(Projects submitting final reports after 1 January 2014 must use this format.)

LIFE Project Number

LIFE08 NAT/PL/513

FINAL Report

Covering the project activities from 01/01/2010 to 31/03/2014

Reporting Date

30/06/2014

LIFE+ PROJECT NAME or Acronym

Conservation and restoration of xerothermic grasslands in Poland – theory and practice (Acronym: XericGrasslandsPL)

Project Data

Project location	Poland
Project start date:	01/01/2010
Project end date:	31/12/2013 **Extension date:** 31/03/2014
Total Project duration (in months)	51 months (including **Extension of 3 months**)
Total budget	**€ 1 092 542,38**
Total eligible budget	**€ 1 092 542,38**
EU contribution:	**€ 542 383,23**
(%) of total costs	**49,64**
(%) of eligible costs	**49,64**
Beneficiary Data	
Name Beneficiary	Klub Przyrodników (Coordinating Beneficiary), Regionalna Dyrekcja Ochrony Środowiska w Lublinie (Associated Beneficiary)
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1. List of contents

2. Executive Summary

Basic information about the project.
The project entitled "Conservation and restoration of xerothermic grasslands in Poland - theory and practice" (LIFE08 NAT/PL/513) started in 01.01.2010 and ended in 30.03.2014. Coordinating Beneficiary of the project is The Naturalists' Club and Associated Beneficiary - Regional Directorate for Environmental Protection in Lublin. Overall project budget is: 1 092 542,38 € which consist of app. 50% contribution of European Commission, app. 5% contribution of Beneficiaries and app. 45% contribution of The National Fund for Environmental Protection and Water Management.

Main project objectives.
During the past few decades the areas included in the project, like most patches of xerothermic grasslands in Poland and Europe, have been seriously threatened by the intensification of agriculture and related land use changes. The most damaging to grasslands are the abandonment of extensive grazing and ongoing natural succession, afforestation, ploughing and conversion to farmland. Other negative processes taking place within the grasslands are eutrophication and the penetration of alien species.
This project was aimed at stopping and preventing further negative changes resulting from the above-described processes. The main objective of the project was to provide comprehensive protection of the most valuable patches of xerothermic grasslands in north-western and south-eastern Poland, together with their precious flora and fauna. All activities were focused on preserving the valuable mosaic of thermophilic habitats – so important for maintaining high biodiversity and numerous plant and animal species with different habitat requirements (e.g. fringe and bush species).

Specific project objectives.
- Improving habitat conditions and limiting the succession of undesirable species on selected xerothermic grasslands through active conservation treatments.
- Restoring traditional farming methods (mainly extensive grazing) on parts of the grasslands included in the project in order to ensure their sustainable and effective protection.
- Increasing the biodiversity of the areas included in the project by shaping a dynamic mosaic of xerothermic habitats.
- Ensuring an adequate factual basis for comprehensive and complete conservation of xerothermic grasslands in Poland.
- Ensuring an adequate legal basis for effective conservation of the grassland patches included in the project.
- Promoting and broadening knowledge of the xerothermic grasslands and the need to protect them among different social groups.
- Developing/testing the methods for restoring and recreating xerothermic grasslands in degraded areas.
- Improving the population status of selected rare xerothermic species.

General location of the activities.
The project was implemented in two regions of Poland, which constitute two of the main concentration centres of thermophilic plants in the country: the lower reaches of the Odra and Warta valleys (north-western part of the country) and the Lublin Region (south-eastern part of the country). Activities covered the area of three voivodships (West Pomeranian, Lubusz and

Lublin) and eight Natura 2000 sites: PLH320037 Dolna Odra, PLC080001 Ujście Warty, PLH060018 Stawska Góra, PLH060044 Niedzieliska, PLH060010 Kąty, PLH060029 Żurawce, PLH060039 Dobużek, PLH060035 Zachodniowołyńska Dolina Bugu.
Two of the above mentioned areas, i.e. Dolna Odra and Ujście Warty, were established for the protection of large sections of major river valleys, including a mosaic of aquatic, wetland and forest habitats, as well as wet meadow and xerothermic grassland habitats connected to dry valley edges. Consequently, they were divided into so-called sub-areas, i.e. areas covering particular grasslands subject to activities under the project. And so, the Dolna Odra area was divided into thirteen sub-areas, and the Ujście Warty area into four (a detailed description of the sub-areas can be found in Chapter 3. Areas Covered by the Project). The Stawska Góra, Niedzieliska, Kąty and Żurawce areas are of small size and were established almost entirely for the purpose of protecting xerothermic grasslands, due to which the whole area they cover was included in the project. The Dobużek and the Zachodniowołyńska Dolina Bugu – similarly to the Ujście Warty and Dolna Odra areas – cover not only grasslands, but also other habitats not included in the project. However, in the case of these areas only one object per each area was chosen to be covered by the protection activities, hence the division into sub-areas was not necessary.
In total, the project covered 225 ha of various thermophilic habitats.

