

Projects in Slovenia

1992-2012



Projects in Slovenia – 20 years of the LIFE European financial programme

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p. 4 Vetrnik, photo: Nada Vreže; Lake Cerknica, photo: archive of Notranjsko Regional Park; Wolf, archive of the project 'Protection and monitoring of the protection status of the population of the wolf (Canis lupus) in Slovenia'

p. 5 photo 1: archive of Notranjsko Regional Park; photo 2: Limnosa archive; photo 3: JP Vodovod-Kanalizacija archive

p. 6 photo: archive of the Ministry of Agriculture and the Environment

p. 7 Lake Cerknica, photo: Valentin Schein

p. 22 Ljubljana, photo: Albert Kolar, Sokol ARSO

p. 33 Črno jezero (Black Lake), photo: Jurij Gulič

p. 35 photo: Alenka Mihorič, Sokol ARSO





We always like to say that
**“nature
k n o w s
b e s t”.**

Why does the rich and diverse nature of Slovenia need people's help,

why do we need projects? The projects financed by the EU's LIFE programme mostly focus on rectifying mistakes made in the past or inappropriate relationships between people and nature and the environment. Therefore, the measures co-financed by the LIFE programme eliminate threats and dangers or rectify past mistakes or the destruction of habitats. These measures include the renaturation of rivers, swamps, reduced light pollution, prevention and reduction of pollution etc.

We like to say that everything is interconnected in nature and this is also shown in the projects that have been implemented. In this way, for example, campaigns to protect dry grasslands have indirectly contributed to the conservation of endangered birds. Various environmental issues are also closely connected. LIFE projects specifically show that successful protection of the environment and nature is

the result of cooperation between many fields, including forestry, hunting, agriculture, transport, tourism, water management, the economy etc. Cooperation on projects between many sectors working closely together then simplifies cooperation in other cases. There are fewer prejudices, so it is easier to integrate environmental and nature protection objectives in economic and sectoral policies. In the opinion of the OECD, this approach is more effective than isolated environmental or nature conservation policies.

Numerous LIFE projects have also supported an important aspect of protecting nature in Slovenia, namely the preservation of traditional land-use and, consequently, of rare plant varieties and animal species. Due to increasingly intensified agriculture, several European countries have in recent decades lost areas of land that are very important for nature: marsh meadows, dry grasslands, pools etc.. Slovenia is facing a very demanding task to preserve extensive land-use. The preservation of knowledge, which is disappearing due to industrial farming on the flatlands of north-western Europe, is very important, since this knowledge may become even more important and valuable due to climate changes.

Franc Bogovič,
Minister of Agriculture and the Environment



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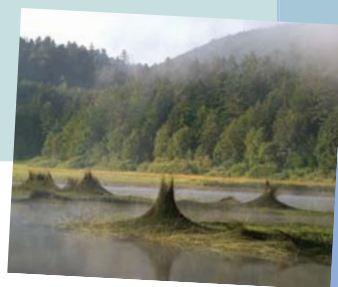
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Projects in Slovenia – 20 years of the LIFE European financial programme

In 1992, the European Union formed the LIFE financial fund (*L'Instrument financier pour l'environnement* – financial instrument for the environment) to finance projects for the implementation of European environmental policy and legislation as well as for an environmental action programme. The Habitats Directive was adopted simultaneously, which was the foundation for forming the Natura 2000 European ecological network; therefore, a major part of this financial fund was dedicated to projects which contributed to establishing Natura 2000. In time, more attention was dedicated to environment protection projects; LIFE has mainly focused on spreading information and raising awareness of the significance and methods of protecting the environment and conserving biodiversity.

Initial funds for the 2007-2013 period amounted to EUR 70m, then increased to EUR 2.2bn; EUR 3.6bn are anticipated for the 2014-2020 period. The number of countries drawing on these funds has now increased from the initial 12 to 27. However, it is not only the financial value of the programme that is increasing; the environmental problems which are being resolved with the help of this fund are also increasing. Slovenia started drawing on this financial fund in 1993, but the beginnings were quite modest.

We took a more serious step towards preparing projects in 2000, when we managed to acquire the means for co-financing three in the field of nature protection. In the following years, we mainly prepared projects intended to establish the Natura 2000 network of

sites, their restoration and management. Only more recently has more interest has been dedicated to this area, and more projects in the field of environment protection have also yielded success. Twenty-four projects with a total cost of slightly less than EUR 30m had been financed in Slovenia up to 2011, EUR 17m of which were contributed by the European community.

In Slovenia, these projects helped strengthen nature protection institutions and increased mutual cooperation between the various interest groups in the process of solving joint problems; thus we have learned that a project can succeed only if it is fully accepted by the people who live where the project is being implemented. The projects have helped us to learn more about the life and requirements of some plant and animal species, including large carnivores (bear and wolf), birds (primarily the corncrake), otters and others, as well as their habitats (e.g. swamps, dry grasslands, wetlands), and they mostly helped preserve these species and habitats and guarantee their well being.

The LIFE programme is now 20 years old, completely out of its adolescence, and thus entering its best years. Therefore, we can expect the best from it in the coming years. We have acquired quite a lot of experience and knowledge, so we will know how to build on the results of project successes and use this programme in the future to implement our own project ideas.

Julijana Lebez Lozej, MSc, national contact person for the LIFE programme in Slovenia





NATURE PROTECTION

Management Plan and Urgent Actions for Veternik and Oslica High Dry Meadows

The dry grasslands in the hilly parts of Kozjansko Park are among the most diverse habitats in Europe. Due to overgrowth, intensified agriculture and extensive grazing, they have become endangered. The Life Nature project entitled 'Management Plan and Urgent Actions for Veternik and Oslica High Dry Meadows', performed during 2001 and 2003, enabled us to prevent the further reduction of dry meadows.

One of the main objectives of the project was to achieve nature conservation control over one of the most important dry meadow regions in Slovenia

and to ensure the sustainable and acceptable management of nature conservation. The results of research conducted during the project provided us with scientific data that enabled the dry meadows to be included among the Natura 2000 sites. Mapping enabled us precise insight into the situation of the entire project area, so we were able to co-design the dry meadow management strategy and establish methods to prevent the consequences of natural processes which change semi-natural habitats with high levels of biodiversity into forests. Throughout the entire process, we prepared and performed educational, informational and promotional activities for the wider public, informing them on the significance of nature protection efforts for conserving dry meadows.

By completing our project objectives, we acquired a management plan for the Veternik and Oslica dry meadows, and the landowners connected in a network, thus acquiring appropriate financial funds for the appropriate maintenance of the meadows. We managed to renature 20 ha of land; we acquired appropriate logistical support for the implementation of actions, and established permanent monitoring of the project area.

Mojca Kunst

Veternik, photo: Nada Vreže;
Mowing, photo: Boštjan Colarič;
Transsilvanic Heath Spotted Orchid, photo:
Dušan Klenovšek



Project code: LIFE00 NAT/SLO/007223

Beneficiary: Kozjansko Regional Park
Project partners: Ministry of the Environment and Spatial Planning, Bavarian Forest Nature Park, Bavarian Academy for Nature and Landscape Protection

Total cost: EUR 275,000.00

Duration: 1 January 2001 – 1 January 2004

Website: www.kozjanski-park.si



Protection of Endangered Species and Habitats in the Area of the Future Karst Park

Kraški Rob or Karst Edge, the limestone joint between the continental and coastal part of Slovenia, is characterised by a rich variety of habitats, plant and animal species, as well as an exceptional cultural landscape which emerged through the centuries as people adjusted to the local environment. In recent decades, the balance between people and nature began to crumble, many people left the area due to the economic and political situation, and consequently the extensive overgrowth of Karst meadows and screes began. The main objective of the project, which was implemented between 2002 and 2005, was to stimulate traditional human activity like mowing and maintaining Karst ponds; to conserve endangered habitats, plant and animal species, as well as the cultural landscape; to improve the conditions for local people and support the development of Kraški rob as an area dedicated to natural science tourism.

Forest, dry meadows, limestone walls, screes and overhangs are interconnected in the cultural landscape of the project area, which is diversified by ponds, the special feature of the Karst's natural and cultural heritage. Over the centuries, people have thoughtfully intervened in nature in the area of Kraški rob and transformed it, while at the same time allowing for the possibility that rare plant varieties and animal species were able to follow the footsteps of people in the karstic environment, thus becoming dependent on human activities. The habitats of some plant and animal species that are urgently needed for survival started to disappear.

