

AFTER-LIFE CONSERVATION PLAN

LIFE08 NAT/SLO/000244



SLOWOLF

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THE LIFE PROGRAMME

The LIFE programme is the EU's funding instrument for the environment. The general objective of LIFE is to contribute to the implementation, updating and development of EU environmental policy and legislation by co-financing pilot or demonstration projects with European added value.

Website: <http://ec.europa.eu/life>



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ABBREVIATIONS

BF – Biotechnical Faculty, University of Ljubljana

CAFS – Chamber of Agriculture and Forestry of Slovenia

IRSNC – Institute of the Republic of Slovenia for Nature Conservation

LIFE+WOLFALPS - LIFE12 NAT/IT/000807

MAE – Ministry of Agriculture and Environment

NGOs – non-governmental organizations

RPD – Rural Development Programme

SEA – Slovenian Environment Agency

SFS – Slovenia Forest Service

ABOUT SLOWOLF PROJECT

The goal of the project was the long-term conservation of the wolves, their main prey and habitats in Slovenia, and improvement of their coexistence with humans. Wolves are natural predators of wild ungulates living in Slovenian forests. They live in family groups (packs) and require large territories to survive. In Slovenia many important population-specific life history details, for example the average number of animals a pack, territory sizes and the number of packs living in the country, were unknown before the project implementation. The attitudes of people towards wolves vary greatly as well. Certain interest groups, for example hunters and livestock breeders, may come into conflict with wolves because they prey on game species and domestic sheep. At the same time wolves are increasingly perceived as symbols of wild and preserved nature. These conflicting interests, coupled with low population sizes and demanding monitoring of conservation status, make wolf conservation a very complex issue.

Continued existence of this species in Slovenia, and its co-existence with humans, depends on a number of intertwined factors. We studied these factors within the project, directly addressed many of the most pressing issues, produced a solid knowledge base, networked the most important interest groups, helped improve the lacking legislature, and by doing that provided a firm foundation for successful conservation and management of this charismatic large carnivore species in the future.

Project title:

Conservation and surveillance of conservation status of wolf (*Canis lupus*) population in Slovenia

Acronym:

SloWolf

Duration:

01/01/2010 – 31/12/2014

Coordinating beneficiary:

University of Ljubljana

Associated beneficiaries:

Slovenian Forest Service and Dinaricum Society

Project manager:

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Project budget:

European Commission – 70.92% (721,850 €)

Ministry of Agriculture and the Environment – 23.58% (240,000 €)

Project beneficiaries – 5.5% (55,923 €)

Project website:

www.volkovi.si



SWOT ANALYSIS

We've used a structured planning method called SWOT analysis to evaluate the strengths, weaknesses, opportunities and threats at the end of the project. The analysis allows the identification of internal and external factors that are favourable or unfavourable to achieve a certain objective or a goal.

The overall goal of the SloWolf project was the long-term conservation of the wolf population, its main prey and habitats in Slovenia, and improvement of their coexistence with humans. A series of specific objectives and tasks were designed in order to ensure the contribution of the project to the abovementioned overall goal.

As a result of the project structure and its objectives, the SWOT analysis was first carried out separately for each of the concrete conservation and awareness raising actions in the project. After that a meta-analysis was performed and an overarching SWOT matrix for the project produced (below).

	Helpful	Harmful
Internal origin	<p>Strengths:</p> <ul style="list-style-type: none"> • Established and proposed national surveillance system for conservation status of the wolf population includes governmental institutions concerned with nature protection, wildlife management and agriculture, as well as academic institutions and non-governmental organizations – volunteers. • Surveillance includes several different methodological approaches that provided a precise and realistic picture of the wolf population conservation status, needed for effective management. • Taking into account wolf dietary needs when planning game hunting quotas increases hunter's interest in wolf conservation. • Considerably decreased probability of mistaking which animal caused damage. • Increased awareness and knowledge about damage prevention among farmers and those who can educate farmers. • Better cooperation and communication with the organizations from the agricultural sector. • Actual decrease in number of damage cases as a result of best-practice demonstration. • Better understanding of wolf conservation objectives among different groups. • Diversity of project internal and external partners enabled wider dissemination of the project outputs. • Easy access to frequently updated information through project website and Facebook pages. • Diverse use of communication tools. 	<p>Weaknesses:</p> <ul style="list-style-type: none"> • Unsecure funding for the implementation of the wolf conservation action plan. • Excluding of a great part of the expert institutions data and recommendations on some wolf management actions and taking primarily political decisions by the government (competent minister). • Insufficient continuous data on wolves impact to the pray species. • Insufficient involvement of some key institutions in the project (Chamber of Agriculture and Forestry of Slovenia, Institute of the Republic of Slovenia for Nature Conservation and Slovenian Hunters Association). • Limited access to objective information to some members of interest group when communicating through group leaders (presidents of hunting clubs, local livestock associations, etc.)

