LIFE Project Number

LIFE16 NAT/SI/000644

Final Report

Covering the project activities from 01/10/2017[1] to 31/12/2022

Reporting Date[2]

31/03/2023

LIFE PROJECT ACRONYM

LIFE for LASCA

Data Project

Project location:	Natura 2000 site Dolina Vipave SI3000226
Project start date:	01/10/2017
Project end date:	31/12/2021 **Extension date:** 31/12/2022
Total budget:	2.223.788,00 €
EU contribution:	1.331.160,00 €
(%) of eligible costs:	59,86

Data Beneficiary

Name Beneficiary:	Fisheries Research Institute of Slovenia
Contact person:	Ms Kaja Pliberšek
Postal address:	Spodnje Gameljne 61a, SI-1211, Ljubljana - Šmartno, Slovenia
Telephone:	+386-01-2443400 + 407 or +386-31-652089
E-mail:	kaja.plibersek@zzrs.si
Project Website:	https://www.lifeforlasca.eu/

[1] Project start date

[2] Include the reporting date as foreseen in part C2 of Annex II of the Grant Agreement

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

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

1. Table of contents

2. List of key-words and abbreviations

FRIS...	Fisheries Research Institute of Slovenia
Parco Ticino...	Parco Lombardo della valle del Ticino
AC...	Angling Club
AP…	Action plan for Lasca conservation
CVI…	Corporate visual identity of the project
EC…	European Commission
MESP...	Ministry of the Environment and Spatial Planning
MAFF…	Ministry of the Agriculture, Forestry and Food
CVI…	Corporate Visual Identity
TM…	Trade mark (Logo)
SWA...	Slovenian Water Agency
FMPs…	Fisheries management plans
CD…	Conceptual Design of fish farm modification
GS…	Geodetic Survey
HHS…	Hydrological Hydraulic Study
FG…	Feasibility guidelines for Lasca reintroduction in Soča river basin
RHS…	River Habitat Survey

3. Executive Summary

LIFE for LASCA is an international project resulting in close cooperation between partners and locals. Special thanks goes to local ACs and to other enthusiastic individuals who provided local knowhow and extensive help in the field. The main objective of the project was to save extremely endangered species South European nase - Lasca (*Protochondrostoma genei*), by reintroducing it into Natura 2000 site Dolina Vipave [SI 3000226], from where the species has disappeared in the past.

Lasca distribution range covers northern Italy and western Slovenia, where populations are declining and the species has already disappeared from certain areas. To save the species in Slovenia, immediate actions were necessary. The LIFE for LASCA project was very successful, since it significantly contributed to the improvement of the species conservational status and trends, especially in Slovenia. The project started with Lasca stock from Italy, which has been transported to Slovenia for breeding in captivity. Transferring Parco Ticino experiences and knowledge from LIFE CON FLU PO project on Lasca breeding/reintroduction was crucial for the success. Due to the Slovenian fish farm modification delay, we found a mitigation strategy by using a low budget system for water temperature regulation; we borrowed equipment from other fish farms and provided additional capacity (tanks, quarantine) by help of the AC Tolmin and Municipality of Kobarid. The fish farm modification was finished in 2021. Nevertheless, in Slovenia, Lasca breeders performed 4 successful spawning seasons (2019 – 2022), producing 41.000 offspring. Parco Ticino significantly supported Lasca production with their well-established captive breeding practice. They collected and produced 96.652 Lasca specimens that were intended for reintroduction into nature and for a genetic backup in captivity for the future. Prior to the wild release of specimens into Natura 2000 site, careful selection of three release sites and a sufficient control of pressures were established. It is important to specify that the "3" release sites were three streams, where fish were released at many micro locations. These micro locations were selected based on seasonal weather and hydrological conditions, as well as species requirements. We selected the most comparable watercourse sections to those in Goriška Brda where small native Lasca population is still present in Slovenia. Within Natura 2000 site, watercourses Jovščček, Močilnik and Ozlenščček proved to be the most appropriate Lasca release sites. We have released 136.052 specimens into these three selected watercourses. The first release was in October 2019. Released specimens have dispersed along the entire suitable habitat within the streams and they survived all extreme weather conditions in the wild. During monitoring activities, we have found 1.019 well adapted Lasca specimens in nature. Even more, we have confirmed that released Lasca specimens spawn in the wild. This success is a major step towards self-maintaining capabilities of wild populations. Besides the selection of release sites, the very important step was the definition of pressures and their reduction and control. Intensive habitat destructions in second half of the 20th century and the presence of the alien common nase (*Chondrostoma nasus*) caused Lasca disappearance in the Natura 2000 site Dolina Vipave in the past. These two major pressures still exist today, but to lesser extent. However, during the project, we recorded that habitat is still being disrupted by unsustainable anti-flood construction interventions and removal of riparian vegetation. The goal of these interventions is to lower the water levels during raining periods by accelerating the water outflow. On the other hand, the faster the water drains from the watercourse, the earlier drought occurs. This is not a very promising disclosure, since global warming events are becoming more frequent and extreme. In the summer of 2022, due to an extreme drought, the water levels in Vipava valley dropped to such an extent that the streams in "heavy" regulated sections dried up completely. In other regulated sections, fish were temporarily caught in puddles with an unpromising fate. Consequently, all angling activities and surveys

had stopped completely and interventions for saving fish started. As a part of the project, we translocated more than 25.000 fish, including Lasca. During interventions, we removed alien common nase, since the species presence played a crucial role in Lasca disappearance in the past. Young common nase compete with Lasca for a habitat and food. Consequentially, we repressed the alien species at crucial points during the whole project implementation, with the aim to prevent the intrusion of a large number of alien specimen into Lasca release sites. We removed 11.191 common nase on 219 reduction sites. Additionally, we reduced common nase spawning potential by removing larger specimens on spawning and feeding grounds where specimens group in shallow water. In the areas of intensive reduction activities, the number of common nase specimens decreased by 88%. Despite of this, for the future, the only possibility is the coexistence of both species, since the complete eradication of alien species is not possible without a significant influence on other species including endangered/protected. Therefore, our future task is to monitor and help Lasca in establishing a strong population and a balance with the alien species.

Awareness activities are of great importance for nature conservation in long run. Extreme decline of Lasca populations is an indicative example of consequences from alien species entry into an environment. For this reason, the project included key participants; anglers and school youth, who were acquainted with these environmental consequences. We met with all 64 ACs in Slovenia at least twice. It turned out that the anglers are great nature protectors. Despite their strong will and the desire to conserve nature, we discovered that their knowledge is sometimes inadequate. Therefore, a great need for additional education was revealed. The project impact on the anglers was measured by the amount of alien game fish release by ACs, which decreased for 20%. Despite good result, we will continue to promote awareness among anglers. During the project, we organized youth awareness activities, including hands - on fieldwork events (N>8) and competitions (N=3). We networked with more than 20 LIFE projects and disseminated project results on more than 15 International Congresses and fairs. We organized 11 Scientific Councils, 9 Steering Committees, Kick-off (106 participants) and Final (85 participants) meeting. In line with CVI, further promotional material was used: 4.500 brochures, 1.270 T-shirts, 500 notebooks, 250 water bottles and 22.530 stickers with Lasca logo, 2.000 post stamps, 500 USB keys, 500 buffs, 500 local wine bottles, 500 bags and 2 posters. On December 2022, we organized the online “LIFE for LASCA International Congress” with 121 participants. We set up 12 notice boards and recorded 202 announcements in media. All events, project progress and results are published on the project website, which will be active for at least five more years. The web site is active from 30/06/2018; until 31/12/2022, we recorded 106.125 visits; 1.965 visits per month.

The final deliverables of the project are the Action plan and the Layman’s report. Long-term goal of the AP is to propose coordinated species management throughout its entire distribution range with emphasis towards habitat protection, wild population reinforcement and alien species control. All the best practices from relevant recent projects are included, as support for further management of the species. In spite of very successful projects, which gave Lasca good prospects for the future, we must recognize that the general status of the species is still poor. Specimen finds outside the operational project areas are rare and numbers are declining, which calls for fast action. Unfortunately, required measures cannot be applied until we gather sufficient available funds. However, a popular saying provides hope, “where there is a will, there is a way”. In 2022, the AP contents was incorporated into the official legislative FMPs in Slovenia. Laymnan´s report was issued in May 2022, in English, Slovenian and Italian language. Hard copies (20.000) were delivered to all relevant stakeholders, including to all households in Goriška region (Slovenia).

4. Introduction

4.1. Description of background, problems and objectives

South European nase - Lasca (*Protochondrostoma genei*) is Natura 2000 species, which inhabits Northern Italy and Western Slovenia. Its populations are declining drastically and the species has already disappeared from certain areas. In Slovenia, Lasca disappeared from its only declared Natura 2000 site, Dolina Vipave [SI3000226]. At the start of the project, on the entire Slovenian territory, only one small isolated and highly endangered Lasca population consisting of a few 100 specimens was present in Goriška Brda; outside Natura 2000 network. This was the main reason why it was urgent to ensure back up of Lasca specimens (genetic material) in captivity. Specimens bred in captivity should also serve as a source for wild population reinforcements.

In the scope of the Life for LASCA project, improvement of Lasca conservation status and trends were planned; by establishment of Lasca breeding in captivity and by Lasca repopulation into Natura 2000 site Dolina Vipave. Since Lasca shares the same habitat with regionally invasive common nase (*Chondrostoma nasus*), the reduction of this species was necessary to assure the survival of the reintroduced Lasca population. Lasca management has never been established since the species is considered economically unimportant. Due to lack of interest, population drastic decline has not been detected until the species became rare. Consequently, in the frame of the project, Action plan for Lasca conservation was one of the most important goals, that base on the cooperation between Italian and Slovenian specialists (multidisciplinary approach), including institutions responsible for Lasca management. For the implementation of the Action plan, its contest should be included in the official Slovenian legislative Fisheries management plans until 2023.

In the past, knowledge of Lasca biology and its habitat was poor and insufficient. There was some general data, which was contradictory, especially on Lasca reproduction. Lack of knowledge on the species reproduction was the main cause of problems for breeding Lasca in captivity. However, over time more data had been revealed through different projects. Before the beginning of the LIFE for LASCA project, four breeding practices were successfully preformed, all in Italy. First ever successful Lasca spawning in captivity was performed in the year 2014 by Marco de Marchi in the fish farm on Fiumelatte River. The other successful spawning was accomplished in years from 2015 to 2017 by the Parco Ticino, during the LIFE project CON.FLU.PO. In 2018, Parco Ticino Fish Farm was the only Fish Farm where Lasca breeding took place. Due to unforeseeable circumstances such as diseases, fish farm system failures and extreme weather, it was mandatory to have more than one Lasca back-up stock. Moreover, breeding programs in Slovenia and Italy should ensure a sufficient number of specimens for repopulation of Natura 2000 site and afterwards, for long-term reinforcements of Lasca populations intended to ensure viable populations for the future.

Extreme decline of Lasca populations is an indicative example of consequences from entry of non-indigenous species into an environment. For this reason, the project target key participants, anglers and school youth, who should be acquainted with these environmental consequences. In long term, the awareness would contribute and help to reduce negative anthropological activities in this field. Under the socio-economic study, analysing angler needs (how much anglers are willing to contribute to fishing in diverse natural habitats rich with native species) would enable local Angling Clubs to see business projections with consideration of sustainable fishing.

In general, major socio-economic impacts of the project cannot be expected, since LIFE for LASCA project is strictly oriented towards nature conservation - saving Lasca, the Natura

2000 species. Furthermore, Lasca is not a game fish and is not a species of interest for anglers. Its recognition amongst most locals is not great, due to its rarity and small unattractive size. However, undoubtedly, the occurrence of such a rare and almost extinct species can contribute greatly to the region. This in combination with awareness activities and media communication gives the region recognisability and a special significance. In the frame of the project, we planned to analyze the possibility of Lasca becoming a protected trademark of quality products and services in the Vipava valley and Goriška Brda region.

4.2. Expected long term results (as anticipated at the start of the project)

The main long-term expectation was to improve the conservation status/trends of Lasca in the entire species areal, with emphasis in Slovenia. During the project and also in the After Life, collaborations with Institutions responsible for Lasca management in Italy as well as in Slovenia should be established and maintained. Through Action plan, as a final product of LIFE for LASCA project, we planned to transfer knowledge gained during the project. Until 2023, the contents of the Action plan were planned to be implemented into the official legislative Fisheries management plans (FMPs) in Slovenia. FMPs are obligatory to all Slovenian Institutions responsible for fisheries management.
After the end of the project, Lasca breeding in captivity, threats control and Lasca wild reinforcement, will be continued, recorded and disseminated to all competent institutions.