One such species is the sandwort (*Moehringia tommasiniana*) which in a total of a few specimens grows exclusively within the Karst Edge; in a line running from Italy across Slovenia to Croatia.

The project presents the establishment of a new way of insuring the most important areas of nature conservation by initiating a network of micro-reserves or contractual protection with private owners. Nineteen contracts were concluded with landowners for the regular maintenance of 300 ha of Karst meadows and ponds (four Karst ponds were restored by the project) according to special management guidelines. The project also significantly contributed to raising natural scientific awareness on the importance of the Karst Edge and its values. The restoration and reorganisation of the old school in Rakitovec into a centre for visitors is just one example of these activities. Two permanent exhibitions will be available in this centre: on Karst ponds and the biodiversity of the Karst Edge, and on the natural richness of the Valencia region in Spain, as well as an exhibition presenting the monograph 'Variety and Conservation of Karst Land: examples from Valencia and Slovenia'.

Andrej Sovinc, Bojana Lipej



Karst Edge, photo: Bojana Lipej;
Moehringia tommasinii, photo:
Mitja Kaligarič

Project code:	LIFE02 NAT/SLO/008587
Beneficiary:	University of Primorska, Koper Science and Research Centre
Project partners:	Ministry of the Environment and Spatial Planning, Koper City Municipality, Institute of the Republic of Slovenia for Nature Conservation – Regional Unit Piran, Fauna and Flora Mapping Centre, Valencia Province in Spain
Total cost:	EUR 476,930
Duration:	1 October 2002 to 30 September 2005
Website:	http://www.zrs.upr.si/sl/Instituti/Institut+za+biodiverzitetne+studije/Projekti/Zakljuceni+projekti

Peat bogs in Triglav National Park

Triglav National Park was involved in a project from 2001 to 2003, which planned to reduce the endangerment of peat bogs. Based on data from natural and human impacts, we planned to redirect human activity from sensitive and endangered peat bogs to less sensitive parts of nature.

The project's objectives included the preparation of the complete management plan for the area, which according to EU regulations fulfils the requirements for Special Protection Areas (some parts of the area also meet the IUCN Category I criteria), and to raise awareness of the importance of wetlands, to purchase land and promote the protection of peat bogs.

The project produced many positive results. One of the first management plans for the planned Natura 2000 sites in Slovenia was prepared. We managed to alter the course human activity in this area in three ways. The study trail in the Goreljek bog was prepared in such a way that visitors are redirected from sensitive parts of nature. We also altered the course of the Goreljek cross-country skiing trail and the forest logging track under Javorov vrh hill. In order to prevent the destructive impact of the road on the bog's fringes, we planted tree curtains and temporary fences that prevent access for cattle and people. We organised workshops for the local people, an expert consult and press conferences. We also prepared various materials and programmes for general use in the future.

photo: Archive of Triglav National Park



Project code: LIFE00 NAT/SLO/007231

Beneficiary: Triglav National Park

Project partners: Jarina Bohinj Association

Total cost: Project total cost: EUR 357,000

Duration: From 15 June 2001 to 15 December 2003

Website: life.tnp.si

Due to this successfully implemented project, peat bogs became quite popular among the local people and visitors. Presentations, guided tours, workshops, natural science days or simple trips have become permanent features of Triglav National Park's activities. We also managed to attract the attention of local people with some simple approaches, such as free wood for erecting fences, the preparation of new forest logging track and similar. Visitors are no longer destroying the most precious parts of peat bogs by walking on them and stamping them down: based on detailed analyses and a management plan, we now redirect visitors to a regulated and furnished study trail.

Jurij Dobravec, Tanja Menegalijska

Restoration and Protection of Habitats and Birds in Škocjanski zatok

The main objective of the project was to restore, enhance and improve different types of habitat in Škocjanski zatok nature reserve, thus ensuring the efficient protection of birds, including breeding species as defined in Annex I of the Birds Directive, as well as nationally important migratory and other species. The project, which contained the planning, implementation of restoration and reestablishment of habitats in Škocjanski zatok nature reserve, was performed from 1 July 2001 to 30 June 2007 in cooperation between DOPPS – BirdLife Slovenia and the partner Ministry of the Environment and Spatial Planning. Fifty per cent of the project funds were contributed by the European Commission and 43.5% by the Ministry, while the remainder was co-financed by Luka Koper d.d. and DOPPS.

The implementation of the project significantly contributed to the establishment of the favourable status of birds and their habitats in Škocjanski zatok. The various activities included the most important restoration works intended to improve the inflow of fresh and salt water to the lagoon, removing sediment from the lagoon and restoring habitats on the edges of the lagoon, as well as forming a freshwater swamp at the location of Bertoška bonifika. The reserve's restoration is strongly supported by awareness-raising campaigns and permanent monitoring. At the end of the project, the Slovenian government confirmed the Reserve Management Plan for 2007-2011, based on which DOPPS-BirdLife Slovenia in the past five years have managed this protected area, maintained and upgraded the objectives, and achieved with the LIFE project. Another important achievement was the establishment of an informal network of Adriawet northern Adriatic wetlands managers,



Project code: LIFE00 NAT/SLO/007226

Beneficiary: DOPPS - BirdLife Slovenia
Project partners: Ministry of the Environment and Spatial Planning

Total cost: EUR 581,869
Duration: 1 July 2001-30 June 2007
Website: www.skocjanski-zatok.org

which have been operating for the tenth consecutive year, enabling the exchange of experience and joint projects for the upgrade of activities in wetlands management and promotion.

The restoration of Škocjanski zatok as a pilot project ranks among the first ten projects for restoring degraded natural areas in the European Mediterranean region. This project sets an example, reminding the whole of Slovenia of the importance of preserving natural environments. This also remains a warning about avoiding repeated depredations of nature.

Nataša Šalaja

Škocjanski zatok, photo: project archive;
 Bird watching, photo: Bojana Lipej



Intermittent Lake Cerknica

In 2006, Notranjska Regional Park acquired financial funds from the LIFE III Nature programme for the Intermittent Lake Cerknica project. The project was financially supported by the Municipality of Cerknica and the Ministry of the Environment and Spatial Planning.

The project activities were performed in the area of Lake Cerknica, which is determined as an EU_3180* priority habitat type and is included in the Natura 2000 area.

Due to its natural unpredictability and intermittence, numerous imprudent interventions have occurred in the past years. Water courses and sink caves have been interfered with, damaging the lake in numerous ways which are today reflected in the lake's changed water regime, which has a negative impact on plant and animal life.

One of the most important objectives of the project is the preparation of the project documentation necessary for the restoration of water courses that were regulated in the past. Together with the project partner, i.e. Inženiring za vode d.o.o. company, we implemented a renaturation project and based on extensive documentation, acquired a building permit. The pilot implementation of renaturation was performed on the

Goriški Brežiček and Tresenec parts of the water course, thus prolonging the period of water retention in riverbeds.

In cooperation with the Faculty of Biotechnology, we listed the habitat types of Lake Cerknica; the data enabled us to draft a management plan which was the basis for further work.

Due to greatly reduced mowing, the area around the lake was becoming overgrown. In order to prevent further overgrowth of the area, we purchased 260 ha of land, based on which we perform nature-friendly late mowing.

Since the key to preserving biodiversity lies primarily in raising the awareness of the population, especially the young, we intended several project activities for them. We presented the beauties of Lake Cerknica and warned about the most endangered plant and animal species. The greatest impact was achieved with an exhibition which travelled throughout Slovenia presenting images of Lake Cerknica, a jewel hiding below the forests of Notranjska.