Habitats and species included in the project.
The key objective of the project is habitat 6210 - Xerothermic grasslands (*Festuco-Brometea* class). But the project aimed not only to conserve xerothermic grasslands themselves, but also the thermophilic communities accompanying them: xeric sand calcareous grasslands (*Koelerion glaucae*) 6120*, *Juniperus communis* formations on heaths or calcareous grasslands 5130, subcontinental peri-Pannonic scrub with *Prunus fruticosa* 40A0*, riparian mixed oak-elm-ash forests (*Ficario-Ulmetum*) 91F0. In addition to the above-listed habitats, also others, not listed in Annex I to the Habitats Directive complement the thermophilic vegetation formations on project sites: thickets with *Prunus spinosa*, different *Crataegus species, Berberis vulgaris, Ligustrum vulgare* and *Rosa sp.*. On the one hand, their excessive development threatens xerothermic grasslands, but on the other – their peripheries constitute perfect habitats for numerous species of xerothermic flora and fauna.
Another non-Natura 2000 habitat, but one that significantly increases the biodiversity of thermophilic vegetation complexes, is that created by thermophilic fringe communities. They constitute perfect habitats for various orchid species and other species sensitive to direct sunlight. It is worth noting that in many EU countries these have been included in the 6210 habitat. This approach is more and more frequently proposed also in Poland.
The main objective of the project is a comprehensive conservation of xerothermic habitats. For this reason, the attention is focused not only on the maintenance of good condition of habitats, but also on the population of specific species and, consequently, a high level of biodiversity. Special attention has been paid to two species in particular: *Stipa borysthenica* and *Echium russicum* (4067). Actions taken during the project had an indirect positive influence on populations of other species from the Annex II of the Habitats Directive, among other things: *Spermophilus suslicus, Sicista subtilis, Colias myrmidone, Maculinea telejusa, Maculinea nausithous, Carlina onopordifolia* and *Cypripedium calceolus*.

Main threats and problems of grasslands included in the project.
The main factor that generates threats to the xerothermic grasslands in Poland is change in utilization of land which is caused by the intensification of agriculture that triggered a group of mutually interconnected processes and factors. The following are the basic processes and factors that affected the areas included into the project: natural succession, afforestation of

grassland areas, ploughing of grassland areas, natural resources extraction, eutrophication, acidification, intrusion of ecologically alien species, intrusion of species non-native to Poland, excessive tourism, trash dumping, lack of interest in grassland use, difficult, costly and time-consuming conservation methods.

Actions realized during the Project.

Section A (preparatory actions)

- Preparatory activities (investigating land ownership, consulting local experts, preparing action plans)
- Preparing scientific documentation and conservation plans for selected objects
- Creating a Habitat Action Plan for xerothermic grasslands in Poland

Section B (Purchase or lease of land)

- Buying out selected areas with the most precious grasslands

Section C (concrete conservation actions)

- Cutting down or thinning out scrub and tree thickets
- Removing invasive alien herbaceous plant species (including *Heracleum sosnowskyi*)
- Removal of illegal landfills
- Conservation grazing on parts of xerothermic grasslands
- Co-operation with local communities aiming at restoring grazing
- Restoring xerothermic grasslands in degraded areas (removal of the topmost layer of the soil, sowing xerothermic species' seeds, transplanting well-preserved patches of grasslands etc.)
- Strengthening the populations of *Echium russicum* and other rare species by planting seedlings grown ex situ and sowing these species' seeds
- Channelling tourism

Section D (public awareness and dissemination of results)

- Organizing workshops and conferences
- Publication of educational materials (folders, brochures, posters, educational boards)
- Production of a documentary about grasslands
- Publication of photo-album about grasslands
- Project's website
- Project's information boards
- Publication of layman's and scientific report
- Supporting the international flow of information about grasslands

Section E (overall project operation and monitoring)

- Management of the project
- Monitoring of project's results
- Preparing After-LIFE Conservation Plan

Main results of the Project

- Conservation or improving the conservation status of ca. 225 ha of xerothermic vegetation complexes
- Preserving or enhancing biodiversity on 8 Natura 2000 sites
- Removing or thinning out shrub and tree thickets on an area of 76,34 ha
- Removing 10 illegal landfills from the xerothermic grasslands areas
- Restoring 11 xerothermic grasslands with combined total area of 20,2 ha
- Reintroducing extensive grazing on 67,39 ha of xerothermic grasslands

- Preparing scientific documentation for 15 objects involved in the conservation of xerothermic grasslands
- Preparing conservation plans for 4 Natura 2000 sites and 8 nature reserves or ecological site
- Channelling tourist traffic to 8 Natura 2000 sites
- Boosting and stabilizing the population of *Echium russicum*
- Creating professional know-how for further complex conservation of xerothermic grasslands in Poland (Habitat Action Plan)
- Raising awareness and knowledge about xerothermic grasslands and the need to conserve them in more than 15 000 interested individuals.
- Propagating information about conserving xerothermic grasslands in the Lublin, Lower Odra and Lower Warta regions

Deliverables of the project.