5. Administrative part

The project management was established successfully. Communication between partners ran on weekly bases, predominantly via e-mails, phone and skype, contributing to reduce the project carbon footprint. Prior to important events, such as submissions of reports, we usually met under the Steering Committee (N=9). Regarding partner's communication and activities realization, the entire project staff provided crucial support. In the project, we incorporated a Scientific Council (N=11). This body did not have a permanent membership. The Project Manager convened it every time a scientific problem was revealed and required the external support of experts. Technic/administrative group was successfully established. On both sides communication was supported by internal meetings almost every week. Since FRIS field work was very delicate and risky, the general protocols and safety regulations are described in the Feasibility study (A3, C4).

Deviations regarding administrative activities connected to changes in Slovenian and Italian national legislation rules are explained under action A1 and Chapter 6.2..

Communication with the EASME and Monitoring team:

- On 17 – 18 /10 /2017, we attended the LIFE Kick off meeting in Brussels.
- Regularly, every three months, we reported the project progress to Mitja Kaligarič (LIFE monitor) via e-mail.
- 5 Monitor visits: Mitja Kaligarič and Julijana Lebez-Lozej (LIFE focal point) visited FRIS institution on 06/04/2018, 22/05/2019, 08/06/2020 and 10/06/2021. On 15/09/2022 visited (joined visit) us Mitja Kaligarič and Gustavo Becerra-Jurado (EC project adviser).
- On 13/06/2018 we received a document Ares (2018)3110289 as a response to Monitor visit in April 2018 sent by Ms. SAEZ LACAVE Blanca (EC project adviser).
- 03/12/2018 the project schedule has been changed (approved by Ms. Blanca Saez – Lacave).
- In December 2018 we received an e-mail regarding the EU project advisor replacement. Ms Blanca SAEZ LACAVE was replaced by MSc Sarunas ZABLECKIS.
- On 20/06/2019 we received a document Ares (2019)3927763 as a response to Monitor visit in May 2019 and to Mid-term report sent by MSc ZABLECKIS Sarunas.
- In January 2020 we received an e-mail regarding the EU project advisor replacement. MSc Sarunas ZABLECKIS was replaced by Ms Ana Klenovšek.
- At the beginning of 2020 we were informed the EU project advisor changed. MSc Sarunas ZABLECKIS was replaced by Ms Ana Klenovšek and afterwards, Ms Ana Klenovšek was replaced by Mr. Gustavo Becerra-Jurado.
- On 29/06/2020 we received a document Ares (2020)3398176 as a response to Monitor visit in June 2020 sent by Mr. BECERRA-JURADO Gustavo.
- On 28/06/2021 we received a document Ares (2021)4195530 as a response to Monitor visit in June 2021 sent by Mr. BECERRA-JURADO Gustavo (CINEA adviser).
- On 14/10/2022 we received a document Ares (2022)7128538 as a response to joint visit in September 2022 sent by Mr. BECERRA-JURADO Gustavo (CINEA adviser).

The changes due to amendments to the Grant Agreement:

- On 16/08/2018 we received a letter Amendment No.1 to Grant Agreement - easme.b.3 (2018) 3792965 regarding modification of the definition of conditions for natural persons, submission of VAT certificate and threshold for submission of the certificate on the financial statements.
- On 17/12/2022 we received a letter Amendment No.2 to Grant Agreement regarding project prolongation for one year, from 01/01/2022 to 31/12/2022.

6. Technical part

6.1.Technical progress, per Action

A.1 Technical and administrative activities to support the start of the project

Foreseen start date: 01/10/2017 Actual start date: 01/10/2017
Foreseen end date: 31/03/2018 Actual end date: 17/07/2018

This action covered the initial activities for the project management (action F1).
Starting activities were led by the internal staff of the Project, supported by external assistance of the Financial Manager (Irena Likar). On the Slovenian side technical activities were carried out predominantly by the Project Manager (Kaja Pliberšek) joint with the Administrator (Renata Strelec), while on the Italian side activities were carried out by Project Leader (Adriano Bellani) joint with the Accountant (Lugia Belloni). Communication between project partners ran predominantly via e-mails, phone and skype.
Detailed information on the action progress:
Grant agreement was signed on 31/05/2017.
Project team establishment on 02/10/2017 (FRIS) and on 06/02/2018 (Parco Ticino).
Project internal rules issued on 02/10/2017.
Co-financing agreement with MESP on 08/03/2018.
Partnership agreement: at the start of the project, new administrative rules introduced by the Italian national government for the public body activities and tenders have increased the complexity for administrative activities and complicated the assignment of the external job envisaged by the project (see Chapter 6.2.). Due to this situation, the agreement with FRIS for the LIFE16NAT/SI/000644 Life for Lasca was possible to be signed only on 09/02/2018, in spite the fact the agreement was already booked by the Ticino Park Steering Committee with act n. 174 on 13/12/2017.
In April 2019, Slovenian administrative rules for the public body activities and tenders also changed. As consequences of this new situation on both sides, the procedures for the preparation, execution and assignment of the public tenders for the activities needed in the initial part of the project were prolonged (Chapter 6.2., Midterm report). However, considering late Partnership agreement approval, the assignment of the public tenders took 5 months: from February to July 2018.

A.2 Preparatory plan for the fish farm modification

Foreseen start date: 01/10/2017 Actual start date: 01/10/2017
Foreseen end date: 31/05/2018 Actual end date: 24/12/2018

This action is a preparatory action for C1 Action (Fish farm modification). Despite all complications and prolonged administrative steps including drastic changes in Slovenian national construction legislation, all the documentation regarding this action was completed in December 2018. On 24/12/2018, construction documentation of fish farm modification for obtaining a building permit was submitted to the local administrative area (MESP) to issue the building permit needed for construction works to start (C1 Action).
The action was carried out by the Project manager (Kaja Pliberšek) technically supported by the Fieldwork leader (Tone Tavčar) and the Fish farmer (Erik Sivec) on the Slovenian side. On the Italian side, the action was carried out by the Project Leader (Adriano Bellani) technically supported by the Faunistic technician expert (Marco Primavesi).
In the Midterm report, the action implementation is explained in detail.
In this Action Parco Ticino provided further support:
Development of fish farm conceptual draft for Lasca.
Protocols developed by Parco Ticino during the Life CON.FLU.PO were sent to FRIS by e-mail on 12/09/2017, before the start of the project. The internal Park staff developed this documentation. Consequently, the related external assistance contract for a technician (Assistance to Parco in preparation of guidelines for € 3.000) was not signed, but the funds were transferred (Chapter 6.2).
Development of guidelines for fish farm establishment.
Preparatory plan for the Fish farm modification was produced and issued on 01/08/2018 by the Park staff in cooperation with the biologist trained in fisheries management relevant for this action. In the document, procedures for Lasca breeding and farming are reported; equipment used by Parco during its experiences is described in detail. The document proposed initial suggestions regarding collection of wild breeding specimens, rescue and recovery methods, activities of farming and breeding, information about spawning, incubation and hatching of eggs, weaning and growing of fry. A paragraph focused on the decisive factors for the success of the reproduction is also provided. The document also suggests how to organize technical aspects of work in a Lasca hatchery. Detailed guidelines are also included in the Feasibility study (C4).

A.3 Feasibility guidelines for Lasca reintroduction in Soča river basin

Foreseen start date: 01/10/2017 Actual start date: 01/10/2017
Foreseen end date: 01/10/2018 Actual end date: 01/10/2018

This action is a preparatory action for C4 action (Lasca reintroduction). The activities were carried out predominantly by the Project Manager (Kaja Pliberšek), technically supported by the Fieldwork Leader (Tone Tavčar) on the Slovenian side. On the Italian side activities were carried out by the Project Leader (Adriano Bellani), technically supported by the Faunistic technician expert (Marco Primavesi) and by the consultant in charge for the preparation of Lasca reintroduction guidelines. The external contract was assigned to Alice Pellergino (€ 6.000) on 02/07/2018.
The Feasibility guidelines for Lasca reintroduction in Soča river basin (FG) were issued on 01/10/2018 and attached to the Midterm report. We precisely followed Guidelines of the IUCN Reintroduction Specialist Group, which gives indications of necessary steps to develop a suitable reintroduction program. The document also includes best practices gained through networking with Parco Ticino (LIFE Con.Flu.Po project experiences) summarized in the document "Feasibility Guidelines for Lasca reintroduction in Soča river basin" issued by Parco Ticino on 04/09/2018. The FG were upgraded with focus on the Vipava River basin (large Soča River tributary) under action C4 as the Feasibility study (final project deliverable).
Relevant details on the action realization:
Genetics: On 15/02/2018, we visited genetic experts at Parma University (Scientific Council). We discussed requirements for additional genetic tests that were predicted in the project. We concluded that there is no need for additional tests, since MESP authorization for Lasca specimen introduction into the wild was already obtained on 09/02/2018. Genetic analyses were done later, under C4 action, to determine the origin of alien Lasca specimens in Tiber River basin (additional source of specimens).
Habitat degradation: Based on samplings and past research, we concluded that habitat destruction in the eighties also played a crucial role in Lasca disappearance in Vipava River basin. For this reason, existing FRIS habitat survey method needed to be expanded for more detailed habitat analyses. Furthermore, to analyse habitats in detail, River Habitat Survey (RHS) method was adopted. Under Scientific Council we attended a lecture by a Slovenian expert Gorazd Urbanič (29/11/2017) and RHS survey training in England (March 2018) and transferred fieldwork skills to Slovenia. We used habitat analyses methods in connection to the fish community survey methods.
Habitat modelling knowledge dissemination: In a scope of the Scientific Council we also organized two meetings on habitat modelling (20/11/2018 and 05/12/2018). At meetings, we discussed different approaches on how to analyse data on Lasca habitat structures.
Lasca release sites selection: Based on habitat data and ichtyological surveys we have chosen 9 potential watercourses for Lasca reintroduction into Vipava River basin (Branica, Dragonc, Lijak, Ozelenšček, Konjščak, Jovšček, Močilnik, Vogršček and Vrnivec). In the selected watercourses, we deployed temperature loggers (C4). Obtained temperature data was compared with temperatures, where native Lasca lives in Slovenia. Since the selection of the final three Lasca release sites is a very crucial and delicate activity, we decided for a more comprehensive approach towards habitat analysis and field observations. In the frame of habitat suitability research, water velocity/discharge are important parameters. For these purposes a water flow meter was purchased (*Ares (2019)3927763*). We measured flow velocity rates, created feature profiles and analysed data for best Lasca habitat suitability. In 2019, before the release of first Lasca specimens into the wild, three most appropriate watercourse sites were carefully chosen named Ozelenšček, Jovšček and Močilnik (C4, D2).

A.4 Action Plan for Lasca conservation

Foreseen start date: 01/01/2021 Actual start date: 01/01/2021
Foreseen end date: 31/12/2022 Actual end date: 31/12/2022

The activity was developed in the last two year of the project. The Action plan (AP), as the final deliverable of the project (Annex 01), includes all recent information and knowledge within the entire Lasca distribution range, including those gained during the project. Multidisciplinary approach was used, all relevant stakeholders were involved. In December 2022, the AP was send to all organizations responsible for Lasca management.
The purpose of the AP is to offer unified guidelines for the species conservation management within its entire distribution area. The goal of the plan is to support the establishment of local and national action plans with adequate measures for the preservation of the species and improvement of its conservation status. The following are the objectives of the plan:

- To provide touchstone information about the species status.
- To provide scientific practices and suggestions for further species management.
- To determine priorities in species conservation.
- To contribute good practices in knowledge exchange for a wide range of stakeholders.

The plan was formed according to the European Commission example of the AP for the conservation of the Common Midwife Toad (*Alytes obstetricans*) from the year 2012, since it was formed for the entire species range and the species is under common pressures and threats as Lasca. The Lasca AP was formed with collaboration of scientists in a specific team and other relevant stakeholders, which collaborated in the project. The project partner, Parco Ticino provided a supporting document, which is attached as a separate document to the action plan (Annex 01a). During the project, we carried out 11 scientific councils, mostly on topics analysing pressures and threats to the species. We met with numerous (N>20) Life and Interreg Europe projects on the subject of fish conservation. At the end of the project, in December 2022, we organized the LIFE for LASCA international congress (E2), where fish scientists from the entire species range presented their work and projects relating to Lasca management and other endangered fish species protected under the Annex II Habitats Directive. Book of abstracts and summaries of the congress is attached as a separate document to the AP (Annex 01b). In the AP are included facts and knowledge from literature and examples of current good practices regarding species management and conservation within its entire distribution range. Taxonomic species description, ecology and distribution are briefly introduced. Emphasis is on the species threats, pressures and conservation status. Towards the end, conservation measures are provided and suggestions are proposed to engage relevant stakeholders. In the conclusion, we foresee the monitoring and review of the plan with updates and modernizations.
Under this action, two external contracts were assigned for Parco Ticino: (1) Technical and administrative support for the AP preparation (€ 4.000, Franco Mari) and (2), the biologist trained in fisheries management (€4.000; Alice Pellegrino).