Irena Likar

Lake Cerknica, photo: archive of
Notranjsko Regional Park

Project code: LIFE06 NAT/SLO/000069

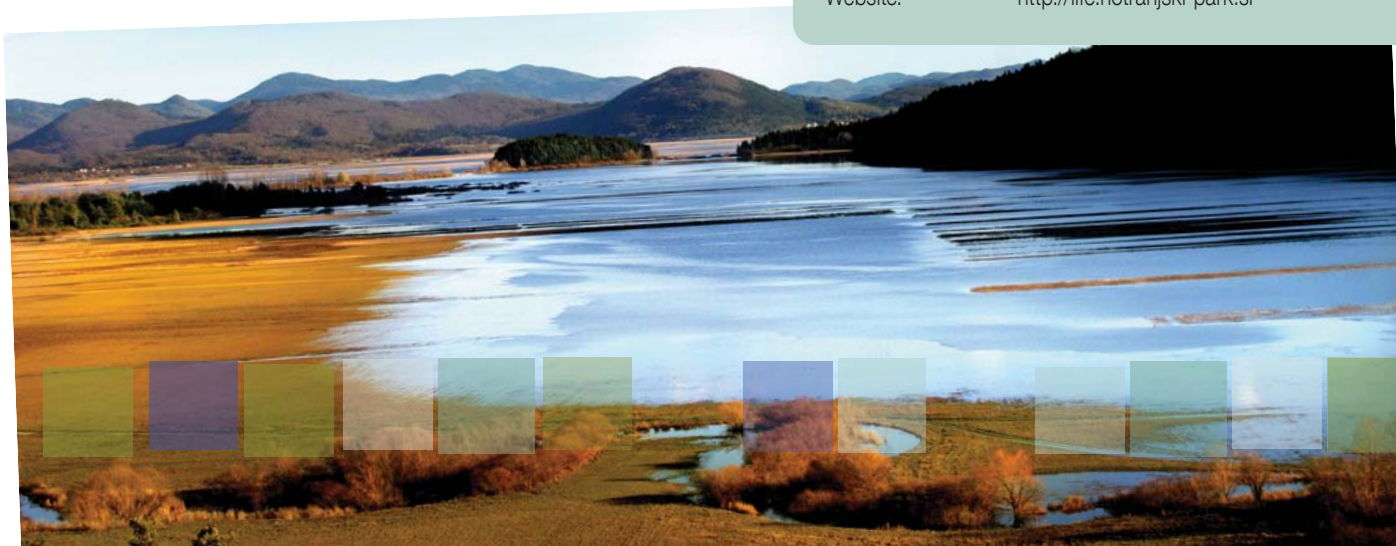
Beneficiary: Notranjsko Regional Park

Project partners: Inženiring za vode d.o.o.,
Faculty of Biotechnology

Total cost: EUR 1,840,584.00

Duration: 1 January 2007 – 31 December 2009

Website: <http://life.notranjski-park.si>



Conservation of Endangered Species and Habitats in the Sečovlje Saltpans and People and Nature in the Sečovlje Saltpans

The purpose of both LIFE projects at the Sečovlje saltpans site is to preserve biodiversity in an anthropogenic ecosystem.

Sečovlje saltpans are a site of exceptional biodiversity significance and, as such, are also part of the Natura 2000 network. The saltpans system evolved through hundreds years of cohabitation of people and nature in this area, where human activity is still necessary in order to maintain its ecological character and conditions for flora and fauna. The regulation of the water regime via a system of embankments, dykes and canals is of key importance; this system has been poorly maintained for several years, thus disrupting the optimum conditions for the flora and fauna.

Within the first LIFE project, 'Preservation of endangered species and habitats in the Sečovlje saltpans', which was carried out from 2003 to 2006, we restored the saltpan embankment sections that are most important in terms of nature conservation, where salt harvesting has been abandoned and largely left to natural succession. At the same time, we arranged a visitors' centre and prepared starting points for the management plan. Special attention was dedicated to the regulation of alternative nesting places for target species of birds living in the saltpans, and to excavating channels to enable water circulation in abandoned salt pools, thus improving living conditions for the tooth carp.

People and Nature in the Sečovlje saltpans project, running from October 2010 and until September 2015 focuses on the restoration of all the embankments on the Natura 2000 site, which will contribute to a more favourable ecological condition



Project code: LIFE09 NAT/SI/000376

Beneficiary: SOLINE Pridelava soli d.o.o.
Project partners: Institute of the Republic of Slovenia for Nature Conservation – Regional Unit Piran, Ixobrychus Ornithological Association, Parco regionale del Delta del Po Emilia Romagna
Total cost: EUR 714,440
Duration: 1 September 2003 – 31 August 2006
Website: www.kpss.si

for the target species and habitats. We will renovate a total of 3.5 km of embankments and dredge approximately 8 km of ditches for the supply of fresh water to endangered and especially important salt meadows, mudflats, saline plant species sites and riverbeds, and at the same time prevent the access of land predators to the nest sites of terns, black-winged stilts, Kentish plovers and Pied Avocets. We will restore the freshwater swamp that hosts one of the largest populations of European pond turtles in this part of Slovenia. At the information centre, visitors to the saltpans will be able to view live images from the terns' nest sites. We will organise 80 workshops to raise the environmental awareness of visitors.

Andrej Sovinc



Project code: LIFE03 NAT/SI/000076

Beneficiary: SOLINE Pridelava soli d.o.o.
Project partners: /
Total cost: EUR 7,056,366
Duration: 1 October 2010 – 30 September 2015
Website: www.kpss.si

WETLANDS AND WATER
CONSERVATION
PROJECTS

Sečovlje Saltpans, photo: Iztok Škornik



Conservation and Management of Freshwater Wetlands in Slovenia

WETMAN



Zelenci, photo: Metod Rogelj;
Moor Frog (*Rana arvalis*), photo:
Dušan Klenovšek

The overall objective of the project is the restoration and improvement of the condition of six Slovenian wetlands, which are also Natura 2000 sites: Pohorska barja, Zelenci, Mura-Petišovci, Planik, Vrhe and Gornji kal. The areas contain different types of wetland (alpine raised bog, transition mire, wet meadow, river oxbow and pond), which were not appropriately maintained in the past.

Wetlands are among the most endangered habitats in Slovenia, and at the same time they have ecosystem-related, cultural, tourist and aesthetic benefits for nature as well as for people. The project objectives focus on improving and establishing the appropriate condition for preserving ten European endangered species and six wetland habitat types that occur in these areas.

The project will enable us to:

- improve the hydrological situation in Pohorska barja, Zelenci, Vrhi and Mura-Petišovci,
- remove overgrown vegetation on all pilot areas,
- hunt all invasive fish species in Gornji kal and Mura-Petišovci,
- prevent the destruction of endangered habitats and the disturbance of endangered species by building directed walking paths in Zelenci and Pohorska barja,
- prepare guidelines for managing pilot areas and including them in sectoral plans, thus ensuring the sustainable preservation of pilot areas.

Field campaigns will be supported with national and local communication campaigns.

By performing specific campaigns on individual pilot areas and by establishing the sustainable management of pilot areas, we will significantly contribute to preserving wetlands in Slovenia. The project activities will contribute to increased awareness of the public of the meaning of wetlands and to improving tourist infrastructure and local economy.

Dr Nika Debeljak Šabec



Project code: LIFE09/NAT/SI/000374

Beneficiary: The Institute of the Republic of Slovenia for Nature Conservation

Project partners: Slovenia Forest Service, Slovenian Fishing Institute, Institute for Water of the Republic of Slovenia, Slovenian Radio and Television Broadcasting Company, Kranjska Gora Municipality, Ruše Municipality

Total cost: EUR 2,144,376

Duration: 1 February 2011–1 February 2015

Website: www.wetman.si

Protection of Biodiversity on the River Mura

Undertaken during 2006 and 2011, the project restored blind river branches and backwaters of the Mura River and cleaned the banks, thus ensuring the appropriate quality and quantity of water sources and taking care of the preservation of the area as a wetland, which is a habitat for various endangered and protected aquatic and coastal plant and animal species.

The riparian area of the River Mura in Slovenia is valued as an important habitat with a high level of biodiversity. A large part of this area is included in the Natura 2000 site under the Habitats Directive and Birds Directive. The woodlands along the Mura belong among the most important flooded lowland woods in Slovenia. The dynamics of the river in this area has the potential to form gravel pits, river branches, islands, blind river branches and eroded banks. Ensuring the biodiversity of the area and the protection and restoration of wetlands depends primarily on preserving and increasing levels of underground water, as well as on more intensive hydrodynamic processes in the river corridor.

The project area extends over 15 km² and lies among the high water embankments of the Mura between the villages of Bakovci and Melinci, and between the villages of Bunčani and Mota. We connected the main stream of the Mura with side branches;

by removing vegetation, we established the conditions for an appropriate river water level at sites where the water flows into side branches; the riverbed was widened at two locations; the co-natural maintenance of flooded forests and side branches was ensured. We built two stone chutes in the Mura riverbed, thus increasing the water level of the two locations, enabling more frequent flow of water into side branches. An additional effect of increased water levels is an increase in the underground water level. More frequent inflow of water into side branches and the rising underground water level means that the entire area is wetter. We connected the Mura to side branches at two locations, thus enabling the water to expand the riverbed. We restored the blind branches of the river. All our activities enabled us to create more favourable living conditions for endangered and other species of amphibian, reptile and fish.