- Web site: www.murawy-life.kp.org.pl
- Documentary (film) in xerothermic grassland and the Project (38.47 minutes, 500 copies)
- CD with grassland recordings (38.43 minutes, 1000 copies)
- Layman's and scientific report - English and Polish version (2000 copies in total)
- Folder about the Project (English and Polish version with German and Ukrainian summary) (2500 copies)
- 3 types of brochures for different social groups (1500 copies in total)
- 8 types of posters (4000 copies in total)
- 2 types of educational boards for schools (24 copies in total)
- Photo-Album "Murawy" (eng: "Grasslands") (500 copies)
- 6 types of information boards concerning the Project (55 boarders in total)
- Information and educational boards created in frames of action C7 (65 in total)
- Conference proceedings (book of abstracts, programme, coats etc.)
- Small architecture build in frame of action C6, C6 and C7 (shelters for animals, fences, scenic overlooks, educational trails etc.)
- 15 scientific documentations, 12 conservation plans, one Habitat Action Plan prepared during the Project (Actions A1, A2, A3)

Best practices, innovation, demonstration and replicability of the methods.

A large part of the activities undertaken during the project are widespread and proven methods used for years in the protection of semi-natural non-forest habitats. Among them, particularly noteworthy are two methods that may seem in the protection of grasslands as a best practice: removal of shrubs and trees and extensive grazing. Less known but innovative conservation methods used in the project and worth further testing include: 1) mobile sheep grazing, used in the case of small, highly isolated patches of grasslands; it consists in transporting animals from patch to patch, throughout the growing season; 2) restoring grasslands, including among other top soil removal contaminated by black locust *Robinia pseudoacacia*, sowing seeds and transplanting pieces of sod; 3) recovery of grasslands overgrown by expansive bushes using black foil lining.

Also noteworthy are the various methods of dealing with invasive species such as *Robinia* or *Heracleum sosnowskyi* (mowing several times a year *Heracleum* or *Robinia* suckers, cutting trees to a height of 120 cm, plucking plants with roots, etc.).

These activities are easy to replicate not only in the case of xeric grasslands, but also other habitats endangered by the encroachment of invasive species. Methods and tools to be used in the field are already available in all EU member states. A detailed description of the activities

is available on the project website, in the Project's Layman's and Scientific Report and was also presented at numerous conferences and meetings.

Benefits for Natura 2000 and species/habitat type targeted.

- Ca. 225 ha of xerothermic vegetation complexes (including patches of habitats: 6210 - xerothermic grasslands, 6120 - xeric sand calcareous grasslands, 5130 - *Juniperus communis* formations on heaths or calcareous grasslands, 40A0 - subcontinental peri-Pannonic scrub with *Prunus fruticosa*, 91F0 - riparian mixed oak-elm-ash forests (*Ficario-Ulmetum*)) improved.
- Reduce the impact of invasive species on 3 Natura 2000 sites (Dolna Odra, Ujście Warty, Żurawce).
- Channelling tourist traffic on 8 Natura 2000 sites.
- On 20.2 ha the process of regeneration of xerothermic grasslands (habitat code: 6210) initiated.
- Polish population of *Echium russicum* (species code: 4067) strengthened.
- Habitat conditions on 3 localities of *Cypripedium calceolus* (species code: 1902) improved.
- Habitat conditions on 2 localities of *Carlina onopordifolia* (species code: 2249) improved.
- Habitat conditions on one locality of *Maculinea teleius* (species code: 1059) improved.
- Habitat conditions on one locality of *Maculinea nausithous* (species code: 1061) improved.
- Habitat conditions on one locality of *Colias myrmidone* (species code: 4030) improved.
- 4 conservations measures plans for Natura 2000 sites (Stawska Góra, Niedzieliska, Kąty, Żurawce) prepared.
- Habitat Action Plan for xerothermic grassland in Poland prepared (habitat code: 6210).
- Awareness and knowledge about xerothermic grassland (habitat code: 6210), 8 Natura 2000 sites (Dolna Odra, Ujście Warty, Stawska Góra, Dobużek, Kąty, Żurawce, Niedzieliska, Zachodniowołyńska Dolina Bugu) and Natura 2000 network in more than 15 000 persons raised.

3. Introduction

Description of background, problem and objectives.

Project's main goal was to protect xerothermic grasslands (6210). However conservation actions includes also other thermopile habitats occurring in dynamic mosaic with xerothermic grasslands: xeric calcareous sand grasslands (6120*), *Juniperus communis* formations (5130) and subcontinental peri-Pannonic scrub with *Cerasus fruticosa* (40A0*) as well as Riparian mixed forests of *Quercus, Ulmus* and *Fraxinus* (91F0). Moreover Project covered also habitats which are not listed in Annex I of Habitat Directive, i.a. thermopile shrubs of *Prunus spinosa* and *Crataegus* sp. One Action was devoted to specific species listed in Annex II of Habitat Directive: *Echium russicum*. Actions realized in the Project had also significant influence to other precious and rare species in Poland.

The valleys of the rivers Odra and Warta in their lower stretches, as well as the broadly understood Lublin region are home to some of the largest and most precious clusters of xerothermic vegetation in the country. Eight of the Natura 2000 sites chosen for this project: Dolna Odra PLH320037, Ujście Warty PLC080001, Stawska Góra PLH060018, Niedzieliska PLH060044, Kąty PLH060010, Żurawce PLH060029, Dobużek PLH060039 and the Zachodniowołyńska Dolina Bugu PLH060035 have been primarily established for the conservation of this kind of habitats.