A.5 Communication plan, corporate visual identity and project trade mark design

Foreseen start date: 01/10/2017 Actual start date: 23/10/2017
Foreseen end date: 30/04/2018 Actual end date: 31/07/2018

Under this action Communication plan, CVI and TM were prepared/designed and issued on 29/03/2018. These "project deliverables" served as guidelines for further awareness and dissemination activities (E actions) and were attached to the Midterm report.
On FRIS side, the action was carried out by project promotion leader (Katja Pustovrh), supported by the external assistance for CVI and TM design for € 3.647,80 on 30/01/2018.
At the Parco Ticino, the action was carried out by project leader (Adriano Bellani) and the expert on the environmental education (Francesco Magna). Project manager (Kaja Pliberšek) supervised the action progress. Communication was predominantly led using e-mail, phone and skype.
Due to delay at the start of contract attribution for external assistance (under Action A1), the contract for Parco Ticino external communicator involved in the preparation of the Communication plan (€15.000) was assigned to Cesare Puzzi as a part of the contract n. 313 of the 31/07/2018 under action C2 (*Ares (2019)3927763*).

C.1 Modification of the fish farm for Lasca breeding

Foreseen start date: 01/12/2018 Actual start date: 24/12/2018
Foreseen end date: 28/02/2019 Actual end date: 31/12/2021

Slovenian Fish farm modification for Lasca breeding was finished in year 2021. On 18/06/2021, the Minister of MAFF, Jože Podgoršek Ph.D. officially opened the Fish farm hatchery and quarantine. Unfortunately, for planned construction of Lasca outdoor ponds, we were unable to obtain the building permit (for details see below). Consequently, we were forced to use a back-up plan. In order to ensure a viable fish production for the long run, we are using portable tanks instead of previously planned earthly ponds with equivalent carrying capacity (*Ares(2020)3398176*). Additionally, the Kobarid Municipality is kind enough to lend us their outdoor ponds, anytime and free of charge in case of need.
The activities in this action were carried out by the Project manager (Kaja Pliberšek) supported by FRIS director Rado Javornik and technically supported by the Fieldwork leader (Tone Tavčar) and the Fish farmer (Erik Sivec).
Detailed information on the action progress:
This action is the continuation of the preparatory A2 Action. The A2 Action was completed on 24/12/2018 by submitting an application for obtaining a building permit to local administrative area (MESP). Due to changes in construction legislation (URL RS, št. 61/17 in 72/17 – popr.), we needed to supplement the application process with additional project documentation in March 2019. According to the situation, the action was postponed. In order to compensate for the delay and to assure Lasca spawning season, several compensatory activities have been devised. Firstly, we borrowed the equipment form other Fish farms (Obrh and AC Tolmin) to ensure Lasca spawning and rearing conditions. Secondly, the external plumber was required to assemble Lasca breeding system ahead of fish farm modification (*Ares(2020)3398176*). Building permit for hatchery and quarantine was issued on 19/08/2019. For Lasca outdoor ponds construction, Slovenian Water Agency (SWA) did not issued Official Consent, which is needed for building permit acquisition. In order to obtain this Consent, a compulsory Kobarid Anti-flood Study would need to be officially approved by the government. This study is still under validation procedure, for the fifth year now. Consequently, the building permit for outdoor ponds was not issued and we were forced to use a back-up plan (see above).
The public tender for construction works was published on 10/10/2019. On 03/01/2020, a revision procedure for the public tender was applied. On 27/01/2020 the National Audit Commission granted the Request for audit. The repeated Public tender for construction works was delayed due to Covid-19 lockdown. It was published on 07/04/2020. On 08/06/2020 construction contractor was selected. On July 2020, construction works started.

C.2 Establishment of Lasca breeding in Slovenia

Foreseen start date: 01/10/2018 Actual start date: 01/10/2018
Foreseen end date: 31/12/2022 Actual end date: 31/12/2022

This action could be considered as the "core action" of the project in function to support the reintroduction of Lasca into Vipava River basin. On the Slovenian side, activities were carried out by the Fish farmer (Erik Sivec), technically supported by the Fieldwork leader (Tone Tavčar) and supervised by the Project manager (Kaja Pliberšek). On the Italian side, the action was carried out by the Project Leader (Adriano Bellani/Francesco Magna/Monica Di Francesco) and the administrative manager (Luigia Belloni), technically supported by the Faunistic technician (Marco Primavesi) with the external assistance of Cesare Puzzi. The field support was assured by three rangers (Massimo Balocco, Cristina Poma, Davide Cameroni).
The final deliverable of this action was the Final report on Lasca breeding progress (Annex 02).

C2.1 A tracking best practices from different groups involved in Lasca (or sister species) breeding

For 5 days (12 - 16/02/2018) FRIS project team visited three Italian fish farms and institutions involved in Lasca and other sister species breeding. Collected knowledge was transferred into Slovenia and it was used for proper FRIS fish farm modification and Lasca breeding.

C2.2 Professional fish farmer initiation

FRIS fish farmer started working in the Slovenian fish farm on 02/10/2018. Firstly, he received regular training. In the end of May 2018, from 28/05/2018 to 08/06/2018, the fish farmer visited Parco Ticino fish farm. His visit was conditioned upon Lasca spawning period. This period is crucial in fish farming, since Lasca offspring is needed for the species reintroduction/reinforcements in the wild. At Parco Ticino, FRIS fish farmer was practically trained in Lasca breeding activities (equipment used, procedures and management) and preparation of fish ponds for growing of fry. He was also acquainted with other ongoing LIFE projects in the area. At the end of the visit, he successfully transported first Lasca broodstock to Slovenia.

C2.3 Italian Lasca stock importation

In 2019, after obtaining the sufficient FRIS fish farmer training in breeding techniques, Lasca broodstock of 380 specimens were transported to Slovenia (on 08/06/2018). Parco Ticino successfully completed all necessary steps with the veterinary institution to assure the relevant documentation and official permission to transfer first Lasca stock to Slovenia. For this purpose, FRIS temporary adjusted the fish farm regular stock management procedure to provide an empty tank for newly arrived Lasca specimens. In Slovenia, specimens were first held in AC Tolmin quarantine for 60 days and afterwards transported to FRIS fish farm. During the project, we preformed 6 Lasca transportations. All together, we transported 96.625 specimens of different ages. Majority of these animals were reintroduced into Natura 2000 site Dolina Vipave (C4), while the remaining specimens were used for Slovenian Lasca broodstock establishment (C2.4).

C2.4 Lasca breeding

Lasca breeding for Natura 2000 site [SI 3000226] repopulation was performed in Italy as well as in Slovenia. At the beginning of the project (October 2017) Parco Ticino Lasca stock came from breeding activities carried out in Life Nature Con.Flu.Po.. The stock was reinforced by wild specimens obtained without any influence on wild populations. Specimens were bred in the Parco Ticino fish farm. On 19/12/2017 Parco Ticino has signed a three year agreement with the Association FIPSAS Varese (act n. 463, for € 5.000). This agreement assured the collaboration of FIPSAS's fish farm of Somma Lombardo during the whole project. During all phases of the reproduction, including offspring care, Parco Ticino was supported by a biologist trained on fish management (*Ares (2019)3927763*). The best practices for the fish transportation were applied to minimize stress and mortality.

In Slovenia, we preformed 4 successful Lasca spawning seasons producing 41.000 offspring. The first spawning was performed in 2019. In general, we had no major problems in Lasca captive broodstock breeding with exception of two events. (1) In June 2019, just before spawning, 182 specimens of Lasca broodstock died due to the clogging of the water inflow pipe. (2) In 2022, the Lasca spawning was very successful, comparable to previous year, when we produced 20.000 offspring. However, in late June/July 2022 gradual mortalities started to occur, due to high concentrations of organic substances in water. Due to mentioned situation, we produced only 1.000 offspring in year 2022. Otherwise, Lasca in Slovenian fish farm did not shown any signs of stress, which would stand out of regular day-by-day problems in fish farming. Specimens expressed normal feeding behaviour. Regular fish breeding water parameters (temperature, oxygen saturation/concentration, pH and TDS) were recorded and daily maintenance was conducted.

Lasca breeding activities must and will be continued after the project ends.

C.3 Reduction of Common nase population

Foreseen start date: 01/04/2018 Actual start date: 03/10/2017
Foreseen end date: 31/12/2022 Actual end date: 31/12/2022

The main goal of this action was reduction of Common nase population in Vipava River basin, since the species represents one of the major pressures and threats to Lasca. Common nase compete with Lasca for space and food. The Common nase reductions started in autumn 2017. They were executed by FRIS in close cooperation with local Angling Clubs (contracts signed on 26/04/2018). Local help was crucial in this action. They also monitored Common nase behavioural patterns in the wild on daily bases and informed us regularly of their major movements. During the project, we have removed 11.191 Common nase specimens on 219 reduction sites. Removed specimens were transported to fish farm near town Maribor or they were taken by the locals for culinary purposes.

Based on field observations and monitoring surveys (D1), it can be concluded that we succeeded to limit Common nase abundance and dispersal at crucial sections to give "space and food" to newly arrived Lasca.

Common nase is a timid species, which instinctively prefers to hide and constantly seeks shelter. Therefore, it is hard to catch it in large numbers. Specimens regularly migrate and hide in deep pools, especially during the summer and winter. Here they are difficult to reach with electro-fishing, since the method is efficient in water depths up to 1.5 m. In deeper water, specimens are catchable by angling. Other methods such as fyke/trap nets were also preliminary tested with not much success. To increase efficiency of reduction methods, local Angling Clubs also organized Common nase reduction angling activities (N>12) with their youth members. Through these events, young members were also aquatinted with the importance of non-native species introduction in an environment. Electrofishing method has proven to be effective in time when Common nase specimens group in shallow water, in spring when the species spawn and in autumn, when they feed intensively. Volunteers from local AC, as well as FRIS staff were regularly looking for spawning and feeding sites. In order to access the water, the team often needed to pass through lush riverbank vegetation rich with thorny plant species. This was the main reason the team was additionally equipped with mechanically resistant and breathable field outwear (*Ares (2019)3927763*). Moreover, Common nase populations were also intensively repressed at crucial areas (near Lasca release sites) preventing intrusion of large numbers of specimen into Lasca release sites.

Reduction activities must and will be continued after the project ends. The final deliverable of this action was the Final report on Common nase reduction (Annex 03).

C.4 Lasca reintroduction in the Natura 2000 site Dolina Vipave SI3000226

Foreseen start date: 01/03/2019 Actual start date: 01/10/2018
Foreseen end date: 31/12/2022 Actual end date: 31/12/2022

This action was the continuation of the preparatory A3 Action - Feasibility guidelines. On the Slovenian side, the field activities were carried out by the Fieldwork leader (Tone Tavčar) supported with other project staff. On the Italian side, Faunistic expert – Marco Primavesi and one Ranger supported the FRIS release activities by preparing everything needed for transport of Lasca stock from Italy.

The project major success is repopulation of Natura 2000 site Dolina Vipave [SI 3000226]. All together, we have released 136.052 Lasca specimens into three selected watercourses named Močilnik, Jovšček and Ozlenšček. The first release was in October 2019. Released specimens have dispersed along the entire suitable habitat within the streams and survived all extreme weather conditions in the wild, including low temperatures during winters and high during summer as well as, floods and extreme droughts. Even more, we have confirmed that released Lasca specimens spawn in the wild. This success is a major step towards self-maintaining capabilities of wild populations. In June 2021, we have found released Lasca specimens in stream Jovšček, just before spawning. Mature females were full of eggs; males exhibited breeding colours and breeding tubercles. Furthermore, in October 2022, in stream Močilnik, we found 4-5 cm long Lasca specimens representing offspring from 2022. These specimens could not arrive from anywhere else but from the 2022 spawning in the wild.

Under this action, we prepared the Feasibility study for Lasca reintroduction in Vipava River basin (Annex 04). The document is one of the most important deliverables of the project, since includes all necessary steps for successful Lasca repopulation in details. The document is an upgrade of the Feasibility guidelines prepared in action A3.

Lasca wild reinforcements must be and will be continued after the project ends.

