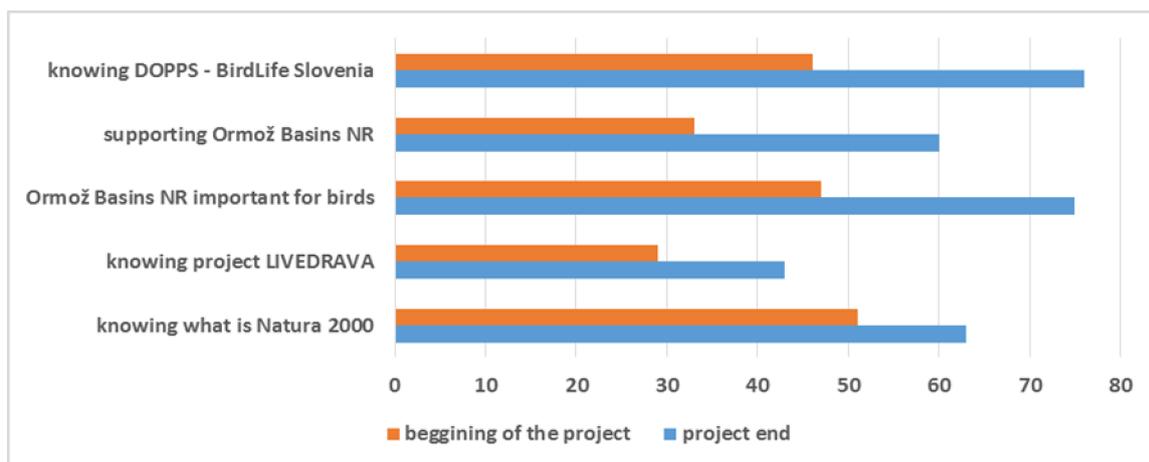


Fig. 12: General results of the socio-economic study revealed positive project effects upon knowing and accepting Natura 2000 among public.

Modifications

- No

Problems/consequences/solutions

- No

Complementary actions/after-LIFE perspectives

- No

E.1 – E.9 – Dissemination actions

Report in special chapter – 5.2.2. Dissemination: overview per activity.

F.1 - Project management

Report in special chapters – 4.1. Description of the management system and 4.2. Evaluation of the management system.

F.2 - Networking with other projects

Activities/outputs/by whom

- Following networking was carried out:
- 1. LIFE06 NAT/A/127. DOPPS organized an excursion for all the project partners and supporters to the river restoration site on Drava River in Austria. Mr. Klaus Michor lead the excursion on 14th Apr 2014 showing restoration results of the “Life vein - Upper Drau River” project and explaining technical restoration details to Slovene water engineers.
- 2. LIFE12 NAT/SE/000132. DOPPS organized an excursion to the project area in Slovenia for experts from Sweden working on the project: LIFE+ Vänern, Länsstyrelsen Värmland, LIFE+ Vänern. Between 19th and 21st May 2014 we demonstrated our experience in Common Tern breeding site management (LIVEDRAVA) and in wet grassland management (LIFE03 NAT/SLO/77). They performed a public lecture about their conservation work within LIFE project in Slovenia. Internal workshop of Swedish and Slovene LIFE team on conservation management with Common Tern breeding habitats was carried out in Ormož Basins NR.
- 3. LIFE08 NAT/S/266. DOPPS gave an oral contribution at the Vindel River LIFE project conference “Reviving waters: a conference on stream restoration” held between 22nd and 24th Sep 2014 in Lycksele, Sweden. Knowledge of restoration practices and technical details of river restorations were brought to Slovenia.
- 4. LIFE10 NAT/CY/716. Colleague working on the LIFE Oroklini (Cyprus), Mrs. Melpo Apostolidou, visited our project site between 1st and 4th Oct 2014. Purpose of the visit was transfer of knowledge and experiences of wetland restoration and establishment of grazing management for conservation.
- 5. DOPPS organized an excursion on 27th May 2016 for all the project partners to the river restoration sites on Danube and Morava River in Slovakia:
LIFE12 NAT/SK/1137 „Restoration of nesting and feeding habitats of Sand Martin, Kingfisher and European bee-eater in Danube-Moravia region“ & LIFE10 NAT/SK/080 „Ochrana a obnova území Natura 2000 v cezhraničnom regióne Bratislavy“ – details of restoration techniques were discussed during the excursion and activities of both projects (Slovakian, Slovene) compared and evaluated.
- 6. LIFE14 NAT/HR/115. DOPPS participated the workshop of DRAVA LIFE project on 5th Apr 2017 contributing ornithological data for Drava River and experiences in preparation of cross-border Drava River management plan.
- 7. LIFE14 NAT/HR/115. DOPPS organized excursion for colleagues from Croatian DRAVA LIFE project team, demonstrating restored river branches and concrete solutions of river restoration. Croatian partners used opportunity and got all information on potential problems during river restoration as they were just before starting the restoration by themselves. Excursion took place on 13th Sep 2017.

- 8. LIFE15 NAT/IT/989. LifeTicino Biosource project team visited our project sites between 18th and 19th Oct 2017. The main purposes were to show and discuss with colleagues river restoration techniques and visitors' infrastructure built under LIVEDRAVA project. Meeting with mayor of Središče ob Dravi Municipality was organized where colleagues gave us and mayor lots of experiences in tourist development and role of farmers in protected areas.

Objectives, plans assessment/indicators

- Planned 8 networking excursions were carried out and were extremely fruitful. Lots of potential problems were avoided in our and others' projects through experience sharing. Benefits of networking were always mutual. Contacts with researchers and conservationists were established and with some we continue cooperation in other projects.

Modifications

- No

Problems/consequences/solutions

- No

Complementary actions/after-LIFE perspectives

Besides 8 networking exchanges many other experiences exchange took place within the project with LIFE or other projects and organisations.

- A visit to LIFE project in Austria - "Life vein - Upper Drau River" and discussions with its project team were carried out by DOPPS on 6th Nov 2012. After the visit we organized excursion for all partners to the same project.
- DOPPS presented LIVEDRAVA project during the workshop for potential LIFE+ applicants in 2013. The workshop was organized by the Ministry for Agriculture and Environment in Ljubljana on 9th May 2013.
- SEE RIVER project was approved and DOPPS was invited to actively participate in the workshops. We participated in the workshops on 12th Apr 2013, 6th Jun 2013 and 3rd Dec 2013.
- DOPPS participated in the "LIFE-Nature platform meeting" between 10th-11th Jun 2013 in Schladming, Austria.
- On 22nd Jan 2014 DOPPS organized an excursion to the project area for the WWF experts who later successfully applied DRAVA LIFE project in Croatia.
- DOPPS LIFE staff actively participated in three workshops organized by AdriaWet 2000 project (<http://www.adriawet2000.eu/sl>): 14th Feb 2014 – Financial tools for management of protected areas, 27th Feb 2014 – Marketing approach in management of protected areas & Public-private partnership supporting preservation of biodiversity. 3rd Oct 2014 - Management plans for wetland nature reserves. Participation on last workshop was especially important for us as we were preparing management plan for Ormož Basins NR – see A.5 complementary action.



Fig. 13: Fabio Casale (left) from the LifeTicino Biosource project team is giving the mayor of Središče ob Dravi, Mr. Jurij Borko, a package of ECO - rice produced in the Biosphere reserve in a way that waterbirds' colonies are preserved. Photo: D. Denac

F.3 - Audit

Audit of the entire project has been carried out by an independent auditors, following LIFE guidelines and all professional standards. The audit took place in Jan 2017. See chapter 6.4.

F.4 - After-LIFE Conservation Plan

After-LIFE Conservation Plan was prepared following latest LIFE guidelines by DOPPS staff. It was finished in Dec 2017. The plan is delivered as separate report (F4_1_DEL).

5.2. Dissemination actions

5.2.1. Objectives

In the revised project proposal we did not have any special dissemination plan. However, we described an important Threat 5 in the proposal:

“Public knowledge about the biodiversity of the Drava River, its national and international importance (Natura 2000) is fairly low. Consequently, the awareness of the urgent need of its proper protection, management and sustainable use in the 21st century is poor as well, resulting in generally low public support to all kinds of initiatives addressing these issues. Still more, in local communities nature-conservation topics are mainly seen as obstacles to development. Many human activities, e.g. at present notably different forms of recreation, negatively influence biodiversity of the Drava River largely due to the lack of knowledge and awareness. Moreover, nature-conservation subjects are almost non-existent in current primary and secondary school-systems, therefore awareness improvement through the formal education can hardly be expected in the near future. All targeted audiences will be addressed using different,

profile-specific approaches to maximize the effects. With many concrete actions carried out in the field during the project we will communicate this to the general public in an appropriate way, improving their knowledge and awareness.”

The last two clauses could be seen as our general dissemination plan that we realized through E actions and in C.6 action, too. Concrete expected results/outputs directly addressing threat 5 were: (1) project notice boards erected at 6 sites, (2) project web site published, (3) layman’s report produced, (4) basic visitor facilities set-up in the Ormož Basins NR, (5) basic visitor facilities set-up at the Lake Ptuj, (6) documentary film and 2 videoclips produced and widely broadcasted, (7) project brochure printed and distributed, (8) guidebook of the Ormož Basins NR printed and distributed, (9) two biological youth research camps organized, (10) field excursions & lectures for pupils of primary and secondary schools organized, (11) public presentations & public excursions organized, (12) 2,000 posters and 2,500 leaflets about importance of Drava conservation distributed in Croatia (action C.6).

5.2.2. Dissemination: overview per activity

E.1 - Notice boards in the project area

Activities/outputs/by whom

- In Oct & Nov 2012 meetings were carried out with ZRSVN, and locations for the boards were defined. DOPPS prepared the texts, designed the boards and selected the firm for printing and placing of the boards.
- Boards were placed in Jan 2014 at six locations: (1) Starše, (2) Ptuj, Ranca, (3) Markovci, Palaska, (4) Lake Ormož, (5) Ormož Basins NR, (6) Središče ob Dravi.
- Besides boards placed in the field at the project area, additional project and LIFE boards to label the partners’ buildings, offices and project infrastructure were printed, as well.

Objectives, plans assessment/indicators

- Boards were placed, objective was reached.

Reactions/feedback

- Generally very positive feedback on boards from the local people, commenting “Finally somebody is working for the nature at Drava River”.

Modifications

- After the project modification the action was shifted to DOPPS. Before it was action of ZRSVN who left the project.

Problems/consequences/solutions

- In Jan 2013 ZRSVN left the project, so the action of setting the tables was temporary stopped. Delay occurred. DOPPS then continued with the action according to the modified project and erected the boards.

Complementary actions/after-LIFE perspectives

- No

E.2 - Web site of the project

Activities/outputs/by whom

- We created the project web page and is active since Dec 2012. The web page is bilingual – Slovene and English.
- During the server maintenance, domain was changed to <http://www.livedrava.ptice.si/> as this allowed better connection to DOPPS web page and others.

Objectives, plans assessment/indicators

- Web page served as a project's media. Project news were regularly published (all together 367), important documents uploaded, project brochures being available on the site, photos and films uploaded. Detailed visit statistics of the web page is available for the period 15th Oct 2014 – 31st Dec 2017, only:
 - Number of visits: 9,759 (visiting domain, visits of subpages is not counted here)
 - Number of unique visitors: 6,285
 - Average time of the visit: 5 minutes, 22 seconds
 - Number of views of the page: 28,490 (visiting domain, subpages and reloads)
 - Average number of viewed pages per visit: 2.92

Reactions/feedback

- Web page was very well accepted among DOPPS' members and we received positive feedback from the wider public, as well.

Modifications

- No

Problems/consequences/solutions

- There have been no problems regarding the action. The web page is available and operating.

Complementary actions/after-LIFE perspectives

- We used DOPPS' Facebook profile <https://www.facebook.com/pticeDOPPS>, too, to share the project news and especially to attract volunteers to the project (e.g. islands management at Ptuj Lake C.8 or creating breeding sand walls C.10). Statistics of the LIVEDRAVA content at DOPPS' Facebook between 15th Oct 2014 - 31st Dec 2017:
 - Number of LIVEDRAVA notifications: 87
 - Number of views: 124,142
- Besides the project's web page and FB, larger events and more important news from the project were announced or reported at the DOPPS' general web page (<http://ptice.si/>). Between 15th Oct 2014 and 31st Dec 2017 there were 25 LIVEDRAVA news published, viewed by 2,500 people (estimate).

E.3 - Layman's report

Activities/outputs/by whom

- DOPPS prepared texts, graphics and pictures for the Layman's report in Oct 2017. DOPPS prepared basic design of the report, too.
- Translation of texts and proofreading were done by externals, as well as digitally enhancing of pictures.

- Layman's report was printed in Dec 2017 in 1,000 copies (E3_1_DEL). Pdf is available on the project's web page <http://livedrava.ptice.si/home/documents/project-documents/?lang=en> and DOPPS' site: <http://ptice.si/publikacije/publikacije-dopps/brosure/>

Objectives, plans assessment/indicators

- Objective was reached, report was printed.

Reactions/feedback

- Feedback received so far is very positive. People responded they like it as information is presented in organized way and with many pictures. Logic: threat, measures, results has been followed in the design.

Modifications

- No

Problems/consequences/solutions

- LIFE toolkit for preparation of Layman's report was considered. However, 5-10 pages limitation for such a complex project turned to reduce our project information too much. Therefore, we finished with 16 pages and the report is bilingual.

Complementary actions/after-LIFE perspectives

- Distribution of Layman's report started. Copies are available at the DOPPS' headquarter in Ljubljana and in Ormož Basins NR. In the after-LIFE period they will be distributed among other relevant stakeholders, and used at DOPPS' promotion events (stands, workshops).

E.4 - Setting up the basic facilities in Ormož Basins Nature Reserve

Activities/outputs/by whom

- Engine house of the ex. wastewater cleaning device in Ormož Basins NR was converted into a temporary office. Action was led by DOPPS. The best sub-contractor was selected for the renovation works that were carried out between Sep-Nov 2012. They included: installation of plasterboard on the ceiling and walls, painting of the walls, placing and painting of the wooden floor, replacing obsolete windows, installing toilet and bathroom, replacing electrical wiring and waterworks.
- Additionally, wood-burning fireplace was installed for heating and a solar power station for electricity. Solar panel was upgraded by additional panels to increase its capacity in Jan 2014.
- Water well was excavated and electric automatic pump installed for the water supply in the temporary office in May 2014.
- All aeration basins were fenced between 24th Nov and 10th Dec 2012.
- Two sinking basins were filled up by earth in Jul 2014.
- Before filling with earth, water from both basins was pumped out and all animals rescued in a volunteer action. Tractor was used for transport of saved plants and animals. Fuel costs occurred.
- Four ship containers were purchased and company »GMG ELMONT, strojni izkopi, elektromontaža, storitve, proizvodnja, trgovina, gostinstvo d.o.o.« selected as sub-contractor to remake them into observation hides in Aug 2014. In Nov 2014 they were placed.
- Contact was established with "Blind and visually impaired association of Ptuj" (Slovene = Medobčinsko društvo slepih in slabovidnih Ptuj) representatives and common field excursion to the Ormož Basins NR was carried out on 10th Jun 2014 to get inputs for the education trail.
- DOPPS built temporary storage for the wood in Jun 2014 outside the temporary office.

- Parking lot for cars and bus was build by subcontractor GMG between Nov and Dec 2014. Sitting benches and trash bins were placed.
- In temporary office on-line video system from Basin IV was installed in Apr 2015. On the breeding island in Basin IV camera was placed and television with recorder in the office, enabling visitors observing breeding birds on the island.
- Sub-contractor was hired by DOPPS for establishment of “open-air museum” in Ormož Basins NR. Plan for establishment of the site and placement of structures was prepared by DOPPS. Works were finished in Apr 2016 and included: 1.5km long necessary trail, education pond, bird nesting boxes placed on special pylons, garden with honey plants for pollinators, stone wall for reptiles, “hotels” for insects, resting benches and tables.
- In August 2016, the 3D tactile model of the Ormož Basins NR for the blind & visually impaired was constructed and installed. Model was made by the subcontractor Geodetic Institute of Slovenia. It was placed on special pedestal and is available in the second observation hide.
- Between June and November 2016 the preparation and production of interpretation boards in Ormož Basins NR was ongoing by DOPPS – preparation of contents, collection of various graphic material, design of interpretation boards, construction and production of 3D model of beetles *Cucujus cinnaberinus* & *Graphoderus bilineatus* and birds.
- DOPPS hired subcontractor to create, print and erect all the boards and other education infrastructure. All the works were finished in May 2017. All together 14 large and 17 small tables were erected.
- On 8th Sep 2017 DOPPS organized solemn public opening of the Ormož Basins NR. Special invitations were prepared and sent by post and e-mails to all the relevant stakeholders (E4_1_TD). Reserve was opened by general director of the Directorate for environment of Ministry of environment and spatial planning, Mrs. Tanja Bolte, mayor of Ormož municipality, Mr. Alojz Sok, head of supervisory board of ex. Sugar factory in Ormož, Mr. Hans Hogeweg, and president of DOPPS, Mr. Rudolf Tekavčič. Special guest and speaker at the event was the ambassador of the Kingdom of Netherlands, excellency Mr. Bart Twaalfhoven. Media intensely reported about the event, see for example contribution of local KTV Ormož (starts 44:35):
https://www.youtube.com/watch?v=HH_v6f0dD_k

Objectives, plans assessment/indicators

- Ormož Basins NR was suitably equipped for public visits – four observation platforms made of ship containers were set up. We established a 1.5km educational trail, set up 14 larger and 17 smaller educational tables, models of birds and beetles, as well as arranged an interpretation centre, the so-called “open-air museum” or just “reserve garden”, to demonstrate conservation practices for every home. The former engine room of the waste water treatment plant was transformed into a project office and a small lecture room. A tactile model of Ormož Basins NR was created for the blind and visually-impaired. Everything planed has been realized.

Reactions/feedback

- Even before public opening the Reserve became attractive visiting point for many people, but after opening additional boost in the media happened and the visit has grown considerably. Visitors are all very positive about the Reserve and are its strong supporters. Especially the locals represent a nucleus spreading positive information in the Ormož and its surrounding. For example, primary school pupils produced short film about Ormož Basins NR and inter-generation cooperation. LIFE project is presented. Film is worth of view:
<https://www.youtube.com/watch?v=wfMWr8YH50A>
- First series of nestboxes and other nature requisites were purchased and placed in the “open-air museum” in Mar 2016. However, soon after, people expressed wish to place some home-made nestboxes, too, besides fabricated, to demonstrate the best practice, as they often produce

nestboxes at home by themselves. Therefore, we prepared a second, additional, series of home made nest-boxes and placed them in the established “open-air museum” in Mar 2017.

Modifications

- Sinking basins were filled up by earth instead of being fenced. Such a solution was necessary as we would otherwise lose significant land surface behind the temporary office urgently needed for the open-air museum and building of the stable (action C.4).

Problems/consequences/solutions

- Some delay occurred when setting visitor facilities in the Reserve. They were planned between Aug 2013 and Mar 2014. The reason was that we were not permitted to carry out the arrangement works in the reserve until the Detailed Spatial Plan for the reserve was accepted. And this happened in Sep 2014 only. See also description of problems under A.3 action. Detailed spatial plan was published on 2nd Sep 2014 and became formally valid on 10th Sep 2014. Immediately after that date we started with obtaining permits and by the end of 2014 observation hides were finished as well as parking.
- After certain period of time under use, some defects in observation hides became obvious, especially the windows holding mechanism. They were replaced and access ramp to the observation points was repaired by the subcontractor in Jun 2016.
- During restoration works in the Basins the trails between observation points were destroyed by heavy machinery. In spring 2015 these trails were reconstructed and covered with gravel.
- As the restoration of habitats in the Basins was finished in 2015 and not in Mar 2014 as planned, this year was the first after-restoration year. Information about birds' distribution and interesting sites for observation were gathered this year and partly in 2016. To give the correct information and interpretation at each basins we needed monitoring data at least from a year of after-restoration period. As we planned in the last progress report we have had enough data to correctly prepare interpretation content for the education trail by Nov 2016. And in the spring 2017 all the infrastructure was created and placed in the field.