The sites included in the project, like most xerothermic grasslands both in Poland and the rest of Europe, have come in the past few decades under threat from intensified agriculture and the consequent changes in land usage. For grasslands, the most severe changes are the loss of extensive grazing, which brought about natural succession, afforestation, ploughing and turning into arable lands. Other detrimental processes include the eutrophication of the grasslands and interference from alien species linked to negative changes in abiotic conditions. Current lack of interest in grasslands extensive management, unprofitable traditional animals husbandry and also pastures' bad condition deteriorate the situation.

This project aimed to stop these negative changes and prevent future ones stemming from the processes described above. The chief goal of the project was to establish complex protection of the most precious xerothermic grasslands in NW and SE Poland, together with their valuable flora and fauna. All actions were aimed at preserving the precious mosaic of xerothermic vegetation, crucial for the preservation of high biodiversity and protection of numerous species of plants and animals with diverse habitat requirements.

Detailed objectives were as follows:

1. Improving habitat conditions and curbing the succession of undesirable species on selected xerothermic grasslands by active conservation.
2. Re-introducing traditional agriculture (mainly extensive grazing) on parts of the project's grasslands with an aim to ensuring their lasting and effective conservation.
3. Enhancing biodiversity on the project's sites by forming a dynamic mosaic of xerothermic habitats.
4. Ensuring the know-how basis for complete and complex conservation of xerothermic grasslands in Poland.
5. Ensuring appropriate legal basis for effective conservation of the project's grasslands.
6. Educating diverse social groups on the subject of xerothermic grasslands and the need to protect them.
7. Development and testing of methods of restoring xerothermic grasslands in degraded areas.
8. Boosting population numbers of selected rare xerothermic species.

Expected longer term results.

1. Preservation or improving the conservation status of ca. 225 ha of xerothermic vegetation complexes
2. Preserving or enhancing biodiversity on 8 Natura 2000 sites
3. Removing or thinning out shrub and tree thickets on an area of 77 ha
4. Removing 9 illegal landfills from the xerothermic grasslands areas
5. Restoring 8 xerothermic grasslands with combined total area of 12 ha
6. Reintroducing extensive grazing on 45 ha of xerothermic grasslands
7. Preparing scientific documentation for 14 objects involved in the conservation of xerothermic grasslands
8. Preparing management plans for 4 Natura 2000 sites and 10 nature reserves or ecological site
9. Channelling tourism on 8 Natura 2000 sites
10. Boosting and stabilizing the population of *Echium russicum*
11. Creating professional know-how for further complex conservation of xerothermic grasslands in Poland
12. Raising awareness and knowledge about xerothermic grasslands and the need to conserve them in ca. 1000 interested individuals
13. Propagating information about conserving xerothermic grasslands in the Lublin, Lower Odra and Lower Warta regions.

4. Administrative part

4.1 Description of the management system

The project started in 01.01.2010 and end in 30.03.2014. Coordinating Beneficiary of the project is The Naturalists' Club and Associated Beneficiary - Regional Directorate for Environmental Protection in Lublin. Overall project budget consist of ca. 50% contribution of European Commission, ca. 5% contribution of Beneficiaries and ca. 45% contribution of The National Fund for Environmental Protection and Water Management.

Coordinating beneficiary, the Naturalists' Club was established in 1993, The Naturalists' Club (NC) is an organisation engaged in wide-ranging nature conservation and environmental education. Formerly known as Lubuski Klub Przyrodników [Lubusz Naturalists' Club], in 2001 it expanded its activities, thus covering the entire country.
During its operation, NC has conducted dozens of major projects, mainly concerning the protection of natural habitats, e.g.: xerothermic grasslands in the Odra, Warta and Noteć regions, raised bogs and alkaline fens in Pomerania or the forest ecosystems of the Drawska Forest. The organisation has also been involved in projects concerning rare plant and animal species, including xerothermic plant species, snails (*Vertigo angustior* and *V. moulinsiana*), the European pond turtle and the smooth snake. Moreover, NC has led projects aimed at minimising the conflict between humans and beavers, as well as those consisting in preserving old varieties of fruit trees and rare species of segetal plants (the Club's Field Station in Owczary possesses a conservation collection of old varieties of fruit trees and a "weeds garden"). The Club was also the first institution in Poland to implement a venture funded under the EU LIFE+ programme - it was a project conducted in 2003-2007 under the title: "Conservation of Baltic Raised Bogs in Pomerania". The Naturalists' Club currently has several projects underway, including two supported by the EU LIFE+ programme: "Conservation and Restoration of Alkaline Fens (code 7230) in the Young-Glacial Landscape of Northern Poland" and "Conservation of Alkaline Fens (7230) in Southern Poland".
In addition, The Naturalists' Club is engaged in making nature inventories and collecting information for the purposes of documentation and conservation plans relating to nature reserves, ecological sites, national and landscape parks and Natura 2000 sites. Moreover, NC purchases lands for nature reserves and ecological sites. This has led to the creation of, among others, the Owczary private reserve in the Odra valley. The Naturalists' Club has 2 field stations: in Owczary and in Uniemyśl, and a permanent exhibition at the Museum of the Meadow in Owczary, as well as its own publishing house, issuing around a dozen books a year. As part of the Club's educational activities it organises nature workshops, conferences, study sessions, as well as tours and competitions for children and teenagers. More information about The Naturalists' Club on: www.kp.org.pl.