C.5 Reduction of further non-indigenous species entry into an environment

Foreseen start date: 01/03/2018 Actual start date: 01/10/2017
Foreseen end date: 31/12/2021 Actual end date: 31/12/2021

The action was carried out by Project promotional leader (Katja Pustovrh/Samo Bratož) and Fishery expert (Lucija Ramšak) supervised by Project Manager (Kaja Pliberšek).

Under this action, we visited/interviewed all 64 angling clubs in Slovenia twice, for the first time in year 2018 and again in 2021. Leading topic of meetings were non-indigenous species in conjunction with an ecosystem functioning. Concrete local examples were exposed (negative influences of non-indigenous species on the local environment). Before first visits to Angling Clubs, FRIS prepared contents for meetings. Data from Fisheries Cadastre and data from FRIS fisheries samplings were used as source data. The surveys for meetings were prepared in cooperation with selected outsourcer for assessment of socio-economic project impacts (D3 action). The first visit dates to 21/05/2018 when we visited the leadership of AC Ljubno ob Savinji. At the end of the action, we prepared a document analysing dynamics of non-indigenous game fish species release in Slovenia (Annex 05). In Slovenia, 99% of non-indigenous fish species release represents domesticated common carp (*Cyprinus carpio*) and rainbow trout (*Onchorynchus mykiss*), which are the most important game fish species in Slovenia. However, in the study it was shown that the trend is beginning to reverse. Angling for native species is becoming more and more important, which is reflected in the reduction in non-native fish species stocking for fishing purposes (see D1 action), which was also the main goal of this action.

D.1 Monitoring of the impact of the project actions

Foreseen start date: 01/03/2018 Actual start date: 24/10/2017
Foreseen end date: 31/12/2022 Actual end date: 31/12/2022

The action was carried out by FRIS staff. The final deliverable of this action was the Report on the project actions impacts (Annex 06).
We measured the initial and final status of the following indicators:

D1.1. INDICATOR 1: Number of a successful Lasca spawning periods in Slovenian fish farm, which indicated the success of C1 and C2 actions.
In Slovenia, we performed 4 successful Lasca consecutive spawning seasons producing 41.000 offspring. First successful spawning season dates to 2019.

D1.2. INDICATOR 2: Reduction in Common nase abundance in Vipava River basin indicated the success of the C3 action.
On monitoring sites, Common nase decreased for:
- 66% in Jovšček stream. In year 2018 we caught 143 specimens, while in year 2021 we caught 48 specimens.
- 98% in Ozlenšček stream. In year 2018 we caught 604 specimens, while in year 2021 we caught 13 specimens.
- 72% in Močilnik stream. In year 2018 we caught 11 specimens, while in year 2021 we caught 3 specimens.
- 65% in the Vipava River. In year 2018 we caught 94 specimens, while in year 2021 we caught 33 specimens.

D1.3. INDICATOR 3: Lasca abundance in the Vipava River basin indicated the success of the C4 action.
The initial indicator value was equal 0, since Lasca was not present in the Vipava valley before the project. During the project we have released 136.052 specimens of different ages in the wild. In the nature, we have found 1.019 Lasca specimens, meaning Lasca specimens survived all extreme weather conditions. Even more, we detected that released Lasca specimens successfully spawn in the wild, which is a major step towards self-maintaining capabilities of wild populations.

D1.4. INDICATOR 4: Decreasing the amount of non-indigenous fish species entry indicated the success of the C5 action.
Since in Vipava valley alien Common nase was introduced by fisherman, their awareness on consequences of the alien species introduction is very important; especially to prevent the possible further introduction of exotic species into nature. Their "real" awareness can be reliably measured by the amount of alien game species released, for which the anglers have a special governmental permission to manage with (rainbow trout - *Oncorhynchus mykiss* and domesticated common carp - *Cyprinus carpio*).
Indicator 4 value: Comparing periods 2013 – 2016 (pre-project) and 2017 – 2020 (during the project), non-native game species entry into Slovenian waters has decreased for 20%, which exceeds the project expectations by 10%.

D.2 Assessment on the ecosystem function restoration

Foreseen start date: 01/03/2018 Actual start date: 01/10/2017
Foreseen end date: 31/12/2022 Actual end date: 31/12/2022

The action was carried out by FRIS staff. The final deliverable of this action was the Report on the ecosystem function restoration (Annex 07).

The operational area of the action was Lasca distribution area within Slovenia. The area was defined by assessment based on fish community surveys and data from literature on past Lasca findings. Potential Lasca distribution area was determined also by Common nase distribution, since the species shared the same habitat. In this way, we defined the narrow target area inside which we acted and finally monitored ecosystem function restoration. During the project, we performed 389 fish community surveys and 394 habitat surveys.

In frame the action, we have achieved further results that improved ecological status:

(1) We successfully repopulated Lasca within three streams within Vipava River basin (actions C4 and D1). – **Biodiversity increase**

(2) At the request of the MESP, we issued three expert assessments on Lasca conservation status in Brda region (initial small Lasca population in Slovenia), in years 2019, 2020 and 2021. Based on our assessments, the Ministry officially protected Lasca habitat in Brda region for two years (Official Gazette of the Republic of Slovenia No. 47/19 and 103/20). In the frame of the protection, all human interventions in water bodies and riverbanks were prohibited, with an exception of emergency and regular public service innervations. – **Reducing habitat degradation and loss**

(3) We actively protected Lasca habitat in Vipava valley by interventions in the field as well as by issuing documents to relevant public institutions, including appeals to reduce massive construction works in watercourses and to use more sustainable approaches. For example, in year 2022, we received 1074 appeals, among them 148 appeals for the Goriška region and 92 for the Vipava valley area. - **Reducing habitat degradation and loss**

(4) During the project we successfully supressed alien Common nase that compete with Lasca for food and space. By controlling Common nase populations we enabled space and food for newly arrived Lasca and also for other species that alien Common nase affected. During fish community surveys, we additionally removed every invasive fish species we found. We have removed more than 1233 specimens of *Pseudorasbora parva* and more than 505 specimens of *Lepomis gibbosus*. – **Reducing alien species presence**

D.3 Assessment of the socio-economic impacts

Foreseen start date: 01/03/2018 Actual start date: 17/04/2018
Foreseen end date: 31/12/2022 Actual end date: 31/12/2022

This action was carried out by external assistance (Tanja Golja for € 8.625 on 17/04/2018) supported by the internal FRIS project staff.
Under this action, we prepared surveys for anglers, angling clubs (C5), catering companies, tourist agencies and winemakers. The outsourcer prepared initial and final Report on socio-economic impacts (Annex 08). The reports contain general description of the Vipava valley and Goriška Brda areas including geographical features, demographic and sociological characteristics, description of main economic activities, agriculture, fishery activities economy, tourism, nature conservation, infrastructure condition and basic services availability. In reports, institutional organization of Slovenian fisheries policy, international organizations and projects within the Fisheries sector are exposed. In separate chapters, surveys data is presented including interpretations. It is shown, that anglers highly prefer fishing in diverse natural habitats rich with native species. Consequentially, these are the guidelines for future success for Slovenian fisheries also with consideration of sustainable fishing. Moreover, majority of respondents recognized the occurrence of such a rare and almost extinct species as contribution to the region. They expressed willingness to use Lasca Logo as protected trademark of quality products and services in the Vipava valley and Goriška Brda region.

E.1 Public awareness

Foreseen start date: 01/01/2018 Actual start date: 01/01/2018
Foreseen end date: 31/12/2022 Actual end date: 31/12/2022

On the Slovenian side this action was carried out manly by Project promotional leader (Katja Pustovrh / Samo Bratož / Mateja Hamzić) and Project Manager (Kaja Pliberšek) supported by outsourcers. On Italian side the action was carried out by the Project leader (Adriano Bellani / Francesco Magna / Monica Di Francesco) and the expert on the environmental education (Francesco Magna) supported by external expert in communication. The action proceeded in line with Communication plan created under A5 action. All activities are documented with photos and/or presence lists. The final deliverable of this action was the Final report on project public awareness implementation (Annex 09).

E1.1. Obligatory activities for public awareness

1. 6 notice boards (70 cm x 50 cm) were set-up on partner's headquarters entrances and associated Angling Clubs in February 2018. These were prepared in accordance with the LIFE guidelines and corporate visual identity of the project.
   7 large boards (150cm x 100cm) were set up in October 2020. The content on the boards was adjusted according to the space where the boards stand. They were set up in populated places (parks, markets) near Lasca release sites (N=3), near Kožbanjšček stream (N=1; original Lasca population present in Slovenia), at Parco Ticino fish farms (N=2) and FRIS fish farm (N=1).
2. LIFE for LASCA project web site was activated and available for public on 30/06/2018 (*Ares(2018)3110289*). It was prepared according to successful examples of established LIFE web sites (LIFE DINALP BEAR, LIFE LYNX). The web site was regularly updated as the project progressed. Parco Ticino delivered news to FRIS as attachments to e-mails, Dropbox or We-transfer. Until 31/12/2022, we recorded 106.125 visits, 1.965 visits per month.
3. Layman's reports in English-Slovenian (Annex 10) and English-Italian (Annex 11) versions were prepared in May 2022. We printed 20.000 copies and delivered them to all households in the Goriška region in Slovenia by post.

E1.2. Other non-obligatory activities for public awareness

1. Until 31/12/2022 we recorded 202 announcements in media; 117 articles, 11 announcements on radio broadcasts, 13 announcements on national TV station program, 40 on Parco Ticino Facebook (not foreseen) and we issued 21 Italian-English Life for Lasca Newsletters (not foreseen).
2. Project promotional material included 4.500 brochures in Slovenian, Italian and English language, 1.270 T-shirts, 500 notepads, 250 flaks, 22.530 stickers, 2.000 post stamps, 500 USB-keys, 500 buffs, 500 bags, 500 locally produced wine bottles, roll-up poster and other posters for the project promotion at events, meetings.

E.2 Networking and project results dissemination

Foreseen start date: 01/01/2018 Actual start date: 01/01/2018
Foreseen end date: 31/12/2022 Actual end date: 31/12/2022

On the Slovenian side, the activities were conducted manly by the Project promotional leader (Katja Pustovrh/Samo Bratož/Mateja Hamzić) supported by the other project staff and several outsourcers. On Italian side, the action was conducted by the Project Leader (Adriano Bellani/Francesco Magna/Monica Di Francesco) and the expert on the environmental education (Francesco Magna).

E2.1. Kick-off meeting was organized on 02/06/2018 on local grounds, in a town named Ajdovščina. We have collected 106 signatures on attendance lists. On 11/09/2021, we organized an outdoor Final meeting. Due to COVID rules, the meeting was organized locally, with 85 participants. On 02/12/2022, we organized online LIFE for LASCA International Congress to achieve the predicted 100 participants at the Final meeting. At the Congress, 13 lecturers presented their work on Lasca or other endangered fish species conservation. We recorded 121 participants.

E2.2. Networking with similar projects

We have networked with more than three LIFE projects; i.e.: in Parma, Italy (15/02/2018) with LIFE BARBIE (LIFE13 NAT/IT/001129), in Margenta, Italy (05/06/2018) with LIFE TICINO BIOSOURCE (LIFE15 NAT/IT/000989), IdroLIFE (LIFE16 NAT/IT/000823), CONFLUPO (LIFE+11 NAT/IT/000188), in Evora, Portugal (28/09/2018) with LIFE SARAMUGO (LIFE13 NAT/PT/000786), in Brdo pri Kranju, Slovenia (26/10/2018) with LIFE Krepitev zmogljivosti (LIFE14 CAP/SI/000012), LIFE Stržen (LIFE16 NAT/SI/000708), LIFE Lynx (LIFE16 NAT/SI/000634), LIFENATURAVIVA (LIFE16 GIE/SI/000711), LIFE TO GRASSLANDS (LIFE 14 NAT/SI/000005), LIFE Artemis and others.

E2.3. Project results as an example of good practice dissemination

We have promoted project on more than 3 international congresses and fairs; i.e.: online LIFE for LASCA International Congress (02/12/2022), online final Congresses of LIFE Barbie project (29/09/2020), online final Congresses of Life Ticino Biosource project (15/07/2021), the international Symposium for the conservation of freshwater fish and habitat rehabilitation in Portugal (27-29/09/2018), international Congress on The management of cross-border water bodies: comparing experiences in Tolmin (16/11/2018). From September 2021 to September 2022, Parco Ticino presented all its projects dedicated to fish fauna conservation (LIFE LASCA, LIFE LIFEEL, INTERREG SHARESALMO and LIFE BIOSOURCE) on further events:

- Caselle Landi (LODI) – 10/09/2021 and 11/09/2022 – Annual Traditional Exhibition
- Parma – 08/04/2022 – Training for students at Parma University
- Magenta – 10/06/2022 – ublic event "Il Canto degli Alberi"
- Parco del Ticino – 25/05/2022 – Seminar with the University students;
- Villareale di Cassolnovo – 08/05/2022 – Course for anglers and their Association;
- Motta Visconti – 05/09/2022 – Training course for Civil Service Volunteers
- Magenta – 13/09/2022 Visit to the pheasant hatchery by the ichthyologic delegation from the Friuli Venezia Giulia fishing protection body.

