



**LIFE05NAT/RO/00170**



**VRANCEA ENVIRONMENTAL PROTECTION  
AGENCY**

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**FINAL TECHNICAL ACTIVITY REPORT**

November 01, 2005 – November 01, 2009



**March, 2010**



**Final report**



LIFE Project Number  
**LIFE05 NAT/RO/000170**

**FINAL REPORT**  
**Covering the project activities from 01.11.2005 to 01.11.2009**

Reporting Date  
**31/03/2010**

LIFE PROJECT NAME  
**Enhancing the protection system of large carnivores in Vrancea County**

Data Project

<b>Project location</b>	Vrancea County
<b>Project start date:</b>	01.11.2005
<b>Project end date:</b>	01.11.2009
<b>Total Project duration (in months)</b>	48 months
<b>Total budget</b>	577989€
<b>EC contribution:</b>	346793€
<b>(%) of total costs</b>	60%
<b>(%) of eligible costs</b>	60%

Data Beneficiary

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## **II. List of Abbreviations**

### **Project acronym**

**LCVNRO**

### **Beneficiary**

Environmental Protection Agency Vrancea

EPA VN

### **Partners**

University of Bucharest

Center for Environmental Research and Impact Studies

CCMESI

Association for Sustainable Development “Focul Viu” Focsani

ADD FV

Focsani Forestry Department

DS-VN

Vrancea County Council

VN-CC

### **Others**

Animal Rescue Mobile Unit

ARMU

Large Carnivores Rehabilitation and Monitoring Centre

LCRMC



### **III. EXECUTIVE SUMMARY**

#### **3.1 Summary of the report**

The main objectives of the project LIFE Nature LIFE05NAT/RO/000170 "*Enhancing the protection system of large carnivores in Vrancea County*" were to include protected areas belonging to the local ecological network for large carnivores protection into the Natura 2000 system, raising in the same time the awareness on the benefits of this action and also to implement the management plans for these protected areas and preventing conflicts between large carnivores and local inhabitants, preventing in this way lossing of large carnivores due to poaching.

The Final Report, covering the project activities from 01.11.2005 to 01.11.2009, provides an overview and a summary of all project actions and results.

#### **Executive Summary**

Represents an overview on this final report. There is the tables of deliverable products and milestones and a summary of the project main actions.

#### **Introduction**

Nature conservation in Vrancea County suffered a strong rebound in the last years; the protected area were reduced with more than 85%, today only 2489 ha being under protection, 99% of them in habitats populated by large carnivores. The aim of this project was to to enhance the large carnivores protection system from Vrancea County and to correlate the local network for large carnivores protection with the European ecological network Natura 2000.

#### **LIFE project framework**

The project was coordinated by the Vrancea Environmental Protection Agency. The project partners were the University of Bucharest - Center for Environmental Research and Impact Studies, the Association for Sustainable Development "Focul Viu" Focsani, Focsani Forestry Department and Vrancea County Council. The project also cooperated with NGOs Association for Biodiversity Conservation - from Focsani and Association for Nature Values Conservation - from Balan, Harghita.

#### **Progress and results**

All the actions were implemented according to the application and fulfilled.

#### **Evaluation and Conclusions**

The project management assured implementation of all actions and the project achieved all objectives which were foreseen in the application.

#### **Comments on Financial Report**

#### **Annexes**

There are presented maps illustrating the activities carried out during the reported period, partners data, photos from the project activities, printed informative and educative materials, lists of all articles and scientific papers during the project activities.

#### **After LIFE conservation plan**

#### **Layman's Report**

Layman's Reports was achieved in 2 languages (Romanian and English).



### 3.2 Summary of deliverable products and milestones

#### Deliverable products

Deliverables	Number of the associated action	Deadline	Date of completion
Final management plans for the protected areas	A3	July 30, 2009	March 2009
Animal Rescue Mobile Unit (ARMU)	C1	May 30, 2006	October 12, 2006
Large Carnivores Rehabilitation and Monitoring Centre	C1	November 10, 2006	July 30, 2006
Report on telemetry results	D1	September 10, 2007 September 10, 2008 September 10, 2009	October, 2007 September, 2008 September, 2009
Assessment of large carnivores relative abundance using remote cameras	D2	September 10, 2009	September, 2009
Assessment of large carnivores relative abundance using hair snares	D2	September 20, 2009	September, 2009
Assessment of large carnivores relative abundance based on animals' tracks, signs and scats	D2	September 30, 2009	September, 2009
Assessment prey species relative abundance ( <i>Capreolus capreolus</i> , <i>Cervus elaphus</i> , <i>Rupicapra rupicapra</i> ) using the pellet count method	D2	October 01, 2008	August 2009
500 posters A2 format and 5000 leaflets A4 format for Animal Rescue Mobile Unit	C1	December 20, 2006	May 10, 2007
Report on activities of Animal Rescue Mobile Unit and Large Carnivores Rehabilitation and Monitoring Centre	D4	May 10, 2007 May 10, 2008 October 10, 2009	June, 2007 June, 2008 May 2009
Toolkit for project promotion	E1	December 10, 2006	June 20, 2006 September 13, 2006
Brochure: <i>Vrancea County Protected Areas – Large Carnivores Protection Network</i>	E2	February 20, 2009	March 2009
Banners that will promote the fact that poaching is an illegal activity	E3	April 20, 2008	May 23, 2008
Flyer - <i>Poaching – an illegal activity</i>	E3	July 15, 2008	April 04, 2008
Leaflet – People and Large Carnivores between conflict and coexistence	E3	July 25, 2008	April 04, 2008
Toolkit Natura 2000	E4	September 10, 2009	June 2007
Communication strategy on Natura 2000 sites from Vrancea	E4	March 10, 2008	April 2007
Analyzing the local people concerns about protecting large carnivore species in the frame of Natura 2000 sites	E4	September 25, 2007	September, 2007
Educational toolkit	E5	September 25, 2008	May 2009
Report on educational campaign evaluation	E5	October 10, 2009	November 2009
After LIFE Conservation Plan	F4	October 30, 2009	January 2010



## Milestones

Milestones	Number of the associated action	Deadline	Date of completion
Standard Data Form for the studied protected areas submitted to Ministry for Environmental Protection and Water Management	A2	November 30, 2006	November 5, 2006
Reports on public debate of the management plans proposed for the protected areas	A3	January 10, 2009	January, 2009
6 electric fences for orchards and crops in Soveja, Vidra and Barsesti areas	D3	May, 2006, 2007, 2008, 2009	May, 2006, 2007, 2008, 2009
Web page of the Vrancea protected areas	E2	May 15, 2006	May 10, 2006
Reports on meetings with local people – protected areas within the locality surroundings	E2	November 10, 2008	December 10, 2008

### 3.3 Summary of actions undertaken since the start

In order to achieve the objectives of the project **LIFE05NAT/RO/000170 “Enhancing the protection system of large carnivores in Vrancea County”**, in the period 01 November 2005 – 01 November 2009, the following activities took place:

#### *A. Preparatory actions, elaboration of management plans and/or action plans*

**ACTION A.1: Establishing the management structure and project implementation** - the project started in **November 2005** with establishing the management structure and project implementation, a first step being to establish the project Implementation Unit. Having in view preparation the First Meeting of the Partners, project secretariat carried out several preparatory discussions made through meetings developed at secretariat headquarters and through correspondence with project partners. Concordant with data established in accord with all partners and organizers, the First Meeting of the Partners took place on 30 November 2005 at the EPA VN headquarters in Focsani. The Working Group for project management was created at the First Meeting of the Partners and has coordinated current activities, establishing the management measures related to the project activities implementation, facilitating the relations between partner institutions of the project.

**ACTION A.2: The establishment of the Standard Data Forms for the proposals on the establishment of Natura 2000 sites and the submission to the competent authorities** - Simultaneously with obtaining of some scientific information as a result of implementing on field monitoring activities of large carnivores, there were scientifically basis the standard forms required to draw up official documentation for the proposing for integration the local network for large carnivores protection into the European ecological network Natura 2000. The Ministry of Environmental officially approved through Disposition no. **776** from **05.05.2007** for declaring the communitarian interest sites as integrate part of European ecological network Natura 2000 in Romania, all proposed sites of the project. Now, there are approved at national level Standard Data Form, **8 sites** having a total surface of **40 102, 71 ha**, placing Vrancea County in the top of 10 counties in Romania as surfaces of protected areas.

**ACTION A.3: The establishment of management plans for the existing protected areas included in the local network for large carnivores protection (including the Putna-Vrancea Natural Park), in accordance with the local management plan of the large carnivores and the standards from the Habitats Directive** - In order to strengthen the protection system, it was necessary to develop individual plans



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for each protected area in part (including Putna-Vrancea Natural Park). These plans integrates the principles presented in the local management plan for large carnivores, the principles of the Habitats Directive and of the Guidelines for Population Level Management Plans for Large Carnivores, prepared by Large Carnivore Initiative for Europe.

All management plans for Natura 2000 sites within the local network for large carnivores protection have been made in working groups involving local stakeholders and were subjected to numerous lines of public debate. The management plans of the 8 pSCI belonging to local network for large carnivore's protection were finalized in **July 2008**, and represents at present working tools of the protected areas managers.

#### *C. Non-recurring management*

**ACTION C.1: Establishing the intervention unit and a rehabilitation centre at regional level for injured animals in poaching activities (mainly large carnivores)** - The Intervention Unit is composed by **Animal Rescue Mobile Unit (ARMU)** and **Large Carnivores Monitoring and Rehabilitation Center (LCRMC)**. LCRMC represents a rehabilitated building placed in Lepsa Funicular point, implying the existence of spaces for granting medical care and temporarily held and represent base for animal shelter and field work for the team. The second component is the ARMU, materialized in the utility vehicle, according to veterinary ambulance. Simultaneously with the phase of building rehabilitation and construction of holding and animal treatment spaces, were carried out steps for procurement of materials and medical equipment specific to ARMU and LCRMC. There were purchased the equipments, after that being made training sessions for all ARMU team. Training consist in knowing technique qualities of tranquilizing equipment and in practicing the modalities of using this equipment in different conditions, like shooting distance and load of missile. For assuring the efficiency of this protection system for wild animals, there have been conceived and produced 500 posters and 5000 leaflets, in order to promote this unit in the eastern part of Romania.

#### *D. Recurring management*

**ACTION D.1: The assessment of large carnivores populations in Vrancea County by radio monitoring activities** – The capturing/monitoring of large carnivores methodology was updating in concordance with previous experience and with requirement imposed by the new types of GPS collars. The procedure for marking and tracking of bear specimens released from snares or of the exemplars relocated after closing some stages of rehabilitation, was carried out as part of the operating rules of ARMU and the LCRMC. The procedure sets individuals marking with radio transmitters collar type or ear tag so that action to be considered the success of rescue/rehabilitation action and to obtain data on species ecology. For 8 specimens of the species *Ursus arctos*, 5 of each species *Canis lupus* and *Lynx lynx*, whose monitoring started before the onset of the project, the action continued until disappearance of radio signal. Capture sessions resulted in the capture of a single copy of *Lynx lynx* species, and for compensate the information provided by this method, the team focused data collection with other monitoring techniques. Results of monitoring activities have provided support for designing and arguments conservation measures of large carnivores in the entire area of Vrancea county and scientific foundation needed to achieve the management plans of the 8 sites of Community importance designated within the project, they also leading to the imposition of measures to mitigate the impact of national road rehabilitation DN2D crossing site of Communitarian Interest Putna-Vrancea.

**ACTION D.2: Monitoring of large camivores and prey species population using remote techniques** – was achieved through establishing the methodology of assessment of large carnivores and prey species densities using remote techniques, designed for a study of three years (2006-2009), allowing us to create a database. Data were included in the EPA VN database and used in developing management plans of Natura 2000 sites and information campaign of the local population and authorities

Estimate the occupancy of habitats in Putna Vrancea Natural Park was developed by Presence program. Subsequently, using Royle/Nichols Heterogeneity Model, for bear was established relative abundance. For wolf and lynx, because of low occupancy rate of habitat abundance determination, it was not possible with an acceptable error margin.

**ACTION D.3: Implementing the sheepfolds' electrical protection system and extending it to orchards and crops** - it was provided annual operation of the 6electric fences at sheepfolds from localities Barsesti and



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Vintileasca and 6 electric fences for orchards and crops in Soveja, Vidra and Barsesti areas. In total, in the 4 years of project implementation, there were installed 36 electric fencing systems in areas of maximum conflict. At the end, it was made a cost-benefit analysis, which was communicated to livestock farmers and owners of crops, in order to promote the system efficiency.

**ACTION D.4: Animal Rescue Mobile Unit (A.R.M.U.) acting at regional level for interventions in poaching cases** - the current component of ARMU is based on the core team professional format in actions of wild animals rescuing in the project LIFE 02/NAT/RO/8576 “*In situ conservation of large carnivores in Vrancea County*”, which it has added new members from partner institutions, or veterinarians. The professional preparation and training sessions started once with the ARMU establishment, training structure watching knowledge and assuming by the personal of action Protocols and Methodologies and of Operating Regulations. During the progress of the project, between November 2005 and November 2009, ARMU has been engaged in specific actions of intervention to save from poachers snares of 18 specimens of the species *Ursus arctos*.

*E. Public awareness and dissemination of results*

**ACTION E.1: Promoting the project objectives and results** – For making known to the public the new LIFE Nature project in Vrancea, the project secretariat offered to local and national mass-media press releases having as main message promoting the project goal and objectives. For ensuring good information of Vrancea inhabitants, in front of the headquarters of the main project partner institutions, there have been posed presentation posters of the project, at the EPA VN headquarter being installed a project presentation panel with project goal and objectives, been produced and assembled also a number of 4 informative panels at the entrance of the Putna-Vrancea Natural Park.. There has been achieved the toolkit for project promotion, the project web page in Romanian and English (which can be accessed on the [www.carnivoremari.ro](http://www.carnivoremari.ro) address), being actualized mostly of access buttons. The project newsletters were achieved by EPA VN members from the project educational team. In order to disseminate the information referring to this project, members of the project actions implementation teams attended at a national scientific conference, promoting the project actions and results been made also through dedicate an important space in the scientific book “*Essentials of conservation biology*” edited in Romanian language.

**ACTION E.2: Raising awareness campaign – promoting the protected areas network for large carnivores conservation** – was made through meeting with local people occurred in localities surrounding protected areas. In the support of promoting campaign there were achieved 2 brochures including information about Putna-Vrancea Natural Park and large carnivores protection network in Vrancea. Also, a web page was conceived assuring complex information about protected areas from Vrancea County. It was organized a scientific workshop entitled “*Conservation of large carnivores in Romania - Current and future issues*”, held in Lepsa, Vrancea County. At this workshop were invited representatives from governmental institutions and NGOs working on environmental protection and research.

**ACTION E.3: Raising awareness campaign – preventing poaching and human-large carnivores conflicts** - for transmission to local people and authorities the legal framework about poaching and to promote conservation efforts carried out in the project, there were held meetings with locals in the villages from project area. Thus, the project team has had free discussions with locals in order to find their opinion about large carnivores, the main causes which lead to poaching cases appearance and modalities for avoided these situations. There have been conceived and achieved several educative materials having as subject poaching, conflicts appeared between people and large carnivores and danger represented by leaving house waste, having as possible result appearance of habituate bears: *a banner* and *a flyer* having as subject poaching, *a leaflet* about human-large carnivores conflicts and *a stick* with warning message against inadequate leaving house waste.

**ACTION E.4: Raising awareness campaign – Promoting the social and economic benefits of implementing the Natura 2000 network and local network for Large Carnivores protection** - awareness campaigns have been implemented based on a strategy resulted from the analysis of target groups perception on large carnivores and ecological network of protected areas. Numerous published and disseminated informational materials, and meetings organized with local stakeholders helped people to change their negative attitudes towards the protection of wolves, bears and lynxes in Vrancea County. In the same context we can now say that much of the local people understood the functioning of the Natura 2000 network and have accepted that



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sustainable development of mountain village area can only be achieved through the integration of nature conservation needs in policy for local development.

**ACTION E.5: Raising awareness campaign – promoting the concepts of large carnivores conservation and Natural 2000 in the children’s environment** - involving of children in the conservation actions was considered essential for diminish the threats which are aiming the large carnivores, for this purpose being realized presentations in schools of different themes about large carnivores ecology, also about necessity of local inhabitant coexistence with those species. Children were involved in 4 school contests held with the occasion of Environmental and Earth days, the contests being addressed to children from rural area of the project and had as propose rising awareness of concepts for large carnivore’s conservation, starting with awareness about vulnerability of these species. For helping to promote the concepts of large carnivores conservation and Natura 2000 in children environment, there has been achieved the educational toolkit.

*F. Overall project operation*

**ACTION F.1: Project Coordination, Project Management, Financial Administration** - in order to ensure the co-ordination of the projects activities, the creation of the team for the project management was achieved. The project is coordinated by Working Group, which take decisions regarding the management actions. The decisions were taken with simple majority only in the contractual limits. The project was led by project manager, Mr. Silviu Chiriac, supervised by Executive Director of the EPA VN.

**ACTION F.2: Measuring the project success (project monitoring)** - in order to control the activities, to submit the results within established deadlines, it was created a system of internal reporting based on monitoring indicators. Referring to this, the annual reports of the partners, annual reports of the Scientific Council and report on the working group meetings was submitted internally. According with internal reporting system established in the project, each action was monitored by the project administrator. Each action had an action form completed by project administrator. Periodically the project manager and the project administrator met the project partners for discussions about actions implementation stage. In order to achieving the scientific monitoring, the Scientific Board was invited to supervise the blueprints regarded to the species conservation. This board was compound of specialists with expertise in analyzing landscape, biodiversity elements, human impact and so on. Financial documentation was verified and guaranteed by the Financial Department of EPA VN. Quantifying the project and conservation actions success was permanently achieved through using of some pre-established indicators.



## VI. INTRODUCTION

### 4.1 The background, problem and objectives of the project

Vrancea County, located at meeting point of three Romanian provinces, includes in its limits mountainous habitats, (Vrancea Mountains), hills habitats and plain habitats. The project site is located on Vrancea Mountains and Curvature Subcarpathians.

Vrancea Mountains and Subcarpathians acts as the second area populated by large carnivores (considering the density), being the host of 6,5% of the bears population in Romania, 5,5% % of the European lynx population in Romania and 3,7% % of the wolfs population in Romania. But these stable populations need protection because are located in an area where the pastorate is the most important economic activity. Nature conservation in Vrancea County suffered a strong rebound in the last years; the protected area were reduced with more than 85%, today only 2489 ha being under protection, 99% of them in habitats populated by large carnivores. The most important areas for the project are the one containing boreal forests: Mărăști (11886 ha), Câmpuri (17107 ha), Dragomirna (10119 ha), Macrădeu (10619 ha), Lepsa (10191 ha), Condratu (17107 ha), Pietrosu (15850), Căldări (14800 ha), Neculele (11709 ha), Tulburea (10196 ha) and Anghelești (6167 ha).

In Romania there are about 6900 bear exemplars (2003 estimation which is almost 50% of the whole European population), although the population had decreased to only 1500 exemplars at the end of the '60s and had reached 8000 exemplars in 1988. This trend, very unusual for a population, was caused by his very strict protection, as after 1975 the bears could not be killed in any circumstances. The trend of the bear populations in Romania is contradictory, and it varies from one region to another. Generally, nowadays the bear stock tends to be constant, but the strict control of his territory does not allow a correct evaluation. We appreciate that is an overestimation. Also, after the forced increase in the period 1975-1989 we can not yet appreciate the present trend of evolution of the Romanian populations. We have to take into account the fact that 5 of the bears are hunted every year and about 3-5% are poached.

By this initiative will be created the proper conservation structures for around 300 exemplars, which is 5% of the total bear population in Romania. This extremely important population, thanks to its density, represents 2% of the total European population).

The second largest carnivorous in Europe, the wolf has almost disappeared in the Western and Central Europe, and he was reintroduced following initiatives in the LIFE Program. Most part of the European wolf population is found in Romania (35%, that is over 4000 exemplars).

In Romania, annually about 450 exemplars are hunted annually, but in the '50s there was a big anti-wolf campaign, as he was considered deleterious and he was killed by any means (hunting, traps, poison). This virulent campaign has diminished a lot the Romanian wolf population. In Vrancea, officially approximately 30 exemplars are hunted annually. The wolf has managed to recover in Romania, and it has a annual increase rate of about 0.5 %. This recovery is inconclusive however, because the stability of the population an not be appreciated yet and we strongly believe that are an overestimation.

In Vrancea County there are more than 100 exemplars believed to exist, but the figures can be a lot higher because of the species mobility. This population represents 3% of the Romanian wolf population and 1 % of the European wolf population.

The lynx was well spread in Europe in the past, but today it can only be found in Romania (1800 exemplars), Slovakia (400-500 exemplars), Ukraine (300 exemplars), Czech Republic and Hungary (10-20 exemplars each). Due to the dramatic decrease of population, the lynx has been declared endangered species in the CITES list. Nowadays there are reintroduction programs running in the Vosges, Jura, Alpes, the programs being successful in Switzerland and Slovenia. However, the researchers have warned that the future of this species is the conservation in the Carpathians and not reintroduction in other regions, which only increases the habitat's dimension. We also believe that we have an overestimation. In Vrancea County it is estimated that there are 50 lynx exemplars, a population that represents 4% of the Romanian lynx population and 3,5% of the European lynx population.



## **Project objectives**

- To include the protected areas belonging to the local network for large carnivores protection in the Natura 2000 system;
- To implement the management plans for the protected areas included in the local network for large carnivores protection in accordance with the Natura 2000 requirements and the forethoughts of the local plan for the large carnivores protection;
- To prevent the loss of the large carnivores population due to the direct or indirect poaching phenomenon;
- To prevent conflicts between large carnivores and local inhabitants;
- To raise awareness on the social-economic benefits that are generated by the inclusion of the protected areas in the Natura 2000 system.

### ***4.2 Expected results***

- An increased efficiency of the large carnivores protection activities through the inclusion in the Natura 2000 network of the protected areas from the local network for large carnivores protection;
- Large carnivores population mortality control due to conflicts with local inhabitants through the establishment of the Animal Rescue Mobile Unit (ARMU) and Large Carnivores Rehabilitation and Monitoring Centre (LCRMC);
- An increased management capacity of the protected areas that are part of the local network for the large carnivores protection by the establishment and implementation of management plans in accordance with the requirements of the Natura 2000 and the forethoughts of the local plan for large carnivores protection;
- Improving the protection system for sheepfolds, orchards and crops protection in habitats populated by large carnivores, by building an area which to demonstrate the efficiency of the modern protection systems
- Implementation of a campaign for raising awareness on large carnivores vulnerability and on the social-economic and conservation benefits of the Natura 2000 in Vrancea County
- Prevention of the conflicts with the local inhabitants appeared following the implementation of the protection measures by the development of a debate and information campaign.



## V. LIFE-PROJECT FRAMEWORK

### 5.1 Beneficiary, partners and project-organisation (functions and tasks, persons and organisations)

#### Beneficiary:

##### **VRANCEA COUNTY ENVIRONMENTAL PROTECTION AGENCY (EPA VN)**

**Legal status:** county *public authority* concerning the environmental issues

**Description:** Vrancea EPA fulfils the attributions and responsibilities of the MEWM (Ministry for Environment and Water Management) at local and regional level (being the direct subordinate of the Ministry). In order to meet the obligations within the environmental protection process, Vrancea EPA has the right to require information from ministries, public authorities, physical and juridical persons, other bodies and to intervene.

#### Partners:

- **UNIVERSITY OF BUCHAREST – CENTRE FOR ENVIRONMENTAL RESEARCH AND IMPACT STUDIES (Unibuc)**

**Legal status:** *public institution for higher education* / environmental research centre

**Description:** Unibuc is an environmental research centre functioning within the University of Bucharest. Types of activities developed: fundamental and applicative environmental research, environmental assessment, developing databases and research field operations, raising awareness actions (polls), involving undergraduates, M. Sc. and Ph. D. students in research programs, transfer of the research methodology to the educational process.

- **ASSOCIATION FOR SUSTAINABLE DEVELOPMENT “FOCUL VIU” (ADD FV)**

**Legal status:** private non-governmental organization **Description:** non-governmental, independent, apolitical, non-profit organization, which promotes environmental education actions for a better understanding of the sustainable development concept.

- **FORESTRY DEPARTMENT – VRANCEA COUNTY (DS -VN)**

**Legal status:** county *public authority* concerning the forestry issues

**Description:** VN-Forestry Department is in direct subordination of the Ministry for Agriculture and Forest at local and regional level. This is the authority in the forests management procedures and improvement programmes.

- **VRANCEA COUNTY COUNCIL (VN-CC)**

**Legal status:** *county public authority* (local government)

**Description:** The County Council represents the local government being politically active in the life of the regional community. The County Council is empowered to apply the legislation and to address responsibilities to the local actors. The County Council envisages the particular necessities of the county communities and official documents (acting as laws) are designed in order to solve eventual problems.

The project management structure was as follows:

- **Project manager (Mr. Silviu Chiriac)**
- **Assistant project manager (Mr. Florea Ioan)** - direct coordinator of the field actions, reported to the project manager about results of the action and possible problems that might appear.
- **Project Secretariat (Mr. Dimulescu Remus)** - assured the relation with partners and press relation.
- **Financial manager (Ms. Maria Plesa)** – (half time equivalent) delegated by the Financial Department assured the financial implementation of the project (payment and eligibility checking for all partners, contractual aspects, reporting for EC, assistance for partners).

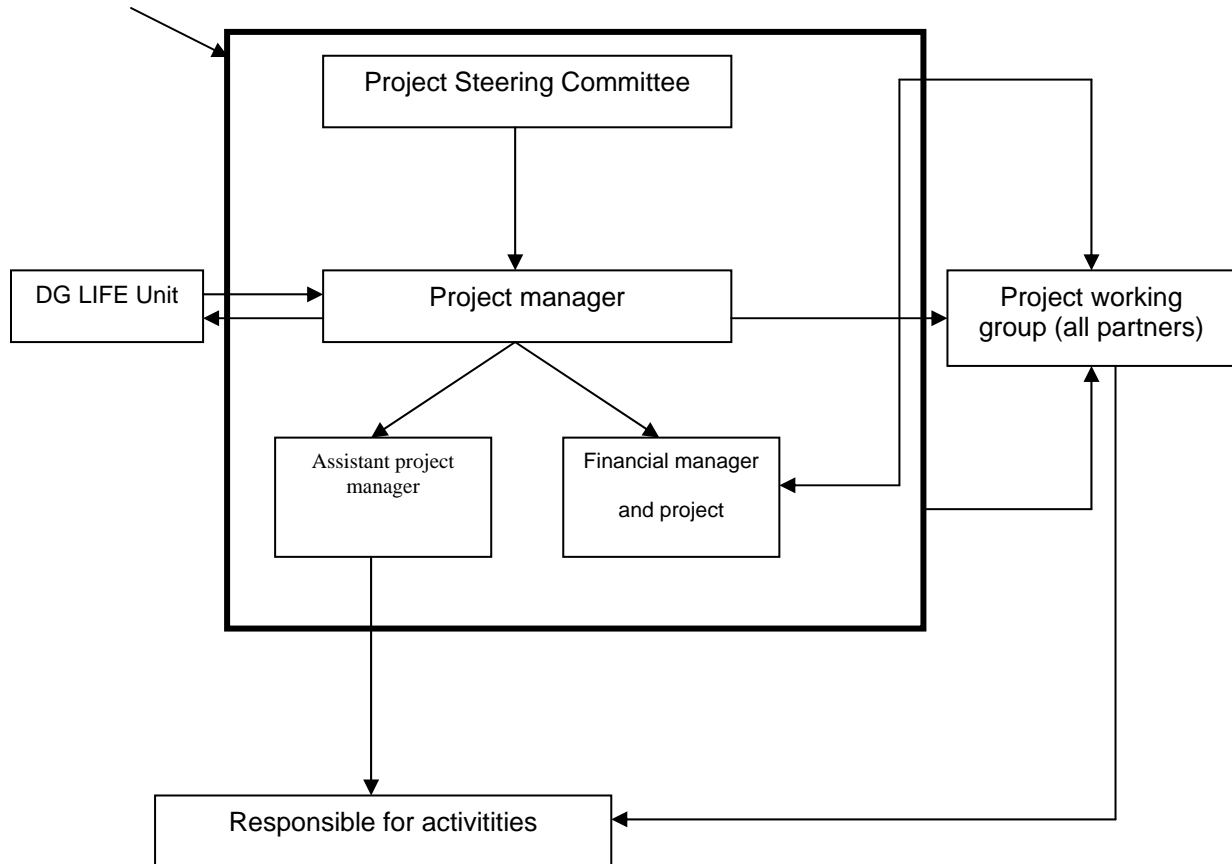
The activities work packages has been coordinated by responsible for activities. The following persons with experience in LIFE projects and implementing such activities have coordinated the WP:



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- monitoring and capturing activities : Laurentiu Rozyłowicz (University of Bucharest)
- animal rescue: Radu Mihai (EPA Vrancea)
- Management plans and Natura 2000 listing: Silviu Chiriac (EPA Vrancea)
- Educational activities: Nadia Raluca Ivanof (ADD FV)
- Project promotion and media relations: Marius Matache (University of Bucharest)

*Organigram of the project managementsalutare*



**5.2 Modifications according to initial proposal**

It was not requested modifications according to initial proposal



## VI. PROGRESS AND RESULTS

### 6.1 A. Preparatory actions, elaboration of management plans and/or action plans

#### **ACTION A.1: Establishing the management structure and project implementation**

The project “*Enhancing the protection system of large carnivores in Vrancea County*”, financed by European Union and implemented by EPA VN with the support of the project partner institutions like CCMESI from University of Bucharest, ADD FV, DS VN and VN CC, had started in **November 2005** with establishing the management structure and project implementation, a first step being to establish the project Implementation Unit.