Complementary actions/after-LIFE perspectives

- Lot of work for the action E.4 was carried out with the help of volunteers. On 13th Nov 2015 group of volunteers together with DOPPS' staff planted fruit trees in the reserve's garden. However, few costs were connected with trees' protection against hare and deer. Only native high-stem old sorts of apples and pears were planted. On 18th Nov 2016 similar group removed vegetation from the breeding island in Basin IV and cleaned the garden. On 5th Sep 2017 such group completely cleaned all the observation hides, trails and prepared everything necessary for the public opening of the reserve on 8th Sep 2017. Tractor and 4-wheeler were used, fuel costs occurred. During the opening many volunteers helped, too, showing the positive attitude and readiness to contribute to the development of the Reserve.
- On 20th Jun 2014 the social farm Korenika at Šalovci was visited by DOPPS staff where contact with the manager was established and an agreement made that know-how from this farm could be transferred to the Ormož Basins NR where we plan to establish a similar system after the project. Cooperation was later established and first common product prepared. Volunteers were included. We wrote more about it under after-LIFE perspectives in C.4 action.
- Two DOPPS' staff Dominik Bombek and Matjaž Premzl took the course organized by the MOP and got formal licence of nature-conservation warden with the full power. They will continue watching the area and taking care the reserves' rules are observed.
- Within applied cohesion project Drava (ZRSVN), addition interpretation is foreseen in the Ormož Basins (dragonflies).
- DOPPS successfully applied project “Mobile as birds” at the public call 46NVO16 of Eco Fund – Slovenian Environmental Public Fund. Sustainable visits in protected areas has been promoted with

the project. Booklet was produced with information on protected areas and access possibilities regarding public transportation, use of electric cars or bicycle. Ormož Basins NR was included in the booklet. Besides, bike parking with the roof was built in Ormož Basins NR as well, to stimulate more frequent visit of the Reserve with the bicycle. Bike parking is located at the entry of the established open-air museum.

- Ormož Basins NR was presented in the book “Naravni parki Slovenije”
<https://www.naravniparkislovenije.si/slo/trgovina/izdelek/knjige/naravni-parki-slovenije>
 Slovene and English versions of the book are available
<http://www.europarc.org/news/2016/06/nature-parks-of-slovenia-the-book/>
- After the Reserve was formally declared and visitors’ infrastructure finished, the Reserve became an attractive visitors’ point. Promotion of the area played important role, too. Like this, National TV produced contribution about the Reserve for “Slovenian magazine” serial. It is a known and recognized serial in English for promotion of Slovenia. It was displayed at the National TV on 6th Oct 2017 and is available on (0:38-5:16):
<http://4d.rtvlo.si/arhiv/slovenski-magazin/174495194>



Fig. 14: Basic visitor facilities in the Ormož Basins NR – parking, “open air museum”, education boards, temporary office. Photos: T. Basle, D. Denac, D. Bombek

E.5 - Setting-up the basic visitor facilities at Lake Ptuj

Activities/outputs/by whom

- Project partner the Urban Municipality of Ptuj (PTUJ), was responsible for the execution of the action. Several meetings were carried out between DOPPS and PTUJ to agree the location, construction and other details of the observation tower.
- DOPPS prepared the texts and organised the design for the 4 sets of education boards. Files were sent to PTUJ in May 2014. PTUJ ordered printing of boards and their placing in Aug 2014.
- After the building permit for the observation tower was obtained, PTUJ started (Sep 2014) with the invitation for tenderers to get a sub-contractor to build the tower. Tenderers have exceeded the amount, specified in the Project implementation plan even for 40%.
- Subcontractor Ravnikar Potokar prepared a new, rationalized Project implementation plan. On this basis in Nov 2014 PTUJ internally ordered the works at the company Public Services Ptuj (Javne službe Ptuj). However, PTUJ later changed the decision and decided to carry out competitive tendering to select the company to build the tower.
- In Aug 2015, the project partner PTUJ organized the public invitation for tenders for the construction of the observation tower. Eight potential contractors applied on the public tender, among whom the

financially most favourable bidder was selected. PTUJ and the selected subcontractor signed the contract for construction of the observation tower in Dec 2015, which was unfortunately later cancelled because the subcontractor did not submit the bank guarantee in time.

- In Jan 2016, PTUJ organized in-house order with a public company Komunalno podjetje Ptuj d.d. In spring of 2016 the coordination of the project before the beginning of the construction was ongoing, among the selected contractor Komunalno podjetje Ptuj d.d., the Design bureau Ravnika Potokar d.o.o. and the client PTUJ. Construction of the observation tower was launched in late Apr and completed in Jul 2016. In Aug 2016 a quality check of the observation tower has been successfully carried out.
- DOPPS prepared and ordered printing of additional determination boards and all logos, including LIFE and Natura 2000. All the boards were installed inside the observation tower in Jul 2016.
- On 14th Oct 2016 the observation tower was officially opened (E5_1_TD). The opening ceremony was attended by Minister of Environment and Spatial Planning, Mrs. Irena Majcen, the Mayor of Ptuj municipality and all other important stake-holders.

Objectives, plans assessment/indicators

- All 4 sets of education boards were erected. The goal was achieved but with some delay.
- Our forecast written in one of our reports turned out to be true – “The delay which might happen in the near future is on obtaining of the water consent for the construction of the observation tower, so we put the reserve time plan scenario to our project modification request with the deadline to finish this action by the end of Sep 2014.” Still more, the permits phase lasted even longer. However, all visitor facilities at Lake Ptuj was built.
- As we do not have system for counting visitors, we cannot give exact figures, but the tower is visited very frequently by the tourists, locals, ornithologists, youth. After our visits and collected figures when on the field, we estimate that at least 500 people visit the tower per month, which is app. 6,000 per year.

Reactions/feedback

- From the walkers around Lake Ptuj very positive feedbacks were received – “Finally some information about nature at the Lake”. People frequently use the observation tower and observe birds.

Modifications

- ZRSVN was originally in charge for the preparation and setting up of education boards at four locations. In Jan 2013 we were informed by ZRSVN that they withdraw from the project. In accordance with the “Project modification request” DOPPS took over the execution of the action, which included preparation and design of education boards. PTUJ arranged setting up the boards.

Problems/consequences/solutions

- The delay in placing of education boards due to the modification was larger than expected (planned May 2013, realized Aug 2014), but we do not see any negative consequences of the delay here as larger changes at Lake Ptuj happened almost at the same time as boards were erected, giving the boards additional attention. With larger changes we mean the two new breeding islands for the Common Terns (action C.7) which were especially pointed out on the boards.
- The delay in building of observation tower was significant, 3 years - planned Aug 2013, realized Aug 2016. It was a combination of administrative problems already described under A.3, too expensive first design, unexpected problems with the terrain, changing minds at PTUJ, and selected subcontractor that resigned from the contract. Or more in details:
- On the basis of the project documentation, prepared by the design bureau, PTUJ did not obtain adequate offer for the construction of observation tower. All tenderers exceeded the amount, set in the Project implementation plan. The solution was found in the rationalization of the Project implementation plan.

- After the new Project implementation plan was released, PTUJ ordered the execution of the work at the company Javne službe Ptuj. Due to the Oct 2014 mayoral elections, and the replacement of the Mayor of the The Urban Municipality of Ptuj, the activities on this action slowed down and stopped again.
- In March 2015 PTUJ started searching again for the most appropriate building contractor for construction of the observation tower. In May 2015 the new Mayor of the The Urban Municipality of Ptuj required not to carry out ordered activities with the Javne službe Ptuj and decided to carry out competitive tendering to select the company to build the tower.
- On the public invitation for tenders for construction of the observation tower, which was carried out in summer 2015, the financially most favourable bidder was selected, but unfortunately it did not provide a bank guarantee. The contract for the construction of the observatory was therefore terminated. Construction of the observation tower was consequently again delayed. Later on PTUJ decided to carry-out an in-house order with the Javne službe Ptuj (Public companies Ptuj) and realize the construction project of observation tower.

Complementary actions/after-LIFE perspectives

- Municipality placed additional sitting bench besides the Observation tower and a trash bin. Public companies Ptuj are emptying the bin.
- Within the Interreg Slovenia-Croatia “ČIGRA” project a telescope will be installed in the tower and additional educational boards about Common Tern. Boards will be placed by the end of Feb 2018 and telescope in summer 2018. We wrote more about the project under C.8.



Fig. 15: After formal opening of the Ptuj observation tower at Lake Ptuj it became a frequent point visited by public, pupils and students observing birds. Photos: T. Basle, D. Bombek, D. Denac

E.6 - Production and distribution of a documentary film

Activities/outputs/by whom

- Sub-contractor "Kawka Production, Gregor Šubic s.p." was contracted by DOPPS to produce and distribute the documentary film. Contract was signed in Jun 2013. Synopsis for the film was written by DOPPS.
- Before the restoration works in the Ormož Basins NR DOPPS ordered aerial shooting of the area. It was carried out on 11th and 12th Jan 2014 and later after restoration on 25th Jun 2015.
- Promotion of the film started with the release of the first video clip long 3:22 minutes. Clip was premiered at DOPPS' annual members meeting – assembly – on 3th Apr 2015. Clip was uploaded to project's web page and YouTube: <https://youtu.be/sTcEhAX6MBI>
- During spring visit of islands on Lake Ptuj (C.8) small hide was built by DOPPS, to allow filming of Black-headed Gulls and Common Terns in the colony without disturbance.
- Promotion of the film continued with the release of the second video clip long 3:19 minutes on 9th July 2015. Clip was uploaded to project's web page and YouTube: <https://youtu.be/3hXU99vyvJM>
- Shooting of the film was finished in spring 2016.
- Documentary was pre-premiered in Maribor on 6th Jan 2016 at the Faculty of natural sciences and mathematics. 22 people attended the screening.
- Premiere of the documentary was organized at Art Club GT22 in Maribor on 16th Sept 2016 with 60 people attending the event. See news about the event on project's web page <http://livedrava.ptice.si/film-o-reki-dravi-dozivel-premiero/>. Event was promoted on our web sites and Facebook site and there was also an article published in the local newspaper. To attract more people the posters and invitations were printed.
- Documentary (Slovene version) was uploaded on project's web page and YouTube on 18th Sept 2016. Documentary can be found here: <http://livedrava.ptice.si/domov/galerija/documentary/>
- and English version: <http://livedrava.ptice.si/home/gallery/documentary/?lang=en>
- Broadcasting of documentary film on national TV and local televisions was organized and carried out.

Objectives, plans assessment/indicators

- Videoclips were produced and film actively promoted. Documentary was produced. It was planned to be app. 10 minutes long but we prepared 20 minutes long film. Documentary was presented six times on national TV (TV SLOVENIJA) during the dates listed below. Television provided us data on TV viewers and 136,057 people saw the film.
 - 1.4.2017: 40,740
 - 2.4.2017: 8,284
 - 6.4.2017: 14,402
 - 15.7.2017: 23,359
 - 16.7.2017: 22,523
 - 18.7.2017: 26,749**TOTAL: 136,057**
- Besides, it was presented on 3rd Apr 2017 on local cable television KTV Ormož (that can be seen in Teleing & Siol networks), but this television cannot estimate number of TV viewers. We however estimate that minimally 10,000 people viewed it.
- Adding all the views from the YouTube (1,900) and videoclips we estimate that approximately 150,000 people viewed the LIVEDRAVA films. Videoclips and film are delivered on the DVD (E6_1_DEL).

Reactions/feedback

- From the number of viewers we estimate that people like the film. So far, only positive feedbacks reached us.

Modifications

- No

Problems/consequences/solutions

- Video clips and documentary film should be released till Dec 2014, but was in Jan 2016, so app. one year later. Reasons for delay were the following:
 - Delay of restoration works in Ormož Basins NR.
 - Bad weather in spring and summer 2014, which obstructed the filming of some target species.
 - Purchase of new equipment by subcontractor in 2015 that allowed more ethical filming of target species.
 - New annex was signed with subcontractor, allowing him to finish the production of video clips and documentary film.

Complementary actions/after-LIFE perspectives

- DOPPS' staff produced 5 additional videoclips during the project and published all on the project's web page and YouTube. They are about (1) management of the breeding colonies for Common Tern, (2) litter of water buffalo's calf, (3) 21,000 waterbirds at Lake Ptuj, (4) Little Ringed Plover & (5) volunteers for river bank management – creating breeding walls for Sand Martin.
 1. https://www.youtube.com/watch?time_continue=12&v=P3cIVII-PA
 2. <https://www.youtube.com/watch?v=TOPggwoJGaU>
 3. https://www.youtube.com/watch?time_continue=2&v=AaAMslAXJPI
 4. <https://www.youtube.com/watch?v=RIEZmbmz2vw>
 5. <https://www.youtube.com/watch?v=NuL5U1nlfNs>

E.7 - Production and distribution of project publications

Activities/outputs/by whom

Production of two publications has been planned (1) Project presentation brochure and (2) The guidebook to the Ormož Basins NR.

(1) Project presentation brochure

- Text for the Brochure was written by DOPPS and pictures selected.
- Publication was designed by sub-contractor and printed in 60,000 copies in Sep 2014.
- DOPPS organized distribution – 53,635 copies were distributed by post to all households in the project area in Sep 2014. Additionally 1,000 copies were distributed to all DOPPS members. The rest were distributed by DOPPS and project partners and supporters at the public at events, on stands, tourist info points, public lectures and excursions. Target groups were interested public, pupils, tourists, DOPPS' members. There are app. 2,000 copies left to be distributed to visitors in Ormož Basins NR and at other DOPPS' public events.

(2) The guidebook to the Ormož Basins NR

- General concept and content of the guidebook and its division to chapters were agreed upon during several meetings of the DOPPS LIFE team.

- DOPPS collected old photos and other materials from different sources (archive of ex. Sugar factory, personal archives) and organized digitalization and digital enhancements of pictures.
- All the text has been written by DOPPS staff, tables with data and maps prepared.
- Design and typesetting of the book were hired by DOPPS.
- DOPPS engaged translation into English and German and proofreading for harmonisation of terminology.
- Slovene guidebook (3,000 copies) was printed in Aug 2017 and English (700 copies) and German (300 copies) in Dec 2017. (E7_1_DEL to E7_3_DEL)
- Slovene guidebook was premiered at the public opening of the Ormož Basins NR on 8th Sep 2017.
- Slovene guidebook was distributed to all larger Slovene libraries by post in Oct 2018. All together 595 copies were sent to libraries.
- Rest of the guidebooks will be distributed to visitors of Ormož Nasins NR.

Objectives, plans assessment/indicators

- Both publications were printed and generally distributed, however part of the editions (English, German guidebooks) is still to be distributed. Our plan was achieved. Both publications were delayed, but due to objective reasons, see Problems chapter.
- Pdfs of publications are available on project's web page
<http://livedrava.ptice.si/home/documents/project-documents/?lang=en> and DOPPS page
<http://ptice.si/publikacije/publikacije-dopps/brosure/>

Reactions/feedback

- Publications gained very positive feedback. The brochure was distributed to the wider public (more than 53,000 households) in the project area. We selected households closer to Drava River in the project area. It is unique that people got quality education brochure for free to their homes as nowadays people are used to get "cheap supermarket advertisements" in the mailbox, only. Such distribution was very much appreciated and on the field many random locals praised us for the brochure.
- Guidebook was prepared more extensively as firstly planned. The booklet is very attractive, informative and people like it very much. We received quite a lot of positive feedback from the users and from the libraries, too.

Modifications

- No

Problems/consequences/solutions

- Deadline for the first publication was Feb 2013. We delayed the action because of three reasons. (1) When severe floods happened on Drava River in Nov 2012 many public servants and local mayors gave public statements that nature-conservationist are guilty for the flood. Of course, their only intention was to put the guilt on someone. We argued against these demagogue statements but our feeling from the media was that the public attitude remained negative towards river restoration for quite some time after the flood. February 2013 was definitely too soon to launch such a publication to app. 55,000 people along Drava River. (2) In such a massive publication we wanted the information of project beneficiaries and project itself to be coherent until the end of the project. Due to partnership changes that happened we found it unsuitable to produce such a publication with logos and information of beneficiaries knowing that they already decided to either quit the project or change their role. (3) It is always better to show some results than to talk about plans only. As the first year (2013) of the project was almost exclusively reserved for the "permissions" phase, and concrete changes started in 2014, we decided to include some project results to be more convincing. Therefore it was distributed in Sep 2014.

- Planned date of the Guidebook was Mar 2015. Unfortunately, delay of the habitat restoration works (actions C.1, C.2) had an impact on implementation of the Guidebook. Problems with the water supply system (explained under C.1) influenced preparation of the guidebook even more. We hoped to solve the problem earlier, and have data of the fully established and functional basins evaluated before, as we needed them in guidebooks' chapters related to information for visitors like details about targeted species and habitats (numbers, distribution and places where these can be seen). In the response letter from the EC from 7 Aug 2015 it was answered that "It is reasonable that all possible aspects are included in the guidebook on the Ormož Basins NR, and that the Nature Reserve should first be officially declared." We were able to produce guidebook ready for use in 2017.
- Guidebook was printed in less copies than planned. The reason was that printing and distribution of the Project brochure turned to be much more expensive than planned, so not enough money were available for planned number of copies of the Guidebook. However, we estimate printed numbers will be enough for the purposes of the Reserve for 2-3 years.

Complementary actions/after-LIFE perspectives

- We plan to distribute the remained Brochures and Guidebooks in the Ormož Basins NR generally. In case we run short of the Guidebook, we will reprint it.

E.8 - Project educational programme

Activities/outputs/by whom

Three types of activities were planned under this action, (1) biological youth research camps, (2) field excursions and (3) lectures.

(1) Biological youth research camps

- DOPPS organized and carried out two youth ornithological research camp.
- First took place at Ptuj in Primary school Breg, between 26th Jun – 2nd Jul 2013. 23 young ornithologists aged 9 to 16 participated in the camp, and worked in 6 groups. Camp finished with the public presentation of the results. All together 9 different media contributions were produced during the camp.
- The second was organized at the same place, Primary school Breg, Ptuj, and took place between 14th – 18th Feb 2015. 15 children attended the camp. The work at the camp was carried out in 5 groups, led by mentors, experienced ornithologists. Children learned about the natural resources of the Drava River and its surroundings, and about importance of nature conservation activities on the project area. They learned to recognize birds and methods of their research, learned about nature preservation and exchanged ideas and experiences with peers, who have common interest in birds and nature. Camp finished with the public presentation of the results and with extensive media coverage.

(2) Field excursions and (3) lectures.

- DOPPS carried out 38 field excursions and 21 lectures. Out of 38 excursions, 10 were organized for faculty students, 5 for high school students and 23 for pupils. Out of 21 lectures, 5 were organized for high school students and 16 for pupils. Total number of youth participating excursions was 1,554 and lectures 1,173, all together 2,727.
- Database for all E.8 and E.9 events was created (E8_E9_1_DB).

Objectives, plans assessment/indicators

- Objectives were reached, we carried out extensive education of larger number of youth – pupils and students of high schools and faculties. Total numbers of events and participants exceed planned. There were 2,500 participants planned and 25 excursions and 25 lectures, but we reached 2,727

participants and carried out 38 excursions and 21 lectures. A bit less lectures were compensated with more excursions. There was significantly larger interest for excursions than for lectures from the schools.