Extra life activity by Parco Ticino: Dedicated space at Oltremare Park in Riccione (Italy) for exhibition of illustrative panels of life projects including a significant space for Life for Lasca project for 4 years. The Oltremare theme park is owned by Costa edutainment spa company, and this location allow a large audience (the theme park has around 300.000 visitors per year).

E.3 Working with stakeholders and intense local public awareness

Foreseen start date: 01/01/2018 Actual start date: 01/01/2018
Foreseen end date: 31/12/2021 Actual end date: 31/12/2021

We were very active in local children awareness in order to reinforce nature conservation. Beyond project, Parco Ticino rangers presented project to citizens and fishermen during their controls on the field. Citizens also visited Fagiana Fish Farm to see Lasca specimens.
E3.1 Raising awareness among children. In school year 2019/2020, we organized children Art contest in Slovenia and Italy. The motive of the contest was Natura 2000 network. We have received 384 works of art. Unfortunately, the competition was significantly affected by Covid-19 lockdowns - school activities were changing day by day, resulting to very uncertain limits and rules. We were unable to take winning classes abroad, as it was planned. Instead, internal commission gradually selected 3 winners for each country that received project gadgets. In Slovenia, the winner got a voucher for boat trip through Slovenian Natura 2000 sites [SI3000307, SI3000247] for 10 people (Covid-19 restriction). In Italy, winners received vouchers for books. According to not promising Covid-19 situation in Italy, we decided to include three additional schools into the competition. Consequently, we delivered prizes to more winners than predicted. Very creative works of art were exhibited at Final meeting and on the web site.
E3.2 Photo exhibition. In year 2019, we opened photo contest for a broader community. The motive was Natura 2000 network. We received 139 high-resolution photos, published on the website. In Slovenia, we exhibit photos along the avenue Krakovski nasip in the old historical centre of the capital city Ljubljana and at the Final meeting. In Italy, exhibition was held virtually, online (Covid-19 lockdown).
E3.3 Raising awareness among local public. In 2021, we opened a competition for the most original photos to support Lasca. In highly recognized local newspaper, Primorske novice, we announced the competition with attached Lasca logo sticker (Bulletin, Annex 12). Primorske novice are available in shops all over the Country and they are delivered to approx. 40.000 households in Goriška in Primorska regions. We have received 140 photos among which the internal commission selected the best ten photos. The winners received project gadgets and a voucher for a tasting menu (local products) for two people with "Lasca logo wine" at a very famous local restaurant, the Zemono castle.
E3.4 Fieldwork awareness events. We organized further field work awareness events with children and young anglers:
- 1 event in Natura 2000 site Notranjski trikotnik [SI 3000232] on 25/05/2019. Angling for alien fish species (*Scardinius erythrophthalmus*) was organized. Children were invited to produce their own bamboo fishing rods. Fish were also exhibited in a water tank. For the youngest, arts and crafts (paper boogie- fish collage) workshops were organized.
- 4 events for anglers and children at Dobravska Krnica (Vipava valley) in years 2019-2022. Common nase angling, socializing and cuisine events were organized. Every year, a new "fisherman king" among anglers was crowned.
- 1 children event at the Močilnik stream in June 2021. 24 children and mentors attended the workshops with the aim to get acquaint with aquatic habitats and species. While catching fish in the stream, the children were able identified them in the project brochures.
- 1 event for children on Final meeting in 2021. Children were invited to hands-on creative workshops, where they playfully enjoyed and created various arts and crafts on the topic of aquatic ecosystems.
- 5 events in 2021 and 2022 by Parco Ticino (>300 people involved); 2 events during Summer camp 2021, Guided hikes in Valgrande National Park, Guided rafting on Ticino River; Lesson in Ticino Park for primary schools.

F.1 Project management by FRIS

Foreseen start date: 01/01/2018 Actual start date: 01/10/2017
Foreseen end date: 31/12/2022 Actual end date: 31/12/2022

This action was a continuation of preparatory A1 action. It represented the other "core action" of the project, since it was orientated towards the management and good implementation of this complex international project. The project management was carried out by three structures: Scientific Council, Steering Committee and Technical/Administrative groups working in synergy.

Scientific Council was the scientific supervision of the project; The following 11 meetings were organized:
(1) On 20/11/2017 in Ljubljana-Šmartno, Slovenia. Habitat modeling; batimetry and hydrography. University Harpha sea d.o.o. from Koper.
(2) On 29/11/2017 in Ljubljana, Slovenia. River habitat survey in Slovenia. University of Ljubljana and Institute for Water of the Republic of Slovenia.
(3) On 05/12/2017 in Ljubljana-Šmartno, Slovenia. River habitat modeling. FRIS staff working on other nature conservation/public projects.
(4) On 09/02/2018 in Parma, Italy. Needs for additional genetic analyses on Lasca. University of Parma.
(5) On 13-16/03/2018 in Cardiff, Great Britain: River habitat survey. Riverdene Consultancy in Beford.
(6) On 17/04/2018 in Nova Gorica, Slovenia: FRIS Fish Farm modification. Slovenian Water Agency, MESP.
(7) 19/04/2018 in Nova Gorica, Slovenia: FRIS Fish Farm modification. Slovenian Water Agency, MESP and Hidrotehnik d.d..
(8) 11/12/2018 in Ljubljana-Šmartno, Slovenia. LIFE for LASCA project presentation. Slovenian native fish society.
(9) 30/09/2019 in Kamno, Slovenia. e-DNA as alternative method for species presence determination in watercourses. Slovenian Enviromental Agency.
(10) 10/12/2019 in Ljubljana-Šmartno, Slovenia. Lasca habitat protection.
(11) 21- 22/02/2020 in Carinthia, Austria. Aquaculture - fish farming in earthen pool.

Steering Committee covered coordination of the project in general. The first meeting was held on 13/02/2018 in Magenta, Italy. At the meeting project staff and other public involved in the project implementation were acquainted. The project management rules and the project program were presented. Officially, The Committee was established on the first web meeting held on 16/04/2018 and has changed on 11/02/2020. Steering Committee Members for Parco Ticino were President Cristina Chiappa, Project Leader Monica Di Francesco and Expert support Franco Mari. Members for FRIS were Director Rado Javornik, Project Manager Kaja Pliberšek and Financial Manager Irena Likar. The Steering Committee met 9 times during the project.

Technical/Administrative groups ensured proper project implementation of each partner. Consequently, Technical/administrative groups were two, one group for each project partner. The groups consisted of the project staff. Project teams were established in 2017/2018 under A1 action.

On 17/12/2021 project was extended for one year, until 31/12/2022 (*Ares (2021)7828213*).

F.2 Audit

Foreseen start date: 01/10/2021 Actual start date: 01/10/2022
Foreseen end date: 31/12/2022 Foreseen end date: 31/12/2022

On 02/04/2019 the following independent financial Auditor (8.296 €) has been selected:

Name: Robert Potočki
Accreditation number: P-00249

The audit started in December 2022. The Audit report is attached to this Final report (Annex 13).

The audit took place at the headquarter premises of Fisheries Research Institute of Slovenia, where the project documentation was checked. The auditor was supported by the Financial manager Irena Likar, accountant (Lidija Jernejčič) and Project manager Kaja Pliberšek.

The auditor verified the final financial statement attached to the final report, the compliance with the national legislation and accounting rules. The auditor also certified that all costs incurred comply with the Grant agreement. Moreover, the auditor checked the sources of the project financing; in particular, that co-financing does not stem from other financial instruments of the European Union. The work by the auditor was performed in accordance with the Guidelines of the European Commission.

F.3 LIFE after LIFE

Foreseen start date: 01/01/2023 Actual start date: 01/01/2023

In the frame of this action After-LIFE plan (Annex 14) was prepared in close cooperation with project partners and relevant stakeholders. The plan predicted continuation of further project activities for at least five years:

- Lasca breeding in Slovenia as well as in Italy is a back-up for wild populations (continuation of actions C1, C2).
- Lasca pressures/threats reductions are already officially included in Fishery management plans (Annex 15-17) for at least 6-year period (continuation of action C3, C5).
- Further repopulation of the Natura 2000 site (continuation of action C4).
- Monitoring of Lasca and Common nase will be performed at least twice during the afterlife period.
- Awareness and project results dissemination will continue. At least 10 articles in media will be released.
- All Institutions interested in transferring good practices will be more than welcome.
- Contacts with Ente tutela Pesca Friuli Venezia Giulia and University in Trieste will be maintained. The Institute is responsible for Isonzo (Soča) River fisheries management in Italy close to the Slovenian border.
- Web site will be active at least 5 years after the project ends.
- Harmonization of the Action plan for Lasca conservation.

6.2. Main deviations, problems and corrective actions implemented

COVID-19 pandemic reduced activities from beginning of February 2020 to end of year 2021. During this period, we experienced great difficulty in the development of direct and governance activities foreseen by the project.

On 17/12/2021, the project was extended for one year, until 31/12/2022 (*Ares (2021)7828213*). Consequently, several agreements were prolonged by annexes, such as Grand Agreement, Partnership Agreement, Co-financing Agreement, FRIS external support for Socio-economic analysis, FRIS accountant, Financial Manager, Audit.

Within the flexibility of the Article II.22 of the General Conditions, we transferred € 28.000,00 from FRIS to Parco (*Ares(2022)7128538*).

In July 2022, FRIS Promotional leader, Mateja Hamzić, started maternity leave, while Fisheries expert, Blaž Zidarič, has been on long sick leave since May 2022. The rest of the project team took over their functions as part of the increased scope of work.

In year 2019, we substituted FRIS injured worker (Samo Bratož) with additional worker (Rok Hamzić) for 15% under action C4, while the injured person worked on translations from Italian, instead of a subcontractor under action E1 (*Ares (2019)3927763*).

Parco Personnel costs overreached predicted costs in Grant Agreement for € 34.750,42 on 31/12/2021 (*Ares(2022)7128538*). We moved funds from other Parco cost categories to cover the overreach.

The project-reporting schedule has been changed twice. On 03/12/2018, the schedule was changed to have 3 instead of 4 reports (Approval by Ms. Blanca SAEZ LACAVE - EASME project adviser). On 17/12/2021 the schedule was changed due to project extension (*Ares(2022)7128538*).

Steering Committee membership (F1) has changed on 11/02/2020 due to:
1. Change of FRIS leadership: on 01/04/2019, the new director (Rado Javornik) was elected. Consequently, in a few months, the FRIS leadership changed including Scientific Committee membership.
2. Change of Parco Ticino Steering Committee: on 20/10/2019 the new Park President (Cristina Chiappa) and Steering Committee were elected.
3. Change of the Project Leader: on 31/12/2019, the Project Leader Adriano Bellani has retired. From 01/01/2020, Francesco Magna, who also maintained the expert role on environmental education, replaced him. This involved a reorganization of a part of project activities. Later, from 15/10/2020 on, Monica Di Francesco replaced Francesco Magna at the position of the Project leader.

Parco Ticino accountant Luigia Belloni has retired on 01/12/2020.

A1 Action delay and consequences: At the start of the project, the new administrative rules introduced by the Italian national government for the public body activities and tenders have increased the complexity for administrative activities and complicated the assignment of the external job envisaged by the project. Due to this situation, the Partnership agreement was signed on 09/02/2018. In April 2019, also Slovenian administrative rules for the public

body activities and tenders have changed. As consequences of this new situation on both sides, preparation procedures, execution and assignment of the public tenders for the activities needed in the initial part of the project was prolonged. However, considering late Partnership agreement approval, the assignment of the public tenders took 5 months: from February to July 2018. This situation affected the attribution of some external assistance contracts (described below).

Under action A1, the contract for external assistance of € 12.000 related to the technical and administrative assistance for the project start up, was assigned to Franco Mari as part of the contract n. 294 of the 17/07/2018, including the external assistance for F1 Action for € 38.000. Following the Italian legislation, this "under threshold contract" was assigned through a comparison between different estimates, for a total of € 47.684, instead of € 50.000 (€ 12.000 for A1 and € 38.000 for F1) considered in the form F3 of the Grant Agreement. This contract started at the end of this Action (17/07/2018), but requested activities for the action A1 were conducted by Parco Ticino internal staff. Considering the underestimated effort linked to the development of the whole project management request by the Action F1 we utilized the assigned budget of the Action A1 to improve the contract of the Action F1 assigned to the same person (Franco Mari) (*Ares (2019)3927763*).