During field work, we dedicated a lot of attention to informing and educating the public: we published 10 issues of a local newspaper; designed a website; set up a study information trail in the village of Mota; opened a regional information centre in Murska Sobota and a local information centre in the village of Mota; published brochures, billboards and posters presenting information on the project, and published numerous articles in local and other printed media. We organised workshops and presented interesting, problematic and educational topics connected with the project and the region along the River Mura, where we brainstormed for better solutions together with people who live with the River.

Dr Lidija Globevnik, Katarina Zore

Project code: LIFE06 NAT/SI/000066

Beneficiary: Institute for Water of the Republic of Slovenia
Project partners: Inženiring za vode d.o.o., Mura vodno-gospodarsko podjetje d.d., the Institute of the Republic of Slovenia for Nature Conservation, Mura Regional Agency for Development, Prlekija Agency for Development, GiZ, BirdLife Slovenia, World wide fund for nature Austria
Total cost: EUR 1,977,499.93
Duration: 1 October 2006 to 31 October 2011
Website: www.biomura.si

BIOMURA



Mura, photo: project archive



Ljubljana Connects

This year, the project began to improve the habitat in the River Ljubljana for endangered species of fish, the huchen (*Hucho hucho*), Danube roach (*Rutilus pigus*) and European chub (*Squalius cephalus*). The improvement will be achieved by eliminating obstacles to fish migration; improving the water regime and restoring habitats; improving the water infrastructure and water management, and establishing hydrological supervision. These measures will restore the functionality of the Ljubljana corridor, thus connecting two areas within the Natura 2000 network which have not been connected so far.

We will elevate the water level threshold below the railway bridge in Zalog, thus enabling the elevation of water into blind branches of the River, and improving aquatic conditions in dry periods. We will restore and renovate fish paths on the dam of the Vevče Paper Company and along the gate near Amrožev trg, thus enabling the migration of fish, which is currently greatly limited and aggravated. On the River near Ambrožev trg, we will renovate the gate by removing the upper non-operational section and installing a hydraulic regulation hatch. The current chain



Huchen (Linnaeus, 1758: *Hucho hucho*), photo Marko Osojnik; Ljubljana - Zmajski most Bridge, photo: Benjamin Jernejčič

mechanism for raising gates enables only an approximate regulation of flows and levels. Therefore, only momentarily excessive drainage of the riverbed and lowering of water levels upstream is possible. The upgrade or improvement of the gate will enable more accurate regulation of water levels, mostly in cases of low water levels and during dry periods. This is vital for maintaining the appropriate level of the River, which affects the entire water regime of Ljubljansko barje. Habitats and

species that are integrated in the Natura 2000 network greatly depend on the water regime of the River, as do fishing, tourist sailing, draining of the VOKA canalisation system, agriculture and the entire infrastructure. When water levels are low, the soil dries out and an excess accumulates, which worsens the conditions for endangered species and the situation of the entire infrastructure.

The project is intended to improve the habitats of some fish species, for which certain areas are determined within the Natura 2000 network. The project will also seek solutions for some other aforementioned activities.

Andrej Vidmar, MSc



Project code:	LIFE10 NAT/SI/000142
Beneficiary:	University of Ljubljana, Faculty of Architecture, Civil and Geodetic Engineering
Project partners:	Geateh d.o.o. and Purgator d.o.o.
Total cost:	EUR 1,188,015
Duration:	1 January 2012 – 31 December 2015
Website:	http://ksh.fgg.uni-lj.si/ljubljanaconnects/

Live Water – from Biodiversity to the Tap

The LIFE AQUAVIVA Project prepared by the LUTRA Institute, which was initiated in September 2011, is for communication and informative purposes. The main objective is to promote and preserve the biodiversity of inland water ecosystems, from algae to otters. Water is the most precious and indispensable natural resource on the planet; it is important not only for humans, but for all living organisms, especially those living in water.

The project is based on numerous studies in Europe that prove that despite the declared Year of Biodiversity (2010) and Decade of Biodiversity (2010-2020), we are quite unsuccessful in its conservation. The Eurobarometer has shown that Europeans have a poor understanding of the threats that water ecosystems

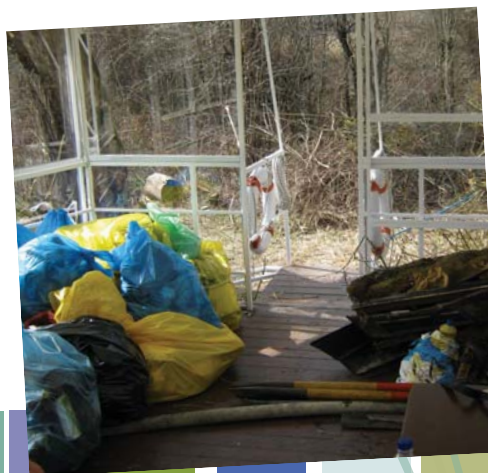
face, and consequently, of the loss of biodiversity. Only 18% of water courses in Slovenia are in a good eco-morphological state; all others have been more or less modified, which greatly weakens their biodiversity.

The LIFE AQUAVIVA Project has set an ambitious goal. We want people to understand why the biodiversity of water ecosystems is so important to life on this planet. In order to achieve this goal, we will design public campaigns and innovative educational presentations. We will support management that will be implemented by individual river basins as anticipated by the Framework Water Directive. Biodiversity, the diversity of aquatic life, is the element most often overlooked in water management processes. Animals, like some fish species or the otter, can constitute the core of all water basin management.

Other issues that the LIFE AQUAVIVA Project addresses are the everyday use and consumption of water. Is it altogether better for the environment to drink bottled or tap water? What connection does drinking water have with preserved aquatic ecosystems?

The LIFE Project was supported by the European Commission with 43% of justified costs, with the Ministry of the Environment and Spatial Planning contributing 20% and the HSE Group 18%.

Marjana Hönigsfeld Adamič



Samples from the stream are examined with a magnifier; March cleaning campaign by boat on the marsh Ljubljansko barje, photo: project archive



Project code: LIFE10 INF/SI/000135

Beneficiary: LUTRA, Institute for the Conservation of Natural Heritage

Project partners: Institute for Water of the Republic of Slovenia HOPA, d.o.o.

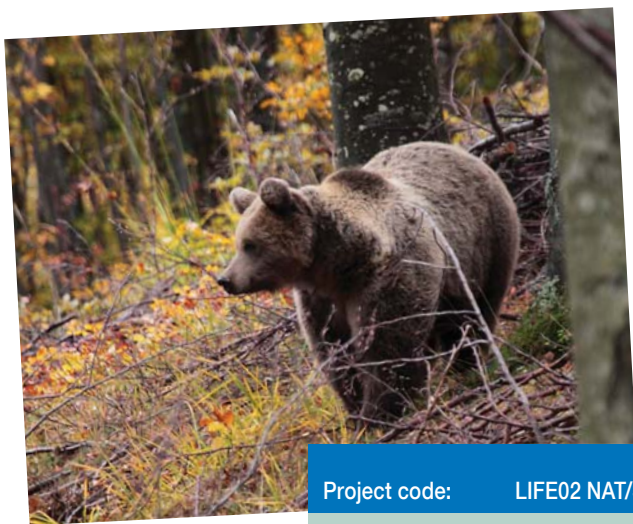
Total cost: EUR 548,141

Duration: from September 2011 to August 2014

Conservation of Large Carnivores in Slovenia, Phase 1 (Brown Bear)

The purpose of this project, based on the Brown Bear Management Strategy in Slovenia, is to encourage the long-term conservation of the brown bear and its habitat, as well as to study the conditions for the co-habitation of bears and people. This project was conducted from the beginning of September 2002 to the end of August 2005 by employees of the Slovenian Forest Service in cooperation with seven partners.