Reactions/feedback

- We investigated participants' opinion about the research camp. All gave highest scores to the organisation and fulfilment of expectations. The camp gave significant positive public feedback, too, what is evident from the press cuttings.

Modifications

- No

Problems/consequences/solutions

- Unfortunately, not during all events participant's lists were collected and not all participants put their names on the list. However, for majority of such events photos or other documents exist to prove the realization.

Complementary actions/after-LIFE perspectives

- As Ormož Basins were turned into Nature Reserve equipped with visitors' infrastructure and many modern didactical equipment, the area is especially suitable for field excursions for pupils and students. Moreover, it is the only such site in entire NE part of Slovenia. During the carried out excursions and lectures, teachers showed lot of interest to continue visiting the Basins with new generations in the after-LIFE period. DOPPS will continue education work in the Reserve and even strengthen cooperation with schools.

E.9 - Public presentations and excursions

Activities/outputs/by whom

Within the action DOPPS prepared (1) public lectures about the project and carried out excursions to the project area with interpretation of the project results. Additionally, (2) exhibition was prepared and displayed at different public occasions. In the action (3) promotion-educational material was produced, as well.

(1) Public lectures, excursions and (2) exhibition

- Different lectures were prepared by DOPPS according to the targeted audience, either more general for the wider public, or with specific project emphasis for the experts.
- Wider public was invited to the lectures and excursions through the local radios, newspapers, web sites (DOPPS, municipal website), notice boards (see press cuttings). We gave public lectures on many public events organized by other organisations, too, where DOPPS was invited as a speaker (e.g. at the so called "Mišičevi vodarski dnevi", national symposium for water engineers, or at international fair "Pannonian bird experience" in Austria).
- Exhibition entitled »River Drava – Nature's gift for future generations« was printed on 15 roll-up posters in 2015 and later displayed at different public events.
- Under E.9 DOPPS carried out 42 lectures, 17 excursions and 7 exhibition displays. Lectures were visited in total by 1,383 people, excursions by 380 and exhibition displays by 3,950. All together we reached 5,713 people by this action. Common database was created holding data about all E.8 and E.9 events (E8_E9_1_DB).

(3) Promotion-educational material

- Internal workshop was carried out by DOPPS project staff to decide on the attractive products to maximally reach the audience and give conservation message as well.
- Design of the products was subcontracted by DOPPS and necessary components ordered (e.g. drawings of Little Ringed Plover, Common Tern). Appropriate subcontractors were selected for production.
- The products were:
 - Calendar 2015 – Ormož Basins NR theme, Dec 2014, 150 copies (E9_2_TD)
 - Calendar 2017 – birds, Dec 2016, 1,000 copies
 - Notepad size A4 – Kingfisher on the cover, Mar 2016, 500 copies
 - Notepad size A5 – Little Ringed Plover on the cover, Mar 2016, 500 copies
 - Pin badge – Little Ringed Plover pin badge on a printed tag, Jun 2016, 2,000 pieces (E9_3_TD)
 - Patch for clothes – LIFE logo, Jul 2016, 350 pieces (E9_4_TD)
 - Memory game – “DRAVCI” – birds of Drava River as motifs, Nov 2016, 320 copies (E9_5_TD)
 - T-shirt – grey, “DRAVCI – heroes of Drava River”, Oct 2016, 120 pieces (E9_6_TD)
 - T shirt – white, Ormož Basins NR theme, Sep 2017, 50 pieces (E9_7_TD)
 - T shirt – black, Ormož Basins NR theme, Sep 2017, 50 pieces (E9_8_TD)
 - Carrying bag – type 1, Ormož Basins NR theme, Sep 2017, 50 pieces (E9_9_TD)
 - Carrying bag – type 2, Ormož Basins NR theme, Sep 2017, 50 pieces (E9_10_TD)
 - Stickers – Ormož Basins NR theme & LIFE, Sep 2017, 400 pieces (E9_11_TD)
 - Packed buckwheat – from the Ormož Basins NR, Dec 2015, 100 packages at 0.5kg (E9_12_TD)
 - Packed elder tea – from the Ormož Basins NR, Jun 2016, 150 packages at 30g (E9_13_TD)
 - Elder syrup - from the Ormož Basins NR, Jun 2016, 108 bottles at 0.5L
 - Nettle syrup - from the Ormož Basins NR, Jun 2016, 32 bottles at 0.5L

Objectives, plans assessment/indicators

- 20 lectures and 10 excursions were planned under this action. Lectures were planned for the locals in villages in the project area – 10 lectures at the beginning of the project and 10 at the end. All that planned lectures were carried out and excursions, too. Moreover, significantly more lectures were given and excursions carried out as planned. Additionally, portable exhibition was displayed which was not planned but confirmed later by the monitor. We planned to reach 300 people through excursions and 800 through lectures. However, all together we reached 380 through excursions, 1,383 through lectures and additional 3,950 through exhibition displays.
- More specific target audiences (e.g. water engineers) were informed about the project than originally planned.
- All planned promotional material has been produced.

Reactions/feedback

- All our presentations, excursions and exhibition displays were very well accepted. One of the indicators of positive feedback are definitely many invited and unplanned lectures that were requested from us about the project. The project was presented from the local level to the national expert symposia.

Modifications

- No

Problems/consequences/solutions

- Minor changes were in selection of villages where lectures were carried out. Instead of Zavrč, Maribor was selected and instead of Muretinci, Gorišnica was selected. Both changes fit the project area and did not influence the results.

- For some public events (e.g. opening of observation tower at Lake Ptuj, opening of Ormož Basins NR, project closure & celebration of 25Y LIFE event) unplanned external services were needed. Choir and supply with loudspeakers were hired for that occasions and were necessary to carry out proper event. Occurred costs were charged to this action.

Complementary actions/after-LIFE perspectives

- All the additional invited lectures and exhibition displays can be seen as complementary actions although they completely fit in the realisation of E.9 action.
- We organized “LIFE project closing” public event that took place in Središče ob Dravi on 23rd Dec 2017 (E9_14_TD). We dedicated this event to the celebration of the 25-years of the LIFE programme, too. Representative from the Ministry of the Environment and Spatial Planning Mrs Julijana Lebez Lozej gave presentation on this topic. See the report from the event published on KTV Ormož on 18th Jan 2018 (1:20-12:50):
<https://www.youtube.com/watch?v=whD82WUh58E>
- We plan to keep informing public in the media about after-LIFE activities, especially in the Ormož Basins NR and along the Drava River. We plan to display the exhibition on public events and new places in the future. At the moment, in January 2018, the LIVEDRAVA exhibition is placed in the entrance hall in the building of the MOP in Ljubljana. Besides exhibition, LIVEDRAVA film and videoclips are displayed on the presentation screen.



Fig. 16: Project was thoroughly presented among wider public, youth and specific expert groups at different events between 2013 and 2017.

Press cuttings overview

The project was extensively covered by the media. The project activities were presented in 257 media outlets (148 in newspapers, 49 on the radio, 12 on TV and 48 on the internet). Based on their reach, we estimate that the project details were made available to 1.8 million people in Slovenia, which is more than 85% of the national population.

See for example “Slovenian magazine” serial in English about Ormož Basins Nature Reserve broadcasted at the National TV on 6th Oct 2017 (0:38-5:16):

<http://4d.rtv slo.si/arhiv/slovenski-magazin/174495194>

Or report from the Commission's visit at the project site broadcasted at local "KTV Ormož" on 1st Sep 2016 (14:08-25:46):

<https://www.youtube.com/watch?v=jhJuCxn6KP8>

Furthermore, project news were regularly published on the project web page as already reported under E.2. In total, 367 news were published. Selected notices were published at DOPPS' Facebook profile and web page as well. Invitations to public events within LIVEDRAVA (E.9) and volunteer actions (C.8, C.10) were published on LIVEDRAVA web page, DOPPS web page, Facebook profile and were sent to 5 mailing lists - dopps mladi (Youth of DOPPS), Ljubitelji ptic ("Bird fans"), Isdopps (Ljubljana local branch of DOPPS), stajerci_dopps (Styria local branch of DOPPS) and group of students of Faculty of Natural Sciences and Mathematics in Maribor. Additionally, invitations were sent to app. 300 mailing addresses of people that DOPPS informs about events, and are not included on mailing lists.

All published press cuttings, except from web pages, with the database, are annexed in digital form (folder 7.3.4. press cuttings).

5.3. Evaluation of Project Implementation

We evaluate general project management methodology as appropriate and we argue that delays were not caused by management but by objective circumstances. First lesson learned was that deadlines of actions A.1 & A.3 were planned unrealistically too early as a result of our (DOPPS) inexperience in certain fields – especially in obtaining permits for works in the river bed. However, we should consider that some of the actions were carried out for the first time in the Republic of Slovenia (C.9 – removal of lateral embankment - riprap, C.12 – preventing disturbances at gavel bars) or are carried out extremely rarely (e.g. C.9 – restoration of river branches, C.2 – basins restoration, E.5 – building of observation towers on “water land”), therefore legislative procedures are not clear or “stable” and obtaining permits is difficult. But the basic methodology and rule for all beneficiaries is legislative correctness of all actions. An additional value of all these procedures is setting public law precedents.

Some delays were caused by unexpected weather conditions or floods (C.1, C.2, C.3, E.7), others by the long-winded procedure of accepting the Detailed Spatial Plan of Municipality of Ormož that caused a delay in parts of actions A.3 (blue-prints for visitor centre) and consequently C.4 (building of cattle stable) and E.4 (placing of observation points, arranging parking). Furthermore, we experienced problems with the first water supply system in the Ormož Basins NR, that was not delivering enough water to the basins. Problem was solved with the additional system but actions connected to C.1 – results of the restoration C.2 – came late in the project therefore causing delay in dependent actions like E.4 (education boards in the Ormož Basins NR), E.7 (the Guidebook to the Ormož Basins NR). Declaration of Nature Reserve (C.6) took us more time than planned – we were dependent from the state services that were not proactive always, however the reserve was finally declared. Contrary we failed to reach declaration of the Nature Park at Drava River between Ormož and Središče ob Dravi despite all the efforts, resources and time invested. But the road has been paved and the direction set. Sooner or later the Nature Park will be declared as it is already present in the area and among people as fact. Lesson learned is that we should continue with awareness raising, concrete conservation work and projects that combines nature protection and local economy. Achieving conservation objectives and communicate them to the public is never “ready-made article”. Unfounded beliefs, fears, bad experiences, political interests etc. are always the challenges and result is never surely predictable. This is the reason the majority of organisations and projects do not challenge objectives like declaration of conservation areas. However, sailing always in the safe harbour will never bring us to new horizon.

General results of actions are presented in the table below. Project consisted of 39 actions (7A, 2B, 12C, 5D, 9E, 4F). In 38 (97%) objectives were completely achieved within the project. Single action, C.5, was partly successful only - Nature Reserve was declared, but Nature Park not. In general 21 (54%) actions were carried out in planned time (± 3 months), 9 (23%) were delayed, but not significantly (< 1 year), and 9 (23%) experienced larger delay (> 1 year).

Following abbreviations are used for “Achieved column” in the table:

Abbreviation	Meaning
Y	yes, result achieved in planned time (± 3 months)
YD	yes, result achieved, but with insignificant delay (< 1 year)
YD+	yes, result achieved, but with larger delay (> 1 year)
NR	result was not achieved

Table 3: Evaluation of the project actions

Task	Foreseen in the revised proposal	Achieved	Evaluation
A.1	<p>Technical blue-prints (BP) for restoration works & obtaining all consents. All by May 14. Preparation of technical BP for restoration of the Ormož Basins NR</p> <p>BP for opening of 3 river branches & removal of 1 riprap</p> <p>BP for reducing disturbances at gravel bars</p>	<p>Y</p> <p>Y/YD</p> <p>YD</p>	<p>All BP prepared and consents obtained.</p> <p>BP for restoration of basins finished in Dec 13, but due problems with water supply (C.1) new BP for additional water supply in Mar 16.</p> <p>BP for river branches finished in Jun 14 (2 sites, riprap) and Apr 15 (1 site), but delay - not relevant as implementation planned in autumn 15 and realized.</p> <p>BP for reducing disturbance finished in Sep 14 - problems with a single permission. BP were changed and full permission later given, guilty for delay of C.12.</p>
A.2	<p>Hydraulic analysis – flood and sediment transport modelling. All by Jan 16. Purchase of equipment and education on the MIKE software Granulometric, laser scanning and river bed study Hydraulic analysis carried for 5 concrete conservation actions, 4 typical water-engineering measures and alternative river management</p>	Y	<p>All objectives successfully met, very important action for future biodiversity friendly water maintenance works. Finished in Nov 16.</p>
A.3	<p>Technical blue-prints for the Ormož Basins Nature Reserve visitor facilities. All by Dec 13. Preparation of the BP for the construction of observation points, parking and stable in Ormož Basins NR</p> <p>Preparation of the technical BP for the construction of the information centre in Ormož Basins Nature Reserve</p> <p>Preparation of the technical blue-prints for the construction of observation tower at lake Ptuj</p>	<p>YD</p> <p>YD+</p> <p>YD+</p>	<p>All BP prepared and consents obtained.</p> <p>BP prepared in May 14. Problems with Detailed Spatial Plan of Municipality of Ormož. Solved, but guilty for delay in C.4 and E.4.</p> <p>BP prepared in Aug 16. Delay because of problems with Detailed Spatial Plan of Municipality of Ormož. Parameters from the plan were needed for the BP.</p> <p>First BP in Jan 14 but due problems with permissions (Water land) and difficult terrain 2 additional variants were needed. Finished in Apr 16. Caused 50% of delay in E.5</p>
A.4	<p>Detailed grazing plan for Ormož Basins NR By Jan 14.</p>	Y	<p>Realized in time. Detailed grazing plan, basis for grazing, prepared in Feb 14.</p>
A.5	<p>Management plan for Ormož Basins NR By Apr 17.</p>	Y	<p>Realized in time. Plan finished in Jan 16 and revision in Jun 17. Important input for the declaration of Nature reserve, C.6</p>
A.6	<p>Guidelines for sustainable water management of the Drava for the national Danube River basin management plan for the period from 2016-2021</p> <p>Guidelines preparation by Oct 15</p> <p>Incorporation of guidelines into national Danube River basin management plant by Dec 17</p>	Y	<p>The Guidelines were prepared and incorporated into the national Danube River basin management plan in Dec 2015 and into Decree on Water management plan in Oct 2016. Realized in time.</p>

A.7	Geodetic survey and marking out the land By Nov 12	Y	Objective successfully met - in Dec 12, land of Ormož Basins NR marked, immediately visible on the ground, and in Aug 13 decree issued.
B.1	Purchase of flooded forest fragment By Oct 12	YD	Purchased in Feb 13, conservation clause included, objective successfully met, immediately visible. Minor delay, not relevant.
B.2	Purchase of a single parcel to reach the integrity of the restored area By Oct 12	YD+	Purchase was changed to long-term lease after the modification request. Realized Sep 14. Objective successfully met, immediately visible. Delay did not cause problems.
C.1	Construction of water supply and water regulating system in Ormož Basins NR By Mar 14	YD+	First water supply system finished in Dec 2014 but did not work properly, additional built and functional in Jul 2017. Supplying 240L/sec. Results immediately visible.
C.2	Restoration of the habitats for waterbirds in Ormož Basins NR By Mar 14	YD+	Works finished in Dec 2014. 5 large islands and 77 small created, 1,753m ditches excavated. However, due to problems with C.1, not until 2017 full biodiversity restoration effects occurred. Results visible (D.2), but biodiversity will develop further with time.
C.3	Habitat management in the softwood forest stands in Ormož Basins NR Forest dead wood management experiment for beetles, by Mar 13 Restored forest oxbow, by Mar 14	YD Y	Forest experiment set on 2 sites in Feb 14, objective successfully met, results achieved (D.3). Delay, not relevant. 200m long oxbow restored in Mar 14, results immediately visible (D.3)
C.4	Establishment of a grazing system for long-term and sustainable wetland management in Ormož Basins NR Building grazing infrastructure - fences, stable, funnels, bathing ponds, by Nov 14 Purchase of 5 water buffalos, by May 14 Testing grazing carried our, by Dec 17	YD Y Y	12.7 km fences placed by Mar 15. Stable (27×10.8m ground plan) built in Oct 15 due delay in A.3. Temporary stable was built for winter 14/15. 3 funnels placed in Oct 16 – were not necessary before. 5 buffalos released in May 14, but 5 additional purchased in Dec 16. Grazing management system established and working. Habitats are improving significantly, results already visible, positive effect on biodiversity, improved foraging habitats for migrating shorebirds (D.2)
C.5	Declaration of Ormož Basins Nature Reserve and Nature Park at the Drava River between Ormož and Središče ob Dravi Nature Reserve by Jun 15 Nature Park by Dec 14	YD+ NR	Nature Reserve declared in May 17, objective reached, huge success. Important for conservation, promotion and after-LIFE perspective. Delay due lingering of state services Lot of efforts and resources invested, achieved public support but politically