To implement the Lasca captive breeding program, Parco Ticino has signed a three year agreement with the Association FIPSAS Varese (act n. 463, on 19/12/2017 for € 5.000). This external assistance contract was reinforced by using the unspent funds of the external contracts related to action A1 – F1 (€ 2.000 from the fall of the external contract of Franco Mari - € 47.684, instead of € 50.000) and action A2 (€ 3.000 from not assigned contract for assistance to Parco in preparation of guidelines for fish farm modification) (*Ares (2019)3927763*).

Considering the Grant Agreement, the total amount of contract assigned to Alice Pellegrino was € 35.000, but it was assigned for € 33.775 (n. 264, 02/07/2018). During a check of the project administrative part, we noticed a mistake in the total amount of the contract. The offer made by Dr. Pellegrino for the tender was of € 27.684,42 on the basis of initial € 35.000; considering the reduced tax regulation of Dr. Pellegrino, permitted by Italian law (VAT exemption), this amount had not to be raised by VAT. For a mistake in the contract made by the Parco Ticino, this amount of € 27.684,42 was raised of a 22% VAT (€ 6.090,58) reaching a total of € 33.775. The Park was rectifying this mistake bringing back the contract at the correct amount of € 27.684,42.

After conclusion of preliminary action A1, FRIS administrator was still required. The administrator handled coordinated and well-established FRIS administration procedures such as regular mails, signatures collection, official documents registration, a control of the presence register program, etc. For this reason, we recorded the administrator work on the project, considering the FRIS project staff daily rates were overestimated. We used part of overestimated funds on direct personal costs for administrator under F1 (*Ares (2019)3927763*).

FRIS fish farm modification was prolonged due to drastic changes in national construction legislation, due to long national bureaucratic procedures and due to unpredictable additional documentation requirements (see actions A2/C1). In order to compensate for the delay and to assure Lasca spawning, several compensatory activities have been successfully devised (described under A2 and C1 actions) (*Ares (2019)3927763, Ares(2020)3398176*).

Predicted genetic analyses to check compatibility of source Lasca specimens (€ 18.000) were not required under action A3. MESP authorization for Lasca specimen introduction into the wild was already obtained on 09/02/2018 with no additional genetic tests required. Genetic analyses were conducted later, under C4 action, to determine the origin of alien Lasca specimens in Tiber raver basin, as potential new source for repopulation activities (€ 9.953). Minor part of the remaining costs were spent for fishing trousers and boots for FRIS new technician (€ 450) (*Ares(2020)3398176)*.

Under actions C2 and C4 fish marking was predicted. According to "CON.FLU.PO." LIFE project experiences, Lasca specimen survival rate, after being marked using Pit-tags or related markers, is very low. Specimens are too gentle and thus too vulnerable for using such relatively rough methods. We concluded there is no point using fish marking methods in the project. We dismissed fish marking and funds were used for fish food (*Ares (2019)3927763*).

In 2018, there was an unpredictable error on the water system at FIPSAS compromised the young Lasca survival. To avoid another error the water system was equipped with a by-pass in June 2018; the test assured that the new system is able to assure a continuous water flow all conditions (Midterm report).

During all phases of the reproduction, including offspring care, a biologist trained in fisheries management supported Parco Ticino. We transferred the funds for external assistance in communication activities under action A5 (15.000 EUR) on C2 action, implementing the external contract assigned to Cesare Puzzi on 31/07/2018 (*Ares (2019)3927763*).

Under C2 action Parco technician contract for further Lasca breeding support was assigned on 12/05/2021 to Marco Valenti for € 5.000. Parco purchased Fiberglass containers with related water pump and not foreseen Sterilizer (€ 1.732) (*Ares(2021)4195530*).

In Slovenia, fish farm, in June 2019, just before Lasca spawning, 182 specimens of Lasca broodstock died. Mortality occurred during the night, due to the clogging of the water inflow pipe. Perished specimens were immediately put into deep freeze and later used for morphological analysis (www.lifeforlasca.eu/blog/fecundity-of-lasca-specimens/; www.lifeforlasca.eu/blog/lasca-weight-length-relationship/).

Ares(2022)7128538. In late June/July 2022, gradual mortalities of Lasca offspring started to occur due an unknown reason. Since at that time, drastic drought caused extremely low water levels in all Slovenian fish farms (most of them have even ceased operations), we assumed that concentrated chemicals could be the reason. On 10/10/2022, we received results from chemical analysis of water that showed a significant increase of organic matter values (Coliform bacteria = 5.300 UFC/100ml; *E.coli* = 2.300 UFC/100ml). The source was damage to the sewage system of a nearby nursing home. The wastewater seeped into the spring water (source water for the Hatchery), which became evident during drought 2022, when water levels were extremely low. The damage was repaired by the nursing home after the discovery.

In action C2, transport of Lasca specimens was carried out exclusively by FRIS. Consequently, we transferred Parco Ticino funds for travel costs under C2 Action (1.800 €) on FRIS (*Ares (2019)3927763*).

During project preparation, we included FRIS travel costs (e.g. daily allowances) under direct personal costs. Consequently, we transferred those funds from FRIS direct personnel cost to FRIS travel costs (*Ares (2019)3927763*).

During FRIS field work (mainly related actions C3, D1, D2 and E3) the project team needed at least 2 hours of net time to travel to the Vipava River basin. In the peak of the tourist season (from June to September), we needed more than 3 hours for the same route. Consequently, it was almost urgent to act. We rented a house/apartment for intensive fieldwork periods. Actually, renting a house or an apartment even reduced costs by half. (*Ares (2018)3110289*).

Common nase reductions (C3) supported by AC Soča - Nova Gorica (€ 24.000) were not realized, due to the issued Order for Lasca habitat protection in Brda region in 2019. The Order prohibited water interventions including wading in watercourses managed by the AC in region Goriška Brda where the only small Slovenian Lasca population lives. Consequently, the predicted funds for reduction activities were unspent. Part of these funds were used for winner awards of competitions under action E3 (trophies, plaques, dinner, etc) that were initially planned in the project under activities but not under costs (~ € 6.000) (*Ares(2020)3398176)*.

In the frame of habitat suitability research methods a Flow velocity meter was required under C4 action. Funds from overestimated costs for external assistance for Socio-economic assessment (D3 action) were transferred (*Ares (2019)3927763*).

FRIS team (N=6) needed to be equipped with mechanically resistant and breathable field outwear. Unfortunately, in the project there was no fieldwork outwear planned. Consequently, we transferred the part of funds, which were left due to overestimated daily rates for FRIS staff (*Ares (2019)3927763*).

Under action E1, big notice boards (150 cm x 100 cm) were set up in 2020 as their content closely depended on their standing location. As soon as watercourse sites for Lasca repopulation were chosen, notice boards contents were designed. Due to Covid-19 situation, FRIS transferred funds to Park for Notice boards print (€ 336). Wooden skeleton was not realized for Notice boards hanging on walls of fish farms (*Ares(2020)3398176)*. Parco used part of the funds to pay the design and the print of the two notice boards, while the remaining funds were used for:

1. € 268,40 to integrate the Lasca web site of Park with a new section (E1, Other cost),
2. € 481,90 to print 3.000 brochures on project (E1, Other cost),
3. € 168,36 for 2.530 stickers with Life logo (E3, Other cost),
4. € 1.006,50 for 250 water bottles for awareness activities (E3, other cost),
5. € 582,61 for prizes of contests (E3, other cost)

Under action E1, the need for additional promotional material was revealed. For even better project promotion and thus even better promotion of LIFE mechanism and Natura 2000 network, FRIS created additional promotional material, such as T-shirts brochures, USB-keys, buffs (*Ares(2019)3927763*).

Ares(2022)7128538. Contests and events under awareness activities (E2 and E3) were significantly influenced by Covid-19 situation (for details see particular action) (*Ares(2020)3398176)*. Most of the awards were delivered by post or personally; no big ceremonies were possible. Activities were carried out online, if possible. Nevertheless, with several adjustments implemented, we succeeded to implement all predicted awareness activities at a high level, which satisfied all our participants and us. We achieved results that even exceeded the expectations.

Under action E3.3 (Raising awareness among local public), we presented the project and announced the competition with the attached "Lasca logo sticker" in a highly recognized local newspaper, Primorske novice, instead of issuing the bulletin (*Ares(2020)3398176).*

6.3.Evaluation of Project Implementation

METHODOLOGY APPLIED / RESULTS ACHIEVED / DISSEMINATION

Methodologies concerning project activities were constantly being developed under Feasibility study for Lasca reintroduction (C4) (Annex 04). This implemented a more qualitative and relevant data for the same effort. Such an approach enabled us to optimize work efficiency during the project and thus increased chances for project success. **Feasibility study and Action plan for Lasca conservation are the most important deliverables of the project that create new opportunities (transferability) and good practices for future projects and other nature conservation activities.** In Action plan preparation, many experts on different fields collaborated and contributed their knowledge and experience (multidisciplinary approach). They included in AP preparation through Scientific Councils, regular contacts via e-mails, by preparing reports and in the frame of the online Life for Lasca International Congress.

C2: Transporting Lasca specimens did not cause us any major problems. We used specially equipped fish-transportation vehicle with water tank and oxygen that was supplied to animals during transportation. We were very careful while the specimens were translocated from one water to another, since the difference in water temperature greater than 4°C can cause high mortality rates in fish. We always transported specimens that were more than three months old. The younger specimens posed great risk for transportation due to their small size and delicacy. The first Lasca transportation was done in June 2018, which is one year earlier than expected.

C1/C2: In Slovenia, Lasca breeding in captivity was established successfully. **Crucial for the success (already on the first try) was the transfer of knowledge and good practices from past Parco Ticino projects.** Using guidelines and practical trainings helped us significantly to understand crucial elements in breeding techniques/methodologies, which species requires for surviving and spawning in captivity. **In Slovenia, Lasca breeders preformed 4 successful consecutive spawning (expected: 2 spawning)**, producing 41.000 offspring.

C4: After the accomplished breeding and offspring production, the reintroduction success of Lasca into Natura 2000 site highly depended on a suitable selection of release sites - watercourses and micro locations within them. These decisions directly contribute to the adaptability and long-term survival potential of the reintroduced specimens. Based on Parco Ticino experiences and previous Lasca occurrence data, the species prefers medium-large tributary streams and branched sections of larger rivers. The release sites have been selected based on Lasca habitat requirements, watercourse habitat characteristics, fish communities, and fisheries management regimes. The main river was excluded from the potential selection, because of its size, depth and presence of many predators (salmonids). Additionally, released

specimens in the main river would be very difficult or even impossible to find during monitoring surveys, thus providing inconclusive results of the reintroduction success within five years of the project. The plan was to create small stable populations, which can be monitored to gain useful data and reassurance of viability for further dispersion along the Vipava River basin. For a decisive site selection, habitat comparative analyses were completed between the stream Kožbanjšček in Brda region (original wild Lasca finds) and the potential release sties. At the end, three sections within streams Jovšček, Močilnik and Ozlenšček were selected. In these streams, **we released 136.052 specimens of different ages to many micro -locations. This is 13.984 specimen less than expected, but on the other hand, we recorded Lasca spawning in the wild, which is a major success and a great step towards self-maintaining capabilities. Under monitoring activities, we have found 1.019 Lasca specimens in the nature, which exceeds the expectations for 519 specimens.**

C3: Vipava River basin encompasses a surface area of 760 km^2, which makes it difficult to manage in regards with electrofishing or other "fishing" reduction methods of common nase. Additionally, common nase disperse in clusters and irregularly throughout the river network. Consequently, random planning of locations for common nase reduction activities was not productive. Targeted location approach based on species biology, past distribution data and local knowhow was much more sensible and produced better results. This exposed locations where occurrences of common nase were the highest, created more time and effort for performing efficient reduction activities. Furthermore, reducing the non-native common nase was periodically targeted to stretches of watercourses downstream (and in some cases upstream) of Lasca reintroduction release sites. This prevented the intrusion of common nase into the vicinity of release sites, which created greater chances (less completion for food and space) for Lasca to adapt to the new habitat. It was also important to research and determine tributaries of the main river to electrofish, since smaller watercourses are wadeable and easier to manage when working in the field. The main river is deeper and wider, which made the selection of stretches where reduction of common nase would be successful much more difficult and time consuming.