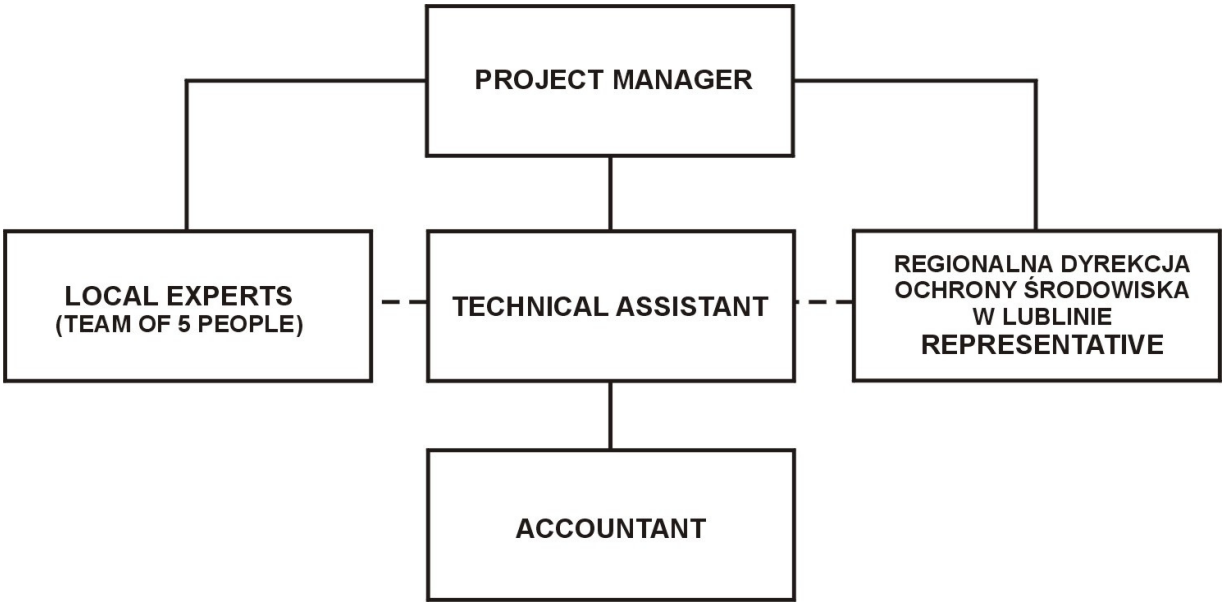
Associated beneficiary, Regional Directorate for Environmental Protection in Lublin (RDOŚ in Lublin) is an organ of the non-combined government administration, operating in the Lublin Voivodeship. It was established under the Act of 3 October 2008 on providing information on the environment and its protection, public participation in environmental protection and on the environmental impact assessment (Dz. U. [Journal of Laws] No. 199, item 1227). The Directorate conducts activities in the field of nature protection (including the management of the Natura 2000 sites), environmental impact assessments, preventing damage to the environment and the Eco-Management and Audit Scheme (EMAS). It co-operates with scientific institutions, NGOs, local government units and the local community in respect to nature protection. It also implements and participates in nature conservation projects, training

courses, conferences, exhibitions, and other activities related to environmental protection. More information about the Directorate on www.lublin.rdos.gov.pl.

The **Partnership agreement** was signed at 06.10.2010 and submitted to the Commission with Inception Report. In the beginning of every next year of the project special Addendum to the Partnership agreement was signed. Addenda determined the AB's own contribution in a given year. The need to sign those addenda was dictated by the fact that AB is a State unit determining budget for each year separately and cannot prepare a financing plan at once for the four years ahead.

Management project group consisted of Project Manager, Technical Assistant, 5-person group of the Local Experts, RDOŚ representative in Lublin, IT specialist and persons responsible for project accounts.
Project Manager was responsible for the general project performance. His work was associated with coordination and planning actions.
Technical Assistant was engaged in the organization at the lower level and technical side of the actions. He substituted the Project Manager during his absence. 5-person group of the Experts was responsible for substantive side of the project. They mainly participated in the task performance (A1, A2, A3, D1, D3) and were the general body responsible for preparation and realization of monitoring (action E2). The number of experts was associated with great dispersion of planned actions in Poland. There was two experts per large areas of Dolna Odra and Ujście Warty and two expert for all Lublin region areas, the areas that are smaller than those in the northern and western Poland.
RDOŚ representative in Lublin was responsible for actions performed, coordinated and funded by the Directorate. Project accounting was conducted by the person who had already been employed by the Naturalists' Club. An IT specialist was engaged in running the website and possible assistance in the materials preparation in technical programs, such as GIS.