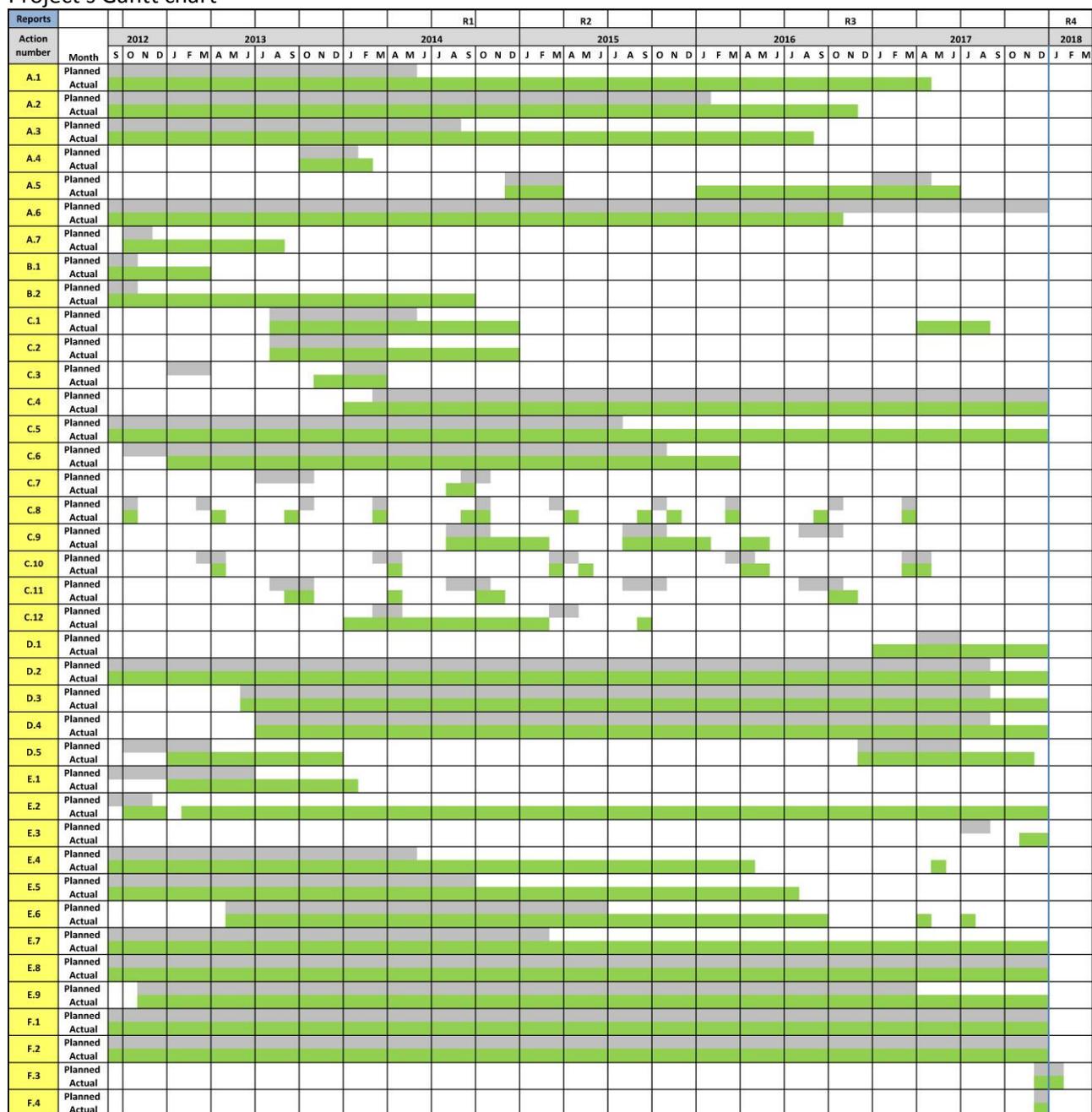
			stopped at the end. Still chance for designation.
C.6	<p>Removal of illegally built fishing and hunting platforms at Lake Ormož Education material for Croatia produced by Apr 13 and distributed, 2,500 leaflets, 2,000 posters</p> <p>Six illegally erected platforms removed by Oct 15</p>	<p>Y</p> <p>Y</p>	<p>2,000 posters and 2,500 leaflets printed in time and practically all distributed in 2 years. Objectives were met.</p> <p>Platforms were removed almost a year earlier, in Nov 14. Results immediately visible, after abolition of illegal hunting number of waterbirds significantly increased (D.2).</p>
C.7*	<p>Creation of new artificial breeding island for Common Tern at Lake Ptuj By Oct 14</p>	<p>Y</p>	<p>2 islands created in Sep 14, 2,100m² large. Only one was planned. Due to changes in partnership, action was removed from the project in amendment, but was carried out anyway.</p>
C.8	<p>Conservation management of the breeding islands at Lake Ptuj analysis by Mar 17</p>	<p>Y</p>	<p>Conservation management carried out and technology improved. Results immediately visible, Common Tern colony increased by 52% (D.2). Final analysis and carried out.</p>
C.9	<p>Restoration of the river branches All by Oct 2016</p> <p>Opening of 3 river branches and removal of one riprap</p>	<p>Y</p>	<p>Opening of all 3 river branches carried out at planned locations, Vurberg, Mala vas, Nova vas – restored branches are 500, 800 and 2,500m long, resp. Riprap was removed. Results visible immediately (D.2. D.4) but biodiversity will develop further with time. Bitterling population became more stable and less vulnerable, 3-4 new pairs of Kingfisher. Action finished earlier than planned, last branch restored in Jan 16.</p>
C.10	<p>Preparation of the river banks for breeding of the Kingfisher (KF) and Sand Martin (SM) By Apr 17</p>	<p>Y</p>	<p>Breeding banks were created at 2-8 sites between 2013-2017, total length was max. 700m. Results are visible. We increased SM population threefold (574 breeding pairs in LIFE, before 194) and KF population by 25%. No delays.</p>
C.11	<p>Management of gravel bars for the breeding of the Little Ringed Plover</p> <p>Removal of vegetation from 5 overgrown gravel bars, two removals, first by Oct 14, second by Oct 16</p>	<p>Y</p>	<p>We planned to create 7 ha of shingle habitat. After first removal we created 8.2 and after second 10ha of it. Results immediately visible. Population of Little Ringed Plover was increased by 35% (D.2). Both two removals were carried out in time, the last one finished in Nov 16.</p>
C.12	<p>Reduction of human disturbance and destruction of bird breeding habitat at gravel bars</p> <p>Human disturbance at 9 gravel bars reduced using blockades, by Apr 15</p>	<p>YD</p>	<p>From 9 planned, 7 locations remained relevant in the project period. We prevented access to 5 places with ditches and to 3 with road gates. At all sites information boards were erected. All works carried out in Feb 15, except one – Placerovci, that was finished in Sep 15. Results visible, 4 pairs of Little Ringed Plover and 1 pair of Sandpiper bred as a</p>

			result (D.2).
D.1	Evaluation of the habitat and species monitoring results By Jul 17	YD	The study was finished in Dec 17
D.2	Impact of project actions on bird species All by Aug 17 Monitoring of waterbirds Monitoring of breeding numbers of Common Tern and Black-headed Gull Monitoring of breeding riverbed birds Monitoring of qualifying bird species at Ormož Basins NR Ecological study of Little-ringed Plover survival Monitoring of physiognomic characteristics of vegetation	Y Y Y Y Y	All carried out but extended to Dec 17 Monitoring was carried out in 10-days intervals during the project. Results for interpretation of C.1, C.2, C.4, C.6 Monitoring successfully established. Action C.8 evaluated through this monitoring. Camera system in the colony established. Monitoring successfully established. Results are visible and enable the evaluation of C.10, C.11, C.12. Article was published. Monitoring successfully established. Results enable the evaluation of C.1, C.2, C.3, B.1, B.2, C.4 Study in 3 years 2014-2016. Results important for better understanding of mechanisms for conservation & river management Monitoring was successfully established and carried out in 2013-2017. Results important for C.1, C.2, C.4.
D.3	Impact of project actions on beetle species By Aug 17 Beetle monitoring to identify zones important for conservation, identification of habitat features, evaluation of habitat restoration, preparation of guidelines for habitat management of selected species	YD	Monitoring was established and carried out by subcontractors. Monitoring revealed effect of ecological experiment (C.3) and proved importance of Ormož Basins NR for beetles (C.1, C.2). Natura 2000 data for beetles were supplemented. 3 articles were published. Final report delivered in Dec 17.
D.4	Impact of project actions on fish species By Aug 17	Y	Sampling was carried out and analysed before/after restorations C.9. Report delivered in Oct 17 by subcontractor. Invasive crab species was discovered and article published on it.
D.5	Study of the socio-economic impact of the project actions By Jun 17	YD	Situation "before/after" the project activities was assessed. Results showed that project significantly improved knowledge about Natura 2000, LIVEDRAVA project, Ormož Basins NR. Final report was delivered by subcontractor in Nov 17
E.1	Notice boards in the project area By Jun 13	YD	Notice boards were placed at 6 locations in Jan 14. Results visible.
E.2	Website of the project By Nov 12	Y	Web-site was created and published in Dec 12. 367 project news were published. Besides FB and YouTube were used as media for the project. Results visible.
E.3	Layman's report By Dec 17	Y	Prepared and printed in planned 1,000 copies in Dec 17. Available on the website. Distribution in course.
E.4	Setting-up basic visitor facilities in Ormož Basins		

	<p>NR By Mar 14</p> <p>Temporary project office in Ormož Basins NR</p> <p>Starting phase of establishing open-air museum – placing of nest boxes, fencing of sinking & aeration basins</p> <p>Observation plateaus erected, parking arranged and education boards</p>	<p>Y</p> <p>YD+</p> <p>YD+</p>	<p>All renovation works finished, office established by Nov 12, results visible.</p> <p>Aeration basins fenced, sinking basins filled with soil, open-air museum arranged and prepared for the visit, nest-boxes placed yet - will be after the end of restoration works in basins. Finished in Apr 16.</p> <p>4 observation plateaus placed and parking arranged in Nov 14. Delay due to problems with Detailed Spatial Plan of Municipality of Ormož, see A.3. All education boards (14 large, 17 small) placed in May 17.</p>
E.5	<p>Setting-up the basic visitor facilities at Lake Ptuj By Sep 14</p> <p>Interpretation/education boards prepared and placed around Lake Ptuj</p> <p>Observation tower erected at Lake Ptuj</p>	<p>YD+</p>	<p>All 4 boards prepared and placed in Aug 14. Positive feedback from the public. Results visible, objectives met. Observation tower was finished in Jul 16. Delay due A.3 and other objective reasons.</p>
E.6	<p>Production and distribution of a documentary film By Jun 15</p>	<p>YD+</p>	<p>2 videoclips prepared and published in Apr 15, Jul 15. Documentary film produced and promoted in Sep 16. Film broadcasted 6 times at the national TV and reached 136,057 people. Results visible, delay due subcontractor.</p>
E.7	<p>Production and production of project publications</p> <p>Project brochure by Feb 13</p> <p>Guidebook to the Ormož Basins NR by Feb 15</p>	<p>YD+</p>	<p>Brochure printed in 60,000 copies and 54,000 distributed among locals in Sep 14. Feedback very positive. Action was planned for Feb 13 but we assessed that period as inappropriate as too soon after floods.</p> <p>Slovene Guidebook printed in 3,000 copies in Aug 17 and English (700 copies) and German (300 copies) in Dec 17. Delay because data from after restoration period (2017) included. Premiere at the opening of the Ormož Basins NR event.</p>
E.8	<p>Project educational program Two youth research camps by Jul 13 and Feb 15</p> <p>25 excursions & 25 lectures for pupils</p>	<p>Y</p>	<p>Two camps carried out according to schedule, 23 and 15 pupils attending them.</p> <p>There were 2,500 participants planned and 25 excursions and 25 lectures, but we reached 2,727 participants and carried out 38 excursions and 21 lectures. A bit less lectures were compensated with more excursions.</p>
E.9	<p>Public presentations and excursions</p>		<p>42 lectures, 17 excursions and 7 exhibition displays carried out. Lectures visited by</p>

	20 lectures and 10 excursions planned	Y	1,383 people, excursions by 380 and exhibition displays by 3,950. All together we reached 5,713 people.
F.1	Project management	Y	Management system was established for project and within each beneficiary. Problems were solved by regular communication and common searching for solutions.
F.2	Networking with other projects	Y	Planned 8 networking excursions were carried out between 2014-2017.
F.3	Audit	Y	Carried out in Dec 17 and Jan 18. Result – auditor’s report.
F.4	After-LIFE conservation plan	Y	Prepared in Dec 17.

Project’s Gantt chart



5.3.1. Explanations to the technical issues, raised in response letters to the previous reports

Technical issues raised in the letters of the EC were generally approving our requests or instructing us to accelerate delayed actions. After considering carefully all the response letters (1 – 8th May 2013, 2 & 3 – 14th Aug 2013, 4 – 24th Mar 2014, 5 – 4th Dec 2014, 6 – 11th May 2015, 7 – 7th Aug 2015, 8 – 6th Jul 2016, 9 – 18th Oct 2016, 10 – 11th Jan 2017, 11 – 16th Dec 2017), only the following issues raised turned to require additional answers.

Letter 24th Mar 2014

Remark was to improve the web site (E.2) by adding the results section and making deliverables available in the electronic form.

Answer: Web site was improved and deliverables available in e-form.

Letter 4th Dec 2014

Questions were whether road gates in C.12 action are as efficient as “anti-tank” defenses, and what will we do with the already purchased defenses.

Answer: As explained in details under C.12 the Ministry prevented us to place anti-tank defenses to reduce disturbance at the gravel bars and road gates were used instead. As some lockers at the gates were broken and people opened the gates, we think the anti-tank defenses would be better. However, as we frequently check the gates, we replaced the lockers and gates are functioning again. As anti-tank defenses are military equipment and special checking procedure was carried out when purchasing, and purchase itself was conditioned by the project purpose only, we cannot sell or use them another way. They are placed in the remote part of the Ormož Basins NR.

Letter 18th Oct 2016

Question was regarding incurred costs (about 5,000€) for the blueprint for the visitor centre in Ormož Basins NR that was not foreseen to be constructed within this project. Our commitment and guaranties to show the full implementation of the visitor facilities after the project were asked for.

Answer: We are looking forward for the construction phase of the visitor centre in Ormož Basins NR. Project application for the construction of the visitor centre in Ormož Basins Nature Reserve was prepared by DOPPS in Apr 2013, and was included among regional list of projects for Podravje region for the new cohesion funding period (RRP 2014-2020). The decisions regarding selected projects for funding were not taken so far, but the project was included on the list that was sent to the Ministry of Economic Development and Technology by the Maribor Regional Agency on Jun 2014.

As temporary office in the abandoned industrial building is definitely not enabling development of certain segments of the Ormož Basins NR, and DOPPS is the legal owner of the area, there is strong DOPPS' interest and commitment to construct the planned visitor centre. Constant effort is invested in searching for funding the construction and available-blue prints are significantly increasing the positive outcome.

Letters 11th May 2015, 7th Aug 2015, 18th Oct 2016, 16th Nov 2017

In all the letters Nature Park was the issue. In the first two Commission acknowledged that we narrow the proposed Nature Park and in the second one further reduction of 10% was acknowledged by the locals who declined to be include in the park. At the same time we were instructed to try to keep Municipality of Ormož to be included in the Nature Park. In the last letters it was exposed we should invest all the efforts to make sure that the designation of Nature Park is finalized before the end of the project.

Answer: It was impossible to include Ormož Municipality in the proposed Nature Park after group of locals declined to be include in the Park as the minor part of the Ormož Municipality was proposed to be in the park and this was exactly the part of the locals that step out.

Unfortunately, despite all the efforts we were not able to reach formal Nature Park declaration. After the failure on the Municipal council session we organized meeting with the mayor on 11th Jan 2018 to explore the causes and possibilities to continue. Mayor concluded that after shorter period, e.g. in March 2018, he will organize special meeting for the councillors trying to warm them up for the Nature Park again. Details regarding all the efforts made by DOPPS for designation of the Nature Park and causes for failure are elaborated in technical report of C.5 action.

5.4. Analysis of long-term benefits

5.4.1. Environmental benefits

Direct / quantitative environmental benefits

Several species and habitat directly benefited from the project. With our management (C.10) and restoration activities (C.9) we established 5 new breeding pairs (BP) of Kingfisher which is increase of SPA population by 25%. Besides Kingfisher, Sand Martin benefited from the management (C.10), too. Our efforts yielded an average of 574 BP of Sand Martins (in the 2013-2017 period), which is a threefold increase of the SPA population compared to the long-term average of 194 pairs in the 2000-2012 period. With the action we exceeded planned conservation effect in the Sand Martin population. We planned to increase population at SPA Drava for 50-100%, but managed to increase it threefold or for app. 200%.

Populations of Little Ringed Plover and Common Sandpiper benefited from actions C.11 and C.12. In total we managed to increase their SPA Drava populations by 21 BP (43%) and 7 BP (18%), respectively. Removal of woody vegetation from overgrown gravel bars (C.11) resulted in an average 17 (35%) more BP of Little Ringed Plover and 6 (15%) of Common Sandpiper. Reducing disturbances on selected gravel bars (C.12) resulted in 4 (8%) new BP of Little Ringed Plover and 1 (2.5%) of Common Sandpiper.

By creation of new (C.7) and management of breeding islands (C.8) at Lake Ptuj, as well as removal of ecological traps at Lake Ormož (action C.6), we significantly stabilized and enlarged populations of Common Tern and Black-headed Gull at SPA Drava. In 2017 population of the Common Tern at SPA Drava was 176 breeding pairs – 118 pairs at the Lake Ptuj and 58 pairs at Lake Ormož. During the project (2013-2017) average Common Tern population size on the SPA was 128, but before the project (2004-2012) 100. Black-headed Gull increased even more. In 2017 its population at SPA Drava was 853 breeding pairs – all at the Lake Ptuj on the managed island (C.8). During the project (2013-2017) average Black-headed Gull population size on the SPA was 707, but before the project (2004-2012) 343.

After the abolition of illegal hunting at Lake Ormož (C.6), the populations of overwintering waterbirds significantly improved as showed DOPPS' monitoring (D.2). In the autumns and winters (Sep-Jan) of 2012/2013-2014/2015, only 2,300-4,300 waterbirds were recorded on the lake on average, whereas in the first season after the hunting abolition (2015/2016), this number rose to 7,300 waterbirds, with the highest numbers in November even exceeding 10,000 individuals.

Recovery of waterbird populations after the restoration of their habitats is a long-lasting process, expected to yield target results only in the long-term. Nevertheless, the results achieved during the project are very promising. Soon after the restoration works in the Ormož Basins NR, the surface of reedbeds, bulrush stands and other target vegetation types increased by several times (to 15 ha). In the post- 2015 period, strong breeding populations of birds typical of these habitats and important within the scope of the entire SPA have bred here: the Great Reed-warbler (15-20 BP), Savi's Warbler (5 BP) and Reed Bunting (2-3 BP), whereas the basins are the only breeding location of the Common Reed-warbler and Sedge Warbler along the Pannonian part of the Drava River. A constant influx of water has enabled breeding of several endangered species that disappeared after the cessation of

sugar production: the Gadwall, Garganey, Northern Shoveler, Common Little Bittern, Little Crake and Spotted Crake. Extensive stands of reed and bulrush are home to one of our largest populations of Western Water Rail (10-20 BP). The quality of the restored habitat was further emphasized by the first breeding of Bearded Reedlings in 2017. Here, the Western Marsh-harrier has its only regular breeding site in Slovenia. Ferruginous Duck has not returned as a breeder yet, but is expected in the following years as water tables improved in the Basins. An increase in the water levels in the Basins in summer 2017 significantly improved conditions for migratory birds, too. In Sep 2017, 550 waterbirds that rely on the basins as an important stopover site during their migration were foraging in the 5th basin (mostly ducks and Common Coots). Grazing habitat management (C.4) significantly contributed in restoration of shorebirds stopover site in the Ormož Basins NR, like for Ruff and Wood Sandpiper. Their numbers start to recover after the restoration (C1, C.2) and grazing management C.4).

By turning of high-quality forest stand (B.2) into disturbance-free, effectively protected area and with restored basins besides, White-tailed Eagle became more frequent on the area again.

The Hermit Beetle is listed in Annexes II and IV of Habitats Directive (HD) as priority. In the whole territory of Slovenia its populations and distribution are poorly known. There was only one known old record for the species before our project. Within the framework of the project study, the *Osmoderma eremita* was confirmed for the first time along the Drava River at two locations: Videm by Ptuj and Markovci. This confirmed the assumption that the *O. eremita* in the Drava area is an expected species, although according to the collected data it appears only local and limited. The species *Cucujus cinnaberinus* was systematically sampled, too. The riparian forest between the gravel pit and the Ormož Basins NR and the lowland forest Šturmovci turned out to be the most important population strongholds of the *C. cinnaberinus* on the lower Drava. In the renaturation experiment in Ormož Basins NR (C.3) we confirmed that the addition of dead wood mass can be an effective measure in improving the habitat for *C. cinnaberinus* and saproxylic beetle fauna, especially in younger and degraded forest stands. The data collected in the project will be used to correctly assess importance of SCI Drava for this species for the first time.

In the restored forest oxbow in the Ormož Basins NR, *G. bilineatus* species was not confirmed, but as part of these samples, five other water beetle species of conservation concern were confirmed: *Dytiscus dimidiatus*, *Hydrophilus piceus*, *Hydrophilus atterimus*, *Cybister lateralimarginalis* and *Agabus bipustulatus*. The highest number of taxa (46) was found at Basin no. 3 in all four years.

37 fish species were registered during the fish monitoring (D.4). Side arms significantly contributed towards greater diversity of fish habitats and enhanced biodiversity. Mudminnow (*Umbra krameri*) was not confirmed during the monitoring, but all other project fish species - Spined Loach (*Cobitis taenia*), Asp (*Aspius aspius*) and Bitterling (*Rhodeus sericeus amarus*) were. Fish monitoring revealed that the ecological conditions for the fish species improved after the carried out restoration. The Bitterling population became more stable and less vulnerable. The preservation of cut-off channels, side arms and deep sections of the Drava is crucial for the successful conservation of Bitterlings, Spined Loach and Asps.

Habitat type 91E0* - Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae) is listed in Annex I of HD. This priority habitat type covers 13.2 km² of SCI Drava. We argue that with the action C.9 – opening of sidearms we enhanced ecological conditions along all three branches, in total length 3,800m and app. 50m wide, which is 19ha surface area and more than planned.