To achieve the above-mentioned purpose, several activities were implemented which helped us learn about the population of the brown bear, which then presented the basis for action planning to reduce conflicts between this animal and people. The verification of planned measures in nature was performed in selected pilot areas, i.e. in the bear's central



Brown bear, photo: Miha Krofel

Project code: LIFE02 NAT/SLO/008585

Beneficiary: Slovenia Forest Service
Project partners: Ministry of the Environment and Spatial Planning, Ministry of Agriculture, Forestry and Food, Farmland and Forest Fund of the Republic of Slovenia, Faculty of Biotechnology – Department for Forestry and Renewable Forest Sources, Slovenian Hunting Association, Oikos, Pristop

Total cost: EUR 607,822.00
Duration: 1 September 2002 – 31 August 2005
Website: <http://www.zgs.gov.si/?id=252>

and temporary habitats. Verified solutions presented the basis for the guidelines for managing the brown bear population also after the project was concluded. The specific objectives were: to determine the status and trends of the bear population and migration corridors over the Alps; to improve the co-habitation of people and the brown bear; to present the importance of protecting the brown bear; to conserve key habitats by close cooperation between various sectors; to prepare the basis for harmonised management for conservation with neighbouring countries so that the Natura 2000 project could be realised.

In order to realise our objectives, we initially analysed the known demographic data on the brown bear population in Slovenia and the main factors that influence this population. The results of the project and monitoring are considered in annual propositions for culling large carnivores. We reviewed the causes for conflict situations that emerge between the bear and people (damage to property, presence in villages) and the causes of endangerment (road kills, the condition of the habitat) and suggested solutions, which are also considered in the field (protection of property, operations of an intervention team), while some are even determined in forestry and hunting management plans. We have established public opinion on relations with the brown bear, and in order to improve the level of information, we issued several publications, a video, and also warned about the species along the forest study trail on Mašun, where we also set up an information centre. In order to improve the bear's habitat, we maintained several meadows and old orchards in the its core habitat, and these are still being maintained. We have initiated official cooperation with the Republic of Croatia, with which we share the same brown bear population. This has evolved into permanent cooperation.

The total cost of the project was EUR 607,822. The European Community contributed 75%, the Ministry of the Environment and Spatial Planning 16%, and the remaining 9% was contributed by partners by performing work.

Miha Marenče

Protection and Monitoring of the Protection Status of Wolf Population (*Canis lupus*) in Slovenia



This four-year LIFE+ project, which started on 1 January 2010, is the first extensive project to deal with wolves in Slovenia. The inter-disciplinary project is being implemented by the University of Ljubljana, Slovenian Forest Service and the Dinaricum Association. The broad objective is the long-term conservation of the wolf population, their main prey and habitat in Slovenia, and their co-habitation with people.

The wolf (*Canis lupus*) performs important functions in forest ecosystems. It is also very charismatic and may come into with humans. Despite the fact that the wolf attracts quite a lot of public attention, only little attention has been dedicated to this species in nature protection projects so far. There have also been many deficiencies in population monitoring.

Aleksandra Majić Skrbinšek

Wolf, photo: project archive

Project code:	LIFE08 NAT/SLO/000244
Beneficiary:	University of Ljubljana
Project partners:	Slovenian Forest Service, Dinaricum Association
Total cost:	EUR 1,017,773.00
Duration:	1 January 2010 – 31 December 2013
Website:	www.volkovi.si



Conservation of the Otter Population in Goričko Park

The LIFE III – NATURA Project was implemented in 2004 and 2009 in Goričko Park, where the Municipality of Gornji Petrovci and the leading partner and beneficiary, LUTRA Institute for the Conservation of Natural Heritage, strove to conserve the otter and its habitat.

The otter's existence is endangered by human activity and technological development, which have no regard for the conservation of the natural environment. Most often this is related to the destruction and crumbling of habitats due to inappropriate activity, the pollution of water (agriculture, lack of

communal regulation, industrial waste, illegal landfills); traffic is becoming a very significant mortality factor for the otter. We tried to mitigate these threats with protection measures in Goričko Park.



Project code: LIFE04 NAT/SI/000234	
Beneficiary:	Gornji Petrovci Municipality
Project partners:	LUTRA, Institute for the Conservation of Natural Heritage, Limnos d.o.o., Company for Applied Ecology, Dobrovnik Municipality, Kobilje Municipality, Puconci Municipality, Kuzma Municipality, Rogašovci Municipality, Moravske Toplice Municipality, Cankova Municipality, Faculty of Biotechnology of the University of Ljubljana, Department of Animal Science, Grand d.o.o., video production
Total cost:	EUR 1,050,780
Duration:	1 November 2004 to 30 April 2009
Website:	www.aqualutra.si

Several demonstrational eco-remediations on water courses were regulated within the scope of the project. We also built some vegetation purification plants, set up traffic signs warning about the otter, and regulated some road underpasses and bridges. Since otters often enter ponds, we introduced electric fences as a measure against unwanted predation. These measures will help conserve the otter population in more favourable conditions.

With a combination of non-invasive methods of monitoring the animals, we discovered some secrets about the otter population in Goričko Park: around 30 animals, 18 females and 16 males, were living in Park during the implementation of the project. We followed the dominant male, which dominated almost the whole Park. We established that cross-border communication with Hungary is very important for the conservation of the otter population, and therefore concluded that despite the complete occupancy of otter habitats, the number of animals is lower than expected.

Within the scope of this project and in various communication activities intended for the public, we sometimes changed and disguised the otter, a protected animal species, as a merman, and by educating and raising awareness, we indirectly focused on the preservation of inland waters – the animal's habitat. Thus we combined the requirements of the Habitats and Framework Water Directive, the Act on Nature Conservation and the Water Act.

We are using the charismatic image of the otter also at the AQUALUTRA information centre, where we inform various groups of the public on the importance of preserving waters, their biodiversity and habitats in the widest possible sense.

The project was implemented with the financial support of the European Commission, the Ministry of the Environment and Spatial Planning, and assistance from the Public Agency for Rail Transport of the Republic of Slovenia.

Marjana Hönigsfeld Adamič

Co-natural riverbed regulation of the Peskovski potok stream;

Photo: trap caught a pair of otters under a bridge where scent messages are exchanged, photo: project archive



Improvement of the Nature Protection Status of Nocturnal Animals

In 2010, we started a project to reduce the impact of artificial light on nocturnal butterflies and bats caused by the illumination of churches.

Light pollution is an environmental problem which we are only starting to comprehend. People need light, but excessive and inappropriate illumination can cause a number of negative effects. It unnecessarily increases the use of energy, disturbs natural processes, has long-term harmful impacts on health, and hampers astronomical observations. Excessive artificial light can change the natural illumination of the nocturnal environment and is among the factors currently threatening biodiversity. Nocturnal animals respond differently to light: some are attracted by it and some are repelled, whereas others are confused by it. Light attracts many nocturnal insects, which collect around lamps and on illuminated surfaces. When they the insects illuminated, they are more exposed to predators; moreover when they are exposed, they do not feed or reproduce, so they produce less offspring. In the summer, female bats roost in attics and church bells, where they raise their young. Because their roosts are illuminated, they hunt later time at night than in the natural environment, and therefore have less time to feed; their flight paths also change. Light pollution also has an indirect impact on bats, since it reduces the quantity of insects that comprise their main source of food.

Twenty-one churches in Slovenia are included in the project. We are replacing the existing illumination

in the buildings with new reflectors, adjusted to the form of churches, and monitoring the responses of bats and nocturnal butterflies to various intensities and colours of light. This will help us to prepare technical guidelines for nature-friendly and energetically efficient illumination of cultural heritage. These guidelines will be prepared with the cooperation of UNESCO. Along with improvements to illumination, we are also conducting numerous communication activities, since we want to inform as many people as possible on the problems caused by light pollution.

Erika Pogačnik Kokol



ŽIVLJENJE PONOČI



Silk moth (*Saturnia pavoniella*), photo: Peter Buchner (Tiroler Landesmuseum);
Illuminated night sky, photo: Andrej Mohar;
Bat, photo: Tomi Trilar



Project code: LIFE09 NAT/SI/000378

Beneficiary: Euromix d.o.o.
Project partners: University of Ljubljana, Temno nebo Slovenije Association, Slovenian Association for the Study and Protection of Bats, Slovenian Association for the Study and Conservation of Butterflies, Baza Media 2.1.
Total cost: EUR 596,280.00
Duration: 1 September 2010 – 28 February 2014
Website: www.lifeatnight.si

Establishing the Long-term Protection of the Corncrake (*Crex crex*) in Slovenia

The project was intended to establish mechanisms for the efficient protection and long-term conservation of the corncrake, which is a meadow bird, in Slovenia. The basic objectives include accelerating the processes for including the Birds Directive in national legislation, the preparation of management solutions for corncrake habitats, and active agreements with farmers and landowners on the preservation of meadows where corncrakes live.