The implementation Unit included:

- *Steering Committee* which include Paul Giurca, represent of EPA VN, Ioan Florea, from ADD FV, Marian Oprisan, represent of VN CC, Laurentiu Dumitrache from DS VN and Cristian Ioja, represent of CCMESI;
- *Project manager* (Silviu Chiriac);
- *Assistant project manager* (Nadia Ivanof\*), project financial manager (Maria Plesa) and project secretariat (Remus Dimulescu).

\*until July 2006

The Implementation Unit and project secretariat was developing their activities into the headquarters of EPA VN in Focsani, in a space with special destination.

In accordance with project actions, there were established the attribution of each job from the project and regulations of activities developing and the job files referring to the attributions of the persons which were followed to be employed.

Having in view preparation the First Meeting of the Partners, project secretariat carried out several preparatory discussions made through meetings developed at secretariat headquarters and through correspondence with project partners. With this occasion it was putted of all institutions disposal some preparatory documents and also the details about partners meeting.

Concordant with data established in accord with all partners and organizers, the First Meeting of the Partners took place on **30 November 2005** at the EPA VN headquarters in Focsani. At this meeting attended the following persons involved in the project:

- **Paul Giurcă**, president of the project Steering Committee,
- **Silviu Chiriac** from EPA VN,
- **Rodica Bongeag** from EPA VN,
- **Remus Dimulescu**, project secretary,
- **Nadia Ivanof**, project assistant,
- **Ioan Florea**, president ADD FV,
- **Laurențiu Rozyłowicz** from CCMESI of Bucharest University,
- **Dana Tâlvăr** from VN CC,
- **Gheorghe Căpățână** from DS VN,
- **Florin Munteanu** from DS VN.

The problems considered for discussions at this meeting were the following:

1. Main actions and deadlines;
2. Proposals for the Working Group;
3. Approval of the Working Group activity regulations, following the proposals of the nominated partners and invited participants;
4. Technical and financial aspects: necessary conditions for signing the contracts with each partner, proposals etc;
5. Responsibilities of the contact persons.



In accordance with beneficiary and partner institutions proposals, in the working group composition there were nominated the following persons:

EPA VN – **Silviu Chiriac**  
CCMESI - **Laurențiu Rozyłowicz**  
VN CC – **Dana Talvar**  
DS VN – **Gheorghe Capatana**  
ADD FV - **Remus Dimulescu**

The Working Group met every time it was necessary in order to take important decisions for the project activities. It was decided that, in order to obtain necessary information, the research teams would contact only the directly interested partners, the others subsequently to be informed about it directly or through the reports and products created following the activities included in the project.

On **9 December 2005**, in accordance with partnership convention provisions, EPA VN signed together with partner institutions, contracts necessary implementing project activities from technical and financial point of view.

On **6 January 2006** it was organised in Focsani, a meeting of the Working Group and persons responsible with the action packets implementation. With this occasion there were detailed the partner institution and beneficiary attributions and it was finalised a first activities planning. Persons responsible with action packets together with Working Group members achieved implementing protocols for each activity.

### **ACTION A.2: The establishment of the Standard Data Forms for the proposals on the establishment of Natura 2000 sites and the submission to the competent authorities.**

Considered to be one of the key stages for enhancing the large carnivores protection system in Vrancea, this action started after the project beginning. In spite the fact that the available data base and information from project LIFE02/NAT/RO/8576 offered precise information on habitats and species from mountain area of Vrancea County, there were necessary numerous field trips for identifying, mapping and hierarchy, from conservation stage point of view, of natural habitats listed in Habitat Directive.

For habitat listed in Habitat Directive and identified on field, there were analysed the following information: surface, representatively degree of habitat type into the site, representatively reporting to the surface on national level, conservation degree of the structure and function for the type of natural habitat, also the possibilities of recovering/reconstruction, anthropic action who have impact at present and global evaluation of site value from conservation of natural habitat type point of view.

Information regarding flora and fauna species listed in Habitat and Bird Directive, were synthesized from data base achieved in the project LIFE02/NAT/RO/8576 and were updated with new information collected on field stages. There were evidenced and full field data referring on large carnivores populations but also those referring to the flora and fauna species with special conservative interest.

Sites characterizing were achieved by EPA VN members through using some unique models at European level (Standard Data Forms), offering to evaluation commissions and national experts the possibility of a correct unitary evaluation having scientific importance and monitoring the process generated by the management measures specific to this kind of protected areas types.

The stages crossed for including the identified sites into the Natura 2000 network were:

- Achieving of a data base with habitats and species listed on Habitat Directive which there are in the project implementing area;
- Identifying and mapping the limits of identified sites;
- Transmitting of a first version of Standard Data Form in word format to MMGA – **17.08.2006**;
- Obtaining the access right and password for ON-LINE- <http://n2000.biodiversity.ro> database;
- Starting filling in the information for database;
- Transmitting the address to MMGA through which we ask transmitting SDF to the independent experts;



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- Standard Data Forms analysed by an experts group (Dumitru Murariu/Alexandru Iftimie/Victoria Tatole from National Museum of Natural Science; Adrian Biris Iovu from ICAS Bucharest; Adrian Oprea from Botanic Garden Iasi);
- Full fill and/or modifying Standard Data Forms according with experts proposals within the framework of a work meeting with this experts – **03-05.11.2006**;
- Validation by Romanian Academy of Natura 2000 sites proposals – **20.11.2006**;
- The official approving of the Ministry of Environmental and Sustainable Development Disposition no. **776** from **05.05.2007** for declaring the communitarian interest sites as integrate part of European ecological network Natura 2000 in Romania, through which it was officially, approved all proposed sites of the project.

Now, there are approved at national level Standard Data Form, **8 sites** having a total surface of **40 102, 71 ha**.

Site	Surface (ha)
ROSCI 0023 Cascada Misina	220.7
ROSCI 0018 Căldările Zăbalei	377.9
ROSCI 0097 Lacul Negru	97.2
ROSCI 0127 Muntioru Ursoaia	155.9
ROSCI 0182 Pădurea Verdele	272.9
ROSCI 0204 Poiana Muntioru	23.7
ROSCI 0208 Parcul Natural Putna - Vrancea	38204
ROSCI 0228 Șindrilița	883.6

**Natural Park Putna-Vrancea (38 204,00 ha)** in which there are included also the following special conservation areas:

Special conservation areas	Surface (ha)
Valea Tișitei	2726,3
Lăcăuți - Izvoarele Putnei	1791
Muntele Goru	410,6
Pădurea Lepșa - Zboina	107,8
Strâmtura Coza	55,9
Groapa cu Pini	11,1
Cascada Putnei	10,0
Strâmba	1041,7
Condratu	495,7
Muntele Ciuta	302,2
Băhneanu	420

Validation of the entire surface of the Natural Park Putna - Vrancea, as key element of local Ecological Network for large carnivore's protection, was an element which confirms once again scientific results obtained through project implementing LIFE02NAT/RO/8576 and LIFE05NAT/RO/000170. Through declaring these surfaces as Natura 2000 sites it was certified once again the chances that large carnivore species to benefit of a viable protection system.

All sites of communitarian interest proposed in the LIFE project are in the official database of European Commission, data being possible to be accessed on the site of Environmental European Agency at the address <http://natura2000.eea.europa.eu>.



**ACTION A.3: The establishment of management plans for the existing protected areas included in the local network for large carnivores protection (including the Putna-Vrancea Natural Park), in accordance with the local management plan of the large carnivores and the standards from the Habitats Directive.**

For enhancing the protection system, there must to be established individual plans for each protected area, proposed in the project as pSCI for large carnivores conservation. These plans must integrate also the principle presented in the local management plan for large carnivores, principles accepted at local and national level.

In order to establish unitary management plans and for reducing possible negative opinions from land owners, these plans had to be established using a unitary methodology and be explained step by step. In this way, the coordinator of the action EPA VN, together with VN CC, ADD FV and DS VN, started beginning with **February 2006** action for identifying the principal stakeholders involved in administration process in pSCI areas, in order to achieve a list with contact data. Thus, beginning with **20 February 2006** there were communicated address to all land administrators from proposed sites, being identified persons and institutions responsible with the land management and the way they manage them. As a result of these actions, in **September 2006** was created a first version of the contact data base.

Beginning with **September 2006**, based on the Territorial Planning Scheme and on the information offered by land administrators, it was started the identification action of landowners activity, the obtained data being putted on the disposal of University of Bucharest in order to integrate them into a GIS data base. The role of GIS database was to have in view, in real time, events occurred in Natura 2000 sites, to identify land owners/managers for debate the management plans, to offer support for control authorities in estimating the environment law respecting and to awareness the land owners/managers about existence of Natura 2000 sites. Database was composed by: Natura 2000 sites limits; Point layer – quotas; Raster layer – hypsometry; Point layer – hunting chalets, forestry chalets, chalets, facilities: prey food, sheepfolds etc; Lines layer – roads (forestry, communal, county, national); Lines layer – hydrography; Polygon layer – hydrography (lakes); Polygon layer – category of land using CORINE Landcover 2000; Polygon layer – category of land using, compressed unprocessable aero-photograms SID 2004; Polygon layer – forestry survey having mentioned the owners and managers, corrected with aero – photograms; Point layer – land owners; Polygon layer – touristy facilities; Polygon layer – localities; Point layer – authorised exploitation cuts. Each layer presented interrogable attributes, which made possible documentation in real time on the situation from Natura 2000 sites.

In order to create the Stakeholder Steering Committee, there were developed discussions with landowners and administrators of the lands overlapped on the Natura 2000 sites, for verifying the local leaders or responsible of the local communities who own the forestry lands. As a result of these discussions it had been evidenced the fact that in the Steering Committee composition must be present all chiefs of the communitarian associations which are owners of forestry lands (named “Community”), also be present local authority represents which administrate the forests from forestry point of view. Thus, in the Stakeholder Steering Committee there were nominated the following persons:

- Florin Munteanu –manager Putna-Vrancea Natural Park
- Raduta Gheorghe –manager DS VN
- Popa Valentin – Naruja Forestry Department cheff
- Costel Nicoara – chairman and cheff Mosneni Tulnici Forestry Department
- Gelu Cefalan – cheff Tulnici Forestry Department
- Ciurescu Stefan – Asociation for Biological Diversity Conservation (custodian of Poiana Muntioru pSCI)
- Murgu Florin – Vrancea Forestry and Cynegetic Regime Inspectorat
- Vasile Agurida - mayor Tulnici Commune

A first meeting of the Stakeholder Steering Committee was programmed for the beginning of **August 2007**. The meeting was planed to take place at Focsani – VN CC and have as purpose establishing the strategic objectives for conservation the pSCI declared in the project.

Thus, beginning with **August 2007** there were established several meetings with stakeholders from pSCI belonging to local network for large carnivores protection.



In **1 September 2007**, at “Casa Putnei” motel in Lepsa, in the Putna-Vrancea Natural Park area it was organized a meeting with stakeholders from this pSCI in order to identify the conservation objectives which are following to be followed in achieving the management plan. At this meeting attended members from Stakeholder Steering Committee with interests in Putna-Vrancea Natural Park area.

On **31 October 2007**, at the VN CC in Focsani, EPA VN and University from Bucharest organized the meeting of the entire Stakeholder Steering Committee. At this meeting attended all Stakeholder Steering Committee members but also persons from public institutions involved in implementing and settling the activities from pSCI. During the 6 hours period of meeting, there were discussed the next steps necessary for elaborate the management plans and there were established the conservation objectives for each pSCI.

Conservation objectives established concordant with ***Local Management Plan for large carnivore populations in Vrancea*** took in consideration information from field, researching achieved in the previous project, large carnivores monitoring data, European Commission politics and strategies for biodiversity conservation, action plans for bear, wolf and lynx elaborated by Europe Council.

Also an important reference point in management plans elaboration represented the ***“Guidelines for Population Level Management Plans for Large Carnivores”*** document, elaborated by LCIE.

The management plans for pSCI belonging to the local protected area had a structure achieved based on ***Eurosite Management Planning Toolkit*** and following the assuring favorable conservation statute for local population of large carnivores concordant with Habitat Directive and national legislation.

A new meeting with the working group for achieving the management plans was organized on **7 March 2008** at the Putna-Vrancea Natural Park administrative headquarters. With this occasion it was established the structure of the management plans and it had been analyzed a first variant of introduction chapters (the importance of pSCI, geographic characteristics, habitats and species having communitarian importance, large carnivore populations statute), there were analyzed the financing sources existing at that moment and which were the human resources necessary for implementing the conservation actions.

After finalizing in period **August-September 2008** of the draft of management plans for pSCI belonging to local ecological network for large carnivores conservation, these were debated with Stakeholder Steering Committee and with local inhabitants from communes having pSCI (Tulnici, Barsesti, Soveja, Vidra, Valea Sarii, Nereju, Năruja, Dumitrești, Paltin).

The management plans of the 8 pSCI belonging to local network for large carnivore’s protection were finalized in **July 2008**.

Achieving the management plans was followed by debates of these at some meetings of the local communities’ leaders, represents of local authorities, foresters and represents of the owner’s association forms. Thus, in most of the villages in which there are protected areas, there took place meetings of debating the management plans. Such meetings took place in localities Tulnici, Barsesti, Soveja, Vidra, Valea Sarii, Nereju, Năruja, Dumitresti, Paltin. Although there wasn’t a general consensus, the management plans were accepted, so they now include requirements of the stakeholders and respect the principles of conservation of large carnivores and their habitats.

A stronger opposition existed for approving the Management Plan of Putna-Vrancea Natural Park, where, because the existence of large areas of forest and the lack of compensatory payments, wasn’t easy accepted the internal zoning and the imposed restrictions on forest exploitation.

For debate The Management Plan of Putna-Vrancea Natural Park, there were organized, together with DS VN, four meetings (**16/12/2008, 19/02/2009, 11/03/2009, 30/03/2009**) and at the end of March, the final version was posted for general public consultation on the web page of EPA Vrancea ([http://www.apmvn.ro/index\\_files/page0007.htm](http://www.apmvn.ro/index_files/page0007.htm)) and the project website ([www.carnivoremari.ro](http://www.carnivoremari.ro)). For publicized the management plan, it was concurrently transmitted also a press release to all newspapers and publications existing in the Vrancea County.



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The final version of the management plan for Putna-Vrancea Natural Park (ROSCI0208) was analyzed and approved in the Scientific Council of the protected area during a meeting held in Lepsa between **19-20 February 2009**. Following this meeting, the Secretariat of The Scientific Council issued the favorable notification for approval no. 58 of 03.03.2009.

In accordance with the Romanian Government Decision no. 57/2007 (modified and completed by the Romanian Government Decision no. 154/2008), approval the management plans was made as follows:

- **For Putna Vrancea Natural Park** - by Romanian Government Decision based on the notification of the National Agency for Protected Areas;
- **For natural reservations and sites of communitarian importance** - by order of the Minister of Environment, based on the notification of the National Agency for Protected Areas.

In this context, the management plans achieved in the project, although they are completed and are appropriated by local managers of protected areas, they can not be formalized at this moment, because the National Agency for Protected Areas is not functional.

Compared to this situation, the project implementation team LIFE05NAT/RO/000170, through letter no. 4114 of 29.06.2009 requested to the Ministry of Environment and National Agency for Environmental Protection to issue an official position for the problem of approval the management plans for the 8 Natura 2000 from local ecological network of the large carnivores protection in Vrancea County.

In response to this letter, the Ministry of Environment informed us through the address no.105 610 (see annex 1) on 15.07.2009 about the fact that due to malfunction of the National Agency for Protected Areas, the procedure for approving the management plans is blocked. In this context, we must state that the management plans will be approved once with establishing the National Agency for Protected Areas.

At the beginig of 2010, the National Environmental Protection Agency became functional, as department of the Ministry of Environment. Therefore, EPA VN has retransmited a request for official approval of the management plans acheved in the LIFE project.

At this request, the General Directorate for Nature Protection and Protected Areas Management informed us that they understand the importance of management plans official approval and that at this moment there are make moves for their approval (annex...).

Considering the fact that the management plans have been achieved together with stakeholders and managers of protected areas, until formalizing the plans through official normative documents, the management of sites of communitary importance within the local ecological network for large carnivore protection in Vrancea County is achieved concordant with Management Plans realized in the project.

#### *6.2 C. Non-recurring management*

#### **ACTION C.1: Establishing the intervention unit and a rehabilitation centre at regional level for injured animals in poaching activities (mainly large carnivores).**

In the project LIFE 05NAT/RO/000170, C1 action followed to achieve the intervention unit at regional level, for injured animals due to poaching activities (mainly large carnivores). The Intervention Unit is composed by **Animal Rescue Mobile Unit (ARMU)** and **Monitoring and Rehabilitation Center**. Monitoring and Rehabilitation Center of Large Carnivores is the building in Lepsa Funicular point, which implies the existence of spaces for granting medical care and temporarily held and represent base for animal shelter and field work for the team. The second component is the mobile unit of intervention to save wild animals, materialized in the utility vehicle, according to veterinary ambulance.

Through EPA Vrancea, with the participation of Vrancea Forestry Department and ADD FV, it has been achieved the intervention unit for injuring cases of large carnivores which made appear. Implementation action steps are:

- Repairing and endowing the chalet that will become the Rehabilitation Centre and of the enclosure system (**March 2005 – November 2006**)



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- Acquirement of equipments for intervention unit and staff cooptation (**March 2005 – November 2006**)
- Elaboration of intervention regulations and protocols for different animals categories (**March 2006 – November 2006**)
- Achieving and producing the advertising materials – 5000 leaflets, 500 posters – (**October 2006 – November 2006**)
- Distributing the advertising materials (**November 2006 – end of the project**)

***Repairing and endowing the chalet that will become the Rehabilitation Centre and of the enclosure system (March 2005 – November 2006)***

**The Monitoring and Rehabilitation Centre** is placed in Lepsa Funicular area, on the Putna Vrancea Natural Park territory, having a surface of more than 1 ha, offered by Vrancea Forestry Department, based on a contract.

The chalet has been put on the EPA Vrancea disposal based on a contract made with Vrancea Forestry Department in **16 April 2006**, and the effective delivery of this space took place further. In spite the fact that the built space was presented an advanced stage of degradation (the chalet being built in wood in 1953), its rehabilitation was achieved with success.

So, action C1 started with activities of rehabilitation of the building existing in Lepsa Funicular and transformation of this forestry chalet into a Monitoring and rehabilitation Centre of Large Carnivores.

The works have concerned two main areas, namely: rehabilitation of the building turned into the basis for the implementation team and interventions space and medical treatments for animals, and also construction of primary treatment and rehabilitation areas of exemplars care at the Center. Some of the most important works were achieving the installations for water and energy of the center. Because the chalet is not connected at the common system for furnishing electrical energy and water, it has been necessary realization of a personal installation for supplying with electrical energy (through a generator 220V on gas) and of an installation for water supply (supplied by a spring and deposited in a water tank having 1000 liter). For warming the chalet there were manufactured stoves functioning with wood.

The medical space was endowed with equipment and instruments which make possible complex surgery. Rehabilitation spaces were made near the Center building, and include metal cages for primary treatment and secondary treatment area, fenced with metal panels and electrified network. Spaces for temporary holding of any specimens treated at the Center were designed and made in accordance with the needs imposed by the condition of wounded animal, hold by a maximum period of 15 days, which is given medical treatment.

At the Centre it can be distinguished the following functional areas:

**A. The Base** - represented by existing building, is approximately 150 sqm living space in which the team carries out activities for primary processing of monitoring data and where there are technique equipments for specific activities and documentary materials. Also, space can provide also function of information point of potential visitors to the Center. In this first sector is distinguished:

- **area for primary processing of monitoring data.** In this area, for particular designation, there are monitoring equipment: antennas, receivers, transmitters, but also photo and video technique equipment and data storage and processing, GPS positioning devices, those for field work, workstations and some equipment specially designated for field stages.

- **accommodation and kitchen areas** for the team that ensure service permanence at the Center.

**B. Area for reception and medical treatment for animals** - is meant for the takeover of any cases of wild animals that require treatment and care at the Center and it was designed and constructed so as to ensure effective medical intervention and human security personnel involved. By fitting a local road sector, automobile access of the mobile unit of intervention is possible up to the entrance of the reception. Also, to make possible access of the team event stretcher transport of animals, there has been achieved wide entrance doors and ramps with low inclination. The entire surface of the floor and walls of the veterinarian space, was treated with epoxy resins, being possible to clean and disinfect repeated. It was purchased and installed a workbench (for surgery) adjustable on height and provided with elements for restraining the animal. Through works of construction and upgrading of the old rooms of the building, work area in the operating room became satisfactory for the specific activities and purchased furniture ensure easy accessibility to the instruments. There has been achieved works to increase glass of room space in order to ensure good natural lighting.

The modular enclosure system is placed in the neighborhood of the chalet in an area covered with natural vegetation. This system is composed by separately modules, unite by a gliding door in order to permit the refuge animals to be directing in one module another through lever and windlass systems. All modules are made of



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collapsible metallic plaques, fixed on metallic posts having 3,50m high, and plaques are buried 50m into the soil. The enclosure system is collapsible being possible to move it depending on necessities.

To original structure it was added in 2008 a new module of about 200mp.

Thus, the modular enclosure system includes:

- **primary treatment modules (cages)** - are metal enclosed spaces, for approx. 15 sqm with sliding gates and interconnection possibilities, for temporary holding, while treatments that require frequent drug administration for cared specimens.

- **secondary monitoring space (enclosure)** - is a perimeter of about. 80sqm. with direct access to both primary treatment modules, and also to the outside, restricted with wire mesh panels of 4m height partially buried and doublet with an electrified network. Entire enclosure system, realized with Gallagher components, is supplied by a solar generator, designed to prevent exemplars being under treatment, to get in contact with metallic fence. The space is for holding of nursing specimens of carnivores during temporary post-treatment monitoring.

The Rehabilitation and Monitoring Centre for Large Carnivores has become functional beginning with **July 2006**.

***Purchasing the equipments for intervention unit and staff cooptation (March 2005 – November 2006)***

Simultaneously with the phase of building rehabilitation and construction of holding and animal treatment spaces, were carried out steps for procurement of materials and medical equipment specific to Animal Rescue Mobile Unit and Monitoring and Rehabilitation Center of large carnivores. Considering the eventuality of cases that require medical intervention with high complexity, facilities and instruments were designed and organized that it can meet diverse cases. Specific medical instruments and add a background of pharmaceutical products that sustain immediate urgency for intervention. Most of the instruments and pharmaceutical products are used in mobile kits intervention. Practice has shown that in most cases there is sufficient care provided at intervention, enabling the faster release of the animal, prefer it, as much as possible, avoid holding it. Of medical facilities of the Center take part also one portable ultrasound CTS-385V, for routine and specific investigations, abdominal, cardiac, obstetric-gynecological, urological and peri-vasculare, which allow for more rapid and accurate estimates of the health condition of the specimens for intervening. Medical sector of the Center is complemented by a processing area and temporarily held the biological samples, where samples of tissue, hair or blood drawn from observed specimens are deposited in specific circumstances.

At the beginning of **2008**, there have been purchased new tranquilizing equipments which are based on different function principles, including a tranquilizing gun **DAN-INJECT CO<sup>2</sup>- RIFLE J.M.SP.25** model, a blowpipe **BLOW 180 (Rôken)** model, and suitable accessories.

Technique qualities of **DAN-INJECT CO<sup>2</sup>- RIFLE J.M.SP.25** model are superior to Cap-Chur variant used previously. Major differences are established by shooting distance (130 meters+with 1.5 ml capacity dart) and possibility of pressure adjusting (Pressure adjustment: Silent +/-to16bar) specific to **DAN-INJECT CO<sup>2</sup>- RIFLE J.M.SP** model. Technique characteristics of this gun are much more suited for tranquilizing actions of wild animals, especially large carnivores. Majority of previous cases of ARMU team intervention occurred in order to release bears from snares improvised by poachers. Possibility of tranquilizing animals immobilized in snares from a longer distance, lead to reducing the animal stress and also to minimizing the risk of field team.

Tranquilizing equipment include syringe **S 150** (10-12 ml air for 1.5 ml dart), **S 300** (12-14 ml air for 3.0 ml dart), **S 500** (15 ml air for 5.0 ml dart), and **S 10**( 20 ml air for 10.0 ml dart), which can be used in administering drugs and also in case of treatment periods.

Treating some of carnivores exemplars at the Rehabilitation and Monitoring Centre suppose administering drugs repeatedly in enclosure area for holding in temporary captivity. For cases in which animals are immobilized without the risk of auto-releasing or in case of drugs administering for treatment, it was purchased a blowpipe and specific accessories. This type of gun required long time of training for ARMU team. Equipment purchased in the same lot was a stretcher for animals transport. It was proved to be very useful and functional in case of transport on short distance of tranquilized animals.

Human resource serving the Monitoring and Rehabilitation Centre of large carnivores and Animal Rescue Mobile Unit include both staff to train in rescue wild animals in the project Life 02/NAT/RO/8576 In situ conservation of large carnivores Vrancea County, as well as new members of partner institutions.

In period **15 February – 15 March 2008**, after purchasing the equipments, there were made training sessions for all ARMU team. Training consist in knowing technique qualities of tranquilizing equipment and in practicing the modalities of using this equipment in different conditions, like shooting distance and load of missile.



***Elaborating the regulations and the intervention protocols for diferent categories of animals (March 2006 – November 2006)***

For the proper functioning of ARMU there were drawn up, mastered and presented during the training sessions and training of personnel active Animal Rescue Mobile Unit and Rehabilitation and Monitoring Center of large carnivores, the following:

- Regulation of procedure of the Monitoring and Conservation Centre of large carnivores
- Protocol operation and intervention of ARMU
- Large carnivores biology
- Methodology of working with caught and injured animals
- Tranquilising techniques
- Techniques of first aid

The Rehabilitation and Monitoring Centre is functioning based on a regulation well-known and assumed by entire harming personal.

**The Animal Rescue Mobile Unit (A.R.M.U.)** is realized as ambulance for large carnivores and it is serving by a team form by a veterinary and a field operator. The intervention unit was built on a platform of a Dacia Pick-up 4x4 car.

In order to achieving the A.R.M.U., it has been built a special transport cage having cylindrical shape, being endowed with collapsible gate and ventilation and visualization spaces. Transport cage will be endowed with a web camera which will allow monitoring the transported animals with a laptop support. The transport cage is detachable and it can be manipulated for assembling on other cars platform (in case of ambulance incapacity for moving away in inaccessible places for this kind of off road cars).

A.R.M.U. is endow with medical equipments and instruments necessary in urgent surgical intervention: tranquilizing gun, pliers for wires and traps, first-aid case, surgical case, medical supplies etc. In order to enhance the efficiency of tranquilization activities through increasing the intervention distance on an injured animal there is going to be purchased new tranquilization equipment.

Endowing the A.R.M.U. has started in **26 May 2006**, being acquired Dacia 4x4 car and it was finalized in **October 2006**.

A.R.M.U. is functioning based on regulation and strict intervention protocols, well-known and assumed by entire harming personal.

A.R.M.U. may travel on requests in other counties, but until now there were no such requirements. Intervention costs for releasing some poached animals should be recovered from persons responsible of the injuries, but until now the impossibility of identification these persons made this cost to be supported by the project. In case of finalizing these investigations and of identifying the responsible, the costs will be supported by these persons and will be emphasized as income in the project.

ARMU is characterized by several elements which give it its special capabilities, according to the purpose for which it was conceived and realized:

- the ability of interventions in a short time in a wide range of locations, capacity justified by the technical performance of 4x4 trucks, equipped with 1900 cc diesel engine. and capabilities all terrain;
- ensure the possibility of intervention team to access most mobile intervention medical instruments;
- possibility of safely transport and medical comfort of any cases of wild animals that require it;
- availability of a minimum of two permanent team members specializing in shares of interventions to save wild animals, completed by a veterinarian, to work 24 hours seven days a week;
- capacity of adaptability of transport volume of trucks by using the place discovered behind the car for transporting cages or other types of capture or transport for special needs.

***Designing and producing advertising materials– 5000 leaflets, 500 posters – (October 2006 – November 2006); distributing the advertising materials (November 2006 – end of project)***

For assuring the efficiency of this protection system for wild animals, in **May 2007** EPA VN has been conceived and produced **500 posters** A2 format and **5000 leaflets** A4 format, in order to promote this unit in the eastern part of Romania.

**The leaflet** “*Intervention Unit for Rescuing Wild Animals*” contain general framework of the LIFE project “Enhancing the protection system of large carnivores in Vrancea County”, information about intervention actions for rescuing wild animals in the LIFE projects and offer detail on the Rehabilitation and Monitoring Centre for Large Carnivores and on the Animal Rescue Mobile Unit (ARMU). In case in which there are signalled injured or poached animals, there have been putted on the disposal telephone numbers where people



can call for fast intervention of field team of the Intervention Unit, being presented area in which can be made interventions on demand.

**The poster** “*Intervention Unit for Rescuing Wild Animals*” presents briefly the goal and activity of the Intervention Unit, equipments necessary for emergency interventions, also the intervention area, in this way being offered telephone numbers for requirement taking over.

These were distributed in all awareness actions undertaken within the project at all interventions achieved by ARMU. Distribution aimed especially in the mountain area and hill villages of Vrancea, but the specific message was designed to be suitable and some types of receptors not involved directly in the theme of the project.

### *6.3 D. Recurring management*

## **ACTION D.1: The assessment of large carnivores populations in Vrancea County by radio monitoring activities**

**Estimation of large carnivores population through radio monitoring activities** is the activity included in category D in the project LIFE05NAT/RO/000170 – “Enhancing protection system of large carnivores in Vrancea County”. In studies to estimate and characterize the territory of large carnivores, the status and biology of these species, the most often method used was radio - telemetry. Council of Europe considers the monitoring of radio, GPS and satellite as an activity essential in developing management plans, as it is stipulated in the action plans that concern bear, wolf and lynx species.

### • **Research methodology establishment**

The start of actual onset monitoring action was preceded by adapting the methodology developed in the project LIFE02/NAT/RO/8576, and its adaptation to the requirements of the actions that followed to be implemented.