Relevance for environmentally significant issues or policy areas

Considering EU added value, the project LIVEDRAVA contributed to the specific objectives of the priority areas of the LIFE Sub-programme for Environment that are listed under article 11 of the Regulation (1293/2013). The project contributed to specific objectives, listed especially under paragraphs (b) and (c) article 11, as we developed management of the Natura 2000 network through application, development, testing and demonstrating management approaches directly improving

qualifying species and habitats of Birds and Habitat Directives (92/43/EEC, 2009/147/EC). The extent of the contribution is wide – we apply best practice management, we demonstrated new advanced management approaches in Slovenia and tested completely new integrated approaches. We believe the contribution of all will yield significant improvement of replication potential to other Natura 2000 sites in Slovenia and EU and with potential for replicate them outside the Union as well, especially to the Balkan countries. Furthermore, the project was in accordance and fully supported Priority area Nature and Biodiversity listed under LIFE Regulation Annex III in Decision of the LIFE multiannual work programme for 2014-2017. The project (a) improved conservation status of species of Union interest and (b) significantly contributed in maintenance of ecosystems and their services with establishment of green infrastructure and restorations which is at the same time Target 2 of the EU Biodiversity strategy 2020. There is a direct link between biodiversity and ecosystem services. Ecosystem services depend on biodiversity and organism interactions. The higher the biodiversity, the larger and more stable the ecosystem services. It is the EU strategy to reverse biodiversity loss and speed up transition towards green economy. All the concrete conservation actions in the project directly contribute in achieving target 2 of the EU biodiversity strategy to 2020. We maintained and enhanced ecosystem services and restored degraded ecosystems. And we enhanced connectivity between ecosystems which is again one of the issues in the Water directive (2000/60/EC). Large part of project actions (A6, C9, C11) was simultaneously achieving nature-conservation results and work against flood risk. In this way the project contributed to the realisation of the Flood risks Directive (2007/60/EC) where chapter IV article 7 states that nature conservation should be taken into account in Flood risk management plans. With the inclusion of the Guidelines (A.6) for sustainable water management into the “National Danube River basin management plan” and into “Water management plan” we achieved exactly this.

In Europe, almost all larger lowland rivers are energetically used and with changed or degraded natural processes. In the Danube river basin, about 600 major hydraulic structures (dams and weirs) have been built along the main river and its tributaries. Furthermore, about 6% of the human population and even a higher share of infrastructure in the basin are located below the flood level. Therefore, in present situation, nature-conservation management of these rivers is possible only in cooperation with water-engineering works aimed at securing public safety and protection of properties. This were our aims. Actions in this project contributed directly the EU’s transition towards a resource efficient and green economy what is an integral part of the Europe 2020 Strategy for smart, sustainable and inclusive growth (COM(2010) 2020). We developed new resource efficient water management (A.2, A.6, C.11) and through green infrastructure we created platforms for the local green economy. Ormož Basins Nature Reserve is such a platform. The site has been declared as Reserve by the Governmental decree and before Detailed spatial plan has been accepted by the Ormož Municipality. In this way activities based on Natura 2000 goals influenced local regulations, as well.

Some actions (C.11) at the same time combated climate change and worked for clean and efficient energy which is again EU’s commitment in the Strategy 2020 (COM(2010) 2020). All project actions can be replicated to other regions or countries, but especially A.6 action, with its pilot character, has wide and promising transferability potential. EU added value was in our complex approach to cope with the large community problems. Due to climate change extreme events, like floods, have become more frequent, which is definitely true for Drava River. But damages that people and infrastructure often suffer can be avoided with the right coexistence that we constantly emphasized. EU added value is in raising awareness about permanent, green solutions which are the ones that maintain and enhance ecosystem services. Otherwise more and more money is spent after every flood and nothing changes. That is not green economy. Countries have less money due to economic crisis and resources should be wisely used. Through our project we stimulated a participatory approach which is still not usual in river & wetlands management. Here we entered as an independent NGO and developed and promoted the best solutions for the public, completely independent of anyone’s interest. In such a way the basic principles of democracy and social inclusion - EU’s pillar - is preserved, which is added value, as well. It is obvious that we face new challenges that cannot be solved with old practices and

people only. Therefore, projects like this one offered the unique opportunity for people to obtain new skills, new jobs were created and new perspectives for people emerge, which is again EU added value. Through LIVEDRAVA project we experienced that such LIFE projects are like a catalyst that qualitatively and quantitatively change people's perspective towards EU attributes (such as Natura 2000) which is very important. Many times, Natura 2000 is a handy scapegoat for all possible problems and is presented in the media as such many times, unfortunately. We always do the opposite, we point out the importance of ecosystem services protected and the economic value of the benefits provided by the tourism/recreation and other sectors by Natura 2000. Defending and preserving the EU system and Natura 2000 in such situation is, in our opinion, one of the biggest EU added values, too. Especially nowadays when some groups and politics jeopardise entire EU to reach their partial interests.

To summarise, the project addresses directly the following EU policies:

The Union Biodiversity Strategy 2020 by contributing towards reaching its Target 1 "Fully implement the Birds and Habitats Directive"; Target 2 "Maintain and restore ecosystems and their services"; Target 3 "Increase the contribution of agriculture and forestry to biodiversity" and Target 6 "Step-up action to tackle the global biodiversity crisis".

The project participated in two measures - "eco-cells" (protecting forests and enhancing ecosystem services) directly following 2020 forest objectives from A new EU forest strategy adopted by the EC in 2013, and implementation of grazing regime in wetlands foreseen by the Ministry of Agriculture, Forestry and Food to implement the EU's rural development policy (RDP) through the European Agricultural Fund for Rural Development (EAFRD). This fund is aimed at improving the competitiveness of the EU farming sector.

The project contributes to the implementation of the Bird Directive and Habitats Directive as the project objectives aimed to ensure long-term conservation of target bird, fish and beetle species within the designated (and improved!) Natura 2000 sites.

The quality of surface water in the restored river arms (by opening the arms) increased, which decreased the heating rate of water and results in a higher concentration of dissolved oxygen. This is one of the crucial objectives of the Water Framework Directive. More specifically, the aim "*Member States shall protect, enhance and restore all bodies of surface water, subject to the application of subparagraph (iii) for artificial and heavily modified bodies of water, with the aim of achieving good surface water status at the latest 15 years after the date of entry into force of this Directive*", was thus achieved.

For the purposes of future flood safety and flood forecasting, hydrological and hydraulic models of the Drava River were also developed in this project. These measures are in line with the provisions of the Floods Directive (Directive 2007/60/EC) on the assessment and management of flood risks.

Documents used:

A new EU Forest Strategy: for forests and the forest-based sector. Brussels, 20.9.2013 COM(2013) 659 final.

Regulation (EU) No 1293/2013 of the European parliament and of the Council of 11 December 2013 on the establishment of a Programme for the Environment and Climate Action (LIFE) and repealing Regulation (EC) No 614/2007

Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ L 206, 22.7.1992)

Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010)

Commission implementing decision of 19 March 2014 on the adoption of the LIFE multiannual work programme for 2014-17 (Text with EEA relevance) (2014/203/EU)

Communication COM(2011) 244 final from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of Regions 'Our life insurance, our natural capital: an EU biodiversity strategy to 2020'

Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks (OJ L 288, 6.11.2007).

COM(2010) 2020 Communication from the Commission Europe 2020 A strategy for smart, sustainable and inclusive growth (Brussels, 3.3.2010)

Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000).

5.4.2. Long-term benefits and sustainability

Long-term / qualitative environmental benefits

Some of the actions in the project require continuous implementation after the end of the project to fully achieve expected results in the long-term. During the project (A.2) model was created to assess potential effects of water maintenance works on the river morphology and on habitats of qualifying SPA species. It will be used in the after-project period to achieve that in the future for all water management works such effect will be tested and works will be adjusted to find best compromise between public safety against floods and nature-conservation goals (protection of populations of qualifying species and habitats). We will try to replicate positive experience from Drava River to other rivers in Slovenia.

Further continuous actions are related to the management of the Ormož Basin NR nature reserve. Grazing animals will be looked after invariably all-year round as they will be used permanently as the most efficient tool. Conservation management with regulation of water tables in the basins will continue by DOPPS. As the site is official Nature Reserve a contract will be signed with the Ministry. Regular maintenance of visitor facilities at Ormož Basins NR and Lake Ptuj is essential for providing constant, high-quality public service. In Ormož, DOPPS will be in charge to maintain, clean and service the infrastructure. Ptuj Municipality will take care about the observation tower in the after-LIFE period.

All breeding islets at Lake Ptuj will be actively managed annually, including the two created during the project. All by DOPPS' volunteers & staff. Without proper long-term management islets will soon become unsuitable for breeding of targeted Common Tern and Black-headed Gull. The continuation of the actions aimed at improvement of breeding habitats of riverbed-breeding species is necessary to secure the permanent favourable conditions for these species. The action is however becoming demanding and some systematic funding would help keeping the management.

With continuous monitoring of the basic population / breeding parameters through all project groups (birds, fish, reptiles, amphibians, insects, vegetation) efficiency of conservation measures will be evaluated on a longer scale.

Buffering measures: (a) to achieve final signature of contract with the Ministry (MOP) for managing of the Ormož Basin NR, (b) to keep staff employed and secure their salaries in the "gap period" (c) to keep Slovenian Water Agency and water maintenance company "warm" to follow Guidelines for sustainable water management, (d) to keep group of volunteers large enough to continue conservation management, (e) to motivate experts to continue monitoring of different animal/plant groups.

Long-term / qualitative economic benefits & Long-term / qualitative social benefits

Several direct socio-economic effects were achieved with the project implementation. Through the promotion and education activities (E.1-E.10) the recognition of the natural values of the area and of the importance of its protection increased. A strong impact to the promotion of the project area was reached by the infrastructure placed during the project. No such offer existed in NE Slovenia before, but several indicators are showing that inquiry for such infrastructure by tourists is growing fast. Therefore, we are sure that the local economy will benefit from the basic visitors facilities set during the project. For the first time, the general public got the opportunity to observe “their own nature” supported by quality information – on the boards, in the observation tower etc. Number of tourists in the project area is expected to increase and their time spent in the area to prolong. The infrastructure is set in the region that is otherwise touristic developed (cultural, ethnological component – town Ptuj: famous carnival, town Ormož: famous “gorice”), meaning there are already recognised and developed products in the region but nature component was missing. Additionally, the basis was established within the project to develop this socio-economic added value even more – through the Ormož Basins NR. Reserve itself will positively influence local economy. Already during the testing phase of the grazing management in the reserve we established connections to the local farmers with the intention to develop co-operation. With the eco-social farm “Korenika” common product was developed, “Elder tea” and is already on the market. We plan to continue developing products for the common benefit – for the economy of the farmers and the reserve. Reserve will serve as the selling point of nature-friendly products of the local producers in the future, too. In the project we always favoured local products and used them as catering during project events.

All the working places of DOPPS LIFE staff is secured in the after-LIFE period through the new projects of contracts. During the project a lot of volunteers were included in different actions. We are convinced that with our actions and ways of their implementation we strengthened social responsibility in the community.

Buffering measures: (a) to keep maintaining visitor’s facilities, (b) networking with farmers, (c) applying projects and searching for funds to secure after-LIFE conservation activities.

5.4.3. Continuation of the project actions by the beneficiary or by other stakeholders

Continuation of actions will be enabled by use of different legal instruments, own inventions, marketing of several products and programmes and volunteer work. DOPPS will mainly rely on volunteer work for the management of breeding islets for Common Terns at Lake Ptuj. We have quite extensive network of dedicated volunteers, ready to take part in concrete conservation actions that benefit threatened species. Several people already have the required level of experience with this kind of management, thus rather straightforward continuation of this action is expected. We estimate 120 volunteers working hours/year will be needed for continuation of the management.

For the monitoring implementation after the project, volunteers will be generally engaged, too. Experienced volunteer birdwatchers, members of DOPPS, could take over the bird monitoring scheme. We estimate that app. 150 volunteers working hours/year will be needed to continue monitoring of birds. Besides, activities will be carried out to extend existing state monitoring schemes with the monitoring carried out during the project and to assure its funding. DOPPS will continue part of the study on the Common Tern through recent Interreg project “ČIGRA”.

The financial resources necessary for operation of the Ormož Basins NR will be acquired through “caretaker contract” with the Ministry of Environment and Spatial Planning. Additionally, through agri-environmental measures applied at some parts (GERK) of the Basins subsidies are expected to cover part of the costs of long-term maintenance of established grazing system. Different payable products and services aimed at advanced and specific audiences will be developed and actively promoted. These will include fieldwork practice for B.Sc. and M.Sc. students, education courses for

primary and secondary schools and courses on identification, ecology and conservation of wildfowl for hunters, development of nature-friendly tourism. Local community will be invited to actively take part in management of the reserve, covering the corresponding share of costs.

Continuation of actions aimed at maintenance of favourable conservation status of riverbed-breeding species is secured through their inclusion into obligatory national long-term water management plan (the national Danube River basin management plan for the period from 2016-21) and its implementation through the established public service. The management plan includes the guidelines for the competent bodies for long-term conservation maintenance of restored sites (river branches, gravel bars and river banks).

5.4.4. Replicability, demonstration, transferability, cooperation

Within BirdLife International partnership, DOPPS has the role of enhancing partnership development in the Balkans, therefore we will primarily share our knowledge with partners from Croatia (Association for Biological Research - BIOM), Serbia (Bird Study and Protection Society of Serbia), Bosnia and Herzegovina (Ornithological society "Our Birds" - Ornitološko društvo "Naše ptice"), Montenegro (Center for the Protection and Research of Birds in Montenegro (CZIP)) and FYROM (Macedonian Ecological Society (MES)). All listed organizations are already very active in the field of nature conservation which is reflected in their extensive references. It is particularly important to share the cutting-edge knowledge and experiences with them as western companies using out-of-date technologies are seriously threatening their nature, especially riparian ecosystems, of which clear evidence exist.

Water engineers – experts from VGB – presented the results, especially gravel transport model and the "large-discharge restoration management method", at different expert meetings and conferences (e.g. Mišičevi vodarski dnevni). Abstracts were published. Gained expert knowledge and experience with MIKE software (see action A.2) will be used in the future for nature-conservation purposes. As models can be created for other water systems, too, the water-engineering works that often lack firm justification and generally degrade nature when implemented, could be contradicted with solid arguments and transformed into acceptable practices (continuation of the action A.6).

5.4.5. Best Practice lessons

This project is mainly a demonstration one but several of its actions also have a best practice character. Actions with the most evident best practice character are as follows:

1. Two important parcels of land were purchased/leased where this activity was evaluated to be necessary for the best conservation results (B.1, B.2). To ensure suitable management of riparian forests that host many endangered beetle species 6 hectares of old-stand riparian forest was purchased. This fragment will not be exploited in any way, instead it will be left to develop freely under natural conditions.
2. By setting up a grazing system in Ormož Basins (C.4) breeding habitat for many qualifying species of SPA Drava was created and also important foraging habitat for migratory species that use the basins as a stop-over site (e.g. Wood Sandpiper, Ruff). Ecological demands of qualifying species were taken into consideration when designing and implementing the grazing system Ormož Basins.
3. The most important part of the project area was additionally (to Natura 2000) designated a state Nature Reserve (C.5).
4. Several qualifying species of SPA Drava benefited from creation and / or management of their nesting sites. The river banks of the Drava riverbed were prepared for breeding of Kingfisher and Sand Martin by removing vegetation and ensuring they are suitably steep (C.10). Two new breeding island for Common Tern at Lake Ptuj were created by using accumulated sediments from the lake

(C.7). This way, the sediments were disposed of in the most cost-effective way with a positive side-effect for nature conservation. We reduced disturbance by motor vehicles to gravel bars in order to ensure suitable conditions for breeding Little-ringed Plovers (action C.12). Public was informed of high conservation value of gravel bars through information tables where the reasons for limiting access to them is explained as well.

5. The achievement of the project goals was supported by awareness, education and dissemination E actions, oriented towards local and general public tending to raise awareness about the issue on a regional level and obtain the support for the further increase of nature-friendly activities and decrease or omission of the threats identified under this project.

5.4.6. Innovation and demonstration value

This project is a demonstration one, putting into practice, testing, evaluating and disseminating techniques and methods, that are to some degree new or unfamiliar in the project's specific context and should be more widely applied elsewhere in a similar circumstances. In general, the most important demonstration aspects of the project were the following:

1. The project partnership itself, which according to the project contents comprises the most important stake-holders determined to participate in achieving the project goals. One partner was nature conservation organisation by their mission (DOPPS) while other partners deal with the activities which in the past mainly negatively affected the targeted species and habitats. It can be seen as an important development and a result of previous conservation efforts that the participating business sector partners (VGB, DRAVA) and co-financers (DEM) were aware of the nature and biodiversity goals and issues and were willing to participate technically and financially towards the achievement of those at the Drava, which is not the case in other parts of Slovenia nor was at the project area some years ago. Water-engineering and conservation organisations were strongly arguing but were in that period still unable to sit at the same table and constructively approach the common problems. Therefore, the project still has a big potential to be widely applied not only through the techniques and methods used but also through the awareness raising among the business sector which is expected with the participation of the business sector partners and dissemination of their experience and achievements among other similar actors throughout Slovenia and internationally.

2. App. 30% of the project co-financing was from the business sector contribution. DEM acted as a co-financer of the project. Such financial sources are extremely hard to obtain nowadays and from this point of view the project has a demonstration value for the others, too.

3. The project was oriented towards long-term sustainable conservation solutions at the project area, which were partly achieved through:

- A set of well-defined restoration and non-recurring C actions, aimed to address the selected locations within the project area where the concrete actions were necessary to achieve the project conservation goals.

- Modelling and testing of a range water-engineering measures under action A.2 which through action A.6 and supported by monitoring D actions resulted the inclusion of appropriate (nature-friendly) water engineering measures into a national water management plan which has a potential to bring into life the crucial long-term improvements of the nature and biodiversity status of the Drava and other Slovenian rivers.

- The long-term basis for the appropriate management measures in Ormož Basins NR were achieved upon the grazing and declaration of Nature Reserve.

At the action specific level, the demonstration character of the project was mainly realized through the following actions:

A.2 and A.6 – In action A.2 a verified model used for predictions of morphological changes in the riverbed under different parameters of discharge was created. Besides, economical and other aspects of restoration using alternative “large discharge releasing” were evaluated and compared against classical maintenance works. With this action we are able to demonstrate that cost- and conservation-effective alternative management approach exists and can be implemented. Results encompass detailed discharge parameters needed to carry out effective “discharge restoration”. Through the action A.6, the results were included in the national water management plan. As similar systems of riverbeds under the hydro power plants water regime exist throughout Europe, the results could be used in other locations.

C.3 - Saproxyllic beetles are one of the most endangered ecological groups of beetles in Europe with at least 14% of species listed as threatened in the EU. Conservation measures for saproxyllic beetle habitats are therefore crucial to preserve their populations but hardly any exists. In the project action C.3 we carried out management experiment with positive effects on population of *Cucujus cinnaberinus*. We transformed younger and managed forest stands by increasing the amount of dead wood in order to improve habitat for target species *C. cinnaberinus*. The action was thoroughly assessed (D.3). As the results are promising, the action can be more widely applied for this species' conservation purposes.