External origin	<p>Opportunities:</p> <ul style="list-style-type: none"> • Reporting the results of the yearly surveillance sessions during the project, largely increased awareness and knowledge about wolves and Slovenian wolf population status and subsequently increased interest for involvement into surveillance activities among different volunteer groups (eg. Scouts, hikers, hunters, nature lovers...). • Participation of different stakeholder groups in decision – making results with a better acceptance of the decisions. • Better dialogue and understanding among different interest groups. • New channels for informing the farmers about the damage prevention. • Increased interest in damage prevention. • Change of domestic animals husbandry towards less conflicting species. • Transfer of knowledge among the farmers. • Forming of working lines of livestock – guarding dogs. • Newer technologies for improving the quality of electric fences. • Wolf is an attractive animal and it is relatively easy to increase interest of media and general public. • Willingness of the authorities to use and disseminate the project results. • Attractiveness of the interdisciplinary topic and published scientific papers could fasten the dissemination of the project studies and results among scientific circles in Europe and worldwide. • Promotion or visibility of the project could help ease the implementation of other large carnivore project activities. • Exchange of experience, knowledge and good practices among other large carnivore projects and experts in Europe and worldwide • Project promotion increases visibility and public awareness for other conservation topics. 	<p>Threats:</p> <ul style="list-style-type: none"> • Lack of agreement among some of the interest groups about the wolf population conservation objectives and means to achieve the objectives. • Insufficient interest for what project was offering among the agricultural advisory service. • Insufficient individual counselling about the damage prevention. • Legislation that does not stimulate damage prevention. • Decrease in motivation to use (or properly care for) the donated prevention measures after the end of the project. • Potential habituation of wolves to the presence of electric fences in the pastures. • Lack of public interest and knowledge about the wolf topics – indifferent and uninformed public can be more open for manipulations • Negative attitudes of local media toward the project and wolves can reflect in negative reporting and refusal of publishing the project news/press releases • Lack of personnel and public awareness events to communicate wolf issues after the end of the project • Decline of media interest for conservation topics
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THE AFTER-LIFE CONSERVATION PLAN

The After-LIFE conservation plan has been developed for the period of 5 years and based on two processes:

- Project internal analysis of strengths, weaknesses, opportunities and threats briefly presented above, and
- Revised Wolf Conservation Action plan (Majić et al., 2013) which has been developed within the project through a participative process with interested stakeholders.

General goal of the After-LIFE conservation plan is long-term conservation of wolves in Slovenia with minimal conflicts with humans. Specific goals, objectives and proposed measures are presented below in chapters organized by topics. The order of the topics reflects the importance of each topic for wolf conservation as evaluated by the participants of workshops for development of Wolf Conservation Action Plan. First topic presented (Damages) was the most important. For each of the proposed measures, responsible organizations, sources of funding and costs were defined as well as timeframe for the implementation.

DAMAGES

Considerable damages that wolf causes in agriculture pose the biggest threat to its long-term survival in Slovenia. At the moment the current legislation which deals with prevention and compensation of damages are not efficient enough in motivating the farmers to prevent the damage from happening. Also there is no possibility to control if the prevention measures have been implemented or not. On the other hand, compensations paid for killed domestic animals are higher than the market value of the same animal.

Goal:

1. Improvement of livestock breeding practices in a way which ensures minimum possible number of damage cases while wolf population is kept in a favourable conservation status.

Objectives:

1. Better damage prevention and at least 50% fewer damage cases, and a decrease in paid compensations.
2. Compensation system that motivates farmers to actively protect their livestock against wolf attacks, especially if the attacks are repeating at the same farm.
3. Ensured counselling and control of the implementation of damage prevention measures.
4. Guidelines for management of pastures at the wolf presence areas.
5. Harmonized nature conservation and agriculture policies.
6. Subsidizing implementation of the damage-prevention measures.
7. Efficient inspections of the damages and when needed, use of genetic methods to identify the species that has caused the damage.