The capturing/monitoring of large carnivores methodology was updating in concordance with previous experience and with requirement imposed by the new types of GPS collars, being modified the following aspects:

- tracks registration forms;
- radio-monitoring registration forms;
- large carnivores capturing procedures;
- detailing the monitoring through GPS collars procedures.

The methodology has been adapted by University of Bucharest and EPA Vrancea between **November 2005 – June 2006**.

### • **Marking bears and wolves released from snares**

The procedure for marking and tracking of bear specimens released from snares or of the exemplars relocated after closing some stages of rehabilitation, was carried out as part of the operating rules of ARMU and the CRCM (C1/D4 actions). The procedure sets individuals marking with radio transmitters collar type or ear tag so that action to be considered the success of rescue/rehabilitation action and to obtain data on species ecology. In this propose, radio transmitters were purchased 6 ear tag type M3400, 2 receivers and 4 Yagi antennas (all equipment being provided by ATS - Advanced Telemetry Systems). Equipment were used also for monitoring specimens scored in previously project as well as monitoring of caught specimens.

For after-releasing monitoring of bears treated by ARMU team, there were acquisitioned 5 mini radio-transmitters **M3430 bear Ear Tag** model, with frequencies between 150, 000 and 150,999. Choosing this model was based on a complex of arguments where on the first place there was the concept of maximum reducing of stress and discomfort provoked to monitorised exemplar, reduced dimension, monitoring limited temporal and spatial and easy possibility of model starting.

During the progress of the project, ARMU intervened to save by poachers snares of **18** specimens of the *Ursus arctos* species, **16** of which being marked with radio transmitters M3400 ear tag type or M 2610 collar (purchased in previous LIFE project) to which there were adapted a drop off system for fast recover.



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No.	Radio frequency	Date of transmitter attachment	Date of transmitter recovery	Capturing location	Species
1	150, 382	27.06.2006	30.07.2006	Varnita	<i>Ursus arctos</i>
2	150, 073	07.10.2006	18.10.2006	Poiana	<i>Ursus arctos</i>
3	150, 593b	11.10.2006	27.11.2006	Rosioara Mera	<i>Ursus arctos</i>
4	150, 284	03.11.2006	10.11.2006	Chiuva	<i>Ursus arctos</i>
5	150, 401	22.06.2007	04.10.2007	Beciu	<i>Ursus arctos</i>
6	150, 903	11.06.2008	23.07.2008	Bodescu	<i>Ursus arctos</i>
7	150, 243	02.08.2008	18.08.2008	Macradeu	<i>Ursus arctos</i>
8	150, 243b	10.09.2008	10.10.2008	Butucoasa	<i>Ursus arctos</i>
9	150, 284	09.05.2009	14.05.2009	Lepsa	<i>Ursus arctos</i>
10	150, 284b	05.09.2009	11.10.2009	Spulber Tojani	<i>Ursus arctos</i>
11	150, 263	08.09.2009	10.09.2009	Mera	<i>Ursus arctos</i>
12	150, 903b	15.09.2009	21.09.2009	Anghelesti	<i>Ursus arctos</i>
13	150, 073b	22.09.2009	02.11.2009	Dalhauti	<i>Ursus arctos</i>
14	150, 754	25.09.2009	14.11.2009	Mera	<i>Ursus arctos</i>
15	150, 172	18.10.2009	11.11.2009	Vizantea	<i>Ursus arctos</i>
16	150, 203	28.10.2009	17.11.2009	Reghiu	<i>Ursus arctos</i>

Post-release monitoring periods were very different, but for all specimens was confirmed successful rescue by recording the location of individuals attesting movement. Post-release monitoring of these specimens has provided information on habitat types used in certain periods and spatial movements of individuals, which are used to establish conservation measures imposed by management plans.

Also, at present there are monitored also two bears (frequencies 150.330 and 150.070), released in Vrancea Mountains after being rehabilitated at the Center for Rehabilitation of Orphans bear cubs of Harghita County. The offsprings were confiscated by ARMU team in the past years and now, after a rehabilitation period of at least 2 years at the mentioned center, they were released into natural habitat after mounting the collar equipped with GPS and cell phone (the equipment is provided by rehabilitation center). Endowing the collars with VHF transmitter allows the project team to monitor the activity of these specimens, so that behavior can be evaluated after each exemplar rehabilitation. Until now it was found that the two bear exemplars were not close to human settlements or cultivated areas, preferring forested areas where human activities are limited.

• **Individual's monitoring. Radio monitoring of the individuals captured during the LIFE02 NAT/RO/8576 project**

For 8 specimens of the species *Ursus arctos*, 5 of each species *Canis lupus* and *Lynx lynx*, whose monitoring started before the onset of the project, the action continued until disappearance of radio signal.

No.	Radio frequency	Date of transmitter attachment	Date of transmitter recovery	Capturing location	Species
1	150, 392	13.02.2004	2006	Vintileasca	<i>Ursus arctos</i>
2	150, 432	22.06.2004	2006	Clabuc	<i>Ursus arctos</i>
3	150, 093	15.09.2004	sfarsit 2006	Nereju	<i>Ursus arctos</i>
4	150, 829	17.09.2005	sfarsit 2006	Lepsa	<i>Ursus arctos</i>
5	150, 172	18.05.2005	iarna	Bahneanu	<i>Ursus arctos</i>
6	150, 232	20.09.2005	inceput 2007	Campuri	<i>Ursus arctos</i>
7	150, 808 GPS	18 aug 2004	31.01.2006	Roschila	<i>Ursus arctos</i>
8	150, 133	19.04.2005	apr 2007	Roschila	<i>Ursus arctos</i>
9	150, 715	03.07.2004	2006	Nereju Zarna	<i>Canis lupus</i>
10	150, 572	17.10.2004	2006	Roschila	<i>Canis lupus</i>
11	150, 533	12.04.2005	2006	Pr Vulpilii	<i>Canis lupus</i>
12	150, 613	28.08.2005	2006	Pr Vulpilii	<i>Canis lupus</i>
13	150, 593	16.10.2004	23.11.2005	Roschila	<i>Canis lupus</i>
14	150, 462	16.06.2004	2006	Zarna	<i>Lynx lynx</i>
15	150, 793	23.07.2004	2006	Muntioru Furu	<i>Lynx lynx</i>
16	150, 272	24.03.2005	2006	Beuca Pr Vulpilii	<i>Lynx lynx</i>
17	150, 294	15.09.2004	2006	Vintileasca Furu	<i>Lynx lynx</i>
18	150, 253	12.04.2005	2006	Zboina	<i>Lynx lynx</i>



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Through monitoring of large carnivores specimens, there were attached different types of transmitters, resulting differential outcomes involving two distinct categories of ways for action running. Monitoring specimens with radio transmitters means to avoid interrupting the row of data, assisting the exemplar at a medium range of up to 12 hours maximum from a distance of 15 km maximum in the open field. The triangulations method involves positioning the operator with monitoring equipment (antenna, receiver) in at least two locations situated at considerable distances from one another, and at an angle of whose value in the plan to determine an accurate position. These conditionings of technical nature are added low level of accessibility of mountain space, and the difficulty of field teams to monitor simultaneously several copies. Practical situation determine the monitoring of a larger number of individuals in an area that can cover the team daily and ignoring exit specimens of this area, or focus on one individual, and in case of exit of habitat, loss of contact with others.

Precise registration of locations with GPS and storage enables more faithful reconstruction of the routes of travel and activities of the monitored specimens. Data from monitoring actions were integrated into the project database and in monitoring reports, being used to establish conservation measures.

• **Mounting a 4 GPS collars at wolf and lynx (two for each species)**

The field team has conducted specific actions for areas identification within high density of carnivores, the installation and check the traps in an attempt to capture specimens of wolf and lynx for attaching GPS transmitters. Capture sessions overlapping period **2006 - 2009**, when efforts were focused on capturing two exemplars of the species *Canis lupus* and *Lynx lynx* totaled 2629 days with a total of 545 active traps, installed in 41 locations. The success rate was very low, resulting in the capture of a single copy of *Lynx lynx* species, although in the same period were recorded 44 presences in the capture sites of animals of interest species. At 8 locations in total, for 770 days, were active a-traumatic metal cages to catch lynxes, recording a single catch of a dog.

Ineffectiveness of the action may be correlate with extreme weather, small size and mechanical characteristics of used traps, imposed by the nature of their non-traumatic character, causing lower success rates. It has been found an emphasis on the failure rate proportional to the thickness of snow covering the traps, with the rainfall and soil temperature (with major negative influence).

To compensate the information provided by this method, the team focused data collection with other monitoring techniques.

*The condition number of active days in different locations of the lines of traps installed*

Location	Period		No. traps	Traps type	No. function days	Prezence of interest species (days)	Captured animals
	from	to					
Macradeu	03.09.2006	18.09.2006	23	Victor /Belisle	16	2	
Piatra Alba	15.09.2006	22.09.2006	12	Victor /Belisle	8	0	
Macradeu	25.09.2006	04.10.2006	9	Victor Soft	10	1	
Pr. Stramba	06.10.2006	15.12.2006	18	Victor /Belisle	31	2	dog
Coasa	01.11.2006	18.12.2006	14	Victor /Belisle	48	2	
Dosul Coasei	01.11.2006	31.05.2007	1	Cusca	178	1	
Pr. Vulpii	06.11.2006	20.11.2006	18	Victor Soft	15	0	fox
Pr. Tiganului	08.11.2006	04.12.2006	22	Victor Soft	22	3	dog badger
Pr. Neteda 1	12.11.2006	27.11.2006	28	Victor/Belisle	16	0	
Pr. Neteda 2	28.11.2006	04.12.2006	20	Victor/Belisle	7	2	
Geamana	05.12.2006	19.12.2006	19	Victor/Belisle	15	0	fox
Pr. Neteda 2	06.12.2006	12.12.2006	20	Victor/Belisle	7	0	
Dl. Secaturii	12.12.2006	18.12.2006	10	Victor/Belisle	7	1	fox
Pr. Stramba	21.01.2007	21.02.2007	11	Victor Soft	32	2	
Pr Pruncului	06.02.2007	18.02.2007	9	Victor/Belisle	13	2	
Pr Pruncului	15.02.2007	18.02.2007	23	Victor Soft	4	1	
V. Tisitei	17.02.2007	22.02.2007	28	Victor Soft	6	0	badger
Bahneanu	14.02.2007	15.04.2007	1	Cusca	56	0	
Bahneanu	20.02.2007	17.03.2007	17	Victor Soft	26	1	
Zboina	22.03.2007	06.04.2007	23	Victor Soft	16	0	badger
Macradeu	09.04.2007	18.04.2007	15	Victor Soft	10	0	
Horumbat	10.04.2007	15.05.2007	11	Victor Soft	42	1	
Pr. Lepsa	10.04.2007	15.05.2007	1	Cusca	47	0	dog
Zboina	08.05.2007	21.09.2008	19	Victor Soft Belisle	137	2	Wild cat
Horombat	10.05.2007	22.09.2007	1	Cusca	140	1	



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Pr. Lepsa	22.05.2007	08.10.2007	7	Victor Soft Belisle	140	0	Wild cat
Tiua	22.05.2007	19.09.2007	1	cusca	122	2	
Pr Vulpii	23.05.2007	12.07.2007	11	Victor Soft	52	3	Wild cat ,dog
Dumicus Manolea	07.09.2007	20.10.2007	17	Victor Soft	43	0	
Streiu	08.01.2008	28.04.2008	8	Victor Soft	112	1	dog
Zboina	09.01.2008	19.04.2008	19	Victor Soft Belisle	102	1	Wild cat
Piatra Alba	24.01.2008	19.04.2008	14	Victor Soft	87	1	
Coasa	14.02.2008	22.04.2008	7	Victor Soft	69	2	Wild cat
Tiua	17.02.2008	04.07.2008	1	cusca	126	1	
Lacul Tiganului	24.02.2008	04.06.2008	9	Victor Soft	132	2	Wild cat
Beuca	16.02.2008	18.05.2008	15	Victor Soft Belisle	93	1	
Stramba	17.02.2008	19.05.2008	1	Cusca	93	1	dog
Stramba	17.02.2008	19.05.2008	23	Victor Soft	93	0	
Pr. Lepsa	21.03.2008	09.05.2008	1	Cusca	60	0	dog
Porcu Puncti	20.01.2009	19.04.2009	8	Victor Soft	91	1	
Coasa	21.01.2009	30.05.2009	9	Victor Soft	131	2	
Coasa	24.01.2009	03.05.2009	4	Victor Soft	101	1	fox
Tiua	30.01.2009	11.04.2009	17	Victor Soft	73	1	
<b>TOTAL</b>			<b>545</b>		<b>2629</b>	<b>44</b>	

Determination of capturing areas, installing traps and verifying – eventually daily resettlement of these, involved major human and logistical effort unfortunately without reward with proportional success. The capture method was changed in **September 2006**, by installing a trap-transmitter system and the odor-vectors sprayers powered by batteries. Through this method it has reduced the rate of human presence near the traps, that being obligatory exclusive in case of transmitter activation, for repositioning of traps, or changing of batteries and administration odor-vectors. Although there is the belief that frequency human presence (daily) to traps in a cause, it reduced team effort, claiming to click much more fronts to capture.

On **16 February 2009** the team's efforts in attempting to capture specimens of large carnivores, in order to attach the GPS transmitters, have been successfully in capturing a lynx exemplar. To the specimen, female, it was attached a collar with VHF radio transmitter (150,962) and GPS and it was monitored by and radio telemetry, immediately after release.

#### • **Results interpretation**

Monitoring of specimens to whom there were attached only radio transmitters, involved very high human resources and logistics, also non interruption the process and strictly orientation to that copy. Collars with GPS transmitters stores information on the location to copy to a preset range for the entire period as it is attached to the animal. For GPS collars, monitoring was done weekly through radio triangulation. At the end of the preset interval for data collection, it is activate the release mechanism of detachment system of the collar of the animal and it is recovered for downloading and processing information.

Results of monitoring activities have provided support for designing and arguments conservation measures of large carnivores in the entire area of Vrancea county and scientific foundation needed to achieve the management plans of the 8 sites of Community importance designated within the project (action A3). The results of this monitoring had also led to the imposition of measures to mitigate the impact of national road rehabilitation DN2D crossing site of Communitarian Interest Putna-Vrancea. Thus, in areas that were identified overlapping of the road route with travel routes of large carnivores, it has been proposed mounting of some rubber limitation devices for reducing the speed and layout of warning/information panels on this fauna presence.

Monitoring action and data obtained from it are able to support a number of relevant conclusions and applicable to conservation including those beginning with knowledge of large carnivores species causes of trends in the evolution of populations, up to approaches of the information and awareness campaigns and bases strategies management. The study found for all species, a high mobility in the area, with trips to a distance of 40km to bear and 80km to wolf. It is obvious definition of territories reported to the limits of humanized permanent housing area. For all monitored specimens it was found the existence of an informational fingerprint which determines the periodical return in a certain place, probably originating. Traveling on long distances are correlated with time sequences in which sectors of specimens territory of different species are overlapping.

Monitoring activities have also provided support for educational activities, especially for video graphics materials production. Not least we can appreciate that monitoring activities were one of the indirect methods of efficiency



in project knowledge through materials produced, scientific communications and discussions with locals or tourists, had on trip steps.

Monitoring action was carried out in the technical coordination of EPA VN and scientific coordination of the University of Bucharest. At this action attended also partners like ADD FV and Forestry Department Focsani. All informations have been accumulated in the project database and in technical reports on the monitoring activity by radio-telemetry, GPS and GPS / GSM. A final report on this activity was achieved in 2009. The report is posted on the website of the project and was available to the public and institutions responsible for managing hunting.

## **ACTION D.2: Monitoring of large carnivores and prey species population using remote techniques**

### **Establishing the methodology of assessment for large carnivores and prey species densities using remote techniques.**

The activity was implemented in the period **December 2005 - May 2006** by the University of Bucharest, EPA Vrancea, Vrancea Forestry Department and the ADD FV. The methodology was designed for a study of three years (2006-2009), being performed a total of 15 sampling sessions of maximum 45 days, which were used to analyze 10 complete sessions. Methodology contains information about the occupancy study with passive automatic photo cameras and DNA profiling (captured through hair snares). For analysis there were used software programs ArcGis, Manifold (location, data storage), Hawth's Tools (site selection through randomized sampling) and Presence (habitat occupancy and species abundance).

The methodologies include: description of the used techniques; sampling mode; installing mode for equipments; installing sites (randomized selected); registration and archiving data forms. The activity was achieved on time and applied during the project without modifications.

### **Assessing large carnivores relative abundance using remote cameras.**

Estimate the occupancy of habitats in Putna Vrancea Natural Park was developed by Presence program. This application allowed us to estimate the probability of detection ( $d$ ) and site occupancy ( $\psi$ ). In the analysis there were included covariance, which estimate the impact of environmental factors such as type of land use on the likelihood of habitat occupancy. Subsequently, using Royle/Nichols Heterogeneity Model, for bear was established also relative abundance. For wolf and lynx, because of low occupancy rate of habitat abundance determination, it was not possible with an acceptable error margin.

In the project we defined as studied area the Putna-Vrancea Natural Park and as site, the no-overlapped cell of  $3 \times 3$  km ( $\approx 9$  km<sup>2</sup>). The sampling system of habitats occupancy probability by large carnivores, included 59 cells, thus the total area being of  $\approx 531$  km<sup>2</sup>. For taking pictures there have been used 10 pairs of cameras/video camera (model Talon - Recon Outdoors). Operation and setting mechanism was described in the work methodology. Because the 10 pairs were not always available, sampling was done also with 8 pairs of rooms. In sessions working with 8 pairs, there was covered 13.56% of the total number of cells in the study area and in sessions with 10 pairs - 16.95%.

In our study there took place 10 sampling sessions, with 3 views of the site. In 7 sessions there were used 10 pairs of cameras, in the remaining 3 sessions being used 8 pairs of cameras. Totally, cameras have been active for 450 days. If we consider each pair of cameras as independent units, in total they have worked 4230 days. Data were processed with the help of Presence program.

There have been identified species like: *Ursus arctos*, *Canis lupus*, *Lynx lynx*, *Cervus elaphus*, *Capreolus capreolus*, *Sus scrofa*, *Vulpes vulpes*, *Felis sylvestris*, *Sciurus vulgaris*, *Martes foina*, *Meles meles*.

The results indicated that probability of habitats occupancy by bear is indifferent to habitat, having a value of 0.8493. This value tells us that in Putna Vrancea Natural Park bear is present in 84.93% of the 59 cells  $3 \times 3$  km, so on 459 km<sup>2</sup> from the 531 km<sup>2</sup> investigated. Also the probability to photograph an animal at least once in an occupied site is 15.17% in the woods and 39.05% in no-woods, in the 45 days investigated per session.

Applying the Royle/Nichols Heterogeneity Model (Number of groups = 1; Number of sites = 94; Number of sampling occasions = 3) it has been concluded that Average abundance of bears 9 per sqkm =  $1.37 (\pm 0.60)$ , average number of bears per 531 sqkm being 80.83 environment. Thus in Vrancea Mountains Natura 2000 site, the average number of bears per sqkm is 0,152.

In wolf case the model that does not take into account any covariance is most realistic. The probability of habitat occupancy is 100% (we have wolves in all 59 cell  $3 \times 3$  km) but the probability of photography at least an animal in 45 days in a busy site is very small  $\approx 1.06\%$ . Note that in non-forest, the probability of occupancy is



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null, also the probability of detection, that indicate that wolf cannot be meet only by accident in other habitats than in forests.

The lynx, cryptic animal has a 100% occupancy rate of habitat and a very low probability of detection ( $\approx 1,42\%$ ). In non-forest probability of detection is 0, which leads to an occupation probability 0.

The activity was accomplished accordance with originally provisions, the information obtained by pioneered methods in Romania being used in the management process of the protected areas of project implementation. The experience has been disseminated to other teams working for the conservation of large carnivores in a series of workshops and technical reports are posted on the website of the project.

#### **Assessing large carnivores relative abundance using hair snares.**

Sessions of hair sampling took place in parallel with the assessing of large carnivores relative abundance. The hair traps, collar and rub tree type, were assembled around video cameras, sampling site being prepared also with specific attractants (concentrate for bear, fruits, Nepeta oil, valerian extract, etc). The activity was carried out, according with initial planning, by EPA Vrancea, University of Bucharest, DS Vrancea and ADD Focul Vii.

Hair samples were collected only from bears and stored initially at the LCMCC in refrigerator at  $-20$  degrees C, currently being in treatment at the University of Bucharest - Department of Organic Chemistry. The PCR processes are performed for sexing using Taberlet et al. (1993) method: two steps PCR for detection of sex marker SRY gene, using 50pg DNA as template. For individual detection we used a total of 18 microsatellite markers (G1A, G1D, G10B, G10C, G10J, G10L, G10O, G10P, G10X (Paetkau and Strobeck 1994) and MU05, MU09, MU10, MU23, MU50, MU51, MU59, MU61, MU64 (Taberlet et al. 1997)).

After PCR reaction and viewing the results of ethidium bromide, there were obtained information on sex composition of bears. These data were correlated with images of the cameras. From 45 samples obtained, 13 samples reacted, the remaining 32 having a small amount of DNA or being contaminated. For reacted samples, only 8 were female and 2 males, indicating a highly unbalanced ratio. To balance the population in the management plan, there were provided measures to reduce the number of hunted dominant male bears. There were also made recommendations for sex structural analysis in the future.

#### **Assessing the large carnivores populations based on animals' tracks, signs and scats.**

The action was complementary to that of assessments before and was used to obtain information about the use of habitats by large carnivores species and to help select the team for implementation in areas where traps have been installed, hair snares and remote cameras. Data were included in the EPA Vrancea database and used in developing management plans of Natura 2000 sites and information campaign of the local population and authorities

Studies include also diet analyze for bear being necessary for evaluate travel models for animals in Vrancea. For this action was used methodology already created in previous project, fill in only in tracks register files cases, these being rewrite. Along the monitoring actions there are described the tracks made by large carnivores, data being stocked and processed Monitoring and Rehabilitation Centre at Lepsa Funicular.

Bear scats proceeded from periods with different food reserves have preserved at the Monitoring and Rehabilitation Centre. At the centre was realized the preliminary filtration and drying the samples which were sent at Bucharest for analyzing by biologists. Obtained data (routes, tracks frequency) were processed in GIS for establishing the compositional analysis of large carnivores habitat. The data has been also registered and spatial analyzed the conflicts between local inhabitants and large carnivores.

The action was made in accordance with the original provisions, all information being used in the management of large carnivores in Vrancea and in educational campaigns.

#### **Assessing prey species relative abundance (*Capreolus capreolus*, *Cervus elaphus*, *Rupicapra rupicapra*) using the pellet count method.**

The researching has in view implementing the assessment method of prey species for large carnivores relative densities through establishing representatives indicators for density calculus, using quantification of faces groups of studied species from the further period of snow melting.

The planned stages for achieving this activity were: Documentation about studies and researches, also the results obtained at international level using this method; Placing and materialization on field of the test surfaces; Establishing the values of the indicators which intervening in ungulate relative densities calculus, in Vrancea conditions; Identifying and analyze of the factors who influence the method application; Establishing the implementation modality of the method on field; Collecting data on field; Processing the data and comparing the results with those obtained through classical methods.



There were selected 30 randomized transects with 30 stations on each sample transects, on spring and autumn of **2008**. The distance between each point station was 5 m. Azimuth of movement for each end of transects was established randomized. Within each sample surfaces with 1 m diameter vegetation was removed so that it remains the only surface litter, undisturbed. Sample surface was investigated systematically, being counted and recorded all intact pellets. Intact pellets were considered those with no obvious loss of material, without accounting that are cracked, partially broken, deformed, with moss and fungi.

The results were stored in databases and processed through methods: Pellets Faecal Index, Population changes during one season, relative abundance and habitat occupancy. Assessing population size was achieved by Standing Crop Method, population density in Putna Vrancea Natural Park being evaluated at 0.83 meters exemplars/100 ha the red deer, 0.48 exemplars/100 ha the roe deer and 0.07 wild boar/100 ha.

### **ACTION D.3: Implementing the sheepfolds' electrical protection system and extending it to orchards and crops**

Most of the large carnivores attacks have many chances of success due to the rudimentary protection systems. In this way a lot of animals and dogs losses appear, sometimes existing the risk of human life losing. The damages are usually great, and this leads to poaching. The landowners set up snares in order to repel the wild boars, but in many cases, the victims are the bears. The result of such activities is a high rate of poached animals. Proving the advantages of implementing the electric protection system for sheepfolds, orchards and crops to the people will lead to a low rate of poaching and to reduce the adversity about large carnivores.

#### **Implementing the sheepfolds' electrical protection system**

Based on similar activity initiated in the project LIFE02/NAT/RO/8576, implementation the electrical fences systems for sheepfolds protection has benefited by the equipments purchased on 2003 and the experience accumulated in 4 years by the field team. In these conditions, there have been no difficulties, exception being the cases in which equipment wear temporary obstructed some systems function. Practically speaking, the Ecosolar S17 generator accumulators, purchased in 2003 in the previous LIFE project don't stock solar energy anymore, thus risking that because of protection systems malfunction to cause important damages to animal breeders, but this impediment was removed through getting of a set of accumulators having the same characteristics.

Worth mentioning is the fact that due to floods in the summer of 2005 and totally degradation of access roads to the area the Barsesti Demonstrative Area, forced livestock breeders that in season of 2006 to remain with the sheep in other pastoral areas. In this context it was decided that electric fences be installed also at other sheepfolds that reported in previous years significant damage caused by large carnivores.

In seasons 2007, 2008 and 2009, although some access roads to the Barsesti Demonstrative Area were repaired, shepherds contracts for grazing with other mayors in Vrancea County. In the Barsesti Demonstrative Area were established only 3 sheepfolds (six originally established). Thus, beginning with 2007, the action of installing the electric fences was focused on sheepfolds organized by the Barsesti Common and the remaining protection systems were installed also at the sheepfolds from Vintileasca.

Thus, in pastoral seasons in the years **2006-2009** there were installed 22 electrified fences system (Table no...), the damage level being significantly reduced compared to traditional protection systems (Annex no...)

*The situation of electric fences assembled on sheepfolds in period 2006-2009*

Locations 2006	Owner	Species	No. animals
Barsesti Teius	Chirila Costel	sheeps	345
Barsesti Catinis	Besa Dumitru	sheeps /goats	250
Vintileasca Bahnele	Mocanu Ionel	sheeps	244
Vintileasca Plai	Tufanoiu Ion	sheeps	276
Vintileasca Furu	Noaptes Dinu	sheeps	174



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Locations 2007	Owner	Species	No. animals
Vintileasca Plai	Tufanoiu Ion	sheeps	300
Vintileasca Dupa Magura	Lalu Ion	sheeps	250
Vintileasca Muntioru	Noaptes Dinu	sheeps	200
Barsesti Cabalasu	Chirila Ionel	sheeps	350
Barsesti Catinis	Besa Dumitru	sheeps /goats	250
Barsesti Argintarie	Gheorghita C.	sheeps	500

Locations 2008	Owner	Species	No. animals
Barsesti Teius	Chirila Costel	sheeps	350
Barsesti Catinis	Besa Dumitru	sheeps /goats	200
Vintileasca Dupa Magura	Lalu Ion	sheeps	300
Vintileasca Bahnele	Mocanu Ionel	sheeps	250
Vintileasca Furu	Noaptes Dinu	sheeps	200
Barsesti Cabalasu	Chirila Ionel	sheeps	350

Locations 2009	Owner	Species	No. animals
Barsesti Teius	Chirila Costel	sheeps	320
Barsesti Catinis	Besa Dumitru	sheeps /goats	220
Barsesti Cabalasu	Chirila Ionel	sheeps	350
Vintileasca Muntioru	Noaptes Dinu	sheeps	250
Vintileasca Dupa Magura	Lalu Ion	sheeps	325

The electrical fences were delivered to the sheepfolds based on a contract signed between EPA Vrancea as supplier, town halls and physical persons responsible with surveying the sheepfold as users, the limit term for using this equipment being **15 May until 15 September**. After this date the equipments are taken over by the responsible team, for keeping and maintenance until the next pastoral season.

After the assembling of the electrical fences, teams of 2 people each have ensured the surveying of the protection system through weekly visits of sites and full filling the surveying forms for avoiding technical problems and for evaluate the task success.

Cost-benefit analysis is periodically evaluated, being achieved a sheepfold file that is permanently updated with information about attacks, the damages and eventually costs for maintenance of the protection systems.

**Implementing the electrical protection system to orchards and crops**

This action started with purchasing, on 2007, the complete electrical fences systems for orchards and crops. Thus there have been purchased **6 electrical systems** Galleger tip having the following component parts and characteristics:

Description	quantity	Description	quantity
Solar generator S20	8	Pigtail Offset	20
Cut out Switch	6	Turbo Horse Tape Insulator	60
Neon-tester	6	Offset Bracket	10
Live Lite	6	Gate handle anchor	10
Gallagher pliers	2	Gate handle anchor	6
Offset Screw-in Insulator	1	Tape Gate	12
Tape Joiner 12,5mm	20	Wooden Post "W" Black	2
Energizer-Fence Kit	12	Corner insulator	20
Geared reel 500m	6	Roller screw-in insulator	7
Turbo Tape 12,5mm	16		



Somme of the purchased parts are used also for reconditioning and assuring the proper function of electric fences assembled on sheepfolds. All components of electric fences for orchards and crops protection from project implementing area are special conceived to prevent the damages produced by wild animals through limiting their access.

The action for preventing conflicts between local inhabitants and large carnivore through implementing protection systems for orchards and crops was continued through identifying the areas and land owners which have registered having the biggest damages in the project implementing area. There have been selected 6 perimeters with orchards, forest fruits and corn crops where bears provoked numerous damages. It has been established that generally this area coincides with areas in which poaching cases through bear capturing using traps are most frequently (see the map from annex no...)