C.3 - *Graphoderus bilineatus* is an extremely rare water beetle in S Europe and in Slovenia, too, with one old record of specimen found in the Drava riverbasin approximately 100 years ago. Little was known about its specific habitat and ecological requirements, however such knowledge is crucial to prepare successful conservation actions for the species. In the project a background study on the locality with recently confirmed species presence in Mura river basin was carried out. An oxbow was restored (C.3) in the project area in a way to simulate species' habitat. Due to high sensitivity of the species to the aquatic habitat quality and due to general scarcity of such habitats along the Drava and Mura rivers, it is essential to increase habitat availability for the species through restoration projects. A detailed study on ecological requirements and management design for this species' habitat restoration was prepared which could be spread and widely used within other projects.

C.6 - Activities to reduce or even eliminate hunting pressure were taken at Lake Ormož in cooperation with the Croatian sub-contractor. The range of the problem exceeded the potential of the conservation efforts by DOPPS volunteers and by the action the novel approach was tested with local sub-contractor, focusing on the work with local administration towards removal of the hunting platforms as a result of legal procedures as well as the education of the local public and interest groups, such as hunters and fishermen. Achieved results of this action can be used elsewhere where the illegal hunting is the problem.

C.7 – Creation of breeding island in C.7 can serve as demonstration/innovation how to simultaneously solve the problem of nesting site shortage for island breeding birds and problem of accumulated lake sediments. Lake Ptuj is a typical reservoir for hydro power plant in the lower part of the river. One of the biggest problems in the lake is sediment deposition that consequently leads to reduced lake volume. Similar problems are present in all reservoirs of that type. During dredging a problem of location to deposit the sediments regularly occurs. This dilemma can be solved in such a way that human and nature both benefit as we demonstrated in our example. Though based on the known methods (that's why this action also has a best practice character) its' demonstration importance lies within the fact that in the field of nature conservation many future solutions will have to be found in co-operation with the other land- or water-users. In case of sediment removal, which is very frequently needed at the accumulation lakes on the rivers and at shallow coastal waters including coastal lagoons, the structures and surfaces obtained can be often used to increase biodiversity of the area which with a suitable management can have a long-term positive impacts.

5.4.7. Long term indicators of the project success

Success of the project will be followed in three general categories, biodiversity & research, public relevance and development.

Biodiversity & research (Natura 2000 qualifying species)

When indicators 1-5 will be secured by DOPPS, points 6-7 are optional and implementation cannot be secured at the moment.

(1) Numbers of breeding pairs of Common Tern and Black-headed Gull at Lake Ptuj and Lake Ormož. Breeding numbers of Common Tern and Black-headed Gull will be investigated during monitoring. 1-2 visits per breeding season each year (June, July) at all managed breeding colonies at Lake Ptuj and Lake Ormož.

(2) Breeding & migrating numbers of all qualifying species for SPA Drava at Ormož Basins NR. Populations of the SPA qualifying bird species which breed or are expected to breed in the Reserve (e.g. White-tailed Eagle, Black Stork, European Honey-buzzard, Middle Spotted Woodpecker, Collared Flycatcher, Penduline Tit, Grey-headed Woodpecker, River Warbler, Little Bittern, Ferruginous Duck, Water Rail, Spotted crane, Little Crane, Lapwing, Redshank etc.) or stop here during the migration (Ruff, Wood Sandpiper) will be surveyed every breeding & migration season after the project.

(3) Breeding numbers of Little Ringed Plover, Common Sandpiper, Kingfisher and Sand Martin and their exact locations. Data will be collected using census method annually along the entire project area (total length 47.4 km) with counts carried out twice in every breeding season (in April and May). All territory holding / breeding pairs of Little Ringed Plover, Common Sandpiper, Kingfisher and Sand Martin will be counted systematically and their exact positions recorded on the maps. The presence of human disturbance activities (traces of driving, sites of fire, etc.) will be checked annually, as well.

(4) Monitoring of the numbers of waterbirds at Lake Ormož. Monitoring of waterbirds at the Lake Ormož will continue. Regular counts will be conducted in 10-day periods systematically in the winter period. Counts will be carried out from the ground using binoculars and telescopes. Monitoring protocols will require to take notes of different human impacts, as well as relevant environmental conditions.

(5) Published scientific articles (studies) from the project area about Natura 2000 species. At least three articles using data from this project are in preparation.

(6) Fish species composition and their abundances in the opened river branches using electrofishing and other quantitative methods for study of fish populations. Monitoring is necessary to evaluate long-term effect of the opened side arms.

(7) Beetle species composition, especially water beetles in the Ormož Basins NR. Monitoring is necessary to evaluate long-term effect of the basins' restoration upon beetles.

Public relevance

Data will be collected by DOPPS.

(8) Number of organized events in the Ormož Basins NR and other presentations of Natura 2000 from the project area for the public or target groups.

(9) Number of pupils and students using the established infrastructure (Ormož Basins NR, Lake Ptuj) for education purposes.

(10) Number of visitors in the Ormož Basins NR and of the observation tower at Lake Ptuj.

(11) Number of organized volunteer actions for habitat management and number of volunteers participating.

(12) Popular articles and press cuttings from the nature conservation and PR activities at the project area in the after-LIFE period.

Development

Data will be collected by DOPPS.

- (13) Number of projects applied following objectives or results of LIVEDRAVA.
- (14) Other secured funds for implementing after-LIFE conservation activities.
- (15) Number of secured working places (FTE) or implementing after-LIFE conservation activities.
- (16) Analysis of results of conservation management in Ormož Basins NR following management plan.
- (17) Inclusion of project data into the Natura 2000 site Drava (SDF).
- (18) Consideration of mandatory Guidelines for sustainable water management in the real life by Slovenian Water Agency DRSV and Water maintenance company DRAVA.

6. Comments on the financial report

6.1. Summary of Costs Incurred

Table 4: Project costs incurred

PROJECT COSTS INCURRED (in €)			
Cost category	Budget according to the grant agreement*	Costs incurred within the project duration	%**
1. Personnel	1,286,815.00	1,413,061.11	109.8%
2. Travel	82,368.00	98,659.56	119.8%
3. External assistance	984,264.00	900,386.79	91.5%
4. Durables: total <u>non-depreciated</u> cost	1,323,688.00	1,245,233.46	94.1%
- <i>Infrastructure sub-tot.</i>	1,052,868.00	1,058,716.16	100.6%
- <i>Equipment sub-tot.</i>	270,820.00	186,517.30	68.9%
- <i>Prototypes sub-tot.</i>	-	-	0.0%
5. Land purchase/long-term lease	62,178.00	65,362.75	105.1%
6. Consumables	91,573.00	88,690.70	96.9%
7. Other costs	9,055.00	9,740.87	107.6%
8. Overheads	258,969.00	257,567.16	99.5%
TOTAL	4,098,910.00	4,078,702.40	99.5%

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

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

The incurred LIVEDRAVA project costs were 4,078,702.40€ or 99.5% of the foreseen project budget. All the discrepancies within categories of costs are within the allowed flexibility of 30,000€ and 10% (Article 15.2 of the Common Provisions). The main reasons for the discrepancies within the categories are described below.

1. Personnel: Incurred costs are 109.8% of the planned ones. They are according to the planned budget at DOPPS and PTUJ, and significantly higher particularly at DRAVA and also at VGB. The main reasons are:

- DRAVA: The increased staff costs (151% of the planned ones) are mainly the consequence of the natural conditions during the implementation of action C.9 at the river branches, where the woody vegetation at the branches was so dense, that DRAVA workers first had to cut and remove it manually using motor chain saws and only afterwards, the stumps were removed by heavy machinery and further restoration of river branches activities was carried out, which is partly also reflected in lower External assistance costs under this action. Further on, also within the implementation of action C.11 some more work as planned in Grant Agreement was done manually by DRAVA staff working on removal of the vegetation on the gravel bars. This showed up to be better

for the habitat which in this case is less damaged and also less mixing of gravel with soil happens and thus the vegetation doesn't start to grow immediately after the gravel bar cleaning is done.

- VGB: The higher personnel costs (112% of the planned ones) are mainly related with the higher daily rates which are explained under chapter 6.6 – part 4, providing explanations to the financial issues, raised in the response letters to previous reports.

2. Travel: The incurred travel costs in total were 119.8% of the planned ones but as the exceeded amount is around 16.290€, the Article 15.2 of the Common Provisions is respected under this category too. They are mainly exceeded at DOPPS (160% of the planned ones), particularly through the implementation of action D.2 (incurred travel costs were 27,135€ comparing to the foreseen 4,980€). This is partly due to underestimation of costs at the project preparation phase on one hand and on the other, also due to the methodology of the Little Ringed Plover ecological research, which has been developed during the project and has demanded more travel than foreseen. As already explained in the Mid-Term report, also floods contributed towards higher costs as some parts of the Little Ringed Plover survival study had to be repeated due to them. Further details are available under chapter 6.5. The costs of some other actions were also higher, such as A.2 mainly due to training in Denmark instead of Slovenia and more field-work due to floods, C.5 due to the death of a volunteer who was planned to support the designation of a Nature Park at the Drava River project area. Higher travel costs as a consequence of more field-work can be observed at actions C.1, C.9, E.4, E.8 and E.9 and also at F.2 due to more networking done, involving also a trip to Sweden, which was one of the most expensive ones. This higher costs are mainly evened with the other actions with lower travel costs as foreseen, such as A.1, A.6, C.3, C.4, C.6, C.11, C.12 and F.1.

3. External assistance: Though the External assistance costs of actions C.1 and C.11 by DRAVA were higher as planned and the preparation of Lidar scan at Drava River, carried out by VGB under action A.2, was transferred from Equipment to External Assistance category as detailed in Mid-Term report, the External assistance costs are still lower as planned. This is mainly due to lower costs of VGB under action A.6 and of DRAVA under actions C.9 and C.12. See chapter 6.5. for further explanations on C.9 and C.12.

4. Durables – infrastructure: As detailed under technical report, all the project infrastructure was built and is functioning according to the Grant Agreement. The major technical problem under this category was with the water supply system to the Ormož Basins NR (action C.1) where the first solution didn't work and an additional water supply system had to be built in 2017 upon the improvement of the blue-prints by VGB and prior confirmation of the extra works by the Commission (e-mail confirmation by Mrs. Muriel Drukman, dated 28 March, 2017). Some savings within the category (under habitat restoration – C.2 and stable construction – E.4) were used for the purpose, so the incurred costs are 100.6% of the planned ones. See chapter 6.5. for further explanations.

5. Durables – Equipment: Corresponding the above mentioned move of the cost of Lidar scan from Equipment category, this is where the majority of discrepancy of lower costs is coming from (incurred costs within this category are 68.9% of the planned ones). Some additional smaller savings were reached by DOPPS within actions C.4, D.2 and E.4, mainly due to the fact that some equipment was slightly cheaper as originally expected.

6. Land purchase/ long-term lease costs exceeded the project budget by 5.12% and as already explained in the Mid-Term Report this was because the foreseen costs of both B actions slightly exceeded the foreseen ones. Under action B.1, 6.9 hectares of flooded forest land were bought instead of planned 6 hectares and lower price of € 0.80 per m² was negotiated (foreseen price was 0.88€ per m²). The total sum is therefore higher for approx. 2,000€. Within the action B.2, the elderly land-owner was extremely difficult to negotiate with and therefore his final price of 9,000€ for 25-years lease of land accepted by DOPPS upon the prior confirmation by the Commission (see response letters of the EC from 14 Aug 2013 and 24 Mar 2014).

7. Consumables: the incurred costs are 96.9% of the planned ones. Discrepancies under this category are quite numerous but very small in values as these are the small costs which are the hardest to plan. The majority of the savings comes from cheaper printing and placing of the notice and other project boards due to the decrease of this costs at the market in general in the last years (under

actions C.12, E.1 and E.5) and lower costs of the implementation of some field-work actions, such as C.8, C.10 and C.11, due to the small improvements in the implementation. Extra costs were particularly with fuel for tractor and other machinery under action C.4, which were not foreseen in the original budget as the tractor with attachment was added during the project modification procedure, but were of course most necessary to get the project results and helped a lot in the establishment of management of the Ormož Basins NR. Costs were much higher as planned under action F.1, mainly due to higher costs of maintenance and repair of the project equipment. Slightly higher were also the costs of printing and distributing of the project publications under action E.7 and public presentation costs including promotional materials under E.9.

8. Other costs exceeded the project budget by 7.6% which is a very low value of less than 700€. The majority of exceeded costs in this category are under action E.4, mainly due to visitor facilities insurance costs throughout the project which were higher (around 1,950€) comparing to planned 500€.

We argue that all the higher and extra costs were necessary for the project implementation and for the reaching of the project objectives.

6.2. Accounting system

As already presented in the same chapter of the Mid-Term Report, the analytical accounting system of cost centres was used by all the beneficiaries of LIVEDRAVA project upon article 6 of CP and project partnership agreements. The codes identifying the project were as follows:

1. DOPPS employed cost centre code 957 for LIVEDRAVA financial income and 20 cost centre codes from 95701 to 95720 for project costs, sensibly covering the project actions (some actions with small amount of expected financial documents and accounting records share the same cost centre code, such as code 95712 for actions D.3-D.5). The costs of personnel were separated from those and the salary of each member of project staff was recorded at separate cost centre. This allowed a transparent and clear set of data to fill in the Annual personnel costs of the standard statement of expenditure.
2. VGB used the cost centre no. 01 for LIVEDRAVA accounting.
3. DRAVA used the cost centre no. 1400-0131405 for LIVEDRAVA accounting.
4. PTUJ opened budget item 6410 LIVEDRAVA for the project financial purposes within the municipal budget for 2014 and the cost centre code 17. In their case, all the costs were booked to this cost centre (including salaries and overheads).

The procedure of approving costs was quite similar at all beneficiaries and DOPPS example is used to present it. When the financial document, such as invoice, reached the beneficiary, it was first opened, stamped with the date of receipt and entered to the list of received invoices which was done by the secretary. Then it was forwarded to the relevant person for further check. In DOPPS case this was either project manager or project assistant. Their task was to check the contents of the invoice, LIFE project reference on it and compare the invoiced amount to the agreed price at the order phase and the level of the realised services/ goods. If the invoice failed at any of those checks, it was rejected and returned to the sub-contractor/ provider. When the invoice was in line with the order and contained the project reference, the project manager or assistant put the cost centre code on it and signed it. Then the invoice was passed to the financial manager, who checked all the other elements of the invoice, double-checked the project reference and then signed it for the payment. The invoice which passed this approval procedure was paid at the payment date by the secretary using e-bank internet system.

All financial documents of associated beneficiaries were checked by the project assistant and/ or financial manager after they were delivered to the coordinating beneficiary (every 3 months upon

the partnership agreements). After the check and approval, the time-sheets of AB staff were signed by the project manager. After all those approvals, the incurred costs were entered into the Excel financial reporting tables.

All the beneficiaries used the same format of electronic time-sheet, based on the model provided in the LIFE Toolkit. This was a 13 worksheets Excel file with one worksheet per month and a summary sheet with the formulas adjusted to automatically summarize the number of working hours per action which facilitated the calculation of Personnel costs per action.

The time-sheets were filled in during the first days of the month for the previous month (for example until the 3rd day of the month at DOPPS) by each member of the project staff. All staff members kept the notes of their day-to-day work so that the monthly filling-up was done fast and without mistakes. Then the filled-in time sheets were sent to the person in charge, financial manager in the case of DOPPS. After the time sheet has been approved, the staff member signed it and forwarded it to the project manager for double-check and signing.

The ABs' time-sheets were also checked internally by their own responsible staff and every 3 months delivered to the CB for final check (in e-form) and after approval also the signed paper versions were delivered for signing by the project manager together with the copies of salary slips and proofs of payment. After the time-sheets were completely signed, the originals were kept by each beneficiary while the CB has a complete archive of his own staff original time-sheets and AB's copies / scans. The data from each final signed time-sheet was entered to the standard statement of expenditure and the corresponding cumulative amounts of annual personnel costs and number of productive time units was provided to CB by the accountancy of each of the ABs.

LIFE project reference, including short name and project reference number "LIVEDRAVA, LIFE11 NAT/SI/882" was requested to be put on the invoices at the stage of order of the certain service or product/ equipment/ infrastructure. Therefore, it was included in the contracts with the sub-contractors and as described above, this was carefully checked after the invoice reached the beneficiaries and the invoices were refused for correction if the reference was not included. When the direct purchases are the case, the staff member who was purchasing the item personally requested the reference to be put on the invoice. In case of smaller costs, such as consumables, the invoicing programs and formats normally don't allow the inclusion of the reference. In this case, it was added manually on the original invoice by the beneficiary.

6.3. Partnership arrangements

In the table 5 of the Mid-Term report (p. 73) we presented the foreseen co-financing contributions to each beneficiary from different project financial sources. As explained, such distribution of the co-financing was mainly due to VAT reasons and optimization of cash-flow. The partnership agreements between CB and VGB and DRAVA particularly point out that both ABs are entitled to receive a 50% EC co-financing but due to above stated reasons they accept a higher share of DEM's co-financing and thus lower co-financing of the EC. This on the other hand, is resulting in DOPPS receiving higher share of EC co-financing and lower of DEM co-financing to equal the amounts.

Concerning co-financing by DEM, the financial transactions couldn't go through CB due to a problem of the VAT doubling which would lead to a substantial amount of ineligible costs. As already presented in the project modification request, dated 31st of May 2013, it was necessary that ABs invoice directly to DEM to receive their share of co-financing. DOPPS role in the process was to check and approve the level of achieved project results before payment by DEM was carried out, as DEM didn't allow pre-financing payments. This was all established in the common co-financing agreement

with DEM, signed by DOPPS, VGB and DRAVA. As VGB and DRAVA got the majority of their co-financing by DEM, they were issuing invoices upon the contract in the amounts reported under worksheet Funding of their Standard statements of expenditure. The co-financing contract with DEM and invoices to DEM were prepared upon the drafts, delivered to the Commission with the project modification request in May 2013. Therefore, this part of realised co-financing wasn't a subject of financial transactions from CB to ABs.

Upon the partnership agreement between CB and PTUJ, PTUJ settled the first payment request for 40% of LIFE pre-payment in the amount of 18,162€ which was paid by DOPPS on 8th of October 2013. After completing all the activities and obtaining the VAT certificate in November 2017, PTUJ issued the final payment request to DOPPS for 29,375.35€, which was paid on the 28th of December 2017.

Upon the partnership agreement between CB and DRAVA, the total amount 122,939€ of EC co-financing was foreseen to be settled in three instalments of 24,587.80€ in the project years 2014-16 and final instalment for the remaining amount of co-financing in 2018 after receiving of the final EC payment. The 2014 instalment was paid on 19th of December 2014, the 2015 instalment on 22nd of January 2016, and 2016 instalment in 5 partial payments of 4,917.56€ from February till June 2017. Final payment is foreseen after the confirmation of the final report in 2018, but is expected to be lower due to lower incurred costs at this AB.

Final transaction of EC co-financing to VGB (a maximum of 79,235€) is also foreseen after the confirmation of the final report in 2018.

Table 5: Distribution of the co-financing per beneficiaries (incurred costs in €)

Associated beneficiary	PTUJ	VGB	DRAVA	DOPPS
Total incurred costs of ABs/ CB	82,537.34	809,483.35	492,683.45	2,693,144.31
Co-financing/ contributions:				
ABs'/ CB's contribution	34,999.99	120,440.35	49,137.76	52,495.38
EC contribution (LIFE)	41,268.68	79,235.00	73,828.69	1,833,108.01
Other public co-financing	6,268.67	0	0	701,228.32
DEM co-financing	0	609,808.00	369,717.00	95,255.71
TOTAL	82,537.34	809,483.35	492,683.45	2,693,144.31

Financial reporting was mainly done by the CB, with the exception of VGB Travel costs which were entered to the financial reporting form by VGB staff and then just copied to the complete file by the CB. After receiving the financial documents by ABs, the CB staff entered the data periodically to the Excel financial reporting table of each beneficiary and at the same time checked the level of implementation of project actions and realisation of costs. All the files create a part of this Financial report and are annexed. ABs checked the reports before submitting them, particularly this final report. Data was also audited and errors and inconsistencies corrected before the submission of the final report.