Observation site on the marsh Ljubljansko barje, Corncrake, photo: archive of DOPPS - BirdLife Slovenia

The project was implemented at three Natura 2000 sites: Ljubljansko barje, Lake Cerknica and the Nanoštica Basin. Based on the research of ecological requirements in the

project areas, we prepared management guidelines for bird-friendly meadow management methods. We also established the Iški morost Nature Reserve on the Ljubljansko barje, which consists of 65 ha of land between Ig and Podpeč along the Iška River. The nature reserve now contains the Corncrake Study Trail, with an observatory where visitors can see the richness of biodiversity of extensive water meadows. The reserve is also used as agricultural testing estate, where DOPPS in cooperation with neighbouring farmers and agricultural mechanisation demonstrates bird-friendly management methods. In cooperation with local communities and farmers, we prepared the expert and practical background for designing agricultural and environmental actions to be implemented in the corncrake's nesting areas. We also established communication channels between competent state institutions in the field of nature protection and agriculture. We educated local inhabitants, land owners and farmers, and cooperated with state institutions on several levels in order to establish efficient mechanisms for protecting the corncrake in Slovenia.

In 2009, the project ranked among the 26 best LIFE Nature projects undertaken in 2007 and 2008.

Dr Urša Koce



Project code: LIFE03 NAT/SLO/000077

Beneficiary: DOPPS - BirdLife Slovenia
Project partners: Municipality of Ljubljana, Municipality of Cerknica

Total cost: EUR 809,024

Duration: 1 January 2004-31 March 2007

Website: www.life-kosec.org

Designation of Marine Natura 2000 Site for the Mediterranean Shag in Slovenia

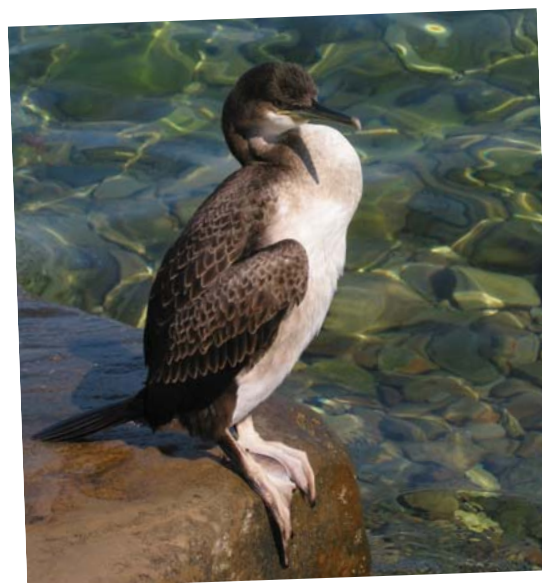
The objective of the project is to designate the marine IBA (Important Bird Areas) site and establish marine Natura 2000 sites for the Mediterranean shag in Slovenia. The programme for designating marine IBAs in Europe has been continuing for several years; this year, the SIMARINE-NATURA project included Slovenia in this project. Within the project, we implemented research on the numbers, distribution and ecology of the Mediterranean shag in Slovenian waters, conducted



Project code: LIFE10 NAT/SI/000141

Beneficiary: DOPPS - BirdLife Slovenia
Project partners: Ministry of Agriculture and the Environment, Strunjan Landscape Park
Total cost: EUR 474,458
Duration: 1 September 2011-28 February 2015
Website: www.ptice.si/simarine-natura

according to the standard methodology for designating marine IBAs. Along with establishing Natura 2000 sites, we will also prepare guidelines for their management that will enable the long-term protection of the Mediterranean shag in Slovenia and be harmonised with local socio-economic needs. We will also prepare a protocol for handling injured birds in cases of oil spills in Slovenian waters. A major part of the project is dedicated to communication and the education of local stakeholders and the general public, especially younger generations. This June, a youth ornithological camp will be organised on the coast,



Mediterranean shag,
 photo: Ivan Budinski, Petra Vrh
 Vrezec and Kajetan Kravos

and we will also make a short documentary about the marine environment and Natura 2000 sites. During the implementation of the project, Strunjan Landscape Park will organise the promotion of project activities for tourists and visitors.

Dr Urša Koče

Natura 2000 – Management Models and Information System

The project was conducted from 1 January 2005 to 31 December 2007, and performed by the Institute of RS for Nature Conservation with project partners. The project designed a management plan model for the Natura 2000 sites and specific management plans for five pilot areas. We developed an information system for Natura 2000 in Slovenia – the Nature Conservation Atlas (<http://www.naravovarstveni-atlas.si/>).



Pasque flower, photo: Gregor Kalan

Field activities were performed in five project areas which are all Natura 2000 sites: Jovsi and Dobrava, Snežnik, Jelovica, Petelinjek (part of Ličenca) and Boletina. Field nature protection campaigns in Jovsi and Dobrava were intended to regulate the hydrological situation, mowing, willow tree cutting and the designation of a net of 100 eco-cells. The key species conserved in this way are the corncrake and middle spotted woodpecker. We bought a piece of land in Boletina, protected it with a fence, mowed it and maintained the habitat for the Pasque flower.



We also devoted a lot of attention to information and communication activities. We have set up info boards at typical entrance points in all project areas; prepared presentation brochures, several presentations for various stakeholders (lectures, press conferences etc.); published many articles in the media, and held an art class for elementary school pupils. Each year, we recorded corncrake and middle spotted woodpecker populations in Jovsi and Dobrava. We also invited the public. During the blossoming of the Pasque flower in Boletina, we organised a guided tour for visitors. We set up a bird observation tower in Jovsi, and furnished an information room in the village of Kapele. We constructed a study train in the Petelinjek area.

This has been the largest Slovenian LIFE project so far, in terms of costs and scope of activities, mostly by the number of stakeholders involved from various nature protection-related areas, where the initiation of cooperation with the departments for forestry, agriculture, waters and fishing was especially significant. The project results were the basis for the preparation of the 2007-2013 Natura 2000 Site Management Programme in Slovenia.

The project was co-financed by the EU, partners and the Ministry of the Environment and Spatial Planning.

Dr Mirjam Galičič

Project code:	LIFE04 NAT/SI/000240
Beneficiary:	Institute of the Republic of Slovenia for Nature Conservation
Project partners:	Ministero dell' Ambiente e Tutela del Territorio, Italy, Slovenian Forest Service, Slovenian Chamber of Agriculture and Forestry, Institute for Water of RS, Fishing Institute of RS, the Notranjska Museum in Postojna, Šentjur Municipality and Kapele Local Community
Total cost:	EUR 1,686,077
Duration:	1 January 2005 – 31 December 2007
Website:	http://www.zrsvn.si/life/



PROJECTS

THE ENVIRONMENT



Sustainable Rehabilitation of a Land-fill Site

This project, implemented in 2003 and 2006, rehabilitated and closed the Dobrava pri Ormožu municipal waste landfill site by using vegetation coverage and a closed water circuit.

The purpose of the project was to demonstrate an innovative technique for landfill rehabilitation which enables further waste degradation after the site's closure, thus attaining the stabilisation of waste before the end of the useful life of the liner materials at the bottom and on the edges of the landfill, which prevent the outflow of leachate. The landfill system used a closed water circuit and also a closed system of pollutants. The rehabilitation process included natural phytomediation systems such as evapo-transpiration coverage of the landfill and a vegetation purification plant. These enable the cleaning of leachate by stabilising and detoxifying pollutants, as well as using the remaining nutrients from the leachate for the growth of woodland biomass. We built a prototype of a rehabilitated landfill site at the municipal landfill site in Dobrava pri Ormožu.

Rehabilitation consisted of the entire reconstruction of 4 ha of landfill by circulating leachate water to the

vegetative evapotranspiration cover cap of the landfill, covered with layers of soil that enable the infiltration of water in the landfill body. The pre-cleaning of leachate was performed in a 1000 m² large vegetation purification plant, where water was pumped through an underground irrigation system to the covered part of the landfill. The approach enables the landfill to become a bioreactor, since the controlled infiltration of leachate enables further degradation of the degradable part of the waste. The result is faster landfill stabilisation, since the water in the bioreactor stimulates anaerobic microbes to mineralise organic substances. Rapidly growing tree species with high evapotranspiration were used, which additionally contributes to the cleaning of leachate and the evapotranspiration of excessive water into the atmosphere. Due to the closed hydraulic and pollution cycle, the negative impact of the landfill on the environment is reduced; the rehabilitation of the landfill is sustainable.

The construction and demonstration of the operations of the prototype in this project enabled the efficient presentation of the technology for potential final users and a demonstration of the importance of using sustainable landfill rehabilitation approaches throughout Slovenia and in neighbouring countries.