Areas in which there will be assembled electrical fences this year to orchards and crops are overlapping on Soveja, Vizantea, Campuri and Negrilesti localities.

Having in view the fact that attacks produces at orchards and crops begin in fructification season for fruits and vegetables, the protection systems will be assembled progressively depending on altitude, exposition and crop type.

Beginning with **May 2008 until the fall of 2009** there have been assembled electrical fences at a corn crop and a plum and apple orchards placed in areas La odaie, Dealul Teius, Beuca, Lacul Tiganului, Dealul Gomoiu, Piscul Radului, Valea Florii, Dealul Viei ( tabel no. )

*The situation of electric fences assembled on orchards and crops in 2008 and 2009*

Locations 2008	Owner	Land use	No. operation days
Soveja La Odaie	Costache Balbarau	vineyard and orchard	130
Barsesti Dealul Teius	Chirila Ion	corn	142
Soveja Beuca	Marasteanu R.	plum and walnut orchard	162
Barsesti Lacul Tiganului	Paraschiv Ion	corn and potatoes	172
Campuri Dealul Gomoiu	Istrate Gheorghe	plum and apple orchards	155
Vizantea Piscul Radului	Margarit Gh.	corn and vineyard	145

Locations 2009	Owner	Land use	No. operation days
Soveja La Odaie	Costache Balbarau	vineyard and orchard	150
Barsesti Dealul Teius	Chirila Ion	corn	137
Soveja Valea Florii	Vant de Vara	livada mixt orchard	125
Barsesti Lacul Tiganului	Paraschiv Ion	corn and potatoes	161
Campuri Dealul Viei	Pantazica Tudor	orchard and vineyard	136
Vizantea Piscul Radului	Margarit Gh.	corn and vineyard	132

Actions of assembling, maintaining and permanent monitoring of electrical fences function and efficiency partially has been subcontracted by a non-governmental association having vast experience in using this type of equipments.

Analysis of cost/effectiveness of this action proved once again that the existence of effective protection systems lead to diminishing the damage recorded by owners and directly reducing the cases in which bears are killed by poachers. Also it was emphasized that wild boar are mainly responsible for damage in crops and mounting traps by the owner does not target the brown bear, the latter being a "catch unwanted" by poachers. In the context of permanent analysis of damage registered by local, it has been observed that increasing the number of cases in which wild animals attacking crops and orchards is influenced by the amount of food existence naturally in habitats of the brown bear and wild boars.



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Thus, in the agricultural season 2009 it has been observed a sharp increase in the number of bears that have gone down in depression and sub-Carpathian areas in searching food. Low fructification of beech and oak, due to late frosts, has forced wild animals to move to crops and orchards in search of food. In this context the damage registered by owners were considerably higher in 2008 than in previous years, joining the same report also the number of cases in which bears were caught in the leg traps. A low level of damage was recorded in crops and orchards protected by electrified fences LIFE project, cases that still bears have entered the culture, thanks to broking poles or power loss during wet weather because of grass under the fences wires.

In order to reduce further the level of damage recorded by owners and improving the image of carnivores among locals, mounting electric fences to crops and orchards, will continue in the years ahead, through implementing this action in areas at high risk of producing damage or appearance of poaching cases on bear.

#### **Dissemination the informations about system efficiency**

After completion the evaluation of systems, there were developed dissemination actions of information obtained, in order to attempt to locate as many such systems as possible. It was printed a leaflet to explain how systems work and what is the effectiveness of protection systems, but the biggest impact was the concrete effect in reducing damage and multiplying these results by shepherds and their families.

**Leaflet** was developed by EPA Vrancea and was printed in A4 size in a number of.... copies. The leaflet entitled “*The electric fences and reducing damage caused by large carnivores*” includes information about the working principle of electric fences, how to install, components, warnings in terms of assembling an electric fence, and a providers list of protection systems for sheepfolds, crops and orchards.

Project Implementation Unit has been requested on numerous occasions to provide expertise technique to breeders who wanted to purchase such systems. Unfortunately lack of the Romanian market of such suppliers has proved to be a significant obstacle to the multiplication of these models for reduces conflicts.

#### **ACTION D.4: Animal Rescue Mobile Unit (A.R.M.U.) acting at regional level for interventions in poaching cases**

##### ***Mobile Unit staff training to save wild animals***

The current component of ARMU is based on the core team professional format in actions of wild animals rescuing in the project LIFE 02/NAT/RO/8576 “*In situ conservation of large carnivores in Vrancea County*”, which it has added new members from partner institutions, or veterinarians. The professional preparation and training sessions started once with the ARMU establishment, training structure watching knowledge and assuming by the personal of action Protocols and Methodologies and of Operating Regulations.

In period **15 April – 30 June 2006**, at the Rehabilitation and Monitoring Centre there have been trained 6 persons (2 persons from ADD FV, 1 person from EPA Vrancea, 2 persons from Vrancea Forestry Department, 1 person from CCMESI). The courses were sustained by experienced members and by team veterinary, in separately sections:

1. working regulation of Rehabilitation and Monitoring Centre,
2. regulations and intervention protocols of ARMU,
3. large carnivores species biology,
4. behavior of poached animals,
5. tranquilizing technique,
6. first-aid techniques.

Animal Rescue Mobile Unit Intervention and Rehabilitation and Monitoring Center for large carnivores, are served by the same team, which is the binder concept. Although only part of exemplars that the team comes to save, it must be held in center, it is an indispensable component of service permanently.

##### ***Activities to release large carnivores in Vrancea County***

During the progress of the project LIFE 05NAT/RO/000170 “*Enhancing the protection system of carnivore in Vrancea County*”, between November 2005 and November 2009, Animal Rescue Mobile Unit has been engaged in specific actions of intervention to save from poachers snares of **18 specimens of the species *Ursus arctos***. Of these, 17 actions were completed successfully.



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Intervention date A.R.M.U.	Location	Species
27 June 2006	Varnita	poach bear release
07 October 2006	Poiana, La Grumaz	poach bear release
11 October 2006	Rosioara –Mera	poach bear release
31 October 2006	Herastrau	poach bear release
3 November 2006	Chiua	poach bear release
12 May 2007	Cadarasti –Palanca, Bacau	poach bear release
22 June 2007	Beciu	poach bear release
11 June 2008	Bodescu	poach bear release
12 July 2008	Muntele Macradeu	poach bear release
10 September 2008	Butucoasa	poach bear release
09 May 2009	Bodescu, Lepsa	poach bear release
05 September 2009	Tojani – Spulber	poach bear release
08 September 2009	Podul Manastirii – Mera	poach bear release
15 September 2009	Valea Turcului – Anghelesti	poach bear release
22 September 2009	Padurea Dalhauti	poach bear release
25 September 2009	Valea Lungului – Mera	poach bear release
18 October 2009	Mesteacanul – Vizantea	poach bear release
28 October 2009	Raiuti – Reghiu	poach bear release

The 17 specimens for which ARMU intervened were monitored after release, being demonstrated by their moving in that area, the success of the action. ARMU has been mobilized by 3 alarms, proven after checking on field to be false.

***Other complementary actions implemented by ARMU during the project:***

- relocation in natural habitats of **2 juvenile bear specimens**, after the rehabilitation period of two years at the Center for Rehabilitation of Orphan Bears from Balan. (**18 November, 2007** – Rev. Paltinu and **15 June, 2009** – Rev. Stramba). Both specimens are from the mountain area of Vrancea County and were confiscated by ARMU team during 2005 and 2007). Now bears are monitored with the help of collars with GPS/GSM, in order to determine the rehabilitation success.
- capture in order to relocation of a habituated bear. The bear, which during of two months got usual with food provided by tourists in Tisita Gorges area, has been relocated to the Special Area of Conservation Stramba and subsequently was monitored using a radio transmitter ear tag type (**19 August, 2008** -- Gura Tisitei, Lepsa).
- confiscation from illegal owners and subsequent placement of **4 bear cubs** at Rehabilitation Center of Orphan Bears in Balan/Harghita County (**19 April, 2006** - Coza, **4 April, 2007** - Coza, **16 April, 2007** - Coza, **16 April, 2008** -- Dupa Magura village). All four bears specimens, aged 1-3 months, came from areas where dens were disturbed by logging activities. After the rehabilitation process, bears having 2-3 years old are relocated to natural habitat in the area of origin and will be monitored by attaching GPS/GSM collar system drop off.
- acquisition from illegal owners and placing in a rehabilitation program of **3 specimens of the species *Capreolus capreolus***, and **2 specimens of the species *Cervus elaphus***.

***Initiate investigations in order to find responsible of poaching cases and for discouraging this phenomenon***

In all ARMU actions there have been co-opted at the intervention moment, responsible authorities in terms of hunting fund managers for that region, represents of police and local authorities. With all these institutional structures ARMU worked also post intervention. At the moment of ARMU intervention, the presence of represents of hunting fund managers and of police, there are recorded in writing the situations in the field and issues identified and it is started the research procedures and establish of authors of poaching cases. ARMU team made available to research institutions all necessary information and evidence (fragments of the sides, hair samples, photographs, descriptions of the capture zone). On the occasion of all these poaching cases, it was concluded with specialized institutions (local police and hunt management fund manager), a statement of starting the investigation procedure. One of the most important evidence of this collaboration was the feedback resulted in the fact that in 98% of cases, requesting of ARMU was initiated by one of these institutions.



### ***Ensuring permanent shifts at the Large Carnivores Rehabilitation and Monitoring Centre***

Operative team within the Center for Monitoring and Rehabilitation of large carnivores and that the Animal Rescue Mobile Unit, ensure permanently the availability for specific interventions. This translates into a program of permanent activity of the staff which has all necessary logistics. A sustained awareness campaign doubled by the presence in the territory and successfully interventions, are elements that lead to a better perception of the population in relation to the role of the Monitoring and Rehabilitation Centre of large carnivores and Animal Rescue Mobile Unit. Based on the portfolio, the team became known in the territory and chances of interventions on time to save the animals have increased.

Character of constant availability and broad coverage, both of the county area and its surroundings, and also of a large casuistry, is supported by the operation Center, the ARMU and the team to serve them. Activity at the Center is permanent, but the retrospective on his revealing two periods in which it develops. It is about spring and early summer, when cubs, especially the bear, leave dens, and that fall, when bears search for food in crops or in orchards from lowland habitat near human habitation.

Annual, there was achieved the *Reports on activities of Animal Rescue Mobile Unit and Rehabilitation and Monitoring Centre* (on **June 2007**, **June 2008** and **May 2009**) by the EPA Vrancea, being described the activities developed by Intervention Unit team during the project. The chapters are:

#### **A. Activities**

Animal Rescue Mobile Unit  
Rehabilitation and Monitoring Centre of Large Carnivores

#### **B. Personnel involved in intervention, rescue, care and monitoring actions**

Permanent shifts  
Capacity in territory covering

#### **C. Analyse of the Rehabilitation and Monitoring Centre for Large Carnivores and the Animal Rescue Mobile Unit efficiency and function**

Also, it was drawn up a detailed final report including the full activity of ARMU and Rehabilitation and Monitoring Center of Large Carnivores. This was achieved with the final report and is attached to its.

### *6.4 E. Public awareness and dissemination of results*

#### **ACTION E.1: Promoting the project objectives and results**

For making known to the public the debut of the new LIFE Nature project in Vrancea, the project secretariat offered to local and national mass-media several press releases having as main message promoting the project goal and objectives. At the same time, articles like “*Assistance for large carnivores*” or “*Hospital and ambulance for bears and wolves*” have presented some aspects in a manner somehow oriented to sensational, referring to the establishing the Animal Rescue Mobile Unit and the Large Carnivores Rehabilitation and Monitoring Centre.

Having in view that project promoting represents an essential condition for project activities success, between **June – Decembre 2006**, there has been achieved the toolkit for project promotion. CCMESI and ADD FV has been conceived and realized until **20 June 2006** several promoting materials like **3000 leaflets in RO** and **1000 leaflets in EN**, containing information about the project goal and objectives and **1000 personalised paper folders**, in **September 2006 (13.09.2006)** being also produced **500 plastic pens**, **500 stickers** and **500 pins** with LIFE logo.

The media team formed by represents of EPA VN, ADD FV and CCMESI has achieved in **10 May 2006** the project web page (which can be accessed on the [www.carnivoremari.ro](http://www.carnivoremari.ro) address). The web page, entitled “*Enhancing the protection system of large carnivores in Vrancea County*” is structured as follow:

- ◆ *Home* (First page; LIFE02NAT/RO/8576)
- ◆ *Management actions* (Management plans; Electrical fences; Intervention Unit; Monitoring the large carnivores & prey; Natura 2000)
- ◆ *Project* (Goal and objectives; Partners, Staff; reports and products)
- ◆ *Educational campaign* (Promoting the protected areas network; Poach preventing; promoting the benefits of Natura 200 network and the local network; Education in schools)
- ◆ *About large carnivores* (Wolf; Bear; Lynx)



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- ◆ *Photo gallery*
- ◆ *Contact*
- ◆ *English version*
- ◆ *Vrancea*
- ◆ *Protected areas*

For better promoting of project objectives and result, the media team formed by represents of EPA VN, ADD FV and CCMESI has achieved the English version of the project web page. The page entitled “*Enhancing the protection system of large carnivores in Vrancea County*” can be accessed on the <http://www.carnivoremari.ro/index.php?lang=en> address.

For ensuring good information of Vrancea inhabitants, in front of the headquarters of the main project partner institutions, there have been posed presentation posters of the project LIFE05/NAT/RO/000170, at the EPA Vrancea headquarter being installed a project presentation panel with project goal and objectives. Also, at the reconstruction points and where there are developing field activities, there have been posted informative posters like the panels placed at the Rehabilitation and Monitoring Centre in Lepsa Funicular.

For marking the limits of the Natural Park Putna-Vrancea, EPA VN has been produced in **October 2006** and assembled in **12 April 2007**, a number of **4 informative panels** (2m x 1m) containing the park map (achieved by CCMESI) with the main special conservation areas, touristy routes and attraction points, information about the park and also park rules. The panels are realized on a structure made of specific area materials (raw oak wood, carved river stone), being placed at the going out point of Tulnici, on the road through Soveja, in Lacauti point near the meteorological station and at the Galaciu.

At the annual scientifically communication session of Bucarest University, Geography Faculty in **19-25 November 2006**, represents of beneficiary and partner institution from the project presented the following works:

- Chiriac Silviu, Nanu Matei, Oprea Sorin, Sandu Radu Mihai –Putna Vrancea Natural Park –key element in large carnivores protection,
- Oprea Sorin, Nanu Matei, Chiriac Silviu, Sandu Radu Mihai – Activitaty and territory of a wolf female in Vrancea,
- Oprea Sorin, Nanu Matei – Analyse the efficiency of monitoring methods through radio-telemetry of large carnivores in Vrancea,

In **23 – 24 November 2006**, at the International Conference „Biodiversity conservation – from genes to habitats” in Davos, Laurentiu Rozylowicz and Steluta Manolache, represents of CCMESI, University of Bucharest, had presented „*Ecological network for large carnivores in Romania – from local to national scale*”.

In order to disseminate the information referring to this project, members of the project actions implementation teams attended at a national scientific conference which have been developed in France. Thus, in period **15-17 May 2008**, took place at Luchon, France, the Symposium Life Coex 2008 “*Bears, wolves and men: European initiatives for coexistence and development*”. The subjects discussed referred to: damage prevention methods – the human dimension; livestock protection; guarding dogs, stray dogs; wildlife and ecotourism in Europe; local population and large carnivores; bear-friendly products promotion in France and the foreign experience. Silviu Chiriac and Sandu Radu attended at this meeting from the LIFE project with a poster containing information about actions developed in project “*Enhancing the protection system of large carnivores in Vrancea County*”.

Promoting the project actions and results has been made also through dedicate an important space in the scientific book “*Essentials of conservation biology*” edited in Rumanian language by Richard B Primack, teacher at Boston University and Patroescu Maria, Laurentiu Rozylowicz, Cristian Ioja from University of Bucharest. This book dedicates an important space presenting the large carnivore’s conservation actions from Vrancea County and results obtained through applying of monitoring methods.

Between **8-9 June 2007**, at the CLMCM in Lepsa, it was installed an info-tent, with this occasion being achieved a photo exposition entitled “*Large carnivores and habitats populated by these animals*” and being disseminated materials produced in the LIFE 05 NAT/RO/000170 project. For organising this event, there have been attended EPA



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VN together with Putna Vrancea Natural Park Administration and environmental NGO Association for Biologic Diversity Conservation.

The project **newsletters** “*Enhancing the protection system of large carnivores in Vrancea County*” were achieved by EPA VN members from the project educational team. These newsletters are informative reports, having as purpose offering details about actions developed in the LIFE project. Each appearance of the informative report has had a circulation of 20 exemplars, being distributed to all persons involved in the project. Thus, each project partner was informed also through this communication means, about activities developed concomitant by other project partner institutions. One informative report is structured as follow:

- *Monitoring large carnivores through radio-telemetry: marking of exemplars released from snares; installing trap lines*
- *Assessing large carnivores through remote techniques: hair snares; automatic photo cameras; animal tracks, signs and scats; pellet method*
- *Implementing modern protection systems: implementing electric fences to sheepfolds; implementing the electric fences to orchards and crops*
- *Elaboration the management plans*
- *The management plans*
- *Intervention actions of ARMU*
- *Awareness campaign: promoting the protected areas network for large carnivores; preventing poaching and human-large carnivores conflicts; promoting the social an economic benefits of implementing the Natura 2000 network and local network; promoting the concepts of large carnivores conservation and Natura 2000 in the children environment*

In order to create an accurate image on the situation of species of brown bear population, EPA Vrancea by Implementation Unit of Project LIFE05NAT/RO/000170, has launched a press release on the topic of “*Brown bear population in Vrancea*”. There have been addressing issues such as: general characteristics of the species of *Ursus arctos*, threats and limiting factors for bear in Vrancea County, brown bear - threat and threatened, bears in Vrancea and large carnivores conservation, with specifying the project results until that date. This information was sent to the National Agency for Environmental Protection on **7 August 2008**, following that the institution to use the information for counter some tendentious disinformation actions of the public in Vrancea region and the country.

In period **17-19 November 2008** at Brussels, it was developed the conference *Learning from LIFE – best practice for nature conservation in Europe*, where there were attended by the LIFE Nature LIFE05NAT/RO/000170 project, Rodica Bongeag and Nadia Chiriac from EPA Vrancea. Thus, there were examined the role of the Nature component of the EU's LIFE programme as an instrument to support the implementation of the EU birds and habitats directives and the Natura 2000 network, encompassing the Commission Communication on “Halting the loss of biodiversity by 2010 – and beyond”.

Through a series of eight workshops, participants had the occasion to discuss ‘best practice’ approaches to practical and policy based actions, our project team members participating at sessions having as theme “Forests” and “Species conservation”.

The first day of the conference was held the poster session, here Rodica Bongeag and Nadia Chiriac exposing the project promoting poster, entitled “*Enhancing the protection system of large carnivores in Vrancea County*”, where there were presented the goal, objectives and actions with main activities achieved until that moment.

Updating the project web page was achieved in **May-July 2009** period, being actualised mostly of access buttons. Thus, there were introduced materials made so far in the project, at this time could be accessed in pdf format, all information and educational materials, reports and management plans. It also has been considered and photo gallery and added pictures captured during the conduct of various activities in the field.

Promoting LIFE05NAT/RO/000170 LIFE Nature project “*Enhancing the Protection System of Large Carnivores in Vrancea County*” and LIFE02NAT/RO/8576 LIFE Nature project “*In situ conservation of large carnivores in Vrancea County*”, was achieved also through thesis “*The potential environmental and biological exploitation of protected areas in Vrancea County*” supported by Silviu Chiriac on October 22, 2009 at the University of Bucharest, Faculty of Geography when he presented in front of an audience formed by students and university teachers, the summary of his work.



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### Layman report

According to SAP, the Lyman report was prepared and disseminated. This report was printed in 100 copies in Romanian and 50 copies English and was posted on the website of the project.

Along project developping, **61 articles** and press releases have been published, abot actions under the project, being registered **12 local radio interviews** at local radio and a series of anounces on the Internet. On these occasions it was promoted the concept of Natura 2000 network and the concept of local protection network, the education campaign in schools and implementation of protection systems against attacks by large carnivores. There also have been registered **11 appearances** at national and local TV. With these occasions there have been promoted the educational campaign in schools, monitoring activities of large carnivores using remote techniques, implementing the protection system against large carnivore attacks, one of them consisting in broadcasting the documentary “*In situ conservation of large carnivores in Vrancea County*”.

He also appeared in the environment and ecology journal *InfoMediu Europe* no. 10 (47) in the period **25 October to 25 November 2009**, an article entitled “*Protecting the biological diversity in Vrancea County*”, in which reference is made to the just ended project LIFE Nature “*Enhancing the protection system of large carnivores in Vrancea*”.

### **ACTION E.2: Raising awareness campaign – promoting the protected areas network for large carnivores conservation**

In order to achieve the web page referring to the protected areas for project implementing area, beginning with **April 2006** it has been conceived by CCMESI its structure. Web page has been conceived in such manner that to assure a complex information about protected areas from Vrancea County, as for the legal framework also for their description.

The web page “*Protected areas in Vrancea*” is hosted in the project web domain [www.carnivoremari.ro/rezervatii](http://www.carnivoremari.ro/rezervatii) and it has the following structure:

- *Home*
- *Types of protected areas* - description of European and national protected areas types: Scientific Reservations, Natural Parks, Nature Monuments, Natural Reservations, National Parks, Special Conservation Areas (ASC-SCI), Special Areas for Bird Protection (ASPP-SPA), Wet areas of International Importance, Biosphere Reservations, Avifaunistic Special Protection Areas (ASPP-SPA)
- *Protected areas in Vrancea* – list of protected areas from Vrancea County and their evolution in time (1973-2006)
- *Mountain protected areas* – list of mountain protected areas, description of limits, characteristics, access modalities, land owners and administrators
- *Tourism in protected areas* - principles of tourism practicing in protected areas
- *Economic activities in protected areas* - Principles of activities practicing in protected areas
- *The property and protected areas* - information about exercising the property right in protected areas
- *Founds for the protected areas* – description the funds which can be accessed in protected areas: European Fund for Agriculture and Rural Development (FEADR), European Fund for Regional Development (FEDR), Financing Instrument for Environment (LIFE+), the 7-th Frame Program for Research (PC7), Environmental National Fund
- *Education for protected areas* – principal objectives of education for environment
- *Protected species in Vrancea* - describing the protected species in Vrancea
- *Protected habitats in Vrancea* - describing the protected habitats in Vrancea
- *The applicable legislation in protected areas* – legislative system applicable in protected areas
- *Contact* - project contact data, protected areas administrators, bibliographic sources used, webdesing

With the occasion of celebrating the **Biological Diversity Day**, in **22 May 2006** took place a meeting organised by EPA Vrancea with pupils at the Popular Athenaeum „Maior Gh. Pastia” in Focsani, where it was presented the LIFE project “*Enhancing the protection system for large carnivores in Vrancea*” and the Ecological Network for large carnivores protection. The meeting had as objective the awareness about the protection need for biological diversity and of the importance of each species in keeping the ecological network equilibrium.

On **5 June 2006**, EPA Vrancea realised a presentation of LIFE05/NAT/RO/000170 project and of the Ecological Network for large carnivore’s protection, in order to celebrate the **Environment Day**.



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In order to promote the protected area network for large carnivores conservation it been developed a series of meetings with local leaders from implementing area of the project. These meeting followed to informing leaders about protected area network for large carnivore's conservation and importance of large carnivore's protection and the European ecological network Natura 2000. The meetings have developed as follow:

- In **16.02.2007** it has developed a meeting with leaders from Gresu;
- In **12.03.2007** it has developed one meeting with leaders from Tulnici and Lepsa;
- In **28.05.2007** it has developed a meeting with leaders from Soveja.

At these meetings, the team formed by Florea Ioan ADD FV, Podaru Bogdan Alexandru ADD FV voluntar, Plesa Silviu voluntar ADD FV, Bonceag Rodica EPA VN, has presented an information set including: informations about LIFE project "*Enhancing the protection system of large carnivores in Vrancea County*" (goal, objectives, expected results); ecological network - achieving stages in Vrancea, necessity of ecological network; large carnivores – information on biology and their behaviour; pro and against arguments for protecting large carnivores, negative effects of large carnivores disappearance.

At these meetings there have attended a number of 40 formal or non-formal local leaders (represents of local council, teachers, police, priests, medics, mayors and vice-mayors). Discussions ware centred on the following aspects:

- Large carnivores behaviour given with human
- Importance of Ecological network for large carnivores protection in maintaining forestry ecosystems
- Advantages and disadvantages including in Natura 2000 ecological network
- Financing modalities for local projects
- Compensation scheme for damages produced by large carnivores

The principal result of this series of meetings was reducing the rejected level of local leaders for large carnivores, through a better knowing of these species behaviour and through understanding animal reactions on human communities. Also, local leaders have understood the community role which must be adopted in the future about protecting habitats and assuring food for large carnivore.

In order to promote the protected areas network for large carnivores conservation, CCMESI, Geography Faculty from Bucharest end EPA VN have organized in period **8-9 May 2008** a practical application into the Putna–Vrancea pSCI, with a group of 120 students of Geography Faculty. With this occasion students made a trip in Roschila and Tisita areas where they have been informed about local ecological network of protected areas for large carnivores protection and habitat types favorable for maintaining viable population of large carnivores. Visiting the Rehabilitation and Monitoring Centre, students has been trained on monitoring techniques performed in the LIFE project, including monitoring through telemetry methods and surveying with photo camera.

For collecting the information necessary to achieve the brochure about local ecological network for large carnivores protection and that referring to Putna Vrancea Natural Park as key element in large carnivores protection, there has been proceeded trips on touristic routes which traverse these areas and, with GPS help, there were localized points which are representative from touristic point of view. Information about protected areas was updated with data obtained from monitoring actions of large carnivores and prey species.

**The brochure** "*Vrancea County Protected Areas - large carnivores protection network*" was designed to promote protected areas through their uniqueness. Thus, there were considered 2 relevant issues, namely: they were designed to protect large carnivores and they are part of the local network for large carnivores protection. During **January-March 2009** there have been selected materials used in carrying out the brochure, which is structured as follows: history - giving the concerns about environment protection in the Vrancea region and historical events that influenced the implementation of this concept, protection network of large carnivores - explaining basic concepts and listing of protected areas that are part of this network, a detailed presentation of protected areas that are part of the protection network for large carnivores. The brochure was achieved in **March 2009**, being produced in 2000 copies, which are distributed in the presentations sessions in schools participating in the contest of drawings and essays. Dissemination action targeted also people living near protected areas and institutions from protected areas.

In the same context there was designed also **the brochure** "*Putna-Vrancea Natural Park - a key element in the large carnivores conservation*", aiming to understand the fact that, conservation of biodiversity is effective only through establishing protected areas, in this case, the establishment of the Putna Vrancea Natural Park. Thus, a team



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from the University of Bucharest, achieved in the period **October 2008 – June 2009** the draft version of the brochure, which includes the following aspects: location, establishment, large carnivores- logo species of the Park (brown bear-strictly protected species, wolf-strictly protected species, lynx-protected species), topography, hydrography, climate regime, the regime of rainfall, wind regime, biological diversity, flora, fauna, habitats of communitary importance, tourism (types of sustainable tourism activities, tourist routes, restrictions), zonation of Putna -Vrancea Natural Park (area of strictly protection, integral protection areas, areas of sustainable management, areas of sustainable development of human activities). In **August 2009** the brochure was finalised and after considering offers printing, it was chosen the typography with best report value-quality, on **August 2009** being produced in 2000 copies. They will be disseminated locally through to raising awareness campaigns.

In **24.04.2009**, on the Earth Day celebration, there were held educational activities at the EPA Vrancea, together with students from Focsani AL.I.CUZA College. During this meeting there were presented to students information on the following issues:

- What are protected areas
- European network Natura 2000 in Vrancea County (presentation of SCI and SPA, their importance in the sustainable development process of Vrancea County)
- Ecological network for large carnivores protection (the concept of ecological network, stages of achieving the network in Vrancea, network necessity )
- Putna Vrancea Natural Park (arguments that led to its creation, its position in the national and regional of protected areas network)
- Large carnivores - information in terms of biology and behavior
- Pros and cons of protecting large carnivores
- Negative effects related to the disappearance of large carnivores
- Presentation documentary film resulted from the first project LIFE Nature 8576

In **04.06.2009**, EPA Vrancea in cooperation with Park Administration and ACDB Focsani, conducted a series of actions for greening the radius of Putna Vrancea Natural Park in protected areas Cascada Putna and Cheile Tisitei. At this action there have participated 21 employees from EPA Vrancea, 10 employees of the park administration, 10 volunteers from the ACDB non-governamentale organization and 25 students of the Tulnici School. Through this actions, we tried to promote values represented by protected areas, particularly those on the Putna-Vrancea Natural Park range, on this occasion being shared promotional materials within 05/NAT/RO/000170 LIFE LIFE Nature project.

### Workshop

In order to dissemination of project results “*Enhancing the Protection System of Large Carnivores in Vrancea County*”, between **07-09 octombrie 2009** EPA Vrancea together with the University of Bucharest - Center for Environmental Research and Impact Studies organized scientific workshop entitled “**Conservation of large carnivores in Romania - Current and future issues**”, held in Lepsa, Vrancea County. At this workshop were invited representatives from governmental institutions and NGOs working on environmental protection and research: EPA Covasna, EPA Mures, EPA Harghita, Transilvania University, ICAS Brasov, WWF Danube Carpathian Program, Association for Conservation of Biological Diversity, Association for Nature Values Conservation, Putna-Vrancea Natural Park Administration, Vanatori-Neamt Natural Park Administration, Association for Sustainable Development "Live Fire" Focsani, Forestry Department Focsani.

Issues covered during the scientific workshop were: local and national initiatives for protection of large carnivores, large carnivores in Romania - state of knowledge, methods of assessment and management, large carnivores and local communities.