Measures:

Measure	Responsible	Funding	Timeframe
1. Implementation of the damage compensation system as foreseen by the law	SFS and SEA	State budget, approximately 300,000€	Continuous

		per year	
2. Provide additional resources for implementation of the damage prevention measures	SEA and SFS	State budget, 30,000€ per year	According to the farmers' interest
3. Individual assessment of farms with damages and counselling about the solutions in connection with the Rural Development Programme	SFS, CAFS and external experts	RPD 20,000€ per year	As needed
4. Change of the legislation so that they are in harmony with current knowledge about the effectiveness of damage prevention measures and with conditions for farming in areas where wolves are present	MAE	Regular tasks	2014
5. Harmonization of working agendas among the environmental and agricultural parts of the MAE	MAE	Regular tasks	Continuous
6. Regular education of damage inspectors	SFS, SEA and external experts	State budget 2,500 € per seminar	At least once in 5 years
7. When needed, use of genetic methods to identify the species that has caused the damage (i.e. wolf vs. dog)	BF	State budget 5,000 € per year	Continuously
8. Organize workshops for farmers in connection with the implementation of RPD	CAFS, SFS, sheep and goat farmers (NGOs)	State budget 1,200 € per workshop	As needed
9. Introduce measures within the agri-environment measures.	MAE	RPD	2014

LEGISLATION

Wolf conservation can sometimes be in conflict with other human interests, especially when damages to livestock occur. Wolf is, on the other hand, also a charismatic umbrella species which is endangered in Slovenia and elsewhere in the world and actions need to be taken to protect and conserve it in their natural habitats. Legislation has to take into account both views and ensure conservation of wolves with minimal conflicts. Currently, the legislation does not allow such an approach, especially when it comes to ensuring flexibility and individual approach to resolving damages to repeatedly happen in some pastures.

Goal:

1. Operational legislation which will ensure effective conservation of wolves with minimal conflicts of wolves with humans.

Objectives:

1. Assessment of legislation implementation with an emphasis in improving its practical implementations.
2. Well prepared regulation which contributes to achieving of the management goals.

Measures:

Measure	Responsible	Funding	Timeframe
1. Change Nature Conservation Act in section where obligations of farmers in damage prevention are listed; also change Rules on the appropriate manner of protecting property and the types of measures for preventing further damage to property	MAE	Part of regular tasks	2014
2. Change articles 160 and 161 of Nature Conservation Act (increase fines)	MAE	Part of regular tasks	2014

MONITORING AND RESEARCH OF WOLF POPULATION

Good monitoring of the population ensures unbiased support to the decision-makers. The main goal of monitoring of the wolf population is collection of the information on population demographics, its spatial distribution and structure. Demographic parameters are represented with several parameters, the most important being population size and population fitness parameters (as defined in the Annex 1 of the action plan (Majić et al., 2013)). Good monitoring requires a combination of different methodological approaches.

Goal:

1. Established continuous and systematic surveillance of the wolf population conservation status, as basis for conservation and management.
2. Support to research in order to provide effective and current knowledge- based wolf population management.

Objectives:

1. Known spatial distribution of the wolf population, population size, structure, fecundity and mortality rates.
2. Known occurrence of hybrids with dogs, dynamics of the population size, its genetic diversity and health status.

Measures:

Measure	Responsible	Funding	Timeframe
1. Implementation of population monitoring as defined in Annex 1 of the Action Plan (Majić et al., 2013).	MAE with subcontractors (SFS and other expert organizations)	State budget 85,000 € per year	continuously

2. Maintenance of the wolf population monitoring portal	SFS with external help	State budget 3,500 € per year	Continuously
3. Set up of population monitoring in the Alpine areas	Project LIFE+WOLFALPS	Project LIFE+WOLFALPS 48,000 €	2015

INTERVENTIONS INTO THE WOLF POPULATION

Interventions into the wolf population are acceptable only if they do not threaten the maintenance of the favourable conservation status of the population. Among those interventions, culling represents the most important one. Legal, strictly regulated and sustainable culling that is taking into account wolf biology is a measure in dealing with conflicts caused in the society by wolf conservation. Culling can slow down the growth of the population to a social acceptable level, it directly involves local inhabitants (hunters and other interested groups), it raises the wolf value perceptions at the local level, facilitates shaping of a political will for wolf conservation, increases social carrying capacity and decreases poaching. It will depend on the specific local context weather and how these effects will occur.