Organigramme of the project team and the project management structure:



On 12.01.2010 manager of the project (Katarzyna Barańska) organized meeting for all the workers (Katarzyna Barańska – manager, Michał Dąbrowski – technical assistance, Michał

Żmihorski, Anna Cwener, Piotr Chmielewski, Hanna Garczyńska, Paweł Pluciński – local experts, Małgorzata Polkowska – RDOŚ in Lublin representative, Łukasz Kwaśny – IT technician, Maria Stankiewicz - accountant). During the meeting all the planned actions were presented with detailed descriptions of expected roles of particular workers. Moreover, description of technical issues and possible problems were addressed.
On 07.04.2010 meeting in RDOS in Lublin was organized. During the meeting all technical, logistical issues were addressed and detailed information concerning project management and cooperation was presented and discussed. In meeting participated 23 persons: project workers (Katarzyna Barańska – manager, Michał Dąbrowski – technical assistance, Anna Cwener and Piotr Chmielewski - local experts from Lubelszczyzna) RDOŚ representatives (Beata Sielewicz – the director of RDOŚ, Małgorzata Polkowska – representative of RDOŚ in project and 5 other workers of RDOŚ in Lublin), 3 representatives of Botanical Garden, representatives of Hrubieszów, Zamość, Jarczów, Lubycza Królewska communities and few other interested. In September 2010, second meeting took place. During the second meeting planned actions and details concerning cooperation in 2011 were discussed.
On 14.03.2011 another official meeting with Associated Beneficiary (RDOŚ in Lublin) as well as with local government and stuff of district of The State Forest Holding (Forest District in Lublin) took place. We discussed about activities planned for 2011. During spring and summer several additional meetings with stuff of RDOS in Lublin took place as we needed to make decisions in several more detailed issues. In mid of December another official meeting with RDOS was conducted.
In 2012 one official meeting with Associated Beneficiary (RDOŚ in Lublin) took place on 10.12.2012.
At the beginning of 2011 person worked as technical assistance was changed (Paweł Pluciński – previous local expert – replaced Michał Dąbrowski, whereas for the position of local expert we employed new person – Katarzyna Kiaszewicz). The change did not affect program of the project or methods of its management.

Realization of the actions, Beneficiaries and workers responsibility:

(Projects submitting final reports after 1 January 2014 must use this format.)

Action	Beneficiary responsible for implementation	Executor of the action	2010				2011				2012				2013				2014	
Number/ name			I	II	III IR	IV	I	II	III	IV MR	I	II	III	IV	I PR	II	III	IV	I	II FR
A. Preparatory actions, elaboration of management plans and/or action plans :																				
A1	Naturalists' Club (CB)	local experts, technical assistant, project manager	+	+	+	+	+	+	+	+										
A2	Naturalists' Club (CB)	local experts, technical assistant, project manager, external experts					+	+	+	+	+	+	+	+						
A3	Naturalists' Club (CB)	project manager, local experts, technical assistant, external experts		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
B. Purchase/lease of land and/or rights :																				
B1	Naturalists' Club (CB)	technical assistant, project manager					+	+	+	+	+	+	+	+	+	+	+	+		
C. Concrete conservation actions :																				
C1	Naturalists' Club (CB)	external contractors				+	+			+	+			+	+					
C2	RDOŚ Lublin (AB)	external contractors						+	+			+	+							
C3	Naturalists' Club (CB)	external contractors, local experts					+													
C4	Naturalists' Club (CB)	external contractors, local experts, technical assistant, volunteers						+	+	+	+	+								
C5	RDOŚ Lublin (AB)	external contractors			+		+	+	+	+	+	+	+	+	+	+				
C6	Naturalists' Club (CB)	shepherds, external contractors		+	+			+	+			+	+			+	+			
C7	RDOŚ Lublin (AB)	external contractors								+	+			+	+					
C8	Naturalists' Club (CB)	project manager, technical assistant, external contractors					+	+	+	+	+	+	+	+	+	+	+	+		
D. Public awareness and dissemination of results :																				
D1	Naturalists' Club	local experts, project manager,		+						+	+									

	(CB)	technical assistant, external contractors																				
D2	Naturalists' Club (CB)	external contractors, local experts, project manager													+	+						
D3	Naturalists' Club (CB)	local experts, technical assistant, external contractors						+	+			+	+			+	+					
D4	Naturalists' Club (CB)	external contractor		+	+	+	+	+	+	+	+	+	+	+	+	+	+					
D5	Naturalists' Club (CB)	IT technician, local experts, project manager, technical assistance	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
D6	Naturalists' Club (CB)	external contractor					+															
D7	Naturalists' Club (CB)	project manager, local experts, technical assistant, external contractor																+	+			
D8	Naturalists' Club (CB)	workers of the project, external contractor		+													+					
E. Overall project operation and monitoring:																						
E1	Naturalists' Club (CB)	project manager, technical assistant, accountant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
E2	Naturalists' Club (CB)	local experts, technical assistant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
E3	Naturalists' Club (CB)	project manager, technical assistant																+	+			

+	Planned time of realization (before the actions start)
	Realization according to the plan
	Delay in realization
	Prolongation of realization
	Realization started earlier
IR	Inception Report
MR	Mid-term Report
PR	Progress Report
FR	Final Report

(Projects submitting final reports after 1 January 2014 must use this format.)