In the beginning of the meeting, was officiate opening of working session and presentation of participants, following that presentations and discussions session to take place over two days, last day being reserved to practical applications in the field.

For presentation of works achieved by LIFE project teams „*Enhancing the protection system of large carnivores in Vrancea County*” there were used data contained in reports realized within the 2 LIFE Nature projects as follows:

- Management plans for protected areas (LIFE Nature 000170);
- Reports of ARMU and Centre for Rehabilitation and Monitoring of Large Carnivores activities (LIFE Nature 000170);
- Ecological network statute (LIFE Nature 8576);



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- Feasibility study for ecological network for large carnivores protection in Vrancea (LIFE Nature 8576);
- Work methodology for capturing, tranquilization, collaring the wolf, lynx exemplars (LIFE Nature 000170);
- Communication strategy on Natura 2000 sites from Vrancea (LIFE Nature 000170);
- Educational campaign evaluation (LIFE Nature 000170).

Workshop ended with a practical application, organizers performing with workshop participants, a travel to large carnivores Rehabilitation Center - Lepsa and in protected areas Cheile Tisitei and Cascada Putnei. With the occasion of workshop developing, EPA Vrancea sent a press release informing about the themes of this meeting and about the participating institutions.

In local and national press there were diffused a number of **9 articles**, being broadcasted 2 interviews at local station Atlas TV entitled “*Protected areas in Vrancea*” and one interview at Radio Iasi – *Protected areas in Vrancea County*. Through the articles, population of Vrancea was constantly informed about the protected areas existing in Vrancea area also about activities with conservative character from the project, developed in these areas.

**ACTION E.3: Raising awareness campaign – preventing poaching and human-large carnivores conflicts**

In order to analyze the poaching cases and debate ways to reduce poaching, there were organized meetings with local authorities and local people from project area.

Thus, in **12 September 2006**, EPA VN together with ADD FV organised a meeting with local inhabitants, developed at Putna Water Fall. At this meeting attended **35 locals**, also represents of local councils, police, teachers, medics and priests from Tulnici, Lepsa and Coza. The presentation has included the following aspects:

- o LIFE project – Enhancing the protection system of large carnivores in Vrancea County (goal, objectives, expected results, relation with previous project);
- o Analyse poaching situation for large carnivores species (poaching cases, poaching reducing modalities);
- o Legal provisions – sanctions in poaching cases;
- o Electrical fences – a possible solution for diminishing conflicts between humans and large carnivores

The project team has had free discussions with locals in order to find their opinion about large carnivores, the main causes which lead to poaching cases appearance and modalities for avoided these situations. The entire event had the role to collect information and opinions from local inhabitants which to represent the start for poaching reducing campaign

EPA VN together with ADD FV organised on **13 February 2007**, in the sitting hall of EPA VN, a working meeting with decisional factors at county level, around poaching, beginning with poaching cases meat in Vrancea, and with local’s opinion. At this meeting attended represents of main institutions with attributions in poaching control: EPA VN, ADD FV, Forestry Department Focsani, County Association of Sportive Hunters and Fishers (AJVPS – administrator game funds), Bureau of Guns, Explosive and Toxic Substances (AEST) from Vrancea Police Inspectorate, Territorial Inspectorate for Forestry and Hunting Regime (ITRSV). At this meeting there was presented the following:

- LIFE project – *Enhancing the protection system of large carnivores in Vrancea County* (goal, objectives, expected results, relation with previous project);
- ARMU functioning at regional level;
- Analyse poaching situation for large carnivore’s species (poaching cases, poaching reducing modalities).

There took place discussion about applying the new Law for Hunting fund protection and it has been established approaching and implementing manner of poaching and humans-large carnivores conflict prevention campaign. It has been concluded that as long as the law has not established the compensation modalities for damages made by large carnivores, it is difficult to present a message which to have in view the interest of both sides. Also it has been established that, what can be done in the first part of campaign, is to determine people to know law rigors and to awareness the risk at which they are exposing. As a result of this meeting, the represents of the 6 participant institutions has constituted a working group for poaching control and prevention the conflict between humans and large carnivores.



In **27 May 2007**, with the occasion of celebrating 200 years of documentary attestation of hermitage from Valea Neagra, Herastrau, it took place an awareness campaign for poaching diminish, this event being an important one in locals life. At this event attended about **500 persons** from Vranceaia, Naruja, Nistoresti, Focsani, Paltin and Nereju. With this occasion the project team installed a tent/expositional pavilion where there were posted banners and posters about the present LIFE project, being disseminated more than 1000 informative materials. The participants at his event had the occasion to vision a photo exposition about large carnivores and the habitats populated with these species. Because the action from Valea Neagra hermitage was a religious one, the project team has adapted their message, speaking firstly about the demand, "do not kill" – do not kill humans or animals, neither directly nor indirectly through pollution or habitat destruction. An ecological patrol with **25 children** from Prahuda School, dressed in t-shirts and caps with LIFE logo, distributed informative materials and discussed with people. With this occasion it has been achieved a thematic flyer entitled "*Awareness campaign for poaching and humans-large carnivores conflict prevention*" having the following messages:

- "Do not kill living beings because we kill life" – material wrote by priest Conferential Doctor Ene Ionel;
- Law protection for 3 large carnivore's species;
- Forbidding detaining, capture and killing exemplars from these species.

In period **March – May 2008** there have been conceived and achieved several educative materials having as subject poaching, conflicts appeared between people and large carnivores and danger represented by leaving house waste, having as possible result appearance of habituate bears. Thus, there have been achieved: *a banner* and *a flyer* having as subject poaching, *a leaflet* about human-large carnivores conflicts and *a stick* with warning message against inadequate leaving house waste.

**The Leaflet** "*People and large carnivores between conflict and coexistence*" includes information about the pass and the future of wolf, bear and lynx species, modalities to reduce conflicts between local inhabitant and large carnivores and also a general presentation of the situation in which these species and peoples are forced to leave together.

**The flyer** "*Poaching – an illegal activity*" describe poaching and illegal hunting notion, who are the qualified institutions for taking legal measures for poaching sanctioning and there was presented poaching practices and which are the repercussion of these practices at species level. Also it is referring at situations in which there are meet poaching actions having as propose orchards, crops and sheepfolds protection from wild animal's attacks, as well as modalities of damages diminishing.

Through the **banner** "*Stop poaching!*" it has been released a message which it is explained that poaching is an offence punished with prison, this message being accompanied by a suggestive photo. In **28 May 2008** it began banners assembling, after it has been obtained the assembling authorisations from all city halls from project implementation area. It has been produced a number of 50 banners, from which, 25 (double face) were achieved for assembling on public illumination street pillars, the rest being placed on plane surfaces in areas with intense pedestrian traffic. Assembling was achieved by a project team formed by EPA VN and ADD FV members.

**The stick** for garbage containers from areas in which there exist the danger of bears appearing, contain the message "*A bear feed at the garbage is a dead bear*", being made an awareness appeal of the fact that through throwing house waste into the container and closing it, the safety of local inhabitants will rise and in the same time it will bring a contribution for bears protection. The sticks were sticked on all house waste containers from Lepsa, Gresu and Soveja, and also in areas in which it has been found uncontrolled depositing of house wastes. The action began on **28 May 2008**.

Meetings with local inhabitants, for explaining legal proceedings for poaching activities in the context of actual efforts of conservation, were organised by EPA VN and ADD FV, using "*door to door*" method. It has been considered that this method of dialogize with locals about poaching subject is much more efficient because of people reserve, given the situation in which they are forced to discuss publicly about illegal activities. Such discussions with local inhabitants developed in period **September 2007 – April 2008** in Vidra, Nereju and Vizantea localities, being sustained by ADD FV members.

The campaign for poaching and conflict prevention continued also in this period, through implementation of planned activities. For transmission to local people the legal framework about poaching and to promote conservation efforts carried out in the project, there were held meetings with locals in the villages from project area in the following locations: Paltin (**28/06/2008**), Dumitresti (**23.08.2008**), Jitia (**23.08.2008**), Barsesti (**24/08/2008**). The meetings were held mostly at city halls but there were organised also discussions "*door to door*" type, in villages in which, due to authorities disinterest, there could not be held formal meetings. With the occasion of the meetings, there was disseminate the materials produced into this project and promoted the activities developed by ARMU team, and those relating to use of modern systems, to mitigate the damage. Also,



there have been presented to local people, the necessary legal procedures to attract some compensation for damages, caused by wild animals. In localities where there took place poaching acts, for local people there have been presented films and photographic materials with bears released from snares, being in this way aware of the risks to which they are exposed when they hurt wild animals. Generally, it was found a confusion attitude among the locals but also a negative attitude towards large carnivores, mostly in areas where the damage level was increased. There were also situations in which the project team has been refused, amid distrust of local people for the local authorities and in particular because the state's failure to give compensatory payments.

Meetings with local authorities were organized in other three locations, in periods in which economic and administrative activity is reduced. Thus, meetings were organized in the following locations: Terchesti (**10.12.2008**), Herastrau (**10.12.2008**), Vranceoiaia (**13.12.2008**). Mostly, these meetings have followed the analysis of poaching cases and identifying some ways to prevent them. Promoting rescuing actions of wild animals followed to involve the project team in all possible poaching cases, for saving a highest percent of injured exemplars. The lack of a clear legislation which to sanction poaching and breeding in captivity of wild animals, and especially non-interference of state authorities in preventing poaching, make this topic permanently remain a hot issue in the list of project team.

In order to prevent conflicts between human communities and bears, it was conceived a material which to inform the public about the threat of storage of domestic garbage in unsuitable conditions.

**The flyer** "*A bear fed at garbage is a dead bear*" contains information about the danger of leaving house waste outside closed containers, leading in this way to appearance of habituated bears. It was conceived in the A3,5 format, containing a brief introductory material, a story about a female bear, forced together with her cub to use food representing leaving house waste located near the garbage, because of habitat restriction, having as result an undesirable situation. The flyer also contains a list of suggestions on how to remove or restrict the bears, which could be attracted to leaving house garbage placed inside households, a warning message about removing the danger represented by habituated bears by removing the usual household garbage available to them, and a call to the community help which to support this action.

The local media have been published information referring on poaching cases of some specimens of large carnivores and there were promoted actions to mitigate the damage caused by them. In this way, there have been written press releases in several cases in which damages caused by other species have been awarded to large carnivores. The poaching cases solved through rescuing actions, had echo in local press and on a national TV. Thus, there are **8 articles about bears poaching cases and rescue actions** and there have been registered **4 appearances**, **2** at the local station Diplomatic TV and national station Prima TV entitled "*Bear cub saved in Mera*" and **2** at TV Atlas and Diplomatic TV about project promotion, ARMU and anti-poaching campaign.

Analysis of information referring to the poaching level, but also analyse of poaching cases where ARMU team has intervened, emphasize the fact that generally, the direct or indirect poaching level has significantly decreased on the range of project implementation.

#### **ACTION E.4: Raising awareness campaign – Promoting the social and economic benefits of implementing the Natura 2000 network and local network for Large Carnivores protection**

In order to rise the understanding level of Natura 2000 concept and socio-economic benefits generated by including the protected areas from mountain part of Vrancea into the European ecological network Natura 2000, it was implemented through the LIFE project LIFE05/NAT/RO/000170 an educational campaign supported through conceiving, editing and disseminating informative materials which have as subject Natura 2000 network and local network for large carnivores protection.

For promoting socio-economic benefits of Natura 2000 network, the materials and the communication manner were achieved based on "**Communication strategy of Natura 2000 concept**". The strategy was achieved in **April 2007**, starting on EC recommendations and includes:

- Description of strategy tools: information and communication;
- Base principles in communication strategy;
- Responsibilities and objectives of communication team;



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- Analyse of existing communication canals;
- Approaching interested parts afferent to Natura 2000 protected area;
- Structure of communication strategy;
- Evaluation of communication impact.

In the precincts of Vrancea County Council at Focsani, in **29 September 2006** it took place the meeting with authorities of Vrancea County and stakeholders, having as main purpose informing about Natura 2000 concept and propose some areas as Natura 2000 sites overlapped on Vrancea County territory. At this meeting participated a number of **36 persons**, mayors and represents of halls from Vrancea County (Paltin, Reghiu, Nereju, Barsesti, Valea Sarii, Naruja, Tulnici, Gura Calitei, Spulber), represents of different local communities, protected areas administrators, also the represents of Vrancea Forestry Department and AJVPS. The meeting has been organised by ADD FV, EPA Vrancea and Vrancea Consultative Council.

Within the framework of this action in **September 2006** was achieved a leaflet having as theme the “*Natura 2000*” concept, this being an informative base used at the meeting developed in Focsani, in order to disseminate the information referring to notions about Natura 2000. The leaflet was printed in a number of 3500 pieces in Romaninan and it is structured as follow:

- *Why Natura 2000?*
- *Who the legislative framework is?*
- *What does Natura 2000 mean? (goal and objectives)*
- *Which are the advantages?*
- *What obligations have we?*
- *What will happen after Natura 2000?*
- *Lists of areas proposed as Natura 2000 sites*

In **17 November 2006**, at the precincts of Vrancea County Council at Focsani, took place the second meeting with the authorities of Vrancea County and stakeholders, having as main scope informing about Natura 2000 concept and proposals some areas as Natura 2000 sites overlapped on Vrancea County territory. The meeting has been organised by EPA Vrancea, ADD FV and Vrancea Consultative Council. There have participated persons from Paltin, Reghiu, Nereju, Barsesti, Valea Sarii, Naruja, Tulnici, Gura Calitei, Spulber. The presentations had as subject “*Natura 2000 for all understandings*” and “*Financing sources for Natura 2000 network*”, being presented by Silviu Chiriac and Rodica Bongeag.

In order to evaluate informational level of local population about Natura 2000 concept, it has been considered opportune elaborating a wrote opinion questionnaire, in period **November 2006 – April 2007** in Bradetu, Naruja, Herastrau, Haulisca, Coza, Lepsa and Gresu localities, on a sample of **150 person** with ages between 25 and 55 years. This questionnaire evidenced an insufficient informing about Natura 2000 concept or a falsely understanding of these insufficient informations, at the entire questioned population. Answers of the questions/worries on major themes of local population were introduced in the flyer entitled “*Natura 2000 sites in Vrancea County – an answer for local community problems*”.

In the framework of this action there have been achieved in **June 2007** the following activities, all being part of the Natura 2000 Toolkit:

- o Conceiving materials with informative character as post/cards (5 types x 1000 exemplars);
- o Conceiving a flyer which to clarify local population questions about Natura 2000 concept (3000 exemplars);
- o Conceiving a leaflet having a presentation of Natura 2000 sites from mountainous part of Vrancea County (3000 exemplars).

**The flyer** was conceived as a succession of 13 questions and answers for problems from applied questionnaire and has as motto “*Natura 2000 sites in Vrancea County – an answer for local community problems*”. Through this flyer there are clarified some problems about restriction applied in a Natura 2000 site, counteracting modalities of site designation effects, competent institution at which local population can appellate for obtaining the notifications and informations referring to necessary steps for starting economic activities with potential negative impact on environment or for continuity of some activities already existing before instituting the Natura 2000 regime, the kind of activities permitted in Natura 2000 sites.

**The leaflet** “*Ecological Network Natura 2000 in Vrancea Mountains*” presents the Natura 2000 concept and its effect which will be felt by local population as a result of these sites designation. The leaflet includes items like:



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- Introducing in knowing the motivation for necessity to implement Natura 2000 network at European level, European and national legislation which settle ecological network functioning;
- Enumerating the protected natural areas designated as Natura 2000 sites in the mountainous part of Vrancea, surfaces and its locations, concordant with governmental decision for declaring these sites;
- Socio-economic opportunities which appear as a result of designation the Natura 2000 sites;
- Obligation of stakeholders from Natura 2000 designated sites.

There were underlined the stringent problems resulted as a result of applying the questionnaire like the fact that field surfaces included in ecological network of Natura 2000 sites will not affect the property and administration rights. Also, including into the ecological network Natura 2000 will not stop developing economic activities, either fishing, hunting, touristy nor wood cutting activities. These activities will be developed in a planned way, in such manner that do not affect species and their habitats, following and respecting the management plans of the Natura 2000 site and, in the same time, with the environmental agreement of the Natura 2000 site administrator and of the EPA VN.

**The 5 post-cards** present landscape from Natura 2000 sites from Vrancea and images surprising specific traditional activities (animal breeding etc) and have as motto "*Humans need nature – Nature need humans*". Materials edited was disseminated at meetings with local inhabitants and local authorities from protected areas, concordant to planned activities and had as objectives familiarising population with Natura 2000 sit terminology, with opportunities and obligations resulted from site designation, obtaining the locals support in order to implement the European ecological network Natura 2000 in Vrancea.

### **Analysing the local people concerns about protecting large carnivore species in the frame of Natura 2000**

The purpose of this activity was to evaluate the local inhabitants concerns from project implementing area. This analyzes was achieved by University of Bucharest with the support of EPA VN and ADD FV. In order to achieve a sustained educational campaign, it has been outrun achieving of some materials about Natura 2000 network: communication strategy about Natura 2000 and toolkit Natura 2000.

Analyze of local inhabitants concerns was realized through sociological research, through applying an opinion questionnaire to a representative sample of population from Tulnici, Soveja, Barsesti, Vizantea-Livezi, Vidra, Valea Sarii, Vranceaia, Naruja, Nistoresti, Paltin, Nereju, Vintileasca, Jitia, Dumitresti, Chiojdeni communes. The dimmentions of population for research was 53073 inhabitants. The sociological researching was in selected localities, the trusting degree foreseen of the test being  $\pm 5\%$ .

In **20 March 2008** at a meeting of forest owners, it was performed by EPA VN a presentation of proposed Natura 2000 sites for large carnivores and there were presented socio-economic benefits generated by this new juridical statute.

Also, with the occasion of Environment Day, between **5-7 June 2008**, EPA VN together with Forestry Department Focsani and Putna Vrancea Natural Park Administration have organised at the CLMCM in Lepsa/Strei an informative point for tourists and inhabitants, being disseminated materials about Natura 2000 Network and Local Network for large carnivore protection. With this occasion it was assembled a tent pavilion where represents of organizer institutions offered to visitors information and educative materials.

In accordance with the Communication Strategy, previously achieved, promoting the Natura 2000 sites (created to maintaining of the conservation status of large carnivore in Vrancea County) and explaining the rules which govern the European Network of Natura 2000 protected areas was achieved by editing and dissemination of educational/information materials and through organising some meetings with locals from implementation project area. Meetings were held with the occasion of some local events (fairs, religious festivals, traditional events) or were held in the local councils. Meetings were held in following localities: Campuri (**30.08.2008**); Vintileasca (**31.08.2008**); Soveja, Nereju (**06.08.2008**); Jitia (**06.12.2008**); Gura Calitei (**07.12.2008**).

With the occasion of annual traditional fairs from Vintileasca and Campuri localities, the team responsible for implementing this activity organized informative points in the form of info-tents. The diversity of displayed information materials has attracted many visitors to these informative points, opportunity used by the project team to open a dialogue about the socio-economic benefits generated by implementation of the protection systems. The discontent has been shown from some locals due to restrictions imposed by the regime of forest habitats protection, situation generated by the lack of compensations which have been made by the state authorities. It is also clear the fact that much of locals retaining with concern the potential benefits generated by



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the Natura 2000 network, this fact being owed mostly because to the low level of living and lack of perspectives in the development of activities generating profits.

The informative material achieved to promote the socio-economic benefits resulting from implementation of Natura 2000 network have been disseminated to all identified target groups. Lack of some information ways in rural area (such as the internet, local publications, radio stations) makes these materials printed on paper to be well accepted by the locals, most of these being transmitted "hand in hand" to other persons which not attended the meetings.

A firm opposition to Natura 2000 network is generated by business groups that are active in the forestry operation, they being unhappy with the imposed restrictions. We believe that payment of compensatory payments can generate a favorable attitude towards Natura 2000 sites for this target group.

For presenting the importance of including the protected areas in the Natura 2000 network and which are the areas included in this network to local inhabitants, there have been realised a number of **2 articles and 2 appearances at TV** local station: Diplomatic TV – "Poiana Muntiorul" *protected area management, a decisive step for maintaining the SCI statute into the Natura 2000 network* and Diplomatic TV – *Natura 2000 in Vrancea County*.

### **ACTION E.5: Raising awareness campaign – promoting the concepts of large carnivores conservation and Natural 2000 in the children's environment**

Because it has been count as early as the beginning with the conception phase of this project that an extremely favourable target in the educational campaign it represent the children, involving of these in the conservation actions was considered essential for diminish the threats which are aiming the large carnivores, for this purpose being realised a number of **3 presenting in schools**, having in view those placed around the Tulnici locality. The meetings were developed in period **1-2 June 2006** in Coza, Paulesti and Tulnici schools, these being placed into the implementation area of the project "*Enhancing the protection system of large carnivores in Vrancea County*", were the team formed by Rodica Bongeag and Silviu Chiriac from EPA Vrancea and Nadia Ivanof from ADD FV were presented different themes about large carnivores ecology, also about necessity of local inhabitant coexistence with those species. Within the framework of these meetings it has been spread the documentary film "*In situ conservation of large carnivores in Vrancea County*" achieved in the last project LIFE and it has been distributed promotional materials as leaflets, posters, brochures. At the end of presentations, pupils were informed about the drawing contest entitled "*Large carnivores-our friends*" which was going to developed in period **05-12 June 2006**. With this occasion there were presented the rules of this contest, participation conditions, the central theme of the contest and also the prizes offered.

During period **05-12 June 2006**, children interested by this contest could send their drawings about large carnivores at the EPA Vrancea headquarter. On **16 June 2006** the organizers of this contest - EPA Vrancea - in collaboration with ADD FV and having the support of the Vrancea County School Inspectorate, were realised the drawing exhibition "*Large carnivores-our friends*" where there were attended drawings of the pupils from those 3 schools. The exhibition took place in the precincts of House of Culture Tulnici where, at 13 o'clock, there were designate through the children vote the most interesting drawings. The prizes were consisted in a photo camera as I prize, a binocular as prize II and an illustrated encyclopaedia "Animals world" as prize III. All participants received promotional materials consist in posters, leaflets, brochures, pins having LIFE logo. Also a number of 40 pupil from the wining school have benefited by a thematic excursion in protected areas „Tisita Gorges”, „Putna Water Fall” and Golul Lepsei area where there were presented different large carnivores monitoring techniques.

The excursion took place on **17 July 2006** when Radu Sandu and Rodica Bongeag from EPA Vrancea accompanied a group of **40 pupils** of the general school from Tulnici. In the field there were presented to the children themes as:

- modality for realizing telemetric measurements
- protection ecological network
- characteristics of large carnivores
- nature protection necessity

This practical lesson has been a favorable element for awareness about vulnerability of flora and fauna wild species, also to understanding the role of the protected areas in the general context of environment protection.



In order to present the importance of the protected areas for large carnivores conservation, in **22 March 2007**, EPA VN together with ADD FV have organized a meeting entitled “*Large carnivores and protected areas in Vrancea*” with pupils of “Simion Mehedinti” Secondary School in Vidra. At this meeting there have attended approximately 150 pupils from IX-XII classes. Children understood that the biodiversity conservation is efficient only through the establishment of protected areas, and now they know what the needs are for large carnivore’s protection and the benefits of the protected areas.

In **20 April 2007** with the occasion of Earth Day it took place an open lesson at Agriculture High School no.5 in Focsani, Vrancea. With this occasion represents of EPA VN presented the following: the documentary film from the pervious project and informations about the actual LIFE project “*Enhancing the protection system of large carnivores in Vrancea County*”.

With the occasion of Earth Day, Environment Day and Green Week, it have developed in period **22 April – 17 June 2007, the essay and sketch contest** organised by EPA VN and ADD FV having as title “*To speak in the future about large carnivore at present times*”, having as theme “Relation between humans and large carnivores in and outside Natura 2000 sites. The theme was approached in the spirit of Green Week “Past lessons, future challenges”. The contest has been addressed to children from central area of the project and had as propose rising awareness of concepts for large carnivore’s conservation, starting with awareness about vulnerability of these species.

The main target groups was formed by pupils from V-VII classes (in launching stage being involved also pupils from I-IV classes). The contest was composed from 3 distinct stages:

1. launching the contest simultaneously with presenting the problematic of large carnivores in Vrancea
2. preparing/presenting essays and sketches
3. developing the study tour about cohabitant bears problematic

In the first stage, a team formed by represents of EPA VN and ADD FV has developed informing sessions in schools from entire central area of the project (Table 1), following that children to understand relations between local inhabitants and large carnivores. The action implementing team presented 2 media productions:

a) “*The protected areas from Vrancea County – key element in large carnivore’s protection*” included informations about:

- What are the Natura 2000 protected areas and European network;
- Nature Monuments from Vrancea County;
- Large carnivores – information about biology and behaviour;
- Pro and against arguments for large carnivores protection;
- Negative effects about large carnivores disappearance;
- Ecological network for large carnivores protection (ecological network concept, stages for achieving local network in Vrancea, the necessity of ecological network);
- Putna-Vrancea Natural Park (arguments which led to establishing the park, its position into the national and local network of the protected areas);
- Presenting LIFE project – “*Enhancing the protection system of large carnivores in Vrancea County*” (goal, objectives, expected results, relation with previous project).

b) Documentary film “*In situ conservation of large carnivores in Vrancea County*” achieved in previous project were there are presented monitoring activities, aspects about sheepfold protection and generally informations about the project species and their relations with humans.

Action implementing team had discussions at the launching stage with teachers and children from central area of the project, giving explanations or answers at participant asks. Meetings were interactive and were uphold by informative materials:

- images of large carnivores and informations about biology and behaviour;
- leaflets with protected areas network for large carnivores conservation as part of Natura 2000 network.

In preparing and presenting of essay and sketches action, there have been involved 12 teachers (school directors, educative adviser, and teachers) from 7 schools. A number of **55 pupils**, working single or in group, realised essays about large carnivores. There were accepted **37 essays** from which there have been awarded 5 essays. At sketches section there were presented **5 sketches** performed by 46 pupils, one of them following to win a study tour.

In **17 June 2007** at the House of Culture in Naruja, Vrancea, there were designated the winners of essay and sketch contest, being presented the 5 sketches in front of a jury formed by represents of Naruja Local Council, Focsani Municipality Teatre, EPA VN and ADD FV. At this contest participated also local inhabitants. All



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pupils involved in essays and sketches achieving received promotional materials (t-shirts and caps) and educative materials from organisers. The winners of the first prizes received camping equipments which to help them to discover nature. In July 2007 was organised a study tour in Brasov having as theme cohabitants bears, with 40 children from winning school of the first prize at the sketch section. The trip was made in a country area in which the problem of cohabitant bears was resolved. Also, it was presented the function manner of a national park which was involved in a pilot managing project of national parks (Piatra Craiului National Park). Next to this park there is a zoo garden which sheltering bears from human settlements.

In contest developing period there were released 2 articles in local press, also being made presentations of the results of the contest “*To speak in the future about large carnivore at present times*” launched with the occasion of World Environment Day and Green Week” at the local televisions Diplomatic TV and Atlas TV.

**Schools in which it has been achieved contest “*To speak in the future about large carnivore at present times*” launching**

<b>Data</b>	<b>Schools</b>	<b>Locality</b>	<b>No. Participant pupils</b>
08.05.2007	School with I-VIII classes	Valea Sarii	60
08.05.2007	School with I-VIII classes	Colacu village	40
09.05.2007	School with I-VIII classes	Paltin	70
10.05.2007	School with I-VIII classes	Naruja	50
11.05.2007	School with I-VIII classes	Nistoresti	50
11.05.2007	School with I-VIII classes	Herastrau village	50
13.05.2007	Touristy club and nature protectionists – presentation on field, in the protected area Focul Viu Andreiasu	Prahuda village	35
15.05.2007	School with I-VIII classes	Vrancioaia	50
16.05.2007	School with I-VIII classes	Paltin	30
16.05.2007	School with I-VII classes	Nereju	50
			<b>Total 485 pupils</b>

For helping to promote the concepts of large carnivores conservation and Natura 2000 in children environment, in **5 March 2007** there have been achieved **1000 t/shirts** (children size) having LIFE logo and drawings represent the 3 large carnivores species and **1000 caps** (children size) with LIFE logo, having the message “*Let’s respect the right for life of the wolf, bear and lynx*”.

In order to promote large carnivore’s conservation concept, Forestry Department Focsani and EPA VN organized on **01 April 2008** two meetings with pupils of Coza and Tulnici schools. The foresters presented the monitoring methods for these species and results obtained until present through applying the conservation actions in the protected areas. There have been carried on interactive discussions about the threats which put in danger viability of bear, wolf and lynx populations and there have been identified measures for reducing anthropic pressure on favorable habitats for these species existence.

Beginning with **April 2008**, a team formed by EPA VN and ADD FV members achieved several presentations in schools from rural area, that is the 4 communes from north of Vrancea sub-Carpathians area (Soveja, Cimpuri, Racoasa, Vizantea) (Tabel.2). With this occasion took place information sessions with the theme “*Protected areas from Vrancea County – key elements in large carnivores protection*”, having as main goal to make children to understand the relations between communities from they take part and large carnivores.



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The “*Protected areas from Vrancea County – key elements in large carnivore’s protection*” presentation included information about:

- What are the protected areas and Natura 2000 European Network;
- Large carnivores – information about biology and behavior;
- Pro and against large carnivores protection;
- Negative effects because large carnivores disappearance;
- Ecological network for large carnivores protection (ecological network concept, stages for achieving the local network in Vrancea, network importance);
- Putna Vrancea Natural Park (arguments which led to its founding, its position in the national and county protected areas network);
- Presentation of the LIFE project „*Enhancing the protection system of large carnivores in Vrancea County*” (goal, objectives, expected results, relation with previous LIFE project);
- Prezentation of documentary film achieved in previous LIFE project.