6.4. Auditor's report/declaration

The following external auditor carried out the audit and prepared the audit report annexed (physically in the financial report, e-version in financial annexes) to this report:

Name: Plus Revizija d.o.o.

Address: Špruha 19, 1236 Trzin

6.5. Summary of costs per action

Table 6: The allocation of the incurred projects costs per action (in €)

Action no.	Short name of action	1. Personnel	2. Travel and subsistence	3. External assistance	4.a Infrastructure	4.b Equip-ment	4.c Proto type	5. Purchase or lease of land	6. Consumables	7. Other costs	TOTAL
A1	restoration blue-prints	56.354,11	3.211,25	-	-	-	-	-	-	73,24	59.638,61
A2	hydraulic analysis	239.579,16	4.134,26	153.080,00	-	47.096,81	-	-	-	3.044,20	446.934,43
A3	facilities blue-prints	14.066,99	1.215,82	6.809,41	103.114,44	-	-	-	-	-	125.206,66
A4	grazing plan	1.104,33	-	4.500,00	-	-	-	-	-	-	5.604,33
A5	management plan	19.555,55	540,94	-	-	2.080,46	-	-	-	-	22.176,95
A6	guidelines for sust.wat.mngmt.	140.691,30	6.598,47	117.519,34	-	2.505,96	-	-	645,00	-	267.960,07
A7	geodetic survey	844,46	-	3.512,88	-	-	-	-	3,50	-	4.360,84
B1	flooded forest purchase	903,86	446,22	-	-	-	-	56.362,75	-	179,78	57.892,61
B2	single parcel lease	5.088,40	334,48	2.000,54	-	-	-	9.000,00	-	176,71	16.600,13
C1	water supply and regulation constr.	21.602,63	2.850,84	30.135,64	263.424,09	-	-	-	577,53	38,94	318.629,66
C2	habitat restoration	9.376,13	86,21	-	170.868,94	-	-	-	336,27	-	180.667,55
C3	habitat mngmt-softwood forest	5.097,67	33,30	-	5.368,63	-	-	-	180,99	-	10.680,59
C4	grazing system establishment	84.787,88	2.363,76	4.098,76	322.881,89	43.882,29	-	-	10.605,37	3.195,22	471.815,16
C5	reserve and park declaration	18.864,86	2.993,03	360,88	-	-	-	-	224,05	-	22.442,82
C6	platforms removal-Croatia	3.277,14	48,10	37.640,38	-	-	-	-	-	-	40.965,61
C7	- action excluded	-	-	-	-	-	-	-	-	-	-
C8	breeding islands mngmt	12.347,80	1.654,09	-	-	1.541,81	-	-	2.828,06	-	18.371,76
C9	river branches restoration	137.901,02	6.143,73	108.559,30	-	-	-	-	1.406,01	-	254.010,06
C10	river banks preparation	4.034,72	263,23	-	-	-	-	-	2.336,32	570,99	7.205,26
C11	gravel bars mngmt	64.934,63	3.825,81	92.749,28	-	-	-	-	994,95	-	162.504,67
C12	disturbance reduction	23.088,86	1.343,39	17.457,00	-	-	-	-	-	-	41.889,25
D1	monitoring evaluation	15.188,47	-	-	-	-	-	-	-	-	15.188,47
D2	bird monitoring	112.590,95	27.134,56	7.981,54	-	48.797,04	-	-	8.919,56	187,00	205.610,66
D3	beetle monitoring	5.292,84	205,44	149.950,66	-	-	-	-	-	-	155.448,94

D4	fish monitoring	2.901,99	220,42	66.690,17	-	-	-	-	-	-	69.812,57
D5	socio-econ.impacts study	8.386,23	403,46	37.427,74	-	-	-	-	-	-	46.217,43
E1	notice boards	4.112,88	134,68	74,49	-	-	-	-	2.458,29	22,66	6.803,00
E2	website	22.227,67	543,90	11.626,31	-	-	-	-	-	-	34.397,88
E3	layman's report	1.274,10	-	713,24	-	-	-	-	-	-	1.987,34
E4	visitor facilities-Ormoz	55.626,38	2.582,35	680,10	126.010,32	29.496,78	-	-	3.789,33	1.953,64	220.138,91
E5	visitor facilities-Ptuj	17.701,41	372,59	6.241,46	67.047,84	-	-	-	52,62	-	91.415,92
E6	documentary film	9.827,29	555,00	18.199,99	-	-	-	-	25,88	-	28.608,16
E7	project publications	21.751,13	613,42	8.722,41	-	-	-	-	27.917,12	-	59.004,08
E8	educational program	19.311,66	4.497,42	3.955,28	-	2.225,29	-	-	898,20	298,50	31.186,35
E9	presentation and excursions	32.579,68	2.331,95	2.763,88	-	947,95	-	-	12.441,98	-	51.065,44
F1	project management	201.711,56	15.425,70	-	-	7.942,91	-	-	11.935,27	-	237.015,43
F2	networking	17.639,34	5.551,74	-	-	-	-	-	114,41	-	23.305,48
F3	audit	1.436,04	-	6.936,12	-	-	-	-	-	-	8.372,15
F4	After-LIFE cons.plan	-	-	-	-	-	-	-	-	-	-
Over-heads											257.567,16
	TOTAL	1.413.061,11	98.659,56	900.386,79	1.058.716,16	186.517,30	-	65.362,75	88.690,70	9.740,87	4.078.702,40

Costs per actions (for the project and per each beneficiary) are also annexed to this report as an Excel file named Costs per actions.

Comments on mayor discrepancies

Under this chapter we will comment on the discrepancies in cases, where the total costs of the action are 10% or more higher or lower comparing to the grant agreement and at the same time, the amount of the discrepancy exceeds 5,000€. Where the discrepancy exceeds 30.000€ we will also provide the comment even if the difference is less than 10%.

A actions

Under A actions, costs were only exceeded under action A.2, mainly in the Personnel category. More staff work was needed at VGB to finish the hydraulic modelling than originally planned. After the input data was gathered from the sub-contractors in 2013 and early 2014, the hydraulic model has been prepared. However, larger flood which happened in November 2014 gave them the opportunity to calibrate and validate flood model with the real data. Additional measurements were therefore taken and model further improved but with significant additional workload. We evaluate that the additional invested work trades off the more accurate model that has been finally created and verified. The model is trustworthy now and reliable in prediction of effects of water-maintenance works in the riverbed which adds to its nature-conservation value, as well. More accurate modelling for effective habitat restoration for riverbed breeding species is possible.

As explained under chapter 6.1. Summary of Costs Incurred, significant discrepancy between the table above and form FB of the Grant Agreement under action A.2 appears also due to placing of the cost of the laser scan (LIDAR) under External assistance category instead of Equipment category where it was foreseen by mistake. This however is not affecting the total costs of the action, as the estimated cost of 64,000€ for the laser scan was not exceeded.

Major savings were gained under actions A.5 (9,878.05€ or 30.8% of the action's budget) and A.7 (5,059.16 or 53.7% of the action's budget). Under A.5 – preparation of the management plan for Ormož Basins NR, they are due to slightly lower personnel costs and due to not involving the expert on management plan preparation as in the meanwhile, DOPPS internal capacity in preparation of the management plans was improved and therefore the external help was not needed anymore. Under A.7 – geodetic survey and land demarcation in Ormož Basins, a cheaper external expert was found as planned and due to his good work, also personnel costs are slightly lower as planned.

B actions

The discrepancies under B actions are as described under chapter 6.1. Summary of Costs Incurred of this report.

C actions

The costs were exceeded under actions C.1 (for 90,515.66€ or 39.7% of the action's budget), C.5 (for 14,225,82€ or 173.1% of the action's budget) and C.11 (for 61,479.67€ or 60.9% of the action's budget). The explanations for the higher costs are as follows:

Action C.1: As explained under the description of the action C.1 in technical report and under chapter 6.1. Summary of Costs Incurred, the first water supply system in Ormož Basins NR didn't work adequately to supply the nature reserve with sufficient amounts of water which would allow the semi-natural wetland ecosystem to establish and function supporting the protected species. The correction of the blue-prints was done under A.1 by VGB and is not borne by the project due to their responsibility for the mistake, and the new water supply system was built in 2017 by a sub-contractor, commonly selected and sub-contracted by DOPPS and DRAVA. DRAVA was involved at this stage upon the agreement of the project partners with DEM, who as a co-financer also wanted to see the project objectives reached and has agreed to financially support this additional activity. This happened at the stage, when they were considering to diminish their co-financial contribution to the project due to the fact that the total costs of the actions related to Drava river were slightly lower as planned. With supporting this additional activity, they decided to stay with the total amount of co-financing and upon the existing co-financing contract, they put it to a project through DRAVA. At the final stage of the construction of the additional water supply system, the connections between basins were built upon special order, enabling water level regulation between basins. The first idea was to use the old factory system but upon testing it in late 2015 (additional cost of disposable water blocker of 474.27€, Consumables, seq.no.190), it was clear that direct connections will have to be built. The total cost of the additional water supply system is therefore 82,080.92€, including:

- DRAVA: 30,135.64€ in the External assistance category;
- DOPPS: 577.53€ in the Consumables category for additional repair of the old system, above mentioned water blocker and food for volunteers, who cleaned the vegetation in late 2016 prior to construction of the additional water system);
- DOPPS: 37,927.57€ in the Infrastructure category including part of the costs for the implementation of the additional water supply system, construction supervision and healthy&safety supervision during the implementation of works;
- DOPPS: 13,440.18 in the Infrastructure category for the construction of the new connections between basins.

Upon this, a total of 51,367.75€ was added to DOPPS Inventory of durable goods to the existing value of water supply system (which was 217,424.97€).

Action C.5: As detailed in previous reports, due to the unexpected death of DOPPS dedicated volunteer from Središče ob Dravi, Mr. Boris Kočevar, who worked for the establishment of Drava Nature Park in the period prior to the project preparation, additional personnel costs and unplanned travel costs are due to the fact that this work was carried out by the DOPPS project team instead. Some low-value External assistance (360€) and Consumables costs (224€) are related to the presentations of two existing nature park (Kozjansko and Goričko) to the local people and stakeholders of the planned Drava nature park.

Action C.11: At the project negotiation phase in Spring/ Summer 2012, the foreseen costs of this action were reduced by 90% upon the demand of the Commission. This was a serious reduction but relying on some possible savings from other actions, DRAVA accepted the proposed reduction. Nevertheless, the real incurred costs were higher as planned, i.e. under Personnel (explained under chapter 6.1) and External assistance categories, while Travel and Consumables costs were lower as planned. Part of the difference lies in the fact that the cost reduction was too big and part also in the technology of work which was developed throughout the project implementation: increased manual work as described under chapter 6.1 and additional water washing of the gravel, which demanded more machine (Ext. assistance) work – by removing the soil layer and transporting it from the gravel bars which was followed by removal and washing of the gravel and returning it to the bars. This was an important measure which will prevent the quick re-vegetation of the bars. We argue that incurred costs of 162,505€ are realistic and good value for increasing the previous 1.6 hectares of gravel bars to over 10 hectares at 6 sites with prolonged effect due to gravel washing.

Major savings under C actions were gained under actions C.3 (5,277.41€ or 33.1% of the action's budget), C.6 (7,326.39€ or 15.2% of the action's budget), C.8 (12,887.24€ or 41.2% of the action's budget), C.9 (76,772.94€ or 23.2% of the action's budget), C.10 (7,656.75€ or 51.5% of the action's budget) and C.12 (97,583.75€ or 70% of the action's budget).

Lower costs of action C.3 are mainly the result of the fact that it was carried out together with actions C.1 and C.2 and therefore in a more cost-efficient way on the level of Personnel, Travel and Infrastructure costs. C.6 savings are mainly in Personnel category, where quite some time was foreseen for the control of the Croatian sub-contractor, but after the start of the implementation of the action, when we could see how well sub-contractor Biom is working on their part of the activities on the removal of illegal fishing and hunting infrastructure at Lake Ormož, the planned control activities could be reduced. As per actions C.8 and C.10, the savings are also mainly under Personnel category, as we were able to get even better support of DOPPS volunteers as planned for the implementation of these actions.

Under action C.9, the Personnel costs are higher (for about 50.000€) due to the reasons presented under chapter 6.1, but the extensive saving is under External assistance category (of nearly 130.000€) due to:

- less work due to extreme precautions during the opening of the branches, upon which only the filled in parts of the branches were removed with the machinery and other parts of the branches were impacted less than planned;
- and upon less machinery work during vegetation removal, which was replaced by manual work as detailed under chapter 6.1.

Under action C.12, carried out by VGB and DRAVA, the savings are in all cost categories due to less work which is the result of:

- less work due to natural conditions: one of the floods at the beginning of the project has opened the water channels along two biggest gravel bars and therefore secured them in a natural way, therefore only 7 sites remained for the foreseen activities;
- the opening of the water channels between gravel bars and mainland was possible on 5 from 7 sites as detailed in the description of the action;
- all the boards were prepared and erected but as already explained under chapter 6.1 – Consumables, the market prices of the production of the boards diminished significantly and therefore also contribute to the achieved lower costs of this action.

D actions

Under D actions, only the costs of action D.2 are higher as foreseen (for 79,846.66€ or 63.5%). As partly explained under chapter 6.1, the travel costs needed to carry out extensive monitoring presented in the project Grant Agreement were quite underestimated which also goes to personnel. To carry out monitoring of waterbird species at Lake Ptuj, Lake Ormož and Ormož Basins NR it turned out that single day per regular decade survey is not enough for all three sites as originally planned. Such survey for all three sites regularly took two days, almost doubling all waterbirds' monitoring hours and travel costs. However, keeping all three sites surveyed was absolutely crucial to estimate effects of conservation activities. Significantly more resources than planned were needed to carry out ecological study on the Little Ringed Plover as well. We planned three successive years for the study and managed to finish it in the timeframe, but with increased field effort. Finding nests was much more difficult than planned and trapping adults for individual colour-ringing, too. Due to regular floods and replacement clutches of the Little Ringed Plover entire work should be repeated in the same season. As such study was carried out for the first time in Slovenia, and in Europe there are practically no experts on this species, we could not estimate field efforts correctly in application. But, the data gathered are of great importance for quantification of management measures and will significantly improve conservation perspectives of Little Ringed Plover and Common Sandpiper in the future.

Some savings were gained under action D.5: for 5,740.57€ or 11.0% of the action's budget. Similar to action C.6, less control work was needed due to well-organised and good-working sub-contractor. Also the External assistance costs were slightly lower.

E actions

Costs were exceeded under action E.7, where particularly Personnel costs were higher, mainly related to the preparation of the Ormož Basins NR field-guide in 3 languages. More time as foreseen was needed to collect the historical materials from different archives and particularly for checks of the translations and print-proofs of the guides. In all the other categories, costs of this action were only slightly exceeded.

Savings are evident at actions E.1 (15,243€ or 69,1% of the action's budget) and E.3 (5,466.66€ or 73,3% of the action's budget). As for E.1 – notice boards of the project area, they are particularly related with already mentioned lower printing costs of the boards, and also less working time was needed to prepare them. The same goes for the Layman's report under action E.3, where less work was due to the fact, that in one part, the texts prepared for other purposes could be used for the publication too. Printing was done for free by the sub-contractor, and also other preparation costs were slightly lower than estimated.

F actions

The total values of all four F actions are without major discrepancies. The only discrepancy is under Consumables at F.1, already presented under chapter 6.1.

6.6. Other comments and explanations to the Financial report

This chapter provides the comments and explanations to the Financial Statements of the individual beneficiaries and the accompanying financial reporting data where necessary.

6.6.1. VAT Certificates

We are attaching VAT certificates for DOPPS and PTUJ. In case of PTUJ, all the VAT represents a cost for them and is to be borne by the project. PTUJ is identified for VAT, but in case of non-taxable activities such as the activities implemented under this project, doesn't have the right to deduct VAT. The certificate was issued on the 20th of November 2017 by Financial Administration of the Republic of Slovenia (Finančna uprava Republike Slovenije)

In case of DOPPS, which is also identified for VAT purposes, part of the VAT is unrecoverable and part of it was recovered as confirmed by the VAT certificate issued by the Financial Administration of the Republic of Slovenia on the 26th of October 2017. Deductible proportion of VAT is calculated by DOPPS' external accountancy on an annual basis upon the legally binding method. In the project years, the proportions were as presented in the below table, which are also confirmed within the VAT certificate.

Table 7: (Un)deductible VAT at CB DOPPS

<i>Financial period (year)</i>	<i>Temporary deductible proportion</i>	<i>Final deductible proportion</i>	<i>Undeductible VAT borne by the project</i>
2012	55%	27%	45%
2013	27%	32%	73%
2014	32%	29%	68%
2015	29%	23%	71%
2016	23%	24%	77%
2017	24%		76%

The temporary deductible proportion of each financial period (year) is the final deductible proportion of the previous year which is used in the accountancy throughout the year till the next calculation (normally from March to March), as the final deductible rate can only be calculated after the closing of the annual financial period and preparation of annual balance sheets which are due on 31st of March. DOPPS general ledger include the amounts with the temporary deductible proportion and these are also the amounts presented in this report (last column of the table above). After the final deductible proportion for each financial period is calculated, DOPPS includes the clearance in the next VAT report - the difference between temporary and final deductible proportion is cleared cumulatively on the level of entire organisation which is not visible on the level of invoices in the general ledger.

6.6.2. Interest on pre-financing

The interest on pre-financing summed up to 11,641.45€ as already reported and detailed in Mid-term Report. Upon articles 24.6 and 24.7 of the Common provisions the coordinating beneficiary shall inform the Commission of the amount of any interest or equivalent benefits yielded by the pre-financing amount at the stage of final balance payment request. Therefore, the total amount of interest is declared on the Payment request.

6.6.3. Travel costs at AB Drava

As presented to the Commission during their visit to LIVEDRAVA project in August 2016, and also to the monitoring team, AB DRAVA has a different way of charging the travel costs. As they exclusively used the company cars and vans for the transportation of the staff to the project sites where they carried out the field-work, they charged the mileage for those vehicles upon their internal price-list (Slov. Interni cenik prodajnih ur strojnih in prevoznih storitev). The charged price for the personal car is 0.23€ per km and 0.56€ for the van. Both prices are lower as official prices used when travelling with private vehicles, which is 0.37€ per km per personal car, for example. DRAVA prepared travel orders with travel costs calculations too, the only difference is that they were not paid as the costs charged are the reimbursement for the company itself and not for the driver, who is stated on the travel order.

6.6.4. Explanations to the financial issues, raised in response letters to the previous reports

A. MID-TERM REPORT (EC letter, dated 4th of December, 2014, ref.no. ARES (2014) 4065925)

PERSONNEL

Ad 1) EC stated that "The role of habitat expert, reported in the Personnel costs table of AB VGB Maribor was not foreseen". **Answer:** Habitat expert at the AB VGB was foreseen in the project application under action C.12: 24 person-days with daily rate € 150, in total € 3,600. See form F1 – Direct personnel costs, page 152 of the project application.

Ad 2) EC asked to explain the increase of the daily rates upon discrepancies between foreseen and incurred daily rates which were found in the Mid-Term Report for two employees of AB VGB Mariborin 2013 and 2014 (Mr. Smiljan Juvan and Mr. Boštjan Rozman). **Answer:**

- General explanation: the major discrepancy between planned and incurred daily rates at AB VGB is due to misunderstanding at the project preparation phase, upon which the daily rates at VGB were calculated upon paid instead of effective working hours and therefore the majority of their daily rates were stated too low. As explained in the Mid-Term Report (page 80-81), they originally planned to employ only highly trained and experienced senior staff at LIVEDRAVA project but at a later stage they were also reallocated to other projects and work which appeared later on. So less experienced staff was also allocated to the project to carry out the less demanding work to which they were introduced, advised and controlled by senior staff, while the senior staff carried out the demanding part of the AB's project actions. This explains why part of discrepancies are toward higher incurred daily rates for the senior staff and other part toward lower incurred daily rates for less experienced staff with lower salaries. The same explanation refers also to the discrepancies between planned and incurred daily rates in the following project years.