In five years of the project, we have removed 11.191 common nase specimens on 219 localities, utilizing electro fishing and angling removal methods. The common nase are difficult to catch in high numbers, due to their movements and refuge capabilities. Larger groups hide in deep sections of watercourses, where they are hard to reach. Boat electrofishing method is effective up to a depth of 1,5m. In deep parts of the Vipava River, angling can be an effective method of capture. Angling club members removed a few hundred mature specimens during the project, just using a classic fishing technique (rod&reel). Electro fishing methods proved effective in times when common nase group in shallower water, during spawning in spring and intense feeding in late summer-early autumn. It was very important to plan and execute field activities during this time. Daily visual surveillance of river sections were mandatory during this time in order to track large groups. **Assistance from local angling clubs was of immense help for acquisition of this information.** In the areas of intensive reduction procedures, **we succeeded to decrease Common nase population for 88%, which is far more than expected (60%).** However, at this point we have to expose that the eradication of alien Common nase, without significantly influencing native species, is not possible. The only option for the future is the coexistence of Lasca and Common nase specimens. Consequently, our role for future is to monitor species and help Lasca to find its "food and space" and reach self-maintaining capabilities.

C5 Since in Vipava valley alien Common nase was introduced by fisherman, their awareness on consequences of the alien species introduction is very important; especially to prevent the possible further introduction of exotic species into nature. During the project we met all ACs

in Slovenia (N=64) at least twice. We communicated freely, exposing and trying to solve their problems regarding angling and alien species presence. Their response was very positive and worm. However, their "real" awareness regarding alien species presence can be reliably measured by the amount of release for important alien game species, for which the anglers have a special governmental permission to manage with (rainbow trout - *Oncorhynchus mykiss* and domesticated common carp - *Cyprinus carpio*). Comparing periods 2013 – 2016 (pre-project) and 2017 – 2020 (during the project), **non-native game species entry into Slovenian waters has decreased for 20%, which exceeds the project expectations (10%).** Overall assessment of dissemination activities is that children and youth awareness towards nature protection and biodiversity conservation is on a high level, which is a very promising information for future. Additionally, among local and tourist anglers in Slovenia, sustainable angling for native species is becoming more and more important.

Table 1: Foreseen and achieved results per concrete action

Action	Foreseen in the revised proposal	Achieved	Evaluation
C1	Objectives: Modification of FRIS fish farm Expected results: Finished fish farm modification in 2019	Fish farm modification was finished in 2021	Fish farm modification was delayed. However, mitigation strategy enabled us Lasca breeding establishment and spawning succes in Slovenia with no delay.
C2	Objectives: Establishment of Lasca breeding in Slovenia Expected results: 2 sucesfull spawning seasons with 50.000 offspring	4 sucesfull spawning in Slovenia producing 41.000 offspring	We achieved 4 consecutive spawning seasons, which indicates the event reliability. This is huge success. Number of offspring is smaller than predicted, due to unpredictable events in FRIS fish farm. Other fish farms (Parco Ticino) reinforced the Lasca breeding.
C3	Objectives: Reduction of Common nase Expected results: Common nase reduction for 60%	Common nase was reduced for 88%	Extremely good success. Unfortunately, total elimination of alien species is impossible without influencing significantly other native fish species.
C4	Objectives: Lasca reintroduction into Natura 2000 site Expected results: 150.000 released specimens. 500 released specimens finds in nature.	136.052 specimens released. In nature we found 1.019 well adapted specimens	Number of released specimens is smaller than expected, due to unpredicteble events in fish farms. Nevertheless, the aim of the action was more than achieved by finding 1.019 specimens in nature that survived all extreme weather conditions and we prooved that released Lasca speimens spawn in the wild. That is major step towards self maintaining capabilities.
C5	Objectives: Reducton of further alien fish species release Expected results: 10% decrease in alien species release in Slovenia	20% decrease in alien species release in Slovenia	Expectations were exceeded. Fisheries trend in Slovenia prefer angling on native species in pure nature environment supporting sustainable fisheries.

POLICY IMPACT

At the request of the MESP, we issued three expert assessments on Lasca conservation status in Brda region (initial small Lasca population in Slovenia), in years 2019, 2020 and 2021. Based on our assessments, the Ministry officially officially protected Lasca habitat in Brda region for two years (Official Gazette of the Republic of Slovenia No. 47/19 and 103/20).

Lasca team also closely followed all hydrological interventions legislatively issued in the region. We strived to give sustainable guidelines in order to minimize negative effects on Lasca habitat during flood risk stream regulations and other watercourse maintenance activities. It is important to underline the great importance of this activity, since all Slovenian governmental institutions related to nature protection and hydrological construction works, including all relevant non-governmental organization are involved in the procedure. From FRIS, the governmental authorities expect full scientific support and suggestions to establish the Lasca management in Slovenia in the future. For example, in year 2022 we received 1074 appeals, among them 148 appeals for the Goriška region and 92 for the Vipava valley area.

In Slovenia, freshwater fish are under the protection of Fisheries management plans (FMP). Every 6 years, FMP are prepared by FRIS and officially confirmed by Ministry of agriculture, forestry and food (MAFF). FMPs are obligatory to all fisheries managers and are prepared for each fishing district separately. Consequently, their contents are customized to local aquatic ecosystems. To assure a long-term sustainability of Lasca management, the Action plan for Lasca conservation contents were included in Fishery management plans in year 2022. The plans are already in implementation. Through FMPs, local ACs continue to reduce Common nase. Angling regime for common nase is unlimited for all anglers in the region. The only limitation is that common nase specimens smaller than 18 cm are not allowed to be harvested, due to possible misidentification with Lasca. Included in the FMPs, angling in watercourses where Lasca was released is prohibited.

Reintroduction of Lasca, Natura 2000 species, in its only declared Natura 2000 site, Dolina Vipave [SI3000226] in Slovenia is in accordance with national and European legislations. The species reintroduction in its original habitat within Natura 2000 site should be implemented, if species has disappeared. This is in accordance with the Natura 2000 Management programme for Slovenia - PUN 2000 (LIFE 11 NAT/SI/880). Lasca reintroduction in the Vipava River basin improved the species conservation status in its only declared Natura 2000 site in Slovenia, which is in line with The Habitats Directive.

<u>EU added value</u>

By implementing the project, we improved significantly the conservation status/trends of Lasca species. This contributed to the realization of The Habitats Directive objectives, Natura 2000 management programme (PUN-a), the bio-geographical seminar and the EU 2020 strategy for biodiversity research. A successful implementation of the project means a long-term investment in the Natura 2000 sites.

The aim of the project was to improve the conservation status of Lasca in the Natura 2000 site Dolina Vipave. Lasca is critically threatened and consequently, if management would not be established, its future existence in Slovenia would be very much unlikely. The Regulation of enlisting of endangered plant and animal species onto Red List (Official Gazette of Republic of Slovenia, No. 82/2002) considers Lasca as extinct (EXT). The main problems in establishing the favourable conservation status of the species are alien Common nase presence and habitat destruction and loss. Before LIFE for LASCA project preparation, practically no measures were taken for reducing large numbers of Common nase in the Adriatic basin. The problems of alochtonous species and habitat degradation, which are gradually forcing out the

indigenous Lasca was also exposed in Italy, where Lasca decline is reported as well. This is the reason why a unified management of the target species, which includes eliminations of alochtonous species and habitat protection needs to be implemented. In addition, it is necessary to predict reinforcements where the species is in poor conservation status. For reintroduction program, practices developed during Horizont 2020 projects were taken into account. With this project, we started to systematically upgrade the Natura 2000 management on the project area of the Vipava River basin and we are prepared to transfer best practices to other Natura 2000 sites with similar problems.

FRIS has a long tradition of fish breeding, fisheries management and species reinforcements in the Natura 2000 sites. This is also why the institute qualified professionally for the implementation of the repopulation of the Natura 2000 site Dolina Vipave. The practical completion of the project helped to formulate and test a model of the Natura 2000 species management. Based on experiences and knowledge acquired from project actions, it is possible to facilitate the upgraded system of management in the entire Natura 2000 site Dolina Vipave, as well as other Natura 2000 sites in Europe. Through Action plan and Feasibility study, the experiences are available for the establishment of the Natura 2000 species management in Italy, and with minor adjustments also to all European Union members, as well as non-members. The transfer was and will be realized also by means of excursions and results dissemination of the project, including presentations at congresses.

Inclusion of project solutions and findings in the existing FMPs ensure a long-term implementation of the appropriate measures for the target species. Incorporating of nature conservation topics into other policies contributes considerably to the realization of the main objectives of the Directive (ES) No. 614/2007 of the European Parliament and the Council concerning the Financial Instrument for the Environment (LIFE) and EU 2020 Biodiversity Conservation Strategy. Networking with other organizations in Slovenia and in Italy, as well as the updated website for informing interested stakeholders enable exchange of information, knowledge transfer, experiences and best practices. This approach helps build up European connections by opportunities for cooperation on common projects and solutions of similar problems. Familiarizing stakeholders with environment policies of the EU contributes greatly to European connection and synergy. One of the main objectives of the Directive (ES) No. 614/2007 of the European Parliament and the Council on the Financial Instrument for the Environment (LIFE) is the support in formulating and implementing policies and instrument approaches for following-up on and assessing nature and biodiversity. Achieving the objective is to stop the reduction of biodiversity within/inside the community. In the framework of the project, in order to achieve these objectives, the following was developed:

- system for improved management of the Natura 2000 species in order to enhance the species' conservation status in its entire areal. An establishment of international cooperation between institutions, which brings added value to the long-term management of the Natura 2000 sites and also means an upgrade of the system of management of the Natura 2000 species in Slovenia and Italy.

- by project implementation this area became an example of best practices in managing Natura 2000 species and sites. The project exposed the importance of awareness-rising among youth, fishermen, media and general public. Raising conservation awareness on natural habitat of the Natura 2000 environment is in accordance with the Slovenia's environmental policies and the EU.

- the formed system of managing the target Natura 2000 species in the Natura 2000 site was included in the action plan for conservation of species. The action plan is available for all professional institutes in Europe and elsewhere.

6.4. Analysis of benefits

1. Environmental benefits

In the project, we successfully reintroduced Lasca into its Natura 2000 site, Dolina Vipave. We even detected that released Lasca specimens spawn in nature. Lasca breeding in captivity ensure genetic back up as well as source for further reinforcements activities for the long run. Reintroduction program of the project precisely followed Guidelines of the IUCN Reintroduction Specialist Group that gives indications of necessary steps to develop a suitable program. The great support to the project implementation also presented Con.Flu.Po. LIFE experiences gained through networking with project partner Parco Ticino.
The project improves the conservation status and trends of Natura 2000 fish species, which contributes to the realization of The Habitats Directive objectives, Natura 2000 management programme (PUN-a), the bio-geographical seminar and the EU 2020 strategy for biodiversity research. A successful implementation of the project mean a long-term investment in the Natura 2000 sites.
In the long run, pressures and threats to Lasca will be faced by:

- Common nase reduction implemented through FMPs by ACs.
- Habitat protection through MESP consents issuing supported by official opinions prepared by FRIS

2. Social and economic benefits

For project purposes 5.5 FTE were additionally employed.
Local organizations and individuals were encouraged and directly involved in the following project activities:

- Architectural conceptual design for fish farm modification,
- Common nase reduction activities,
- Assessment of socio-economic impacts,
- Awareness activities; events organization, promoting locally produced food at events, participation in competitions and educations,
- Promotional material.

The project recognisability on the local level was high, especially among anglers and in areas where the project team appeared regularly, practically on daily basis. Socializing of the project team with the local population and involving the local population/organizations in the project's activities was important for the success. Our experiences show that for such recognisability and good acceptance of the project, it was crucial that individuals within the project team were responsive to everyone 24 hours a day, no matter on the content and assisted anyone who needed or expressed the need for help or advice. Moreover, advice and help also functioned in the opposite way, when local community helped us. This was the best expressed by the AC president at the Final meeting: "We started as collaborators and became friends".

3. Best Practice lessons, Replicability, transferability, cooperation:

The project transferred of good practices from the similar Italian LIFE project CON.FLU.PO. (LIFE 11 NAT/11/188) intended for breeding and repopulation of the Adriatic sturgeon (*Acipenser naccari*) and other cyprinids including Lasca (*Protochondrostoma genei*). In the framework of the LIFE project CON.FLU.PO. initial breeding process of Lasca took place at fish farm premises provided by the Italian partner Parco Ticino. Their experiences with Lasca were of great value for successful Lasca breeding and conservation.