**Schools in which it has been achieved presentations**

No	Date	School
1.	22.04.2008	Racoasa School
2.	22.04.2008	Varnita School
3.	23.04.2008	Soveja School
4.	23.04.2008	Rucareni School
5.	24.04.2008	Cimpuri School (2 meetings – I-IV and V-VIII), com. Cimpuri
6.	24.04.2008	Rotilesti School , com. Cimpuri
7.	25.04.2008	Vizantea Manastireasca (2 meetings – I-IV and V-VIII), com. Vizantea Livezi
8.	25.04.2008	Vizantea Razaseasca (2 meetings – I-IV and V-VIII), com. Vizantea Livezi

Through these presentations it has been in view: rising awareness of pupil’s about problems which affect large carnivore’s population, improving understanding the implications of human activities developed in large carnivore’s habitats, developing a positive attitude about large carnivores or reducing the rejection level through a better knowing of these species behavior, justifying these species reactions on human communities.

At the end of presentations, children were informed about **the drawing and clay model contest** entitled „*What can we change for protecting large carnivores?*”, initiated with the occasion of Environmental Day and Green Week on **22 April 2008**, being presented the regulation contest, participation conditions and prizes offered to the contest winners.

The contest has as propose rising awareness level about vulnerability of large carnivores species. In a first stage schools were informed about conditions for participating at this contest. A component part of organizing process and dissemination the information of the contest consist of contacts with teachers from referring schools and distributing the contest regulation and informative materials having images of large carnivores and information about biology and behavior of these species. Also there have been disseminated materials and information about protected areas network for large carnivores.

In period **April – May 2008** there have been collected a number of 263 drawings and clay models, these being laid down at the EPA VN headquarters. From these works, a jury formed by ADD FV and EPA VN members selected the wining works.

On **05 June 2008**, at the Heroes Monument from Soveja commune, took place an exposition in which these drawings and clay models achieved by children were exposed for public, at the end being announced the winners of the contest. Prizes were offered for both drawings and clay models categories, consisting in: two **I prizes** - a tent + compass; two **II prizes** – a folding chair + multifunctional penknife; two **III prizes** – frontal lantern. About 40 pupils from the Vizantea School which have had the most numerous good works won a trip in Lepsa including visits in Putna Water Fall, Tisita Gorges and a camping at Rehabilitation and Monitoring Centre.

During **1-2 July 2008**, pupils of the winning drawing contest class entitled “*What can we change ptr protecting large carnivores*” developed in period **22 April - 5 May 2008**, participated on a filed camp held at the Center for Rehabilitation and Monitoring of Large Carnivores in Lepşa Funicular, being visited Cascada Putna and Tișița



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protected areas. During this time children were trained on methods of monitoring large carnivores through non-invasive techniques used in the project, presenting the role of the center and the mobile intervention unit in rescuing injured animals in poaching actions.

With the occasion of developing events which celebrated The International Day for Biodiversity and The Parks European Day, in period **2 April – 23 May 2008** took place several presentations achieved by a LIFE project team formed by EPA VN members, developed in actions made by dives schools from Focsani having as theme *“Protecting nature, we protect the future”*.

At these meetings, there were presented information about:

- Protected areas – what are they;
- Natura 2000 European Network in Vrancea County (pSCI presentation, their importance in sustainable developing process of Vrancea County);
- Ecological network for large carnivores protection (ecological network concept, stages for achieving the local network in Vrancea);
- Putna Vrancea Natural Park (arguments which led to establishing this park, its position in the national and county network of protected areas).

Meetings developed between **2-4 April 2008** at the Economic High School Focsani (2 meetings having as theme *„Natura 2000 network”* and *„Protecting nature we protect our future”*), School no.10 Focsani (with the theme *„Nature – my future”*).

Also, with some events having as theme *„Take care of our unique planet”*, developed as a result of celebrating Earth Day, in period **18-22 April 2008** took place several presentations achieved by members of LIFE project educational team as following:

Meeting with pupils of “We and Terra” Vartescioiu School,

Meeting with local educational institutions having as theme “take care of our unique planet”, organized by EPA VN with the support of “Gheorghe Pastia” Museum in Focsani,

Meeting developed at the Children Palace Focsani.

At these meetings there have been presented to children information about:

Large carnivores – information about biology and behavior;

Pro and against large carnivores protection;

Negative effects because large carnivores disappearance;

Presentation of the LIFE project *„Enhancing the protection system of large carnivores in Vrancea County”* (goal, objectives, expected results, relation with previous LIFE project).

With this occasion it was presented documentary film achieved in previous LIFE project.

The most important step in conserving animal and plant populations is the establishment of protected areas through legislation. It is therefore necessary to a deeper understanding of animal and vegetable world, the functioning of ecological networks, importance of protected areas and not least the importance of creation the Natura 2000 sites. By achieving the educative and informative materials for children and teachers, it was followed the understanding of these important issues covered by this project. Thus, to familiarize pupils with concepts related to the natural aspects of Vrancea, species of large carnivores and the interdependencies relations which exist between them, the educational project team members from University of Bucharest, were achieved in period **August 2008 – January 2009** a story and a drawing book.

**The story book** titled *“Stories (... with animals) from Vrancea lands”* was realized as a collection of stories with his own design, containing a total of 10 stories about the 3 species of carnivores covered in the project, each story describing situations that threatening the life of carnivores, having a moral which tries to change negative attitudes towards these species. The book A4 format, was produced in January **2009**, in a number of 1000 copies, with 52 pages, and until present it has been distributed among schools where there were made presentations and also the participating schools to the essay and drawing competition.

**The drawing book** *“Large carnivores in Vrancea”* aimed the children in middle school classes I-IV, reproducing drawings in the story book *“Stories (... with animals) from Vrancea lands”*, children having the colors example that should be used. The book has an A4 format, being produced in **January 2009** in a total of 1000 copies.

During **March – May 2009** it was designed and produced the material for teachers called *“Teacher's Guide”*, which includes information that will help teachers to teach pupils subjects referring to large carnivores and protected areas which includes carnivores species covered in the project. The purposes of this guide was to facilitate teachers' access to such data, their task being to educate the younger generation in biodiversity



conservation issues and thus the problems resulting from the loss of this diversity. In this paper there are presents issues concerning the nature of Vrancea County, characterized in terms of topography, climate, hidrography, vegetation and fauna, protected areas that make up the Local Ecological Network of arge carnivores protection in Vrancea, the history of protected areas in Vrancea in the context of legislation and development of scientific thinking, the species of large carnivore in Vrancea, described in terms of taxonomic, ecological and ethological point of view, species of flora and fauna protected by national or European level.

Initially, the guide was designed as a folder containing records that were followed to be used in teaching. There was then resorted to linking records as a handbook, because of multitude information available. The guide was produced in **May 2009** in A4, with a total of 70 pages. The circulation is 200 copies, each copy being attached on the back cover, the CD-ROM "*Protected areas from Vrancea County*".

Achieving the **CD-ROM** "*Protected areas from Vrancea County - the network of protection for large carnivores*" was made using information that is found in "*Teacher's Guide*", CD - ROM having an easy to use format and being composed, in addition to narrative description of each protected areas, with maps related to the protected areas and a series of documentaries on each protected area. The CD-ROM opens to the main page titled *Protected areas from Vrancea County - the local network for large carnivores protection*, containing buttons to access associated to the protected areas presented as part of the network for large carnivores protection in Vrancea County:

- *Putna Vrancea* (description, films (*Tișița, Cascada Putnei, Groapa cu Pini, Lepșa - Zboina, Muntele Goru, Strâmtura Coza*), map)
- *Căldările Zăbalei* (film, description, map)
- *Șindrilița* (description, map)
- *Lacul Negru* (film, description, map)
- *Poiana Muntioru* (film, description, map)
- *Muntior-Ursoaia*(description, map)
- *Pădurea Verdele*(film, description, map)
- *Cascada Mișina*(film, description, map)
- About LIFE project

This material was achieved in **May 2009**, being produced in a number of 500 copies. It was disseminated to schools participating at the drawings and essays contest and distributed to all schools in proximity of the protected areas.

With the occasion of some local events, the educational team from the project organised a few meetings or participated at there events with small presentations, being held in following schools:

**28.12.2008** – open lesson at Gugesti School and High School 1 Focsani on the theme of environmental protection

**06.03.2009** – educational action at Gologanu School

**05.06.2009** – "*Children have a right to nature*" – ecological assembling - "Nature Friends" of the Kids Club Adjud

**05.06.2009** – paintings exhibition "And we ... give Earth a chance" - Support Center for Youth with Disabilities Recovery Adjud

In order to promote the concepts of large carnivores conservation and Natura 2000 in the children environment, in period **23-28 April 2009**, it has been organized a presentation series in 7 schools from the south part of the project implementation area, with the subject "*Wolf, bear and lynx – our friends*". This action has addressed to children from I-VIII classes, from Vintileasca, Bahnele, Dumitresti, Bicestii de Jos, Chiojdeni, Lunci and Jitia schools. This event was organized by the Environmental Protection Agency Vrancea with participation of Association for Sustainable Development "Focul Viu" Focsani. It has been pursued celebration of **Earth Day** together with children, with this occasion being disseminated materials produced in this project. The members of educative team of the project conceived a power-point presentation, sustained by Rodica Bongeag, touching the following aspects:

- The three species of large carnivores (information on their biology and behavior)
- Why to protect the bear, the wolf and lynx (case studies, importance of large carnivores maintaining of forest ecosystems)
- Protected areas (general concepts, status, protected areas in the proximity of communes - Poiana Muntioru, Muntioru-Ursoaia)
- Destruction products in the environment (examples)
- What can we do?



As a result of these discussions, children's have understood the importance of large carnivores in assurance of forest durability and ecosystem equilibrium. Also, it has been concluded that the presence of large carnivores in the locality neighborhood is not a threat and problems appear because of insufficient information upon the three species of large carnivore.

**The drawings and essay contest** with the title "*What can we do in order to protect large carnivores?*" was launched starting with **March 22<sup>th</sup> 2009**, with the occasion of **The Earth Day**, following to ended on **5 June 2009 (Environmental Day)**, celebrating with this occasion also the European event "**Green Week**", with the slogan "*Action and adapt*".

This event was achieved in the organisation of the Environmental Protection Agency Vrancea, in cooperation with County Scholar Inspectorate. The contest addressed to the pupils from rural areas, in 4 communes from subcarpathian south area of Vrancea County (Vintileasca, Jitia, Chiojdeni, Dumitresti), with the aim of raising pupils awareness on large carnivores vulnerability. The activity is part of a more complex campaign of the LIFE Nature project "*Enhancing the protection system of large carnivores in Vrancea County*", that aims to improve people's attitude toward the large carnivores. The co-organiser of this activity was the Association for Sustainable Development "Focul Viu" Focsani.

The first step was to inform the schools about the contest participation conditions. Thus, in period **22 April- 15 May 2009** a project team (Rodica Bongeag, Nadia Ivanof, members of EPA Vrancea and Florea Ioan, Gelu Radu, members of ADD "Focul Viu" Focșani) met with students and teachers of the 4 common schools to provide information on the concepts of conservation on the European network of Natura 2000 protected areas and about the contest.

The contest was composed of two sections:

- drawing section: dedicated to children in classes I - IV which, individually, to make an A3 size paper addressing to the contest theme (What can we do to protect large carnivores?).
- essay section: dedicated to children in classes V-VIII, individually, to make a written work (essay, story, etc.), addressing to the contest theme.

For achieving these works, children were encouraged to engage with people involved in the conservation of large carnivores from the local or county level, with ordinary citizens in the community, thus discovering the positive behavior that should be preserved and negative to be changed from the wolf, bear and lynx.

Starting with **15 May** until **31 May 2009**, there have been collected the works made by pupils from 7 schools (Vintileasca, Bahnele, Dumitresti, Bicestii de Jos, Chiojdeni, Lunci and Jitia), most representative drawings and essay being selected and displayed in the exhibition.

The jury designated to choose, in period **01-03 June 2009**, the winning drawings and essays, included representatives of EPA VN and ADD FV.

The exhibition took place on **5 June 2009**, with the occasion of World Environment Day, an occasion which was also presented individual awards, consisting of objects with which children will be able to discover nature.

Awards were granted as it follows: the school that presented the largest numbers of works and the best works. From all works presented in the exhibition, three from each category were rewarded as it follows: **1<sup>st</sup> prize** – 2 bikes, **2<sup>nd</sup> prize** – 2 binoculars, **3<sup>rd</sup> prize** – 2 folding chairs and **honourable mention** – 2 flashlight side. The school with the largest number of works won a trip to Putna-Vrancea Natural Park

The children that presented at least one drawing in the exhibition received dissemination materials as t-shirts, caps, pens - with the LIFE logo, drawing and story books.

Each pupil received a diploma of the contest; winners received diplomas that certify winning awards. Also, there have been received diplomas of participation, teachers who have guided pupils during the competition.

Conducted over a period of 4 years, the educational campaign was a decisive factor in changing attitudes of inhabitants from villages located in area of project implementation actions LIFE05NAT/RO/000170 "*Enhancing the protection system of large carnivores in Vrancea County*".

To assess the impact of the campaign in terms of population which has benefited from developing this, it was designed a **questionnaire**. Results of the questionnaire were used in assessing the change in the population attitude.

Thus in 2009 work was started to achieve a questionnaire for awareness campaign. The operator teams were composed of representatives of the Environmental Protection Agency Vrancea and the Association for Sustainable Development "Focul Viu" Focsani. Questionnaires were applied on a representative sample of the population in the area of implementation of the project (located in the Valley Salt, Barsesti, Vrancioaia, Soveja, Tulnici, Vizantea, Vidra). According with the concept of awareness campaign, in **August 2009** was started the results evaluation action of awareness campaign developed in the project. Therefore, a set of questionnaires was



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developed, were selected and trained operators on the ground and was made the subject selection methodology. The questionnaires were applied by EPA and ADD FV, between **August - September 2009**, in the communes of project implementation range. At the same time there were distributed also new informative materials.

In October 2009, after evaluating the questionnaire results it was written a narrative report on the changes observed in terms of locals perception on large carnivores.

Thus, in order to evaluate the impact of the campaign and assessing the changes in people's attitude, it was produced in **November 2009**, the report entitled "**Report on the educational campaign evaluation**". It refers to the entire developing period of raising awareness campaign - promoting the concepts of Large Carnivores Conservation and Natural in 2000 in the children's environment and includes the following chapters:

- I. *Introduction*
- II. *Activities developed in schools and other institutions*
  - Drawing contest 2006
  - Essay and sketch contest 2007
  - Drawing and clay model contest 2008
  - Drawing and essay contest 2009
- III. *Achieving educative and promotional materials*
- IV. *Questionnaires applying*
- V. *Estimation of changing attitudes of the local population*

Observed at global level, the awareness campaign of the vulnerability of large carnivores can be considered one of the most important steps taken to conserve populations of large carnivores in western part of Vrancea County. It can be said that the initial negative attitude of children and rural residents has changed in the sense that, in 2009 after implementation of the campaign, they understood that these species and habitats they live, are vulnerable and that, by taking appropriate management of wolves, bear and lynx population can be provided in addition to maintaining the ecosystem balance, also a sustainable development of rural communities in which they belong.

#### 6.5 F. Overall project operation

#### **ACTION F.1: Project Coordination, Project Management, Financial Administration**

In the period **November 1st 2005– November 1st 2006**, in order to ensure the co-ordination of the projects activities, the creation of the team for the project management was necessary. This team has the following members:

1. **Mr. Silviu Chiriac**, – *project manager*
2. **Ms. Nadia Ivanof** – *project administrator* (since July 2006);
3. **Mr. Remus Dimulescu** – *project secretariat*;
4. **Mrs. Maria Pleșa** – *financial administrator*;
5. **Mr. Paul Giurca** – *executive director* ;

At the first meeting of coordination team it was established the role of each member and the working frame. The project secretariat the office of project manager, bookkeeper and executive director of EPA Vrancea was located at the EPA VN headquarter in Focsani. The meetings of working group were run out from every important decision. The meetings between project management equip and partners were also made in order to solve some financial or research problems.

The project was coordinated by Working Group, which took decisions regarding the management actions. The decisions were taken with simple majority only in the contractual limits. The project was leaded by the project manager, Mr. Silviu Chiriac, supervised by Executive Director of the EPA VN.

The first meeting of Working Group was at the end of **November 2005** and all partners were present. In **January 2006** it was another working group meeting at the Focsani.

At the first steps of the project there were established the responsibilities for each member of project coordination equip and were signed the detailed agreements with each partners. The agreements with partners were signed according with CP and Romanian legislation.



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The activities work packages were coordinated by responsible for activities:

- monitoring and capturing activities : Laurentiu Rozylowicz (University of Bucharest)
- animal rescue: Radu Mihai (EPA VN)
- management plans and Natura 2000 listing: Silviu Chiriac (EPA VN)
- educational activities: Nadia Raluca Ivanof (ADD FV)
- project promotion and media relations: Marius Matache (University of Bucharest)

In the period **04 July 2006–01 September 2009**, the team for the project management which ensured the coordination of the projects activities, had the following members:

- Mr. Silviu Chiriac** – *project manager*;  
**Mr. Florea Ioan** – *project administrator*;  
**Mr. Remus Dimulescu** – *project secretariat*;  
**Mrs. Maria Pleșa** – *financial administrator*;  
**Mr. Paul Giurca** – *executive director*.

The financial administration was realized by chief bookkeeper of EPA VN, Mrs. Maria Pleșa. The Financial Department of the EPA VN assured the financial papers for national reporting. On a biannual basis the Financial Department made a report directly to the Working Group. The Financial Department functioned based on the internal rules of EPA VN. The project secretariat has copies after every payment documents, from beneficiary and partners.

In order to cover the financial contribution of EPA VN, the Romanian Government adopted a **Governmental Ordinance (no. 249/22.02.2006)** for covering the contribution.

In order to have a proper financial control for the European Commission contribution, an account in EUR and ROL was opened. Because the inflation in Romania was still high, the money was kept in EUR and the exchange in Romanian currency was made only with one week in advance of payments.

The personnel were hired in the project with specific attributions in respect with Romanian legislation: Civil Code, Work Code. The personnel were employed full time with working contract and part time with civil working contract. The personnel costs were calculated on standard time sheet according to the CP. The costs included also social costs.

The equipment and services acquisition were realized having regards the procedures offer selection (for goods and services under 5000 EURO) and call for tender (for goods and services over 5000 EURO).

Until 1 February 2007 the VAT was reimbursed for expenditure realized by EPA Vrancea and ADD Focul Viu, according with Law – 571/2003, Fiscal Code, art. 143 paragraph 1 point 1. The reimbursed amount was spent in the project. All others partners did not recover VAT. Because they didn't have a clear statement, the VAT was not included in expenditure statement. Beginning with 1 February 2007, according with Law no. 343/2006 there is no possibility recovering afferent TVA for expenditures made based on contracts signed with EC. In this context all expenditures are declared with unrecoverable. In this way we annexed the letter of Public Finance Ministry, emitted to EPA VN, through which it is responded in negative way for requirement of TVA recovering afferent for expenditures made in the project LIFE05NAT/RO/000170 ( Annex no.3).

The durable goods were placed in beneficiary of partner's inventory list, according with Romanian legislation. All the equipments will be used for conservation purpose in the next 5 years. A certified inventory list is kept by beneficiary.

During project developing there were submitted to European Commission and external technical monitoring team the following reports:

- Progress Activity Report (from 01.11.2005 to 01.11.2006);
- Interim Technical Activity Report with Payment Request (from 01.11.2005 to 03.06.2007);
- Progress Activity Report (from 04.06.2007 to 15.06.2008);
- Progress Activity Report (from 15.06.2008 to 01.09.2009).



Each year s/a intamplat nimic..ma terina, the External Monitoring Team visited the LIFE project sites. The project staff gave an overview of the project, the actions were discussed with the team, and various project sites were visited.

### ***Complementary activities of the project***

In period **8-9 March 2006**, the Ministry of Environment and Water Management has organised at Predeal, within the framework of the evaluation process of the protected areas management system, the seminary about "*Rapid Methodology of Evaluation of the Protected Areas Management*". At this meeting has participated from EPA Vrancea Mr. Radu Sandu. The seminary was developed in the framework of a program regarding *The Evaluation the Protected Areas System in Romania in order to obtain necessary information for Environment Management in Romania Project*, achieved by WWF Austria and WWF Danube Carpathian Program.

The Carpathian Foundation organised on **14 March 2006** the symposium with the theme "*Habituated bears from Racadau and hunting management*". The meeting took place at the Faculty of Forestry and Timber Exploit headquarters in Brasov and it was followed bringing together all institution from Brasov and other counties, governmental and non-governmental organisations, also specialists recognised in this domain, in order to analyse the situation of the habituate bears and establishing of a measure and action set who be implemented through an unique approach. Discussions have followed aspects looking: presenting the field situation, bear population management from Racadau area, modalities for involving of local authorities and institutions, management of house waste, informing and local communities awareness. At the discussions has participated Mr. Silviu Chiriac from EPA Vrancea.

In **22 March 2006**, with the occasion of initiating the project LIFE 05/NAT/RO/000155 "Ecological restoration of the Natural Park Lunca Joasa a Prutului Inferior", Mr. Silviu Chiriac has presented the documentary film "*In situ conservation of large carnivores in Vrancea County*". The conference was developed in the Natural Science Complex precincts in Galati.

Within the framework of the project RO2004/IB/EN-09, the Ministry of Environment and Water Management has organised the workshop entitled "*Establishing of some conservation measures about wild flora and fauna species*". The meeting took place at the Conference hall of the Natural History Museum "Grigore Antipa" in **9 May 2006**, from EPA Vrancea being present Mr. Sandu Radu.

In **26 June 2006** it has developed at the Coference Room at Vega Hotel in Galati, the project RO04/IB/EN-07 twinning who participated Mr. Sandu Radu. The Regional Agency for Protection of Environment, with the support of the Italian Team has promoted a Working Group on Nature and Biodiversity.

Ministry of Environment and Water Management, in collaborate with ANPM and WWF has organized a training seminary about "*Preparing public meetings for Natura 2000*", where there were participated Silviu Chiriac, Rodica Bongeag and Nadia Chiriac from EPA Vrancea. The seminary took place in period **31 August -1 September 2006** in Galati and was as propose organizing the informing/consulting actions about the proposals of the Natura 2000 sites.

Environmental Protection Agency Covasna, with the support of European Commission, TAIEX, in the framework of the Training Regional Program, has organized in period **10-11 October 2006** at Tuşnad Băi, a workshop with the theme "*Natural Protected Areas*". The propose was to provide information concerning the elaboration of the management plans, including the involvement of stakeholders, to get practical experience in tasks which should be performed during the management of protected areas and to exchange experience in preparing and financing projects for protected areas. At this workshop, where there were participated Silviu Chiriac, Sandu Radu and Nadia Chiriac, was realized a presentation of the two LIFE project implemented in Vrancea who were referring to large carnivores conservation.

In **30 October 2006** at the conference hall of "Grigore Antipa" Museum, the Ministry of Environment and Water Management, in partnership with WWF Danube Carpathian Program, has organised the seminary entitled "Financing the Natura 2000 Program" where there were participated Mr. Silviu Chiriac. The main objective of the



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seminary was to support and strengthen the knowledge about financial aspects who are involved by implementing the Natura 2000 network.

In period **9-10 March 2007**, Silviu Chiriac has attended at the international symposium “*Large carnivores and agriculture: comparing experiences across Italy and Europe*”, held in Assisi, Italy, where there have been disseminated informative and promotional materials from both LIFE project in Vrancea. The symposium was organized as part of LIFE COEX project.

EPA VN has participated through represent Silviu Chiriac at the first meeting of Consultative Council of Putna-Vrancea Natural Park in **16 April 2007**. At this meeting there were present all stakeholders from park area. Previous this sitting, it took place another meeting between Scientific Council of Putna-Vrancea Natural Park, from which also took part Mr. Silviu Chiriac.

The Marasesti City Hall together with Culturally House “Emanoil Petrut” and Geography School Debating Group “Simion Mehedinti” from Pufesti School organised in period **20-21 April 2007** at Marasesti several manifestation dedicated to Earth Day. At this action there were invited to take part represents of Vrancea County School Inspectorate, Focsani Environment Protection Agency, Geography Society Vrancea, National Geographic, Hyperion University from Bucuresti, “Simion Mehedinti” Didactic House from Focsani and Terra Magazine. Manifestations consist of communication sessions, a workshop, an ecological marketing action, a varnishing day, and a thematic excursion.

With the occasion of Earth Day, in **22 April 2007** Silviu Chiriac together with Radu Sandu has attended at the national symposium dedicated this day, held at Marasesti, Vrancea. At this event there was presented LIFE project LIFE 000170 also the documentary film achieved in the previous project. With this occasion it has been published an article in Ziarul de Vrancea.

In order to diminish the anthropic pressure exerted of locals upon forestry habitats, ADD FV started an encouraging eco-tourism program as alternative for forests exploitation, Thus, beginning with **June 2007**, ADD FV implemented the project “*Archaic, Natural and Adventure near Carnivores from Carpathian Curvature*”. The project has as purpose developing eco-tourism based on existence of large carnivores concomitantly with developing an awareness campaign of these species importance in sustainable developing of local communities.

In the Developing Project initiated by Romanian with the support of International Bank, on **13 July 2007** it has been developed at Flora Pension from Gresu, Tulnici, the seminary “*Public relations, awareness campaign and products develop for sustaining public relations*”. At this meeting attended represents of forest owner associations, forest owners, employs from ITRSV, represents of civil society, members of local authorities, mayors, police represents, companies form winning of timber domain, mass media and other factors interested directly. With this occasion there were presented: Forestry Developing Project, the forests role in sustainable developing of the area, priorities for sustainable developing of forests at ITRSV level and institutions involved in forestry and their responsibilities at local, regional and national level. At the discussion session the have been debated subjects like means for communication improving between factors which are interested in sustaining the forest developing, achieving with this occasion an exercise about priorities for sustaining forestry sector developing. The meeting was organised by Agricultural and Rural Developing Ministry, Politics, Strategies and Forestry Settlement Board, Territorial Inspectorate for Forestry and Hunting Regime Focsani. From the LIFE project attended Silviu Chiriac (EPA VN).

National Agency for Environment Protection together with NEPA Twinning Project organised an workshop referring to Convention for international trade with endangered species of flora and fauna (CITES). The meeting took place on **24-25 July 2007** in Bucharest at Ecological University. The objective of this workshop was to achieve a general view on necessary measures which must be taken for implementing the CITES Convention. At this meeting attended from EPA VN Sandu Radu.

In period **22-23 September 2007**, National Agency for Environment Protection organised several presentation sessions about transposing into Projects of LIFE+ program, at this meeting being present Silviu Chiriac from EPA VN.



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Into the Twinning Project RO2004/IB/EN-02 *“Implementation and Enforcement of the Environmental Aquis Focused on Nature Protection”* 7 Center Region, REPA, Sibiu, in period **24-26 September 2007** it has developed the International Natura 2000. At this conference attended Silviu Chiriac from EPA VN.

The Festival for Youth Lira Vranceana, organized between **4-5 April 2008** at Galaciuc School Camp by ADD FV, constituted an opportunity for promoting the LIFE 05/NAT/RO/000170 project and conservation actions. At this meeting, where there were attended 15 non-governmental organizations from the country, there were discussed opportunities for establishing some connectivity spaces between protected areas existing at national level, in such manner that to allow assuring the conservation of large carnivores populations on entire spreading area. Establishing some conservation methods of large carnivores applicable by all participants NGO's was also another discussion point.

In period **7-8 May 2009**, the National Environmental Protection Agency, together with the Regional Environmental Protection Agency Galati, organized in the Twinning Project RO2004/IB/EN-09, the workshop having as theme *“Nature Protection”*, from the LIFE project *„Enhancing the protection system for large carnivores in Vrancea County”* participated Mrs. Nadia Chiriac from Vrancea EPA. At this workshop there were discussed such issues as the role of international conventions on biodiversity for sustainable use of natural capital, the Objectives of European Community Strategy for Biodiversity, ensuring a proper management of Natura 2000 sites according with Art. 6.1 of the Habitats Directive, presentations of management plans.

The practice of geography students from the University of Bucharest was carried out between **...May 2009**, the debates being made on the theme *„Management Plan for SCI Putna-Vrancea Natural Park”*.

On **10 July 2009**, the Faculty of Forestry and Forest Exploitation from Brasov, held national workshop on *“Management of large carnivores - the transfer of best practice from Europe”*. The meeting was organized within the LIFE +program of the European Union (LIFE project 07/NAT/IT/000502) by the Faculty of Forestry and Forest exploitation in Brasov and partners from European Union countries. Presentations and discussions included issues related to the experience of European countries on aspects of large carnivores populations management. At this meeting, attended by the project LIFE05/NAT/RO/000170 Sandu Mihai Radu, Silviu Chiriac Chiriac Nadia. Silviu Chiriac had a poewer point presentation *„Best Practices for large carnivore protection in Vrancea”*, representing a sum of experiences and results achieved in this area following the course of the two LIFE Nature **„In-situ Conservation of Large Carnivores in Vrancea County”** and **„Enhancing the Protection System of Large Carnivores in Vrancea County”**.

The project LIFE05NAT/RO/000170 was organized during **06-12 July 2009**, a study camp radius Putna-Vrancea Natural Park. The collaborator in this activity was the Association for Biodiversity Conservation Focsani. The camp was held at the Center for Rehabilitation and Monitoring of the Large Carnivores and it had as objective the conservation status evaluation of flora and fauna of the protected area radius. At this action there were attended representatives of research institutes at the national level: Museum of Natural Sciences Vrancea, Museum of Natural Sciences Galati, Museum of Natural Sciences Bacau, University of Bucharest, University of Iasi, etc. The data acquired during developping the camp activites, will be collected in a database available to the team responsible for the actions from the EPA group and members of ACDB Focsani, Vrancea.

From the Focsani Forestry Department - Vrancea Putna Natural Park Administration, Mr. Ion Militaru, the Park Director, attended at the international workshop *“Large carnivores: management, research and public relation strategies of the protected areas”* which took place on **2-4 July 2009** in National Park Nizke Tatry, Slovakia.