- Smiljan Juvan: As already explained in the Mid-Term Report (page 81), his salary exceeds the accepted daily rate as he is also the director of the company. At the project preparation phase, a lower daily rate was used accepting the fact that the amount of daily rate within the LIFE program is limited. The discrepancy is due to the fact that only incurred costs can be put in the financial report and as already stated in the Mid-Term Report, the reduction of these costs during the assessment of Final Report is expected by AB and CB.
- Boštjan Rozman: His incurred daily rate is higher upon the general explanation above and upon new contract from 1st of February 2012 on, after being promoted as a head of one of the company's departments.

Ad 3) EC asked for justification of the higher daily rates upon discrepancies between foreseen and incurred daily rates found in the Mid-Term Report for some of the AB DRAVA staff (Bojan Ciglar, Zdravko Teskač, Igor Macun, Vilko Zupanič, Zlatko Vučkovič and Slavko Spevan) in 2014. **Answer:**

- General explanation: the major discrepancies between planned and incurred daily rates at AB DRAVA arise from the fact, that the costs of basic salaries for each position (category/role of each foreseen staff member) were foreseen in the Grant Agreement, as at that stage they didn't know whom exactly will they nominate to work at the project.
- Concrete incurred costs differ among the workers at the same position mainly due to seniority bonus and job performance bonus. Seniority bonus raises with the years of employment of every person (0,5% per year) and is legally established obligation of every employer in Slovenia. For example, Slavko Spevan reached 17,5% of seniority bonus in 2014, Bojan Ciglar 15%, Zdravko Teskač 10,5 %, Vilko Zupanič 14 %, Zlatko Vučkovič 11,5% and Igor Macun 3,5%.
- Job performance at AB DRAVA is evaluated on a monthly basis and depends upon the performance of every project or construction area and contribution of every employee towards the good performance of the whole. Job performance bonus for well-performed work is calculated and evident from the salary slips of every staff member.
- Additionally, shortage occupation bonus was paid to some employees in 2014 which were working at the positions in shortage at the work market at that stage. Such example is foreman Bojan Ciglar.
- The same explanations refer also to the discrepancies between planned and incurred daily rates in the following project years.

Ad 4) EC exposed that the contribution of AB PTUJ as a public body must exceed the cost of the civil servants by at least 2% upon article 25.2 of the Common Provisions, which was not respected at the stage of Mid-Term Report. **Answer:** The total salaries of civil servants at Ptuj municipality are 8,845€, while their financial contribution to the project is 35,000€. So the 2% rule is clearly respected in the end of the project as it was indicated in the Mid-Term Report.

Ad 5) EC requested the copies of the timesheets and salary slips for 2013 to be delivered with the final report for 2 staff members. **Answer:** Copies of the timesheets and salary slips for 2013 for the selected project staff members Nataša Šalaja (DOPPS) and Alenka Kovačič (VGB) are attached to this report (folder Financial annexes, EC response letters-financial docs).

TRAVEL

Ad 6) CB was asked to correct 7 inconsistencies in the Final Report. **Answer:** All the identified inconsistencies are corrected in the Final Report, as follows:

- Description of the cost item for CB DOPPS entries clearly distinguish different kinds of travel costs which are also entered into separate rows. Mileage costs are clearly described with the indication of the personal car and its registration number, other travel costs are specified, such

as travel/ flight/ bus ticket, parking fee. Substinence costs are also clearly described, such as per diems and accommodation costs.

- Seq. no 16: the reported cost was the parking fee at the Vienna airport, the data is corrected upon the detailed comments of the EC.
- Seq. no 423-426: the type of the travel costs was moved to the Description of the cost item upon the comments of the EC.
- AB VGB: travel cost description entries in the financial report are upgraded in the same way as in the case of DOPPS - mileage costs are clearly described with the indication of the personal car and its registration number.
- Seq. no 7: the date is corrected to 1.1.2013.
- The abbreviations of the locations / places were replaced by their complete names, such as MB with Maribor.

EXTERNAL ASSISTANCE

Ad 7) EC asked to replace the acronym of subcontractor "ŠS d.o.o." with full name "Študentski servis d.o.o.". **Answer:** Name of the company ŠS d.o.o. is correctly entered, this is not an acronym but a complete name of the agency, providing student's work (at this link - <http://www.bizi.si/SS-D-O-O/> - you can find their basic data at Slovene business directory). Študentski servis d.o.o. is another company, also providing the same kind of services.

Ad 8) CB was invited to submit the request for amendment upon the shift of 63,200€ from Equipment to External assistance category. **Answer:** Shifting the costs of LIDAR scans at AB VGB to the category of External assistance hasn't caused the total external assistance costs to increase for 10%/€ 30,000. The incurred costs in this category are 91% of the planned ones and therefore the request for amendment not necessary.

Ad 9) EC requested the copies of 4 selected External assistance invoices with their payment proofs to be delivered with the Final Report. **Answer:** Copies of the listed four External Assistance invoices with payment proofs are attached to this report (folder Financial annexes, EC response letters-financial docs).

DURABLE GOODS - INFRASTRUCTURE

Ad 10) EC asked for explanation on purchased 30 items under Infrastructure cost category reported in Mid-Term Report compared to only 10 items foreseen in the Grant Agreement under this category. **Answer:** The discrepancy between the number of entries in the project application and financial report you noticed is due to the fact that cost of the complete infrastructure is put as one entry to the application/Grant agreement but all the corresponding invoices to build one piece of infrastructure are entered to the financial report as separate entries and normally there are several. As the infrastructure preparation and construction projects are normally lasting various months or even years, the costs of their implementation in Slovenia are normally charged by the subcontractors on a monthly basis or at previously defined milestones upon the project progress. So every such invoice is entered to the financial report which demands the data to be entered on invoice basis. In the field Description of Infrastructure it is clearly stated to which infrastructure item the invoice corresponds, and where there are more invoices for single item, they are indicated as 1. part, 2. part etc. For example, the restoration of Ormož Basins Nature Reserve (actions C1 and C2) was invoiced by the subcontractors upon 21 invoices which are all entered to the financial report as separate entries. For better understanding, we attach five spread-sheets, summarising the invoices of five most extensive infrastructure actions of the project (folder Financial annexes, Other financial annexes). the total cost of each is activated in the inventory of durable goods, in cases of different inventory accounts it is separated into two part (such as for the restoration of Ormož Basins Nature

Reserve). To summarize, only the 10 foreseen items within Infrastructure category were built under the project but as each of them was charged on several invoices, the number of entries in the financial report is much bigger.

Ad 11) EC asked for explanation why the supervision and notary services costs are put into the Infrastructure category if they could be better placed under External assistance. **Answer:** Upon Slovene accountancy standards all the costs, which are necessary for the infrastructure to be built and prepared for use are accounted under the infrastructure costs, including also the costs of blue-prints, permits, supervisions, notary services, transportation of infrastructure or its parts etc. Therefore, it is correct that also notary costs are placed under this category, when intrinsically connected with the infrastructure in question.

Ad 12) EC requested the copies of 2 selected Infrastructure invoices with their payment proofs to be delivered with the Final Report. **Answer:** Copies of the listed two Infrastructure cost with payment proofs are attached to this report under (folder Financial annexes, EC response letters-financial docs).

LAND/RIGHTS PURCHASE/LEASE

Ad 17) EC asked for explanation why the fields Land register no. and Name of notary were indicated as N.A. in the Mid-Term Report. **Answer:** The information of Land register no. and Name of notary is added in the Final Report. It was missing in the Mid-Term report due to a mistake done at entering the data.

B. FIRST PROGRESS REPORT (EC letter, dated 7th of August, 2015, ref.no. Ares (2015) 3312799):

EC reminded that the GPS device with electronic map would be better placed as Equipment rather than Consumables as suggested by CB. **Answer:** The cost of the GPS device with electronic map for monitoring purposes was not put under Equipment category due to low costs of the device and therefore placed under Consumables category. Upon Slovene accountancy standards, only the equipment with the value above 500.00€ and over one year of expected lifespan is put to the inventory of durable goods. As the latter is not always reached with GPS devices due to the field-use, we tend to avoid to place them to the inventory as they normally (and also in this case) don't correspond to the first criteria.

6.6.5. Acknowledgements of the justifications of the unforeseen project costs

Some costs were not foreseen during the project preparation but later on during the implementation of the project proved to be necessary for the successful obtaining of the project goals. In the financial reporting tables, these costs are marked with Y* in the column Foreseen in the budget Y/N. Though their eligibility will be ultimately assessed during the Final Report assessment, they were justified by CB during the project implementation through direct communication with the EC or through monitoring team or within the Mid-Term and Progress reports and acknowledged by EC as follows:

A. MID-TERM REPORT (EC letter, dated 4th of December, 2014): acknowledgements provided for the second rubber boat (seq. no. 3), additional photovoltaic panels (seq. no. 19) and colour printer (seq. no. 23).

B. FIRST PROGRESS REPORT (EC letter, dated 7th of August, 2015): acknowledgements provided for public utility charge, insurance costs, fees for external mentors at the ornithological camp and GPS device with electronic map for monitoring purposes.

C. SECOND PROGRESS REPORT (EC letter, dated 11th of January, 2017): acknowledgements provided for supervision to the building of the observation tower at Lake Ptuj, purchase of additional computer with software and purchase of additional tools and equipment for the field works.

7. Annexes

7.1. Administrative annexes

All administrative annexes have already been submitted to the Commission. For dates please see chapter 4.2., Table 1.

7.2. Technical annexes

Annexes and deliverables that were already attached and delivered in the previous reports are not attached again. The annexes in this report are delivered physically and in e-form. Some technical annexes are saved as files (e-form) only, due their nature (e.g. shp files, verification databases, label DB) but some annexes are delivered physically only (like LIFE promotion products).

We labelled annexes with the action number, number of annex, and abb. whether annex is technical document or product (TD), deliverable (DEL) or database (DB). In the file names, English keywords follow.

List of technical annexes (underlined are annexed as files, only):

A1_1_TD_reclamation_water_supply.pdf
A1_2_TD_nat_cons_consent_ARSO_20161014.pdf
A1_3_TD_water_permission_20161121.pdf
A1_4_TD_water_consent_20161216.pdf
A1_5_TD_anex_contract_HEP.pdf
A1_6_TD_anti_disturbance_project.pdf
A1_7_TD_decree_anti_disturbance_measures.pdf
A3_1_TD_building_permit_parking_reserve.pdf
A3_2_TD_building_permit_stable_reserve.pdf
A5_1_DEL_management_plan_reserve_final.pdf
C5_1_TD_article_nat_park_sredica_20171025.pdf
C5_2_TD_pegasus_DOPPS_narrative_rep_birdlife.pdf
D1_1_DEL_ecosys_func_servic_report.pdf
D2_1_DEL_bird_monitoring_report_final.pdf
D2_2_DB_waterbirds_numbers_2012.xlsx
D2_3_DB_waterbirds_numbers_2013.xlsx
D2_4_DB_waterbirds_numbers_2014.xlsx
D2_5_DB_waterbirds_numbers_2015.xlsx
D2_6_DB_waterbirds_numbers_2016.xlsx
D2_7_DB_waterbirds_numbers_2017.xlsx
D2_8_DB_comm_tern_bh_gull_data.xlsx
D2_9_DB_kingfisher_lit_rin_plover_comm_sandpiper_data.xlsx
D2_10_DB_sand_martin_data.xlsx
D2_11_TD_article_Acrocephalus.pdf
D2_12_DB_basins_data_2013.xlsx
D2_13_DB_basins_data_2014.xlsx
D2_14_DB_basins_data_2015.xlsx
D2_15_DB_basins_data_2016.xlsx
D2_16_DB_forest_mapping_data.xlsx
D3_1_DEL_beetle_monitoring_report_final.pdf

D3_2_DB_beetle_monitoring_report_final.xlsx
D3_3_DB_Cucujus_poligoni.shp
 D3_4_TD_cons_man_outlines_PMS.pdf
 D3_5_TD_water_hab_features_BF.pdf
 D3_6_TD_beetle_article_gozdarski_vestnik.pdf
 D3_7_TD_beetle_article_acta_entomologica_slovenica.pdf
 D3_8_TD_beetle_article_nature_conservation.pdf
 D4_1_DEL_fish_monitoring_report_final.pdf
D4_2_DB_fish_monitoring_data.xlsx
 D4_3_TD_article_invasive_crayfish.pdf
 D5_1_DEL_socio_econ_impact_final_report.pdf

In the following Table 8 we give overview of project deliverables.

Table 8: Data on deliverables

action	report	INCEPTION	letter	letter	MIDTERM	PROGRESS	PROGRESS	FINAL
	deliverable/date	31.5.2013	10.6.2013	10.7.2013	30.9.2014	31.5.2015	15.11.2016	
A1	blue-prints for Ormož Basins NR restoration & for new watter supply system				x*		x	
A1	project of finished works after restoration of Ormož Basins NR						x	
A1	blue-prints for restoration of Mala vas branch				x*		x	
A1	blue-prints for restoration of Vurberg branch				x*		x	
A1	blue-prints for removala of lateral embankment, Vurberg				x*		x	
A1	blue-prints for restoration of Markovci branch					x*	x	
A2	hydraulic analysis study						x	
A3	blue-prints for construction of observtion tower at Lake Ptuj				x*		x	
A3	blue-prints for construction of observation hides and parking				x*		x	
A3	blue-prints for construction of cattle stable				x*		x	
A3	blue-prints for construction of visitor centre						x	
A4	grazing plan				x			
A5	management plan for Ormož Basins NR						x	
A5	final management plan for Ormož Basins NR							x
A6	guidelines for sustainable watter supply system						x	
C6	campaign posters & leaflets				x			
E9	"project promotion products" - calendar 2017, notepad A4&A5						x	
E9	"project promotion products" - calendar 2015, pin badge, LIFE patch, memory game, 3 types of T-shirts, 2 types of carrying bags, elder tea, buckwheat							x
D1	report of ecosystem functions and services							x
D2	bird monitoring report - final							x
D3	beetle monitoring report - final							x
D4	fish monitoring report - final							x
D5	report on socio-economic impact of the project							x
E3	layman's report							x
E6	short films (videoclips)					link only	link only	x
E6	documentary film						link only	x
E7	project presentation brochure				x			
E7	guidebook to the Ormož Basins NR							x
F1	partnership agreement VGB	x						
F1	partnership agreement DRAVA	x						
F1	co-financing agreement MKO	x						
F1	co-financing agreement Municipality Ormož	x						
F1	indicator tables		x					
F1	partnership agreement Ptuj			x				
F3	auditor's report							x
F4	after-LIFE conservation plan							x

x - hard copy & e-version, x* - e-version only

7.3. Dissemination annexes

7.3.1. Layman's report

Attached physically and e-version E3_1_DEL_LIVEDRAVA_laymans_report.pdf

7.3.2. After-LIFE Conservation plan

Attached physically and e-version F4_1_DEL_after_life_cons_plan.pdf

7.3.3. Other dissemination annexes

Attached physically and in e-form, except databases which only as files:

E4_1_TD_invitation_opening_ormoz_basins_NR.pdf
E5_1_TD_invitation_opening_obser_tower.pdf
E6_1_DEL (DVD with 2 videoclips & documentary film)
E7_1_DEL_guidebook_basins_slovene.pdf
E7_2_DEL_guidebook_basins_english.pdf
E7_3_DEL_guidebook_basins_german.pdf
E8 E9 1 DB database education events.XLSX
E9_14_TD_invitation_final_event_LIVEDRAVA_25YLIFE.pdf
database media outlets LIVEDRAVA-12-17.xlsx

Attached physically only:

E9_2_TD	Calendar 2015 – Ormož Basins NR theme
E9_3_TD	Pin badge – Little Ringed Plover pin badge on a printed tag
E9_4_TD	Patch for clothes – LIFE logo
E9_5_TD	Memory game – “DRAVCI” – birds of Drava River as motifs
E9_6_TD	T-shirt – grey, “DRAVCI – heroes of Drava River”
E9_7_TD	T shirt – white, Ormož Basins NR theme, Sep 2017, 50 pieces
E9_8_TD	T shirt – black, Ormož Basins NR theme, Sep 2017, 50 pieces
E9_9_TD	Carrying bag – type 1, Ormož Basins NR theme
E9_10_TD	Carrying bag – type 2, Ormož Basins NR theme
E9_11_TD	Stickers – Ormož Basins NR theme & LIFE
E9_12_TD	Packed buckwheat – from the Ormož Basins NR - bag without buckwheat only
E9_13_TD	Packed elder tea – from the Ormož Basins NR

7.4. Final table of indicators

Attached physically and e-version:
outcomes_final_indic_tab_LIVEDRAVA.xls

8. Financial report and annexes

8.1. Financial report

Financial report consists of the following documents:

In printed version:

- Standard Payment Request and Beneficiary's Certificate
- Consolidated Cost Statement for the Project
- Beneficiary's Certificate for Nature Projects
- Financial Statements of the Individual Beneficiary (DOPPS, VGB, DRAVA, PTUJ), with reports for all the categories where relevant:
 - Personnel costs
 - Travel costs
 - External assistance
 - Infrastructure
 - Equipment
 - Land purchase
 - Lease of land
 - Consumable material
 - Other direct costs
 - Overheads
 - Funding from other sources, divided in "EU Contribution", "Other sources of funding" and "Direct income"
- Independent audit report

In e-version:

- Four (4) complete financial reporting files identical to the printed versions as listed above – one per beneficiary, CB's file also including filled in Standard Payment Request and Beneficiary's Certificate, Beneficiary's Certificate for Nature Projects and Consolidated Cost Statement for the Project
- Summary of costs per actions

8.2. Financial annexes

All as files only (e-version).

In the folder EC response letters-financial docs:

Invoices:

Subfolder External assistance:

- Invoice_3-31_Kawka production Gregor Šubic s.p._18.06.2013.pdf
- Invoice_124-2014_Mariborska razvojna agencija_20.06.2014.pdf
- Invoice_144126_Geomnia d.o.o._14.7.2014.pdf
- Invoice_144137_Geomnia d.o.o._29.7.2014.pdf
- Payment Proof_Kawka production Gregor Šubic s.p.pdf
- Payment Proof_Mariborska razvojna agencija.pdf
- Payment Proofs_Geomnia.d.o.o.pdf

Subfolder Infrastructure:

- Invoice_14-294-20_Cestno podjetje Ptuj d.d._31.7.2014.pdf
- Invoice_14-315-20_Cestno podjetje Ptuj d.d._30.8.2014.pdf
- Payment Proofs_Cestno podjetje Ptuj d.d.pdf

Personnel:

- Salary Slips_Alenka Kovačič_VGB.pdf
- Salary Slips_Nataša Šalaja_DOPPS.pdf
- Time-Sheet_Alenka Kovačič_VGB.pdf
- Time-Sheet_Nataša Šalaja_DOPPS.pdf

In the folder Other financial annexes:

Independent audit report:

- Audit report Dopps LIFE.pdf

Infrastructure-lists of invoices:

- Infr-C.1-2-list of invoices.xlsx
- Infr-C.1-additional water supply system-list of invoices.xlsx
- Infr-C.4-grazing infrastructure-list of invoices.xlsx
- Infr-C.4-stable-list of invoices.xlsx
- Infr-E.4-observation points-list of invoices.xls