In the context of transferring best practices, training of FRIS staff in Italy was implemented and the knowledge was transferred to Slovenia. Further transfer of best practices was conducted regularly by communication through electronic media, which also helps to reduce footprint.
After the end of the project, through Feasibility study and Action plan, the knowledge and experiences gained were transferred to all relevant institutions in Slovenia and Italy where Lasca is also endangered species. However, the knowledge and experiences gained are replicable in other cyprinid species management practices. Specific procedures in Lasca breeding and management are transferable to other institutes with similar species conservation problems.

4. Innovation and demonstration value:

During the project, methodologies concerning its implementation were constantly developed under Feasibility study (C4) to optimize work efficiency and thus to increase chances for project success. The development of methodologies was based on "trial and error" approaches as well as on educations and observations that evolved new approaches, which in combination with existing methods created new innovative methodologies that can be of a great demonstrative value for project stakeholders and for future projects of the same genera.
During the project, further methods and approaches are being evolved as follows:
- Lasca breeding and reproduction techniques,
- Common nase reduction methods,
- Habitat surveys,
- Fish community surveys,
- Lasca reintroduction methods,
- Awareness activities.

5. Policy implications:

It should be emphasized, this is the first time FRIS and Parco Ticino are involved in an international LIFE project. It is also the first time for FRIS to act in LIFE project as Coordinating beneficiary.

LIFE for LASCA is the first project in Slovenia and one of few projects on the European level, concerning fish species reintroduction. Consequently, gained practices are of the great importance for further similar projects. Transferred knowledge could significantly contribute to improvement of conservation status of Natura 2000 species on European level.

Slovenian governmental institutions recognized the importance of Lasca habitat conservation in Goriška Brda, despite the habitat is not in Natura 2000 site. In 2019 watercourses in Goriška

Brda were proclaimed as protection area (Official Gazette of the Republic of Slovenia No. 47/19 and 103/20), considering our scientific bases issued in April 2018.

During Common nase reduction activities, we intended to return removed specimens into their original habitat - Danube River basin. Unfortunately, the Slovenian national law blocked these intentions, since specimen transfer between Adriatic basin and Danube River basin is forbidden. After intensive brain storming including regular communication with MAFF, we finally found a solution in order to keep animals alive. Common nase specimens were transported to a commercial pond within the original range of the species. This is not an optimal solution, but it still ensures the survival of specimens. Since Common nase populations in Danube River basin are in decline, the situation was discussed also in the parliament through regular parliamentary debate.

Complicated, prolonged and new administrative rules introduced by the Italian and Slovenian national government for the public body activities, tenders and constructions have increased the complexity for project administrative services. This represented serious barriers for project implementation. Consequently, much effort was invested into communications with competent government institutions also on international level to harmonize rules. This situation affected the attribution of some external assistance contracts and prolonged period for Fish farm modification building permit acquisition.

We stimulated communication between Slovenian and Italian competent veterinarian institutions in order to achieve mandatory documentation regarding Lasca transportation. This was considered as bottle neck since it took substantial amount of time, but the established connection yielded positive results.

7. Key Project-level Indicators

In the online verification process of Key Project-level Indicators, the system showed us an error with description that some indicator values are too high and should not exceed certain number; i.e. No. of Lasca individuals should not exceed 456. To pass through the online process, we inserted the number proposed in the system. In Comments, we stated the correct numbers.

Regarding Key Project-level Indicators, further activities were implemented:
In Slovenia, we established Lasca breeding in captivity that will act as genetic back up as well as a source of specimens for wild reinforcements.
We repopulated Lasca into Natura 2000 site (Dolina Vipave [SI3000266]) and thus improve species conservation status and trends. We have found 1019 well adopted specimens in nature. We also detected that released specimens spawn in the wild.
We reduced Common nase population for 88%. Further control will be implemented by AC through FMPs.
ACs release of alien game species in nature has decreased for 20%, since trends in inland fisheries revealed to be towards native game species angling in pure nature in consideration of sustainable fisheries.
Among awareness activities, we directly reached more than 20.000 people. We were very active in children, youth and anglers awareness as well as networking with similar LIFE projects (>20) and experts on the field (11 Scientific Councils, more than 9 Congresses and similar events)
Due to the project 5.5 additional FTE were employed.

8. Comments on the financial report

In the LIFE financial reporting (excel file) all cost are linked with the corresponding action in description of the cost item column. We used the same description of the costs as foreseen in the proposal to ensure the clear link with technical activities. Costs that were not foreseen in the proposal, but they were approved during the project implementation, have additional comment in red in the description referring to Monitor or Report notification.

8.1. Summary of Costs Incurred

Occurred costs are in line with Grant Agreement with minor variations considering allowed flexibility of the 20% limit. Variations are explained under their belonging actions and summarized in the chapter 6.2..

Table 2: Project cost incurred depending on cost category.

PROJECT COSTS INCURRED				
	Cost category	Budget according to the grant agreement in €*	Costs incurred within the reporting period in €	%**
1.	Personnel	834.358,00	881.722,92	106
2.	Travel and subsistence	95.000,00	33.073,43	35
3.	External assistance	513.680,00	493.719,98	96
4.	Durables goods: total non-depreciated cost	491.800,00	385.234,29	78
	- *Infrastructure sub-tot.*	350.000,00	254.092,60	73
	- *Equipment sub-tot.*	141.800,00	131.141,69	92
5.	Consumables	81.000,00	44.582,88	55
6.	Other costs	63.000,00	66.163,18	105
7.	Overheads	144.950,00	118.395,00	82
	TOTAL	**2.223.788,00**	**2.022.891,68**	91

During project prolongation, we did not change the originally proposed budged. All additional activities performed in 2022, were placed and funded within the flexibility of the Article II.22 of the General Conditions per each cost category. Due to project extension for one year, personal effective hours are higher than foreseen in the proposal, but costs are still in line with eligible cost increase. Parco Ticino Personnel costs for year 2022, which amounted 13.953,09 €, were not claimed.

In 2019, under FRIS personnel costs, daily rate for Katja Pustovrh is significantly higher comparing with a year 2018. Reasons are two. First and the main reasons for higher daily rate in 2019 is the fact that Katja Pustovrh moved from Ljubljana to city Komenda. Consequently, FRIS obligatory travel contribution in Slovenia of her salary increase for app. 100 € per month. Second, most public body employees progressed in salary schemes in 2019. Katja Pustovrh progressed for one-step, from pay grade 33 to pay grade 34 – that is app. 60 € per month.

The highest deviation from foreseen to actual expenditure appeared in Travel costs and Consumables (gasoline) due to Covid-19 restrictions, when travel abroad and even inside the Countries were limited or even forbidden. Conferences and meetings were performed online, field work activities were limited/completely stopped. In the scope of implementation, the most affected were awareness activities, especially contest, events and related exhibitions (see actions E2 and E3), causing a high decrease in travel costs. Under Consumables costs, part of unspent funds also targeted FRIS fish food, since at the beginning of the project, we used fish food from deposit that were acquired before the project start.

Under Infrastructure costs, for fish farm modification, we did not claim the costs related to construction supervision and additional design solutions, causing decline in foreseen to actual expenditure appeared. The division of expenditures between project and other services for FRIS was not possible in a way to be sufficiently transparent. To explain: beside fish farm modification for Lasca breeding purposes, building intended for the other FRIS operation was also constructed. Mentioned services of external contractors were shared.

Regarding EC respond letters to Monitor visits and reports all comments under Financial issues were resolved during project implementation, with one exception. In EC respond

letter to the third Monitor visit (Ares(2020)3398176), it was requested to explain why workload of 12 hours per day is needed on daily bases for FRIS. Such a workload is related to fieldwork days not only for this project but also for majority of FRIS fieldwork. It should be taken into account that the journey from Ljubljana to Vipava valley and back took us 4 to 6 hours or even more. Besides, FRIS operates with electricity in water (from 1-8 A) and heavy equipment. Electrofishing survey preparation in the filed can take time (teams >15 people – organization and instructions, safety, boat access and deployment). Moreover, in some cases short summer storms can interrupt sampling. Teams wait for storm to pass and continue with work instead of leaving and wasting another full day (gasoline, driving time). Many of the electrofishing transects are long and defined with specific data acquisition (Lasca monitoring, common nase search etc.), and cannot be stopped and dropped. This would mean that with driving and preparation, actual sampling time would be too short and inadequate.

8.2. Accounting system

FRIS has an external accounting system regulated by Internal FRIS accounting rules and National legislation. For the project, LIFE for LASCA a separate sub-account had been opened. Received funds from European Commission and other co-financers were transferred to that sub-account. Exclusively for the LIFE for LASCA project, accounting identification codes by costs categories were opened (from 71 to 77).

At Parco Ticino for the project purposes further accounting identification codes were opened:

Chapter 1322.1 "LIFE +16 NAT/SI/000644 LIFE SAVING LASCA – costs for the project implementation"

Chapter 125.2 "Slovenian contribution for the project LIFE 16 NAT/SI/000644 LIFE SAVING LASCA"

FRIS, as all Slovenian public bodies receives all incoming invoices through the following e-system: http://www.ujp.gov.si/. Parco Ticino receives all incoming invoices electronically through Parco information systems.

Upon receiving the invoice, it was sorted and recorded under costs category as planned in the proposal. Payments were authorized by the director on the Slovenian side and by Project leader on the Italian side.

For the purchase of goods or selecting services, legislation regarding public procurement procedures were applied (internal acts and national legislation).

Time recording system is electronic for both beneficiaries, except for FRIS fish farm, where personnel register manually (fish farmer and FRIS technician/FRIS fisheries expert in the last year). Until the first visit of monitor, timesheets for entire LIFE team were prepared. To optimize project management, from March 2018 only timesheets for partially involved employees were being prepared, as timesheets for full time are not obligatory. Timesheets were prepared, checked, dated and signed by the Project Manager/leader. Timesheets of the Project Manager were checked, dated and signed by the director/competent person.

Before the authorization, each project invoice was checked to contain project acronym or project identification number.

8.3. Partnership arrangements (if relevant)

At the start of the project, the new administrative rules introduced by the Italian national government for the public body activities and tenders have increased the complexity for administrative activities and complicated the assignment of the external job envisaged by the project. Due to this situation, the agreement with FRIS for the LIFE16 NAT/SI/000644 Life for Lasca was possible to be signed only on 09/02/2018, in spite the fact the agreement

was already booked by the Ticino Park Steering Committee with act n. 174 on 13/12/2017. After obtaining payment request from Parco Ticino, FRIS transferred funds to the Parco (€ 51.000; on 06/04/2018). Further funding procedures were defined in Partnership agreement in detail. FRIS ensured that all the appropriate payments were made to the associated beneficiary within thirty days after bank conformation of funds transferred by the Commission, unless there was a justified delay. Generally, payments were made within thirty days from signed payment request of associated beneficiary in accordance with full project provisions.
In scope of project prolongation for one year, Annex no.1 to partnership agreement was signed between the two partners. Within the flexibility of the Article II.22 of the General Conditions, the annex no.1 predicted transfer of € 28.000,00 from FRIS to Parco (*Ares(2022)7128538*).

Financial tables were prepared separately; independently each project partner ran its own financial documentation. The Financial Manager prepared the consolidated cost statement.

8.4. Certificate on the financial statement

Public procurement: On 02/04/2019 the following independent financial Auditor (8.296 €) was selected:

Name: Robert Potočki
Organization: IN Revizija d.o.o.
Address: Tržaška cesta 134, SI-1000 Ljubljana
The official registration number: P-00249

The audit started in December 2022. It took place at the headquarter premises of Fisheries Research Institute of Slovenia (for details see F2 action). The Audit report is submitted together with this Final report (Annex 13).

8.5. Estimation of person-days used per action

The estimated number of actual person-days spend is 7001 (123%). Considering project prolongation (12 months; 24%), person-days spent are slightly lower than expectations for 1%, which can be considered as equal. Meaning we were in line with project timetable. However, slightly higher percentage of spent days can be noticed for C- actions (2%), while slightly lower percentage of days spent can be noticed for F – actions (8%). At this point we emphasise that Project manager also had the role of FRIS Project Leader, since the Leader was removed from proposal in the final stage (request of EC). Consequentially, Project manager was involved in other actions more than predicted.
Considering project prolongation, person-days spent in all actions are in line with expectations with negligible variations.

Table 3: Estimates on actual person-days spent compared to the budgeted person-days.

Action type	Budgeted person-days	Estimated % of person-days
Action A: Preparatory actions	626	124
Action C – Concrete conservation actions	2357	125
Action D: Monitoring and impact assessment	1027	122
Action E: Communication and Dissemination of results	1155	122
Action F: Project management (and progress)	536	116
TOTAL	5701	123