This event was organized by ALPARC, coordinated by the Task Force Protected Areas (Alpine Convention Secretariat), in partnership with Nizke Tatras National Park in Slovakia.

On this occasion, Mr. Ion Militaru presented large carnivores conservation activities implemented in the project LIFE05NAT/RO/000170 and there were disseminate materials to promote the project.

The “Grigore Antipa” National Museum of Natural History organised in period **12-13 November 2009** in the auditorium Ion Heliade Radulescu, Romanian Academy in Bucharest, The Annual Zoological Congress of Natural History.

The congress included a plenary session and a poster session, the two acting in two days. The 53 scientific communications and 65 posters have addressed the following topics: taxonomy, fauna, zoogeography, ecology,



systematic and evolution, research and museum preservation, conservation of biodiversity, invasive species, and paleontology. During the session of scientific communications - Biodiversity Conservation, together with Radu Chiriac Silviu Sandu Mihai exhibited presentation “*Conservation of Large Carnivores from Vrancea*”. This included in particular the actions of capturing, monitoring and interpretation of telemetry data from the 2 LIFE conducted in Vrancea until now. In section posters, Mr Stefan Ciurescu from the ADD FV, presented poster entitled “*Fauna Biodiversity of the Putna Vrancea Natural Park*”. This important event was attended by over 100 scientists, academics and museum in Romania, Poland, France, Bulgaria, Moldova, Belarus, etc.

#### Volunteering

- ◆ **Pătrașcu Lucian**, University of Bucharest - Faculty of Geography: internship of monitoring large carnivores at the Center for Rehabilitation and Monitoring of Large Carnivores Lepșa, development work “*Putna-Vrancea Natural Park - a key element for conservation of large carnivores*” at the communication session of the Geography Student Symposium
- ◆ **Gherceanu Ioana**, University of Bucharest - Faculty of Geography: license sentence – “*Study of physical geography with a special view on the environmental quality in Tișiița*” internship of monitoring large carnivores at the Center for Rehabilitation and Monitoring of Large Carnivores Lepșa, development work “*Putna-Vrancea Natural Park - a key element for conservation of large carnivores*” at the communication session of the Geography Student Symposium
- ◆ **Miu Loredana**, University of Bucharest - Faculty of Geography, training practice - monitoring populations of large carnivores and prey species using non-invasive techniques, at the Center for Rehabilitation and monitoring, work license – “*Non-invasive techniques for large carnivores monitoring*”
- ◆ **Marian Grozavu**, University of Bucharest, graduate of the Faculty of Geography, CRCM Lepșa internship in the field “*techniques to save wildlife*”.

#### **ACTION F.2: Measuring the project success (project monitoring)**

In order to control the activities, to submit the results within established deadlines, it was created a system of internal reporting based on monitoring indicators. Referring to this, the annual reports of the partners, annual reports of the Scientific Council and report on the working group meetings was submitted internally.

According with internal reporting system established in the project, each action was monitored by the project administrator. Each action had an action form completed by project administrator. Periodically the project manager and the project administrator met the project partners for discussions about actions implementation stage.

In order to achieving the scientific monitoring, the Scientific Board was invited to supervise the blueprints regarded to the species conservation. This board was compound of specialists with expertise in analyzing landscape, biodiversity elements, human impact and so on. Financial documentation was verified and guaranteed by the Financial Department of EPA Vrancea.

The following reports have been delivered since the start of the project:

- Work methodology for capturing, tranquilization, collaring the wolf, lynx exemplars
- Methodology for using of automatic photo cameras for assessing large carnivores relative abundance
- Methodology for using hair snares for large carnivores: construction, installing and sampling collect
- Report about achieving Standard Data Forms for Natura 2000 sites proposals
- Report on activities of Animal Rescue Mobile Unit and Large Carnivores Rehabilitation and Monitoring Centre 2007
- Report on activities of Animal Rescue Mobile Unit and Large Carnivores Rehabilitation and Monitoring Centre 2008
- Report on telemetry results
- Report on activities of Animal Rescue Mobile Unit and Large Carnivores Rehabilitation and Monitoring Centre 2009
- Assessment prey species relative abundance (*Capreolus capreolus*, *Cervus elaphus*, *Rupicapra rupicapra*) using pellet count method
- Reports on public debate of the management plans proposed for the protected areas



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- ➡ Report on educational campaign evaluation
- ➡ Assessment of large carnivores relative abundance using remote cameras
- ➡ Assessment of large carnivores relative abundance using hair snares

Monitoring and assessing the efficiency and success of conservation actions are key elements in general monitoring of the manner of project implementing. Thus, quantifying the project and conservation actions success was permanently achieved through using of some pre-established indicators. In this way, in the attributions of the project administrator was included permanent monitoring of the following indicators:

- Population of large carnivore species (bears, wolves and lynxes) maintained in a proper conservation status
- Natura 2000 sites in project area from large carnivore protection
- Management plans for Natura 2000 proposed sites, agreed by the local inhabitants
- Elimination of large carnivore mortality caused by poaching
- Positive attitude of local inhabitants, local authorities and tourist on large carnivore protection
- Positive attitude of local inhabitants, local authorities and tourist on Nature 2000 protection system

## VII. EVALUATION AND CONCLUSIONS

### a. The process

The idea of this project took shape as a result of implementation of a previously LIFE project and was seen by everyone as a continuation necessary to improve local system for protection of large carnivores in Vrancea County. Actions planned in the project were based on the threats identified during project implementation LIFE02NAT/RO/8576 implemented in 2002-2005 by the same structure (beneficiary and partners). Moreover, all project actions were formulated, planned and phased also in the Local Management Plan of Large Carnivores in Vrancea County, which has proved very useful tool in ensuring the conservation status of target species.

In this context, the entire project has followed closely the achieving the major objectives so that at the end of the project, the protection system of large carnivores to be improved so that it could provide long-term maintenance of viable populations of bears, wolves and lynx, in coexistence with local population as part of ecosystems existing in mountain and sub-Carpathian area of Vrancea County.

Moreover, by implementing this project it was followed that the experience of team in implementing of two successive LIFE, to be transferred to other nucleus of scientists and interest groups involved in the conservation of these species, so that, considering the mobility characteristic for species of large carnivores, to be provide effective protection also beyond Vrancea County limits.

The experience and knowledge gained during the project formed the basis for compiling various publications. The Best Practice Guidelines were compiled on the basis of project results and the gained knowledge and practical experience.

### b. The project management, the problems encountered, the partnerships and their added value

The project's beneficiary was the Vrancea Environmental Protections Agency. The project was managed in line with the Common Provisions, legislation of the partner countries and internal procedure rules of the organisations. The obligations, rights and organisation of work of the beneficiary and partners were established in the Partner Agreement.

Partners in this project are independent legal entities and have been involved in previous LIFE project implementation, they being accustomed to rules and standards of project implementation LIFE, with reporting system and fieldwork. Project implementation team was well structured and motivated because in eight years working, the interpersonal relations have evolved to create more durable bonds.



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During project implementation no major changes occurred in terms of beneficiary and partner institutions and there were not required major changes to the initial proposal. Moreover, all partners have proven to be a good springboard to information on European Commission's LIFE program, often the entire team being generically called "the LIFE team".

An important issue for implementation the LIFE projects was generated by the Romanian state's refusal to reimburse VAT on expenditure realized in the project actions once with the integration of Romania in the European Union. Although VAT is considered eligible expenditure (if there is a formal rejection of the state to reimburse VAT), from the projects budget is lost a significant proportion, which under certain conditions can cause light budgetary imbalances.

c. **Success and failures** of the methodology applied, results of actions conducted, cost-efficiency of actions

For the most part, methodologies and work plans developed and used in this project had as starting point the methodologies and cost-effective analyzes achieved previously. In this context we can say that we had the chance to use the methodology previously tested on the same species from the same implementation area, our task being now much easier.

Thus, for the development and completion of standard forms necessary scientific substantiation of sites of interest within the local ecological network was used as a method of working inventory of habitats populated by large carnivores, the information is supplemented by data obtained through the steps of the current monitoring. All sites proposed in the project, including Putna-Vrancea Natural Park, have been validated and officially approved.

Thus, for the development and completion of Standard Forms necessary for scientific substantiation of sites of communitarian interest within the local ecological network, it was used as a method of working the inventory of habitats populated by large carnivores, the information being completed with data obtained through the steps of the current monitoring. All sites proposed in the project, including Putna-Vrancea Natural Park, have been validated and officially approved.

Methodologies of capture in order to put some monitoring equipment were improved, being completed with informations about new equipment purchased and have been updated with new data about capture techniques of wolves and lynxes used in similar areas of study. Unfortunately, catching activities of wolves and lynx exemplares have not reached the planned return, proving that for a well-wooded and heavily fragmented habitat characteristic to the project area, catching method using metal cages or traps leg fails notable. Costs required by capturing through these methods are high (especially in terms of human resource and transport) and the risk of capture and injury of other species is high if the field staff has not a verified experience. Also must be noted that action failure is due largely to the limited number of days with snow in this area of the Carpathians but also to traps degradation by people traveling on mountain trails to gather mushrooms, berries, antlers, etc. We believe that the method of capture should be improved by using special dogs trained or use in the future of helicopters for the outdoor tranquilising.

Also must be mentioned that in the monitoring activity through invasive techniques (capture, mounting collars) to get a good return is obtained if there are used the moste performat techniques of tracking and recording data. Thus, we can say that the use of VHF radio transmitters type has a lower yield compared with systems for tracking and recording GPS/GSM data. Practically, the location number of monitorized specimen is much larger (500 locations per year with GPS comparing to the average of 50 locations per year with VHF radio systems). Also, there are significant differences between necessary costs of radio monitoring and wireless transmission online GPS/GSM systems. Practically radio monitoring implies the existence in permanence of a team field of minimum 2 persons equipped with 4X4 vehicles (high costs of fuel and vehicle maintenance), while in GPS/GSM the data are transmitted on-line through mobile telephone networks.

As a conclusion to the monitoring actions through invasive techniques, we can say that there are sufficient arguments for the future use of non-invasive technique whose results compensated undoubtedly the necessary information useful for establish of some conservation activities of large carnivores species and financial costs are



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significantly lower. We suggest the use of monitoring systems GPS / GSM or radio to make only in case of some exemplars released from snares, of specimens of bears relocated or which were caught for translocation, actions which can provide good information on the post-release/ translocation behavior.

In proceedings for the assessing of large carnivores and their prey relative abundance by non-invasive techniques, the applied method functioned properly, but supports improvements in terms of cost-efficiency, also it can be extended for determining the abundance of the species concerned as follows: each good working camera is mounted independently, not in pairs, but not less than 20 cameras; cameras need to work within maximum 5 days, and moves to other sites for 2 times. Thus, a season has 30 days and there are investigated 60 sites; is included in the analysis a larger area, including Subcarpathinas; installation is made by selecting sites randomized; 30-day season in 60 sites are repeated in the same sites, spring, summer, autumn and winter. The method is repeated each year.

Sampling repeatedly in the same sites (anywhere in the square sampling, not necessarily at the same point) it can be determined abundance and population size change. To determine abundance, it may apply Royle-Nichols Abundance Induced Heterogeneity model or Repeated Count model.

Evaluation of population size and structure by DNA methods is expensive and require a detail plan of the site. Applied for the first time in Romania for *Ursus arctos*, the results revealed that sampling with the hair-snare is not as effective in Romania compared to other areas. The amount of biological sample is small, so many catches does not react in the DNA extraction procedure. In the future would be more expedient to be taken excrement with dogs trained to aid this purpose, on randomly selected transects. In this way the time devoted to this evaluation and analysis and sampling drop.

As for the working methodology of Animal Rescue Mobile Unit (ARMU), we believe that this can be permanently improved according to the specifics of each case treated separately. It is important to understand that all staff of ARMU must be very well trained and familiar with technical assistance and the equipment used. Also we consider that it is vital that at the level of managers of hunting funds management to exist at least one person trained for emergency interventions for save wild animals in need. The methodology developed and used by ARMU in the project, it proved to be efficient, the success rate to rescue wild animals in difficulty reaching a 100%, without registering mortality due to method of intervention.

In the activities of implementing electric fencing systems to reduce damage caused by large carnivores to the livestock and crops, working methodology work properly, proving not only system efficiency but also demonstrative character that generates it. Now many owners of crops or shepherds, solicits informations about offers of acquisition of such equipment and asked us the support in the new LIFE project.

Cost - benefit analyse show that the amount of economic damages significantly decreases covering the cost of acquisition of electric fencing systems.

We believe, overall, that the implementation of the LIFE-Nature project: "*Enhancing the protection system of large carnivores in Vrancea County*" was a success for conservation of viable populations of large carnivores and created premises for existence of a feasible local ecological network, doubled by the Natura 2000 site status. The existence, starting with January 2010, of management structures of sites of community interest created in the project is the guarantor of the implementation of measures and actions for conserve populations of large carnivores, in accordance with management plans developed.

#### d. **Comparison** against the project-objectives

All project objectives were made successfully, thus helping to ensure a viable system of protection of large carnivores in Vrancea County.

- **to include protected areas from local network for large carnivores protection in the European network Natura 2000;**

Filling of standard forms for the 8 areas components of local ecological network for large carnivores protection was achieved based on scientific information derived from monitoring of large carnivores and prey species, also from the activities on the inventory of natural habitats of community interest. The Ministry of Environmental



officially approved through Disposition no. **776** from **05.05.2007** for declaring the communitarian interest sites as integrate part of European ecological network Natura 2000 in Romania, all proposed sites of the project. Now, there are approved at national level Standard Data Form, **8 sites** having a total surface of **40 102, 71 ha**, placing Vrancea County in the top of 5 counties in Romania as surfaces of protected areas.

- **to implement the management plans of protected areas included in the local network of large carnivores protection in accordance with the requirements of Natura 2000 network and in line with local plan for large carnivores protection;**

All management plans for Natura 2000 sites within the local network for large carnivores protection have been made in working groups involving local stakeholders and were subjected to numerous lines of public debate. These plans integrates the principles presented in the local management plan for large carnivores, the principles of the Habitats Directive and of the Guidelines for Population Level Management Plans for Large Carnivores, prepared by Large Carnivore Initiative for Europe.

The management plans of the 8 pSCI belonging to local network for large carnivore's protection were finalized in **July 2008**, and represents at present working tools of the protected areas managers.

- **to prevent the decline of large carnivores populations through stopping poaching directly or indirectly;**

Reducing the decline of large carnivores populations was achieved through three interrelated activities, namely: more than 20 rescue actions of some poached bears, organizing meetings with local people and local authorities responsible for managing hunt management funds, implementation of awareness campaigns to reduce the number of poaching cases directly or indirectly.

The frequency of poaching recorded in Vrancea County is directly related to the location of sheepfolds or crops in habitats populated by large carnivores and the lack of natural food in the forest habitats (in years when weather conditions cause the absence of natural fruition in beech and oak). Another factor which causes acts of poaching is due to lack of pay for the damage registered. Basically, although current law states that the Environment Ministry to pay damages made by large carnivores species, this does not happen in reality because of lack of funds. In this context, the locals may react violently trying to protect crops or livestock. Numerous meetings with local people within conflict areas and an intense information campaign on the legal repercussions of poaching have convinced most of the crops or livestock owners not to resort to poaching to reduce damage, since there are numerous systems effective protection.

As a conclusion to our efforts to reduce poaching, there are shown the following:

- ✘ lack of compensation payments by the state, worse the conflicts between species and farmers or crops owners;
- ✘ poaching is increased in areas with poor security systems, or in areas where there are no hunting management responsibilities;
- ✘ direct poaching (with firearms) tends to take significant dimensions amid of state and institutional destabilization and amid the increasing number of weapons held by local influential people;
- ✘ local police do not seem interested in the finalisation of judicial investigations for poaching acts because of the risk of loss of "electoral capital" in case of local people sanctioning;
- ✘ animal rescue work is vital for maintaining the viability of the bear population, considering that about 7% of the local population was released from the snares only during project implementation (2005-2009).

- **to prevent conflicts between large carnivores and local population;**

Reducing conflicts between large carnivores and local people is one of the objectives that ensure long term conservation of these species. Starting from this background there have been made considerable efforts to diminish the damage caused by bears, wolves and lynx and to change the negative attitude of locals towards the coexistence with these species. A first step was to demonstrate that the existence of efficient systems for sheepfolds and crop protection can significantly reduce the damage level. During the project, over 24 electric fences were implemented and 12 fences to the crops and orchards. Cost-effective and results dissemination have created a favorable current of opinion among the locals, who more easily accept coexistence with bears and wolves in areas of common use of natural habitats.



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Reducing conflicts between local people and large carnivores was achieved also by implementing awareness campaigns that have shown that these species are very important in the natural ecosystems and the protected areas can be a source of income.

- **to be aware on socio-economic benefits generated by including the protected areas into the Natura 2000 system**

Promoting the social and economic benefits of implementing the Natura 2000 network and local network for Large Carnivores protection - awareness campaigns have been implemented based on a strategy resulted from the analysis of target groups perception on large carnivores and ecological network of protected areas. Numerous published and disseminated informational materials, and meetings organized with local stakeholders helped people to understand the functioning of the Natura 2000 network and have accepted that sustainable development of mountain village area can only be achieved through the integration of nature conservation needs in policy for local development.

Also in this field it is made present the lack of compensatory payment for restrictions in using local natural resources imposed to locals that have plots of land in Natura 2000 sites. Forest landowners are forced by law to pay for administrative and security of forest land in protected areas where there are major restrictions on the use of wood, so they lose annually considerable sums of money. This context creates in some areas a current of opinion contrary to nature conservation activities by establishing protected areas.

**e. Environmental benefits, policy and legislation implications**

Actions to conserve large carnivores have watched to maintain viable populations of the species *Canis lupus*, *Ursus arctos* and *Lynx lynx*, which are now in danger of extinction in Europe.

The most important step in conserving animal and plant populations represent the establishment of protected areas through legislation. In this context one of the key objectives assumed was integration of Local Ecological Network for large carnivores protection in Vrancea County in the European Ecological Network NATURA 2000. Declaring all sites for large carnivores have been made on scientific criteria and required a considerable effort to obtain real data through implementation of monitoring actions.

At this moment there are validated at European level **8 sites of community interest integrated into the Natura 2000 Ecological Network** having a total surfaces of 40 102, 71 ha.

Natura 2000 sites	Surface (ha)
Lacul Negru	88,3
Pădurea Verdele	250,00
Cascada Mișina	183,5
Căldările Zăbalei	350,00
Muntiorul-Ursoia	102,06
Poiana Muntioru	20,00
Șindrilita	883,81
Parcul Natural Putna-Vrancea	38 204,00

In these sites there are included also the following special conservation areas: Valea Tișiței, Lăcăuți - Izvoarele Putnei, Muntele Goru, Pădurea Lepșa – Zboina, Strâmtura Coza, Groapa cu Pini, Cascada Putnei, Strâmba, Condratu, Muntele Ciuta, Băhneanu.

Another important step in ensuring of an integrated sitem for large carnivores protection in Vrancea was achieving together with stakeholders of management plans included in Natura 2000 network.

New ecological network created to protect large carnivores have a very high level of protection, knowing that human intervention in the case of Natura 2000 sites is restricted. Natura 2000 is not a prohibitive protection system but offers an opportunity for local communities in their vicinity to obtain significant economic benefits, these aspects being explained and demonstrated by awareness-raising campaign implemented in this project.



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By this initiative it was created the proper conservation structures for around 300 exemplars of bears, which is 5% of the total bear population in Romania. This extremely important population, thanks to its density, represents 2% of the total European population).

The second largest carnivorous in Europe, the wolf has almost disappeared in the Western and Central Europe, and he was reintroduced following initiatives in the LIFE Program. In Vrancea County there are more than 100 exemplars exist. This population which represents 3% of the Romanian wolf population and 1% of the European wolf population is protected today in the most part into the protection system created.

Large carnivores in Vrancea play in present also the role of "umbrella species" because the status of Natura 2000 site provides protection to other species and habitats of Community interest. Thus, in the sites of Community interest proposed and approved in this project there are protect over 20 types of natural habitats of Community interest, 4 species of insects, 12 species of amphibians, nearly 30 species of birds and two species of mammals (wild cat and otter), all species and habitats being listed in Annexe I and II of the Birds Directive, Habitats Directive or the Berne Convention.

#### f. **Innovation, demonstration value.**

If practically at the beginning of LIFE implementation projects, population and local authorities were not familiar with the implementation of some large projects financed from EU funds, we believe that a positive outcome of this project is the fact that all partners and a large part of local communities understood that by accessing such funds can make a viable connection between nature conservation and sustainable development.

During project implementation, the entire implementation team project tried to use the logo LIFE - Nature for changing attitudes locals and local authorities, which, believe it was made. Now Life logo is guarantor of beneficial activities for nature conservation and especially for the future of local communities. Involving in this project as partners of some public institutions of important at county level, universities and NGOs had as result an opening and an initiation of these in accessing other European or national funds.

Practical the financial support offered by European Commission in this project was a key step and a starting point for nature conservation activities in Vrancea County. Declaration of Natura 2000 sites and the establishment of management structure are elements that guarantee respecting of measures established by management plans and involvement of all partner institutions under the LIFE logo will ensure the strengthening of partnership relations in the future.

Participation in activities implementing of the staff belonging to Vrancea Environmental Protection Agency and the Focsani Forestry Department, authorities with powers of administration and regulation in the field of natural resources, has as result stimulation of replication of some actions also in other parts of Vrancea County, so we can say that LIFE-Nature project played also the role of "example of good practice" for the conservation of other species and protected areas.

A major argument which demonstrates our desire to transfer best practices to other areas where large carnivores are common, is the beginning of a new LIFE + project in the area with the largest population of brown bears in Europe. The new LIFE + project, entitled "**Best practice and demonstrative actions to conserve the population of *Ursus arctos* in central-eastern area of the Carpathians**", is to: \* Maintaining the current conservation status of Carpathian metapopulation of brown bear, by applying in the project area of best practice and demonstrative actions and promotion of these at national level, \* Preventing brown bear population decline due to poaching, habituation and juvenile mortality, \* Preventing and reducing conflicts between bear and local people \* Maintaining the current status of conservation in the 15 Natura 2000 sites overlapped on project area. The project is implemented by the Environmental Protection Agency Vrancea in partnership with two other local environmental agencies and NGOs.



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- g. **Socio-economic effects.** This paragraph highlights the long-term economic and social benefits (e.g. positive effects on employment, health, ethnic integration, equality and other socio-economic impact etc.

Even if LIFE05NAT/RO/000170 project implementation did not have notable socio-economic effects, during activities implementation this aspect began to be felt in a concrete way.

First we must mention that at the project implementation attended a total of 30 people and some of them will continue activities after project completion. Participation in this project of a non-governmental association has created opportunity of developing civil society and simultaneously offered the possibility that four persons to be employed in the project.

Creating the Putna Vrancea Natural Park and obtaining the statute of Natura 2000 site debuted in accordance with the contract signed with the Ministry of Environment and Water Management, with selecting and recruiting the staff. New created management structure has a total of 14 full time jobs, people being hired for an indefinite period and selected primarily from participants at preparing sessions organized within the project. Thus, in the communities from the natural park, will be create new jobs, thereby forming a positive opinion current towards the newly created structure.

Government Decision No. 1251/2004 which legalizes the founding of new protected natural areas contains few issues with major socio-economic impact for local communities. Thus according to the provisions of that legislation, the activity of some of wood, fishing, hunting and grazing may be organized only by physical or juridical persons residing or owning property within the natural park. In this context, the entire economic value of resources used will be used only by local communities in the park, thus increasing sense of responsibility to the values of local natural capital.

Establishment of sites of community interest for large carnivores protection framed in ecological network NATURA 2000, led to an increasing of tourists number. Taking advantage of this increase in tourist influx, residents of villages Lepsa Soveja, Coza, Tulnici, Paulesti and Negrilești have reconvert a part of activities to production and marketing of organic foods, specialty as tour guides, creating pensions and promotion points of tourist attraction based on recovery of local traditions and craftsmanship.

Notable are, in the economic context, also reducing crop damage caused by large carnivores and sheepfolds which there were mounted electric fences. These perimeters protected, the losses were reduced totally. In this context, it can be stated that the indirect consequence of actions for the conservation of large carnivores was also registered of an economic growth in communities in the area of project implementation.

**h. The future sustainability**

Vrancea County and the 000170 LIFE project are outstanding examples in which species monitoring, creation of national protected areas or of European interest and educational activities led to creation of an integrated conservation system viable for large carnivores.

In the two LIFE Nature projects dedicated to conservation of large carnivores in Vrancea County it has been created a well structured team, familiar with all aspects of these species conservation and which, being equipped with all equipment and logistics, could carry forward the conservation activities.

The existence Rehabilitation Center of Large Carnivores from Lepsa was and will continue to be a support and a symbol for bears, wolves and lynxes conservation actions in the Eastern Carpathians. Establishment of the



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new Natura 2000 sites and habitats for large carnivores represent a guarantee for implementation of management plans achieved in the project.

Project implementation and permanent monitoring of large carnivores has highlighted that there are still serious threats that may endanger the conservation status of species. If for the wolf and lynx the major threats are currently only habitat fragmentation in terms of major investments in road infrastructure or destruction of food resources (mostly poaching of prey species), in brown bears conservation remain several threats that may lead to the conservation status degradation especially outside the territories of protected areas. Of these we mention:

- habitat degradation in the quality aspects (cutting of mature trees of oaks and beeches which constantly made fruits);
- harassment of dens areas and juvenile mortality due to abandonment;
- directly and indirectly poaching (increased because the state still does not pay for damage caused by this species);
- abusive and sometimes unjustified applying of derogations about strictly protected species status (of priority interest) on the background of assessments of the overestimated population;
- lack on national level of population size and structure, on a background of chronic under-funding of research related to large carnivores.

In terms of opportunities designed to strengthen the system of large carnivores protection, must point out that since 2010, EPA VN is implementing in the Eastern Carpathians, Vrancea, a new project funded under LIFE + framework.

This project (LIFE08NAT/RO/000500), implemented in partnership with EPA Covasna, EPA Harghita and two local NGOs, will ensure the functioning of the structures created through LIFE projects implemented during 2002-2009, and will ensure the maintenance of favorable conservation status of large carnivores within the region.

The **Ministry of Environment and Sustainable Development** will insure the support for implementing the actions proposed as part of the proposal submitted by the Vrancea Environmental Protection Agency, with the goal of conserving the most representative sample of brown bear (*Ursus arctos*) population of Romania, by implementing the best practices and demonstrative actions in the Central-Eastern part of the Eastern Carpathians. The successful implementation of such activities will encourage the use of the conservation methods demonstrated in the project in other similar areas and will help improving the ecological coherence of the Natura 2000 network.

The project's implementation area is overlapping the Central and South Eastern surface of the Eastern Carpathians, remarkable by the presence of favorable habitats for large carnivores, which comprehends the core of maximal concentration in Romania of *Ursus arctos* population. The region developed generally on the North-West and South-East line, corresponds from administrative point of view with the mountain area of Vrancea, Covasna and Harghita counties.

The whole surface of these 3 counties which overlap the project's site is 1.519.603 hectares (15.196 square km's). On this surface approximately 550.000 hectares (5500 sq. km's) are covered by forests and represents bear habitats.



## VIII. COMMENTS ON FINANCIAL REPORT

### Budget overview

Budget Item	Total costs according to the application EURO	Total actual costs EURO	Difference EURO
1. Personal	147 376.00	152 953.75	+5 577.75
2. Travel	64 755.00	71 203.23	+6 448.23
3. External assistance	68 750.00	54 599.77	-14 150.23
4. Infrastructure	9 600.00	9 012.82	-587.18
5. Equipment	136 900.00	118 875.06	-18 024.94
6. Consumable material	82 500.00	90 162.80	+7 662.80
7. Other costs	30 308.00	33 332.76	+3 024.76
8. Overheads	37 800.00	37 109.33	- 690.67
<b>TOTAL</b>	<b>577 989.00</b>	<b>567 249.52</b>	<b>-10 739.48</b>

In the report expenses incurred in Ron are converted into EURO using the exchange rate applied by the European Central Bank on the first day of the month in which the expenditures were incurred or paid. (CE letter for approval no. 194473/2009).

The financial administration was realized by chief bookkeeper of EPA VN, Mrs. Maria Pleșa. The Financial Department of the EPA VN assured the financial papers for national reporting. The Financial Department functioned based on the internal rules of EPA VN. The project secretariat has copies after every payment document, from beneficiary and partners.

In order to cover the financial contribution of EPA VN, the Romanian Government adopted a **Governmental Ordinance (no. 249/22.02.2006)** for covering the contribution.

In order to have a proper financial control for the European Commission contribution, an account in EUR and RON was opened. Because the inflation in Romania was still high, the money was kept in EUR and the exchange in Romanian currency was made only with one week in advance of payments.

The personnel were hired in the project with specific attributions in respect with Romanian legislation: Civil Code, Work Code. The personnel were employed full time with working contract and part time with civil working contract. The personnel costs were calculated on standard time sheet according to the CP. The costs included also social costs.

The equipment and services acquisition were realized having regard to the procedures offer selection (for goods and services under 5000 EURO) and call for tender (for goods and services over 5000 EURO).

Until 1 February 2007 the VAT was reimbursed for expenditure realized by EPA Vrancea and ADD Focul Vii, according with Law – 571/2003, Fiscal Code, art. 143 paragraph 1 point 1. The reimbursed amount was spent in the project. All other partners did not recover VAT. Because they didn't have a clear statement, the VAT was not included in expenditure statement. Beginning with 1 February 2007, according with Law no. 343/2006 there is no possibility recovering afferent TVA for expenditures made based on contracts signed with EC. In this context all expenditures are declared with unrecoverable. In this way we annexed the letter of Public Finance Ministry, emitted to EPA VN, through which it is responded in negative way for requirement of TVA recovering afferent for expenditures made in the project LIFE05NAT/RO/000170 ( Annex no.3).