Goals:

1. Better acceptance of wolves among some stakeholder groups.
2. If needed, implementation carried out in a way that vitality and viability of the population is not affected.
3. Preserved fear of people and their property among wolves.

Objectives:

1. Elimination of illegal shooting of wolves.
2. At least partly ensured impact to damage reduction.
3. Implementation in a way that will not significantly harm social structure of wolves.
4. Better acceptance of wolves among local inhabitants.
5. Maintained interests of hunters for conservation of wolves in Slovenia.

Measures:

Measure	Responsible	Funding	Timeframe
1. Planning of the interventions in accordance with nature conservation legislation.	SFS, IRSNC and MAE in cooperation with expert committee and working group and if needed other experts and representatives of interest groups	Part of regular tasks	When needed
2. Culling possible from beginning of September to the end of January	MAE	Part of regular tasks	When needed

3. If possible, implement culling at the pastures.	MAE	Part of regular tasks	When needed
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TRANSBOUNDARY COOPERATION

Slovenian wolves are part of a bigger Dinaric population and management decisions in Slovenia have direct impact to the wolf population in the neighbouring countries and vice versa. Therefore a transboundary coordination and cooperation in wolf management is necessary. The most important is cooperation with Croatia. Other important countries are Bosnia and Herzegovina, Italy and Austria.

Goals:

1. Harmonized transboundary wolf population management and cooperation in prey species management with Croatia and later also with Italy, Austria and Bosnia and Herzegovina.
2. Transboundary cooperation and networking within current projects and joint proposals for future projects.

Objectives:

1. Establishment of joint coordination group with Croatia and initial cooperation with Italy and Austria.
2. Transboundary dialogue at all levels (expert and decision-maker).
3. Harmonized planning of interventions into the population, especially for transboundary wolf packs.
4. Cooperation in projects.

Measures:

Measure	Responsible	Funding	Timeframe
1. Establishment of joint coordination group with Croatia	MAE and Croatian competent authority	Part of regular tasks	2014
2. Organization of regular annual meetings of the joint coordination group	MAE and Croatian competent authority	State budgets 2,000 € per meeting	First meeting in 2014

INSTITUTIONAL COOPERATION

Wolf conservation is a multidimensional issue often dealt with from different perspectives. There are several interest groups that have direct or indirect interest in wolf conservation (hunters, farmers, environmental NGOs...), and general public is usually not indifferent. For wolf population conservation it is primarily important cooperation among agricultural and nature conservation sectors.

Goal:

1. Harmonized policies of large carnivore conservation, farming and spatial planning.

Measures:

Measure	Responsible	Funding	Timeframe
1. Regular cooperation of the leaders of the sectors within the MAE	MAE	Part of regular tasks	Regular meetings

GAME SPECIES MANAGEMENT

Several studies have shown that the intensity of wolf attacks to livestock increases when natural prey is not abundant. That is why appropriate management of prey species (in Slovenia primarily red deer and roe deer) is one of the key issues in ensuring long-term survival of wolves.

Goal:

1. Taking into account presence of wolves in game species management.
2. Ensured sufficient prey base for wolves.

Objectives:

1. Planning of wolf prey species management takes into account wolf impact to those populations.
2. Maintained or even improved wolf prey base.

Measures:

Measure	Responsible	Funding	Timeframe
1. Continuous implementation of recommendations produced within the SloWolf project	SFS, IRSNC	Part of regular tasks	Continuously

PUBLIC PARTICIPATION IN WOLF MANAGEMENT

Public participation in decision-making is increasingly becoming an important prerequisite for achieving social acceptability of environmental issues that affect livelihoods of different individuals or groups. Insufficient involvement of different groups can lead to misinterpretations of management options and subsequently lack of public support for implementation of those management options. Mutual trust among different stakeholders also increases with use of different approaches to public participation.

Goal:

1. Active involvement of representatives of different interest groups in wolf population management and their support to the management.

Objectives:

1. Involvement of interest groups in development of wolf conservation action plan for the next period (2018 – 2022).
2. Improved tolerance and mutual trust of key interest groups.
3. Good understanding of opinions and expectations of different interest groups.
4. Science-based management.