The company Limnos d.o.o. was awarded for both the project and the idea by the National Energy Globe Award: Sustainable Rehabilitation of a Landfill Site. The award was conferred in May 2008 in the European Parliament in Brussels.

Maja Zupančič Justin, Danijel Vrhovšek

Vegetation purification plant for leachate water cleaning, Planting willows on covered land-fill site, photo: project archive



Project code: LIFE 03 ENV/SL/000577

Beneficiary: Municipality of Ormož
Project partners: University of Ljubljana, Faculty of Chemistry and Chemical Technology, LIMNOS, Applied Ecology Company, Komunalno podjetje Ormož, Institute for Physical Biology
Total cost: EUR 594,721
Duration: 1 November 2003 – 1 November 2006
Website: http://www.limnos.si/docs/Limnotop_prospekt.pdf



Concern for Water

The public company JP Vodovod-Kanalizacija, as the leading partner, with three partners from Slovenia and two from Germany, are implementing the project 'Improved Management of Contaminated Aquifers by Integration of Source Tracking, Monitoring Tools and Decision Strategies' or INCOME. The project involves the efficient management of contaminated aquifers, and links processes for tracking and monitoring pollution sources and measures for improving the situation. The project, which started on 1 January 2009 and ends on 30 June 2012, is co-financed by the Municipality of Ljubljana and the Ministry of the Environment and Spatial Planning.

The city of Ljubljana and its surroundings are supplied with drinking water from water sources near the city, and aquifers on the Ljubljansko polje and Barje. The natural characteristics of the area enable the use of drinking water that requires no additional processing. Maintaining the quality of drinking water is quite a difficult task due to urbanisation and numerous activities carried out in areas around water sources, and the task demands attentive spatial planning and monitoring, as well as the development and utilisation of contemporary procedures, methods and tools.

An efficient system for complete support for decision-making in the management of water sources has been established within the INCOME project. This system enables decision making on an expert and not only administrative level. This decisive tool enables rapid, efficient and professional action in cases of ecological accident, as well as in cases of long-term decisions on the appropriate use of space. Simultaneously, we are undertaking numerous support activities: establishing complete and accurate databases; verifying the appropriateness of different implementations of observatories; establishing new sampling methods and laboratory testing procedures; developing mathematical models to understand the dynamics of underground water; observing potential routes of pollutants; preparing proposals for measures required to improve management procedures etc.

Dr Brigita Jamnik

River Sava fills the aquifer of Ljubljansko polje, Research conducted on the marsh Ljubljansko barje, photo: project archive



Project code: LIFE07/ENV/SLO/000725

Beneficiary: JP Vodovod-Kanalizacija d.o.o.
Project partners: Geological Survey of Slovenia, Anton Melik Geographical Institute ZRC SAZU, Slovenian Environment Agency, Technische Universität Darmstadt, Fugro Consult GmbH
Total cost: EUR 1,804,915
Duration: 1 January 2009 - 30 June 2012
Website: www.life-income.si



Let's Separate Waste for Enhanced Awareness

The project was designed by the Slopak company with the support of Delo d.d., and followed the guidelines of the Ministry of the Environment and Spatial Planning. Separate Waste Collection is systemic support for improving waste separation in Slovenia. The project connects existing activities and supplements them with additional communication activities. It contributes to informing people on their possibilities for household waste separation. It emphasises the consideration of waste packaging, phytopharmaceuticals, waste batteries, used tyres, waste medicines, bio-waste, and waste electronic and electrical equipment.

The key activities of the project include the supplementation of the infrastructure with demo waste bins and informing people on collection centres at municipal utility companies, as well as on the possibilities of separating household waste.

Sorting analyses of waste show many possibilities for improvement in this area, Meeting of municipal companies from the Zasavje region, photo: project archive

Project code: LIFE10 INF/SI/000136

Beneficiary: Slopak d.o.o.
Project partners: Delo d.d.
Total cost: EUR 671,558
Duration: 1 September 2011 to 31 August 2014
Website: www.slopak.si/locujmo_odpadke/

We will also analyse the data on waste separation and perform public surveys at the Slovenian and regional levels. Monitoring and analysing results will help decision makers to make key systemic decisions.

The Slopak company has been organising training on waste separation since its establishment ten years ago. The company cooperates with municipal utility companies, companies that produce related products, contractors, schools and other organisations. The project, which is co-financed by the EU, Slopak and Delo, is therefore an upgrade of communication on a systemic level.

Špela Polak



Promotion of the Recycling of Industrial Waste and Building Rubble for the Construction Industry

The ReBirth project emerged as a joint proposal from various partners - a research institution, the Chamber of Commerce, a waste management consulting company, an industrial partner and two communication-information partners - with the intention of raising awareness and increasing the use of recycled construction and industrial waste in the construction industry. The partners initiated the project in autumn 2001, with co-financing from the European Commission and the Ministry of the Environment and Spatial Planning.

On average, construction and demolition waste comprises 25-30% of the total waste produced annually in Europe. If it is discarded, it burdens the environment; if appropriately selected, collected and processed, it can become a useful

source of material. The same applies to numerous inert and non-hazardous industrial wastes.

The activities of the ReBirth project will contribute to increasing the recycling of construction and industrial waste, as well as its increased use in the construction industry. The project aims to:

- achieve a permanent increase in the recycling of construction and industrial waste,
- increase the recycling of construction waste by 10% by 2015,
- increase the recycling of industrial waste by 15 % by 2015,
- achieve 1.5% higher savings in natural materials,
- stop the trend of illegal depositing of construction waste,
- contribute to achieving the national goal, i.e. to recycle 70% of construction waste by 2020.

50% of the project is financed by the European Commission, 20% by the Ministry of Agriculture and the Environment.

Dr Alenka Mauko



Project code:	LIFE10 INF/SI/000138
Beneficiary:	Slovenian National Building and Civil Engineering Institute
Project partners:	Slovenian Chamber of Commerce, PKG Šprinzer Mirko, Primorje, Klaro, Mayer McCann
Total cost:	EUR 845,543
Duration:	1 October 2011-31 December 2014
Website:	www.re-birth.eu

photo: A. Mladenovič and ZAG Ljubljana archive



Decide! Slovenian WEEE Campaign

The ZEOS Waste Electrical and Electronic Equipment Management Company is conducting a complete awareness-raising project among the wider public and school population on the importance of the separate collection of waste electrical and electronic equipment (WEEE), lamps and waste portable batteries and car batteries (WPBB).

The project is co-financed by the European Commission (50 per cent) and the Ministry of Agriculture and the Environment (20 per cent). Various campaigns and events on raising awareness on waste collection, which will be organised throughout Slovenia, are the ZEOS company's response to all EU environmental directives related to increasing the quantity of WEEE, lamps, portable batteries and car batteries collected in Slovenia.

The purpose of the project is:

1. to explain the need for appropriate WEEE processing and management – to ensure that target groups understand the negative consequences of inappropriate WEEE management for the environment;
2. to present and disseminate the message that Slovenia enables environmentally-friendly options for WEEE management – to inform and educate target groups on existing waste collection sites, and
3. to change the behaviour of various target groups.

photo: project archive

Project code: LIFE10/INF/SI/000139

Beneficiary: ZEOS, d. o. o.

Project partners: /

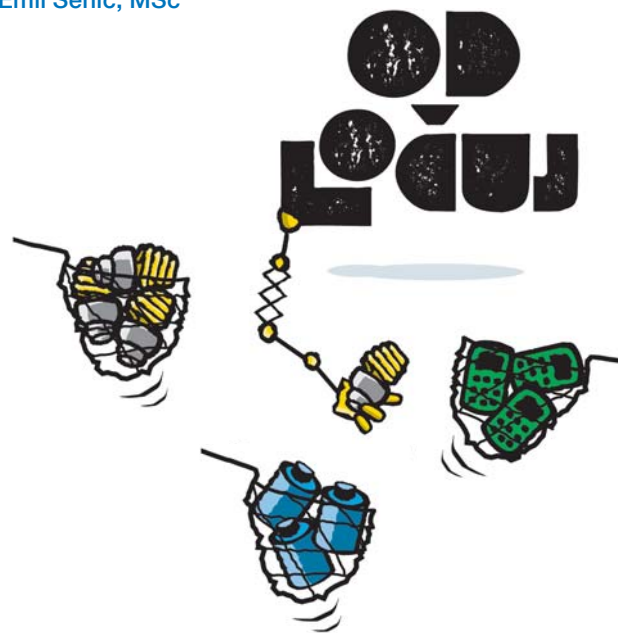
Total cost: EUR 583,964

Duration: 1 Oct 2011 – 1 Oct 2013

Website: life.zeos.si/

The goal-oriented activities conducted between October 2011 and October 2013, including various project campaigns, will focus on encouraging the public to appropriately manage WEEE and to disseminate information and knowledge on WEEE management. We will arrange for a 'mobile info vehicle' (promotion vehicle) to visit some 200 schools in Slovenia. At the same time, we will adjust 80 interactive computer touch screen terminals, initially used in health care clinics for health insurance updating, for use as information centres for WEEE management. Pupils and students will be encouraged to participate in research competitions, and we will organise various events at collection and processing centres. Our purpose is to present to the target public in an enjoyable and interactive way the importance of appropriate WEEE, lamps and WPBB management, as well as the harmful consequences of such waste for the environment.