4.2 Evaluation of the management system

Introduced management system proved itself during the four years of the project. 5-person team of local experts proved to be sufficient for the tasks planned in the project, despite such a west objects' dispersion - on the two opposite ends of the country (south-eastern and north-western Poland). Good cooperation of experts with the project manager and technical assistance was based on continuous and detailed information exchange during team meetings and through constant telephone and e-mail contacts.

Inestimable was the RDOŚ in Lublin representative, who, in practice, was the main stream of contact between the CB and AB. Additionally more important issues were consulted directly with the RDOŚ Director during more formal contacts/meetings. Co-operation was carried out in accordance with the signed Partnership agreement and held without obstacles.
Also, communication with the Commission and Monitoring Team took place without major problems. Monitoring Team Missions were professional and at the same time held in a relaxed and friendly atmosphere.

5. Technical part

5.1. Technical progress, per task

ACTION A.1: **Preparing technical documentation for further actions**

SUB-ACTION A.1a**: Gathering information about land ownership in the project's areas, determining boundaries of property**

Description and results:
For all areas or subareas covered by the project (23 in total) technical documentation have been drawn. Each technical documentation consist of all available information about land ownership, precise boundaries, land use, numbers of the plots of which the areas or subareas consists. Technical documentations include mainly topographic and surveyor maps and extracts from land registers maps. In some cases we achieved some information about land use in the past or earlier area of the grasslands.
Technical documentations are attached in Annex 7. Annex 7.3 of MR contains paper versions of this documents.

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: project workers (technical assistant with help of local experts)

Localization: Dolna Odra site, Ujście Warty site, Kąty site, Żurawce site, Stawska Góra site, Niedzieliska site, Dobużek site, Zachodniowołyńska Dolina Bugu site

Modifications and delays: No modifications and delays.

Indicators used to test the performance of the action: number of technical documentations (for 23 objects)

Main problems: No problem encountered.

Perspectives and necessities for continuing: -

Complementary action outside LIFE: -

SUB-ACTION A.1b**: Securing permits from appropriate institutions for the application of planned actions**

Description:
We managed to get ca. 15 permissions from appropriate institutions for the realization of the planned actions, including permission for entrance and car use in natural reserves and State Forests grounds; permission from RDOŚ for action conducted in natural reserves (grazing, clear-cuttings, grassland restoration etc.), agreement from land managers for the realization of planned actions.
Several selected permissions were available in the Annex 7.5 of MR.

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: project workers (technical assistant with help of project manager)

Localization: Dolna Odra site, Ujście Warty site, Kąty site, Żurawce site, Stawska Góra site, Niedzieliska site, Dobużek site, Zachodniowołyńska Dolina Bugu site

Modifications and delays: No modifications and delays.

Indicators used to test the performance of the action: number of gathered permissions (min. 15 permissions)

Main problems: No problem encountered.

Perspectives and necessities for continuing: -

Complementary action outside LIFE: -

***SUB-ACTION A.1c*: Negotiating with landowners and managers their participation in project and then the methods, dates and scale of planned actions.**

Description:
We organized 32 meetings with landowners, land managers, and farmers utilizing lands at which the project was realized. Among others:
7 group meetings (with all the peoples interested in land management in a given area). Such meetings took place for the Natura 2000 sites in Żurawce, Dobużek, Niedzieliska, Kąty, ZDB. Such meetings were dedicated for objects divided into several parcels and managed by many owners.
15 individual meetings (with individual landowners). Such meetings took place at the following areas/subareas: Czelin, Cedynia, Raduń, Nawodna, Moczyły, Kurów, Kąty, Dobużek, Żurawce. Such meetings were organized in cases where the object is managed by only one owner/manager. Additional individual meetings were dedicated to the peoples that declared cooperation during the group meetings.
10 individual meeting (with institutions that manage state-owned lands, e.g. State Forests National Forest Holding). The meetings took place in following areas/subareas: Czarnów, Górzyca, Nawodna, Krajnik, Raduń, Cedynia, Czelin, Kostrzynek, Rudnica, Trutwiniec, Siekierki, Gozdowice, Błeszyn.