Measures:

Measure	Responsible	Funding	Timeframe
1. Development of wolf conservation action plan for the period 2018 – 2022 with participation of key interest groups	MAE and external experts	State budget 5,000 €	2017
2. Actively involve hunters in wolf population monitoring activities.	MAE and expert organizations involved in monitoring	Funding secured within monitoring	Continuously
3. Implementation of public attitudes survey in the Alpine part of wolf range	BF	LIFE WOLFALPS project 40,000 €	2014 and 2017
4. Regular meetings and compensations for external members of the Expert committee for support to planning of the large carnivore management	MAE	Part of regular tasks and 100 € per meeting for external members	Monthly
5. Yearly meetings of Large carnivore management working group	MAE	Part of regular tasks	Yearly

INFORMATION AND DISSEMINATION

Key target groups for informational activities in wolf conservation are:

- Local public – inhabitants of wolf areas are the ones sharing their space with the wolves and can therefore feel threatened by wolves. This is especially the case with the local inhabitants of the areas where wolves have been absent and are now coming back.
- Hunters can directly impact wolf population by hunting them or their prey. At the same time, they are a group that has a relatively good knowledge of wolf biology and already formed attitudes toward wolves. Hunters need to be directly involved in wolf management, primarily into population monitoring activities as this can positively influence their views of wolves.
- Farmers have mainly negative experiences with wolves and their perceptions of wolves differ from those of hunters or general public. Therefore they need more specific information about the causes and solutions for the conflicts wolf cause in agriculture.
- School children are a group of future decision-makers that is just forming their attitudes toward wolves.

Goals:

1. Positive attitudes and better tolerance of wolves and its management among specific interest groups.
2. Public that is familiar with and understands wolf management.
3. Good knowledge of dynamics of public attitudes toward wolves.

Objectives:

1. Increased awareness about the best practices in damage prevention.
2. Increased awareness of hunters about the consequences of illegal shooting of wolves.
3. Objective and balanced media reports.
4. Regular surveys of public attitudes toward wolves.

Measures:

Measure	Responsible	Funding	Timeframe
1. Quick reaction to biased reporting in the media by sharing objective information.	BF, SFS, MAE, ISRNC	Part of regular tasks	As needed
2. Educational campaign targeting farmers on damage prevention.	CAFS and LIFE WOLFAPS (for Alpine part)	State budget 1,000 € per year and LIFE WOLFALPS 1,000 € per year	2015 until the end of the project
3. Inform hunters about the consequences of illegal killing of wolves.	SFS	State budget 1,000 € per year	Continuously
4. Maintain web page about wolves (www.volkovi.si)	BF	Voluntary work and 20 € per year for domain, own budget	Continuously

DECREASING OF ILLEGAL KILLINGS OF WOLVES

Illegal and therefore uncontrolled killing of animals represents a threat to many animal species worldwide. Causes for illegal killing are diverse: conflicts with livestock husbandry and other damages to human property, alleged danger to human lives and health, competition for the same prey, poor management by the authorities, etc. The biggest problem of illegal killings is that there is no control over what, where and when is happening and there is a real probability that such intervention can become unsustainable.

In Slovenia there are few confirmed cases of illegal shooting of wolves. It is however difficult to estimate the real rates or numbers of such illegal events.

Goal:

1. Prevention of illegal shootings of wolves.

Objectives:

1. Target groups (hunters and farmers) involved in wolf population management.
2. Aware and critical general public.
3. Collected data on illegal killings of wolves and known motives for illegal killings.

4. Poachers punished.

Measures:

Measure	Responsible	Funding	Timeframe
1. Possibility of legal hunting of wolves in accordance with chapter "Interventions into the wolf population".	MAE	Part of regular tasks	Continuously
2. Raising public awareness as planned in the chapter "Information and dissemination"	LIFE WOLFALPS and other expert institutions	Projects	Continuously
3. Enhance cooperation with inspectors, police, prosecution and customs.	MAE, SFS and IRSNC	Part of regular tasks	Continuously

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ABOUT THE AFTER-LIFE CONSERVATION PLAN

At the end of their projects, all LIFE Nature beneficiaries are obliged to produce an After-LIFE Conservation Plan. The plan sets out how conservation activities are planned to continue and to develop after the end of the project, and how the longer-term management of the project site(s) will be assured. It should give details regarding what actions will be carried out, when, by whom, and using what sources of finance.