Emil Šehić, MSc



Universal, Energy Efficient Window Sash

Within the scope of the project, implemented between 2009 and 2011, we developed a new, innovative window system concept, named UNISASH ARX view.

There is a relatively low level of differentiation between window producers and their products, meaning that the (low) price of the product greatly influences the decision to purchase. We have become aware of this and started seeking competitive advantages in design, ensuring greater comfort and safety, and better usage value of the product and energy efficiency. The characteristics of the UNISASH ARX view window system have a competitive advantage, since the innovative design achieves the desired differentiation and repositioning.

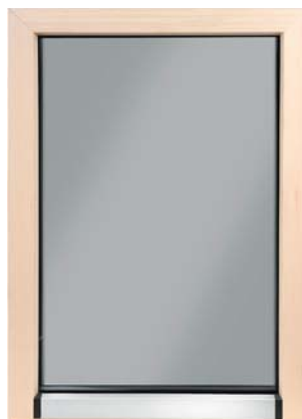
The innovative concept of the UNISASH ARX view window system anticipates the use of a universal window sash that can be installed in PCV, wooden or aluminium window frames alike. Compared to the standard window, the glass surface of the UNISASH ARX view is to 40% larger, which increases light and heat, which in turn has a positive effect on comfort and saves energy on illumination and heating. The production of UNISASH ARX view windows has substantially fewer negative impacts on the environment than the production of classic windows. Thus the project also has indirect effects on the reduction of CO₂ emissions. The result of the rationalisations in the universal window sash is approx. 5 kg lower use of PVC per window unit, a substantial reduction in total recycled mass and all the problems connected with recycling. This saves 10,500 MWh of energy annually, while environmental risks are also substantially reduced. The production of universal window sashes was conditioned by the reduction of required materials in a range from 20-35% per unit, and the reduction of the required energy for the production phase in a range of 20-40% per unit. Better

noise insulation is achieved through greater distance between the glass surface and the use of asymmetric glass. The production process enables the removal of steel reinforcements from the window sash, which improves heat insulation by $U_f=0.1-0.2$. The objective of the UNISASH ARX view project was to seek improvements and solutions contributing to the production of more sustainable and environment friendly windows. The project has achieved its goals, since the result improves the lighting and heating in a living space, offering a glass surface that is on average 15-20% larger.

Aleksander Vukovič



reddot design award
winner 2010



ARX® view

Project code:	LIFE07 ENV/SLO/000710
Beneficiary:	Kovinoplastika Lož d.d.
Project partners:	/
Total cost:	EUR 1,989,860
Duration:	1 April 2009 to 30 June 2011
Website:	www.unisash.eu



photo: project archive

Further Development and the Introduction of Forest Monitoring in the EU

Šifra projekta: LIFE07 ENV/D/000218

The Forestry Institute of Slovenia was one of 38 partners in the project managed during 2009 and 2011 by the Johann Heinrich von Thünen Institute in Germany.

The project developed new methods of long-term forest monitoring in EU Member States, which are now used in managing and directing the monitoring process of forest degradation and damage in Slovenia.

The project included many activities that became part of regular forestry activities: large-scale forest monitoring; modification and development of intensive forest monitoring; tree vitality monitoring; monitoring of nutrients circulation and critical input of selected pollutants in forests; monitoring of forest water balance; transfer of results and informing the public on the situation of forests.



Draga – Travljanjska gora, Kl-
adje – Pohorje, Murska šuma,
photo: Lado Kutnar

Forest Management: Carbon, Biodiversity and Socio-Economic Goods

Šifra projekta: LIFE09 ENV/IT/000078

The Forestry Institute of Slovenia is also a partner in the project managed by the Consiglio Nazionale delle Ricerche organisation of Italy. The project was initiated in June 2010 and ends in September 2015.

The purpose of the project is to verify the success rate of various methods of forest management for achieving better management goals and different forest functions. The project will produce data that refer to the main pan-European indicators of sustainable forest management connected to carbon circulation and biodiversity. New indicators (e.g. carbon sink, carbon flows, types regarding various management methods etc.) will also be developed and verified. The project areas include forests with an emphasised economic function, special purpose forests and forests included among the Natura 2000 sites, with priority habitats and species. We will analyse past (traditional) methods of forest management and implement a comparison between traditional and newly introduced forestry management methods.

Condition Monitoring and Changes in Urban Forests in Lombardy and Slovenia

Šifra projekta: LIFE10 ENV/IT/000399

The Forestry Institute of Slovenia is also a partner in the project managed by the Ente Regionale per i Servizi all'Agricoltura e alle Foreste organisation of Italy. The project was initiated in October 2011 and ends in September 2014.

The project will develop a system for monitoring and assessing the condition of urban and peri-urban forests and for monitoring adjustments for climate changes of new forests in urban and peri-urban areas. The project will present proposals for methods for monitoring ecologically and environmentally important parameters such as plant and animal biodiversity, the capacity for carbon dioxide sequestration and the ability to mitigate extreme (high) air temperatures.

The proposal for a permanent network for condition monitoring will be presented with regard to areas of urban and peri-urban forests in Lombardy and Slovenia (Ljubljana), and an analysis of ecosystem services will be implemented.

The system for monitoring the condition of urban forests will contribute to preserving this natural and cultural heritage and the sustainable management of urban forests.

Dr Primož Simončič

Who Can Apply to Cooperate on the LIFE Programme?

Public institutions:

- public institutions, managers of protected areas
- agencies
- ministries
- local communities, municipalities
- universities
- institutes

Private institutions:

- limited liability companies, public limited companies
- associations, non-governmental organisations, private institutions, private institutes

LIFE+ consists of three parts:

- LIFE+ Nature and Biodiversity,
- LIFE+ Environmental Policy and Management,
- LIFE+ Information and Communications



How do LIFE Projects Work?

(Who Can Prepare a LIFE Project and How?)

- I am active in the area of nature or environment conservation.
- I am a legal entity.
- I have experience in project work.
- I have an idea for solving a problem, restoring a habitat, improving the operations of...
- I want to share my knowledge and experience with others.

I seek information on the LIFE programme call for applications for the realisation of my idea.

EC INFO

<http://ec.europa.eu/environment/life/funding/lifeplus.htm>

- Read the rules for application which are set out in the LIFE Regulation.
- Search for annual call for applications published in the EU Official Journal.
- Meticulously study the tender documentation.

MAE INFO

http://www.mop.gov.si/si/delovna_podrocja/narava/life/

- Search for national annual priority tasks.
- Search for national call for applications for project co-financing.
- Find information on completed and current LIFE projects.

1.

PROJECT
PLANNING

- Accurately and logically define the problem.
- Determine the purpose of the project and final goal.
- Plan all necessary activities for achieving the goal.
- Seek partners for project implementation.
- Determine project findings, stakeholders and target groups.

2.

PREPARING PROJECT APPLICATIONS

- Present the project idea to the competent body (Ministry of Agriculture and the Environment).
- Participate at workshops intended for project preparation.
- Prepare project application and request for individual consulting.
- Correct and complete project application.
- Submit the project application in accordance with instructions to the competent body or national contact person.

3.

SUCCESSFUL APPLICATION

- Answer possible questions of the European Commission and complete or correct the project application in accordance with the EC's demands.
- Sign a contract with the European Commission on project co-financing.
- Begin the implementation of the project.



20 years of the LIFE European financial programme



REPUBLIC OF SLOVENIA
MINISTRY OF AGRICULTURE AND THE ENVIRONMENT