The durable goods were placed in beneficiary of partner's inventory list, according with Romanian legislation. All the equipments will be used for conservation purpose in the next 5 years. A certified inventory list is kept by beneficiary.



## ANNEXES

### Annex 1 – List of identifiable products

#### A1.1 – List of identifiable products already submitted in previous reports

##### Progress activity report (1 November 2005 - 1 November 2006)

- 1) *Work methodology for capturing, tranquilization, collaring the wolf and lynx exemplars* - the capturing/monitoring of large carnivores methodology was updating in concordance with previous experience and with requirement imposed by the new types of GPS collars
- 2) *Methodology for using of automatic remote cameras cameras for assessing large carnivores relative abundance*
- 3) *Methodology for using hair snares for large carnivores: construction, installing and sampling collect*
- 4) *Standard Data Forms for Natura 2000 sites proposals* - there have been evidenced and full field data referring on large carnivores populations but also those referring to the flora and fauna species with special conservative interest
- 5) *Leaflets in RO (3000 copies) and EN (1000 copies) promoting the project goals and objectives*
- 6) *Poster containing information regarding the project, in RO*
- 7) *Personalized folder*
- 8) *Stickers, plastic pen and pins with project logo, in RO*
- 9) *Newsletter*
- 10) *Leaflet "Natura 2000"*
- 11) *Web page of the project (draft version) in RO*
- 12) *Web page "Protected areas in Vrancea"*

##### Technical interim report (1 November 2005 – 3 June 2007)

- 13) *Poster and leaflet for the Animal Rescue Mobile Unit and Rehabilitation Centre promotion, in RO*
- 14) *Newsletter*
- 15) *Report on activities of Animal Rescue Mobile Unit and Large Carnivores Rehabilitation and Monitoring Centre* – being presented the intervention unit, personal involved in intervention, rescue, care and monitoring actions and being made an analyse of the Rehabilitation and Monitoring Centre for Large Carnivores and the Animal Rescue Mobile Unit efficiency and function
- 16) *Communication strategy on Natura 2000 sites from Vrancea* – including description of strategy tools: information and communication; base principles in communication strategy; responsibilities and objectives of communicators team; analyse of existing communication canals; approaching interested parts afferent to Natura 2000 protected area; structure of communication strategy and evaluation of communication impact
- 17) *Flyer "Natura 2000 sites in Vrancea County – an answer for local community problems", leaflet "Ecological Network Natura 2000 in Vrancea Mountains" and 5 post-cards "Humans need nature – Nature need humans", in RO - promoting the Natura 2000 network in Vrancea County*

##### Progress activity report (04 June 2007 - 15 June 2008)

- 18) *Web page (draft version) in EN*
- 19) *Newsletter*
- 20) *Report on activites of Animal Rescue Mobile Unit and Rehabilitation and Monitoring Centre* - presenting the intervention unit, personal involved in intervention, rescue, care and monitoring actions and being made an analyse of the Rehabilitation and Monitoring Centre for Large Carnivores and the Animal Rescue Mobile Unit efficiency and function
- 21) *Telemetry report*
- 22) *Flyer – Poaching – an illegal activity, in RO*
- 23) *Leaflet – People and large carnivores between conflict and coexistence, in RO*
- 24) *Stick for garbage containers, in RO*

##### Progress activity report (15 June 2008 - 1 Septembrie 2009)

- 25) *Newsletter*
- 26) *Final management plans for the protected areas(PDF electronic format)* - the management plans for pSCI belonging to the local protected area have a structure achieved based on *Eurosite Management Planning Toolkit* and following the assuring favorable conservation statute for local population of large carnivores, concordant with Habitat Directive and national legislation



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- 27) *Report on assessment prey species relative abundance (Capreolus capreolus, Cervus elaphus, Rupicapra rupicapra) using pellet count method* - The study was conducted to estimate the relative abundance of prey species for large carnivores (deer, red deer, chamois, wild boar). Study protocol is based on faecal pellet count over some transecte randomly selected.
- 28) *Brochure "Vrancea County Protected Areas-Large Carnivores Protection Network", in RO*
- 29) *Brochure "Putna Vrancea Natural Park – keystone in large carnivores conservation", in RO*
- 30) *Story book "Large carnivores in Vrancea County", in RO*
- 31) *Drawing book "Large carnivores in Vrancea County", in RO*
- 32) *CD-ROM presenting the protected areas, in RO*
- 33) *The teacher's guide, in RO*
- 34) *Flyer "A bear fed at garbage is a dead bear", in RO*

### **A1.2 – List of identifiable products since last report**

- 35) *Layman report in RO and ENG*
- 36) *Flyer "Electrical fences" in RO*
- 37) *Report on educational campaign evaluation*
- 38) *Assessment of large carnivores relative abundance using remote cameras*
- 39) *Assessment of large carnivores relative abundance using hair snares*
- 40) *Assessment of large carnivores relative abundance based on animals' tracks, signs and scats*
- 41) *After LIFE Conservation Plan*

### **Annex 2 –Lists of all articles and scientific papers during the project activities**

#### A2.1 List of articles published in local and national press

- *Environment project financed by European Union – Medical help for large carnivores in Vrancea county, Romania Libera*, 3 November, 2005;
- *Hospital and ambulance for bears and wolfs – project financed by European Commission*, Monitorul de Vrancea, 7 November, 2005;
- *Hospital and ambulance for bears and wolfs from Vrancea's forests – project financed by European Commission*, 7 plus;
- *Wolfs, bears and lynx in European protection system – project implemented by Environmental Protection Agency Vrancea with European Commission finance*, Monitorul de Vrancea, 17 May, 2006;
- *Wolfs, bears and lynx will have Rehabilitation Center – Life Nature program continue in Vrancea Mountains with a new project*, Ziarul de Vrancea, 17 May, 2006;
- *Pupils learns about animals – open lesson with pupils regarding nature protection*, Ziarul de Vrancea, 18 May, 2006;
- *Biological diversity – vital for human kind*, Monitorul de Vrancea, 23 May, 2006;
- *Trips and photo camera for animals friends – drawing contest for pupils, action in project financed by European Commission*, Ziarul de Vrancea, 3 June, 2006;
- *Rewards for the best animals friends - drawing contest for pupils, action in project financed by European Commission*, Ziarul de Vrancea, 14 June, 2006;
- *Wolf, bear, lynx our friends – exposition of the drawings made by children from project area*, Monitorul de Vrancea, 14 June, 2006;
- *Drawings exposition at Tulnici – the scope of this action is to raise awareness of pupils from project area*, Ziarul Corect, 14 June, 2006;
- *The sheepfolds will be protected by electrical fences - action in project financed by European Commission*, Ziarul Corect, 15 August, 2006;
- *Wolfs and, bears will be droved away from sheepfolds with electrical fences - action in project financed by European Commission through Life Nature progra*, Ziarul de Vrancea, 15 August, 2006;
- *Electrical fences for animals protection – the action is part of an project financed by Life Nature program*, Monitorul de Vrancea, 15 August, 2006;
- *Nine protected areas will have special preference – Nature 2000 Network*, Ziarul Corect, 8 September, 2006;
- *Bear cub saved at Mera, and transported, and treated at Lepsa – at Large Carnivores Rehabilitation and Monitoring Center*, Monitorul de Vrancea, 13 October, 2006;



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- *A wounded bear was saved - transported, and treated at Lepsa – at Large Carnivores Rehabilitation and Monitoring Center, Ziarul de Vrancea, 13 October, 2006;*
- *Looking for protected areas in Vrancea, Ziarul Corect, 29 November, 2006;*
- *Protect the natural habitat of wild animals, Ziarul de Vrancea, 12 October, 2006;*
- *Poaching in attention of Vrancea County public authorities, Ziarul de Vrancea, 16 February, 2007;*
- *Poaching in attention of Vrancea County public authorities, Ziarul Tau, 20 February, 2007;*
- *Poaching in attention of Vrancea County public authorities, Ziarul Corect, 17 February, 2007;*
- *The pupils from Vidra want to protect the forest, Ziarul de Vrancea, 22 March, 2007;*
- *Lessons about large carnivores, Ziarul de Vrancea, 24 March, 2007;*
- *Jurassic Park in Vrancea's mountains, Ziarul de Vrancea, 24 March, 2007;*
- *The pupils studied about large carnivores protection, Ziarul Corect, 27 March, 2007;*
- *Foreign tourists are expected to observe bears in their natural habitat, Ziarul de Vrancea, 10 April, 2007;*
- *Informative panels in Putna Vrancea Natural Park, Ziarul Corect, 12 April, 2007;*
- *Earth Day at Marasesti, Ziarul de Vrancea, 17 April, 2007;*
- *Electric fences for wild animals, Ziarul Corect, 25 April, 2007;*
- *577989 Euro for LIFE Nature project, Ziarul Corect, 27 April, 2007;*
- *23 wild animals monitories by environment specialists, Ziarul Corect, 27 April, 2007;*
- *Protection areas defined as ecological corridors was delimited, Ziarul Corect, 2 May, 2007;*
- *35138.76 ha for large carnivores, Ziarul Corect, 3 May, 2007;*
- *Putna Vrancea Natural Park risk to loose surfaces, Ziarul Corect, 3 May, 2007;*
- *Ecological contest for pupils from mountain area, Ziarul de Vrancea, 4 May, 2007;*
- *Green Week spirit in Vrancea's schools, Ziarul Corect, 4 May, 2007;*
- *Environment volunteers to combat poaching, Monitorul de Vrancea, 9 May, 2007;*
- *Tourists will see were the bears are cured, Ziarul Click!, 24 May, 2007;*
- *Environment volunteers to combat poaching, Monitorul de Vrancea, 28 May, 2007;*
- *Campaign for poaching prevention in Vrancea County, Ziarul Corect, 30 May, 2007;*
- *Animals rescue campaign, Ziarul de Vrancea, 30 May, 2007;*
- *Information campaign in Putna Vrancea Natural Park, Ziarul Corect, 5 June, 2007;*
- *Vrancea get on the list of communitarian interests sites, Ziarul de Vrancea, 19 July 2007;*
- *Degradation of natural habitats in Vrancea Environmental Protection Agency attention, Corect, 7 September 2007;*
- *Vrancea, the second area as density for wolfs, bears and lynx, Ziarul de Vrancea, 09 August 2008;*
- *A new protected area in Vrancea: Merisor-Cotul Zatuanului Forest, Corect, 20 Serptember 2007;*
- *It will be choose The Steering Committee for the protected areas, Ziarul de Vrancea, 31 October 2007;*
- *The Natura 2000 sites can bring European founds, Ziarul de Vrancea, 01 November 2007;*
- *Living on European money, Sansa Vranceana, 11 January 2008;*
- *Pupils at secondary school from Vidra take care of animals from the forest, Ziarul de Vrancea, 17 January 2008;*
- *Wild animals, feeded by pupils, Monitorul de Vrancea, 17 January 2008;*
- *Animals from the protected areas filmed by sensor cameras, Ziarul de Vrancea, 05 April 2008;*
- *What changes must we made in order to protect large carnivores? , Corect, 18 April 2008;*
- *22 April, The Earth Day, Ziarul de Vrancea, 18 April 2008;*
- *School contest with eco theme, Ziarul de Vrancea, 21 April 2008;*
- *Environment protection through art, Monitorul de Vrancea, 18 April 2008;*
- *Drawings about environment protection, Monitorul de Vrancea, 24 April 2008;*
- *Dalhauti protected area and Putna-Vrancea Natural Park, monitorized by Vrancea Environmental Protection Agency, Corect, 14 May 2008;*
- *"What changes must we made in order to protect large carnivores?" with the occasion of Environmental Day, Corect, 03 June 2008;*
- *14 protected areas in Vrancea County, Ziarul de Vrancea, 04 June 2008;*
- *A cleaner air for each of us, Local, 04 June 2008;*
- *Kids take care of wild animals of the forest, Ziarul de Vrancea, 05 June 2008;*
- *Camping equipments for pupils who love nature, Monitorul de Vrancea, 05 June 2008;*



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- Newsletter of the project „ Enhancing the protection system of large carnivores in Vrancea County” for period June 2007-June 2008 transmitted to entire local media, 05 August 2008;
- *Bulletins for Life Program*, Corect, 05 August 2008;
- *395 bears live in the Vrancea*, Monitorul de Vrancea, 08 August 2008;
- *Projects of EPA Vrancea for large carnivores protection in Vrancea county*, Ziarul de Vrancea, 08 August 2008;
- *Electrical fences at sheepfolds and crops*, Sansa vranceana, 6 August 2008;
- *400 bears humming in Vrancea Mountain*, 08 August 2008;
- *Bear relocating in Vrancea*, Sansa vranceana, 11 August 2008;
- *A peasant in Soveja brought at his farm one bear founded in forest*, Sansa Vranceana, 11 August 2008;
- *Bear in Dumitresti escape from the hunters bullets*, Monitorul de Vrancea, 12 August 2008;
- *Protect the biological diversity in Vrancea County*, Sansa vranceana;
- *Pupils teaching to protect the environment*, Sansa Vranceana, 02 February 2009;
- *Large carnivores protection with European money*, Ziarul de Vrancea, 09 February 2009;
- *Debating on Putna Vrancea Natural Park*, Ziarul de Vrancea, 07 March 2009;
- *Public debate: The Management Plan of Putna Vrancea Natural Park*, Monitorul de Vrancea, 09 March 2009;
- *A better environment for large carnivores from Vrancea County – The Management Plan for Putna-Vrancea Natural Park was subjected to public debate*, Sansa vranceana, 09 March 2009;
- *The Environmental Protection Agency Vrancea fight for conserving the Putna Vrancea Natural Park*, Corect, 08 April 2009;
- *Contest to stimulate children’s interests for large carnivores*, Monitorul de Vrancea, 30 April 2009;
- *Pupils, invited to protect carnivores*, Ziarul de Vrancea, 23 April 2009;
- *14 protected areas in Vrancea*, Ziarul de Vrancea, 04 June 2009;
- *Children from mountain area respect large carnivores*, Ziarul de Vrancea, 04 June 2009;
- *Winner of the animal lovers contest*, Monitorul de Vrancea, 06 June 2009;
- *Ecological pictures exhibition*, Monitorul de Vrancea, 11 June 2009;
- *Vrancea, the second area in the country as density of large carnivores*, Ziarul de Vrancea, 19 August 2009;
- *Old man attacked by a bear in Paltin*, Ziarul de Vrancea, 18 August 2009;
- *Workshop about carnivores in the bear, wolf and lynx homeland*, Ziarul de Vrancea, 9 October 2009;
- *Protection of biological diversity in Vrancea County*, Info Mediu Europa, 25 October – 25 November 2009.

#### A2.2 List of TV and radio broadcasting

- 2.10.2006 - Radio DADA - „Nature 2000 Network in Vrancea County,,  
12.10.2006 - Prima TV - „Bear cub saved in Mera,,  
13.10.2006 - Diplomatic TV - „Bear cub saved in Mera,,  
28.03.2007 - Atlas TV - Forest Month - The importance of EPA Vrancea’s LIFE - Nature project in the efforts for biological diversity conservation in Vrancea County  
5.04.2007 - Atlas TV - Protected areas in Vrancea  
24.04.2007 - Atlas TV - Earth Day - The implications of Nature 2000 Network in the sustainable development of Vrancea County  
15.05.2007 - Atlas TV - Presentation of the contest “ *To speak in the future about large carnivore at present times*” launched with the occasion of World Environment Day and Green Week  
21.05.2007 - Atlas TV and Diplomatic TV - Biological Diversity Day - Large carnivores and their importance in Vrancea mountains  
19.06.2007 - Diplomatic TV and Atlas TV - Presentation of the results of the contest “ *To speak in the future about large carnivore at present times*” launched with the occasion of World Environment Day and Green Week”  
10.09.2007 - Diplomatic TV - “*Poiana Muntiorul*” protected area management, a decisive step for maintaining the SCI statute into the Natura 2000 network  
18 10.2007 - Diplomatic TV - *Implementing appropriate management systems for nature protection*  
19.12.2007 - Radio DADA - *Nature protection in Vrancea County*  
01.04.2008 - Radio Iasi - *Protected areas in Vrancea County*  
03.06.2008 - Diplomatic TV - *Natura 2000 in Vrancea County*  
24.06.2008 - Radio Iasi - *LIFE Nature project „Enhancing the protection system of large carnivores”*



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- 07.07.2008 - Radio DA DA - *LIFE Nature project „Enhancing the protection system of large carnivores”*
- 11.08.2008 - Atlas TV - *Brown bear population in Vrancea*
- 12.08.2008 - Radio DA DA - *Brown bear population in Vrancea*
- 12.02.2009 - Atlas TV - *LIFE-Natura project „Enhancing the protection system of large carnivores”*
- 09.03.2009 - Radio DADA - *Public debate for Putna-Vrancea Natural Park*
- 22.04.2009 - Radio DA DA - *Pupils from four communes in Vrancea Vrancea protect large carnivores*
- 23.04.2009 - Atlas TV - *“What can we do to protect large carnivores”*
- 30.04.2009 - Radio DA DA - *Pupils write about large carnivores*
- 13.08.2009 - Radio DADA - *The battle with bears is carried in Vrancea with the help of...electrical fences*
- 02.09.2009 - Radio Iasi - *Rezults of the LIFE Nature project „Enhancing the protection system of large carnivores”*

### Annex 3 – Other document/publication of relevance to project

- ➔ *Gouvernemental Ordonance about EPA Vrancea co-financing*
- ➔ *The Ministry of Environment adress no. 105 610/15.07.2009 - blocking the approval process of management plans*
- ➔ *The Ministry of Environment adress no. 113429/08.02.2010- initiation of the approval of management plans procedure*
- ➔ *The General Directorate of Public Finance adress no. 14631/02.05.2007 – VAT refund*

### Annex 4 – List with activities annexes

#### 1. The Teacher's guide chapters

- Preface
- 1. The natural resources of Vrancea County
  - *Relief*
  - *Climate*
  - *Hydrography*
  - *Vegetation*
  - *Fauna*
- 2. Large carnivores
  - *Wolf (species taxonomy, The area of the species and the number, wolf biology, social ecology)*
  - *Bear (species taxonomy The area of the species and the number, bear biology, social ecology)*
  - *Lynx (species taxonomy The area of the species and the number, lynx biology, social ecology)*
- 3. Protected areas from Vrancea
  - 3.1 *History of Vrancea protected areas in the context of legislation and development of scientific thinking*
  - 3.2 *Ecological network for large carnivores protection (the concept of ecological network for large carnivores protection, implementation the ecological network for large carnivores protection)*
  - 3.3 *Description of protected areas from the local ecological network for large carnivores protection (Caldarile Zăbalei Cascada Misina, Muntioru – Ursoaia, Padurea Verdele, Poiana Muntioru, Sindrilita, Black Lake, Putna-Vrancea Natural Park)*
- 4. Protected Species
  - 4.1. *Protected flora species*
  - 4.2. *Protected fauna species*
- 5. Natura 2000 sites out of Vrancea
  - What is Natura 2000?*
  - Sites of Communitarian Importance of Vrancea (SCI)*
  - Bird protection areas in Vrancea County (SPA)*
  - Selective Bibliography

#### 2. Presentation session of the workshop

- *Nadia Raluca Chiriac, Mariana Gheorghiu, Silviu Chiriac (EPA Vrancea) – Large carnivores conservation in Vrancea County –the experience of project LIFE05NAT/RO/000170;*



### Final report

- Mihai Pop, Catalin George Morar (EPA Covasna) – *The situation of the damage caused by bear and wolf in Covasna County - Problems identified in the application of derogations;*
- Ramon Jurj (ICAS Braşov) – *Management of bear exemplars which present deviant feeding behaviour;*
- Leonardo Bereczky (Association for Nature Values Conservation) – *Actions for orphan bears rehabilitation and for “problem” exemplars;*
- Radu Sandu Mihai, Cosmin Stinga Adrian, Radu Gelu, Liviu Balbarau (EPA Vrancea, Association for Conservation of Biological Diversity, Forestry Department Focşani) – *Animal Rescue Mobile Unit and Centre of Rehabilitation and Monitoring of Large Carnivores – active elements for large carnivores conservation;*
- Peter Abran, Calin Cengher (EPA Mures) – *Large carnivore conservation issues in the appropriate evaluation;*
- Ramon Jurj, Daniel Visan (ICAS Brasov) – *Threats on the National Ecological Network - Case Study Analysis crossing areas for large carnivores in Prahova Valley;*
- George Sarbu (ICAS Brasov) – *Chemical immobilization of wildlife;*
- George Predoiu (Transylvania University of Braşov – Forestry Faculty) – *LIFE EX-TRA – Transfer of best practices for management on large carnivores in Southeast Europe;*
- Cristian Remus Papp (WWF, Danube Carpathian Program) – *Initiative of WWF for the conservation of brown bears in the Carpathians Ecoregion;*
- George Sarbu (ICAS Brasov) - *Using GPS system in monitoring bear population;*
- Marius Scurtu (ICAS Brasov) - *Large carnivores conflicts with the livestock sector;*
- Cristian Joja (University of Bucharest - Center for Environmental Research and Impact Studies) – *Management plans of sites of Community importance within the local ecological network for large carnivores protection;*
- Ion Militaru (Putna-Vrancea Natural Park Administration) – *Putna Vrancea Natural Park - key element in the Local Ecological Network for large carnivores protection;*
- Silviu Chiriac (EPA Vrancea), Mihai Pop (EPA Covasna), Szabo Szilard (EPA Harghita), Leonardo Bereczky (ACNV), Cosmin Stinga Adrian (ACDB) – *A new LIFE +: Best practice and demonstration actions to conserve the Ursus arctos population in central eastern area of the Eastern Carpathians*

### ***3. The meeting with authorities of Vrancea County and stakeholders, having as main purpose informing about Natura 2000 concept and propose some areas as Natura 2000 sites overlapped on Vrancea County territory***

The main objectives followed through this information campaign were to presenting to the participants the proposals of Natura 2000 sites, familiarising them with basic notion about the Natura 2000 concept, presenting the benefits and attributions imposed by Natura 2000 network implementing on the country territory and also the financing possibilities offered.

Presentation session was opened by Silviu Chiriac, a first presentation having as subject “*Natura 2000 for all understandings*”, being discussed the following subjects as:

1. *What Natura 2000 represents?* (there were presented the goal and objectives of Natura 2000);
2. *Why Natura 2000?* (underlining the idea that declaring the Natura 2000 sites doesn't mean strictly protection, being accepted developing the sustainable development activities but which to permit protection of these sites);
3. *Application of Natura 2000 European ecological network in Romania* (presenting the scheme which include the two directives and presenting the legislative framework);
4. *Advantage and opportunities* (importance for forestry, hunting and fishing, tourism, agricultural lands, significant economic opportunities);
5. *False and through opinions,*
6. *Compensation,*



**Final report**

7. *Activities which contribute at nature destroying,*
8. *What are we destroying through these activities?*

In the second presentation session, Rodica Bongeag has sustained the theme referring to “*Financing sources for Natura 2000 network*”. The presented subjects were:

1. *Benefits of Natura 2000* (ecosystem benefits, socio-economic benefits, examples, producing and promoting of local brands, touristy benefits);
2. *Natura 2000 sites types which will be financed* (agricultural field, forests, other field types, inland, wetlands, costal areas, marine areas);
3. *Potential sources for Natura 2000;*
4. *Post-adhering Financial Instruments* (cohesion fund, structural funds);
5. *European Fund for Regional Development;*
6. *European Social Fund;*
7. *European Fund for Orientation and Agricultural Guarantee;*
8. *Financial Instrument for Piscicultural Orientation;*
9. *Funds for owners/users of lands/forests* (FEADR, FEDR, state budget);
10. *Funds for Parks Administrations;*
11. *Funds for NGO's and other entities.*

As a result of discussions with the participants of this meeting, there were made the following conclusions:

- Information were received in an open way by participants;
- It was accepted the necessity for local populations informing about notion of Natura 2000 network and advantages resulted as a result of declaring Natura 2000 sites;
- It was manifested the need for accessing some supplementary information comparing with those presented at this meeting, about pSCI on the Vrancea County territory.

#### ***4. Working methodology for capturing, tranquilizing and collaring the Canis lupus and Lynx lynx species exemplares.***

The rept was prepared by a team of representatives of EPA Vrancea, University of Bucharest – CCMESI and a veterinarian coopted in the intervention team acting on field on the implementing project area. The methodology has been adapted between **November 2005 – June 2006** and contains the following chapters

##### 1. CAPTURE

###### **A. Species from the project. Features**

- General notions about *Canis lupus L.* (*species taxonomy, species area and number, habitat, wolf biology*)
- General notions about *Lynx lynx* (*taxonomy of species, species area and number, habitat use, biology*)

###### **B. Types of traps**

- Foot traps (*Victor Soft traps, Belisle traps, Fremont traps*)
- Cages (metal cage)
  - B.1. *Equipments and tools* (tools, equipment used in the action of traps installing)
  - B.2. *Preparing the materials and traps*
  - B.3. *Checking the functionality of capturing systems* (traps, snares, anchor, fuses)
  - B.4. *Treatment solution*
  - B.5. *Storage of materials and traps*
  - B.6. *Choosing the installing place for traps* (existing target species, distance from the base, accessibility, reduction of trigger conditions, team safety in the verification action)
  - B.7. *Marking the capturing area*
  - B.8. *Traps instalation* (on winter conditions, on periods without snow)
  - B.9. *Traps anchoring*
  - B.10. *Typs of traps positioning* (*traps batteries, linear systems, cages installed in areas wit intense traffic*)
  - B.11. *Odorvectors*

##### 2. TRANQUILISATION

- Equipments, substances, tranquilising techniques
- Advantages and disadvantage of the used anesthetics

##### 3. RADIO-COLLATION

- Field paper – methodology

ANNEX



*Paper of installation / checking traps*

*Sketch model of the line traps*

*Paper capture / biometric measurements*

*General recommendations on team members behaviour in tranquilising of a captured animal*

*General recommendations on team members behaviour in tranquilising and releasing of other species accidentally caught*

## ***5. Hair snares for large carnivores species – Methodology of construction, installation and sampling***

The methodology was made by the University of Bucharest – CCMESI, being completed in October 2006 in the following format:

### **I. OBJECTIVES**

### **II. INTRODUCTION**

### **III. HAIR SNARES FOR *URSUS ARCTOS***

#### **3.1 Sampling method**

“Coral” type trap

“Snare” type trap

Hair trap on the marking point

#### **3.2 Methodes of construction for bear hair traps**

Construction method of hair trap “coral” type

Construction method of hair trap “snare” type

Construction method of hair trap on the marking point

### **VI. HAIR SNARES FOR *LYNX LYNX***

#### **4.1 Sampling method**

#### **4.2 Methodes of construction**

### **V. HAIR SNARES FOR *CANIS LUPUS***

#### **5.1 Sampling method**

#### **5.2 Methodes of construction**

### **VI. ODOR-VECTORS**

#### **6.1.1 Odor-vectors for *Ursus arctos* species- (Fabricarea odorvectorilor)**

#### **6.1.2 Resources**

##### **6.2.1 Odor-vectors for *Lynx lynx* species**

##### **6.2.2 Resources**

##### **6.3.1 Odor-vectors for *Canis lupus* species**

##### **6.3.2 Resources**

### **VII. SAMPLING**

### **SELECTIVE BIBLIOGRAPHY**

## ***6. Metodology for using remote cameras in order to assessing large carnivores abundance***

Methodology realized under the LIFE Nature project “Engancing the Protection System for Large Carnivores in Vrancea County” by Laurentiu Rozyłowicz from the University of Bucharest - CCMESI, was completed in October 2006. Contains the following chapters:

1. Work method
  2. Features of Talon-Extreme photo – camera
  3. Programming the camera
    - *Three-stage switch Comutatorul cu trei trepte*
    - *Laser button*
    - *Set time, set date, set ID*
    - *Menu* (status menu, capture menu, delete menu, mode menu, time delay menu, motion menu)
  4. Steps to follow for installing the camera on field
  5. Samplings
- Selective bibilography



## **7. Communication strategy**

Until April 2007 was developed the **Communication Strategy** on the basis of the survey in order to promote the social and economic benefits of implementing the Natura 2000 network and local network for large carnivores protection. The strategy was conceived by University of Bucharest, being structured as follow:

INTRODUCTION

COMMUNICATION STRATEGY

Objectives

IDENTIFYING THE TARGET GROUPS

Interested factors

Public authorities

The public

KEY MESSAGES TO USE IN PROJECT

COMMUNICATION TECHNIQUES OF KEY MESSAGES

DETAILS OF ACTIVITIES

DESCRIPTION OF PARTENERS INVOLVED IN COMMUNICATION ACTIVITIES

Environmental Protection Agency Vrancea

University of Bucharest – Center of Environmental Research and Impact Studies

Association for Sustainable Development “Focul Viu” Focsani

Forestry Department Focsani

County Council Vrancea

IMPLEMENTATION PLAN

## **8. Assessing the abundance of prey species in the Putna - Vrancea Natural Park**

A team of members of the University of Bucharest (CCMESI) and the Environmental Protection Agency Vrancea - Laurentiu Rozylowicz, Radu Mihai Sandu, Cosmin Adrian Stinga, Gelu Radu, Silviu Chiriac - worked together to compile the report on “**Assessment of the relative abundance of prey populations (Capreolus capreolus, Cervus elaphus, Rupicapra Rupicapra) using pellets**”. The report was drawn up in the following structure:

**Introducere**

**Protocol of Faecal Pellets Index (FPI)**

*Projecting the study*

Defining the study area

Excluded areas

Number of transects, transect length, station points and movement azimuth

Pellet and

pellet groups counting

Data registration

**Counting the Faecale Pellets Index (FPI)**

**Estimating the changes in density of prey species (spring 2008 vs. autumn 2008)**

**Assesing populance abundance**

**Assesing habitats occupancy**

*Deer*

*Red deer*

*Wild boar*

*Totalof prey populations (red deerr+deerb+wild boar)*

**Bibliography**



**Annex 5 – List of partner's data**

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## Annex 6 – Photos illustrating the project actions and results