List of meetings – for each date and number of participants are given:

No	Area/subarea	Type of meeting	Number of participants	Date
1	ZDB	group meeting	14	14.04.10
2	ZDB	group meeting	17	14.04.10
3	Niedzieliska	group meeting	6	27.05.10
4	Żurawce	group meeting	11	20.06.10
5	Niedzieliska	group meeting	13	12.07.10
6	Kąty	group meeting	5	26.10.10
7	Dobużek	group meeting	10	27.10.10
8	Czelin	individual meetings with individual landowners	3	05.06.10
9	Moczyły	individual meetings with individual landowners	2	30.06.10

10	Czelin	individual meetings with individual landowners	5	30.06.10
11	Cedynia	individual meetings with individual landowners	3	12.10.10
12	Kurów	individual meetings with individual landowners		14.10.10
13	Dobużek	individual meetings with individual landowners	5	22.02.11
14	Nawodna	individual meetings with individual landowners	3	10.03.11
15	Żurawce	individual meetings with individual landowners	4	14.03.11
16	Dobużek	individual meetings with individual landowners	4	03.04.11
17	Dobużek	individual meetings with individual landowners	3	13.07.11
18	Raduń	individual meetings with individual landowners	4	19.09.11
19	Dobużek	individual meetings with individual landowners	4	21.10.11
20	Kąty	individual meetings with individual landowners	4	22.10.11
21	Żurawce	individual meetings with individual landowners	4	23.10.11
22	Kąty	individual meetings with individual landowners	3	10.09.13
23	Kostrzynek, Rudnica, Trutwiniec, Siekierki, Gozdowice, Błeszyn	individual meetings with institutions (Mieszkowice forest inspectorate)	6	04.05.10
24	Nawodna, Raduń	individual meetings with institutions (Chojna forest inspectorate)	6	12.08.10
25	Nawodna, Raduń	individual meetings with institutions (Chojna forest inspectorate)	6	18.08.10
26	Krajnik, Cedynia, Raduń, Czelin	individual meetings with institutions (ANR)	4	22.10.10
27	Czarnów, Górzyca	individual meetings with institutions (Ośno Lubuskie forest inspectorate)	5	31.05.11
28	Raduń	individual meetings with institutions (Chojna forest inspectorate)	10	05.07.11
29	Czelin	individual meetings with institutions (ANR)	6	24.11.11
30	Raduń	individual meetings with institutions (Chojna forest inspectorate)	4	10.11.13
31	Krajnik	individual meetings with institutions (ANR)	4	10.10.13
32	Krajnik	individual meetings with institutions (Chojna municipality)	5	10.05.13
In total:			**183**	

Picture from some meetings are presented in „gallery" on our project website (www.murawy-life.kp.org.pl).
In general, the meetings enabled us to recognize the situation and identify possible problems that can occur in a given area. With the help of the meetings we selected landowners and land managers who would like to cooperate with us.

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: project workers (project manager, technical assistant, local experts)

Localization: Dolna Odra site, Ujście Warty site, Kąty site, Żurawce site, Stawska Góra site, Niedzieliska site, Dobużek site, Zachodniowołyńska Dolina Bugu site

Modifications and delays: No modifications and delays.

Indicators used to test the performance of the action: number of meetings (min. 30 meetings), number of meeting participants, number of project areas/subareas which meetings concerned

Main problems: No problem encountered.

Perspectives and necessities for continuing: -

Complementary action outside LIFE: -

***SUB-ACTION A.1d*: Determining on-site, together with local experts, the methods, dates and scale of planned actions**

Description:
For every area and subarea (23 in total) we conducted field visits and meetings with their owners/managers, during which we assessed necessary activities and determined final schedule. As a consequence, "action plan" was made for every object included in the project. Each plan shows the most ideal version of object conservation, but not always required by Application and realized during the project. "Action plans" are attached in Annex 8. Paper versions of the plans were submitted with Annex 7.4 of MR.

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: project workers (local experts with help of project manager and technical assistant)

Localization: Dolna Odra site, Ujście Warty site, Kąty site, Żurawce site, Stawska Góra site, Niedzieliska site, Dobużek site, Zachodniowołyńska Dolina Bugu site

Modifications and delays: No modifications and delays.

Indicators used to test the performance of the action: number of action plans prepared (min. 23 plans)

Main problems: No problem encountered.

Perspectives and necessities for continuing: -

Complementary action outside LIFE: -

***SUB-ACTION A.1e*: Preparing scientific documentation for 14 new protected sites**

Description:

We prepared 15 scientific documentations for the most biodiversity-rich patches of xerothermic grasslands that should be cover with some protection forms:

No.	planed protection form	Area/subarea	Status
1	Natural monument „Storczykowa Skarpa”	Dolna Odra area, Nawodna subarea	New protection form created during the project
2	Natural monument „Ciepłolubna Wydma”	Dolna Odra area, Siekierki subarea	New protection form created during the project
3	Natural monument „Ostnicowa Skarpa”	Dolna Odra area, Siekierki subarea	New protection form created during the project
4	Ecological site „Górki Krajnickie”	Dolna Odra area, Krajnik subarea	Still not created
5	Ecological site „Murawka w Nawodnej”	Dolna Odra area, Nawodna subarea	Still not created
6	Ecological site „Skarpy w Zatoni”	Dolna Odra area, Raduń subarea	New protection form created during the project
7	Ecological site „Góra Ewy”	Dolna Odra area, Raduń subarea	Still not created
8	Ecological site „Szawin”	Dolna Odra area, Cedynia subarea	Still not created
9	Ecological site „Niedzieliska”	Niedzieliska area	Still not created
10	Ecological site „Kąty”	Kąty area	Still not created
11	Ecological site „Żurawce”	Żurawce area	Still not created
12	Ecological site „Korhynie”	Żurawce area	Still not created
13	Ecological site „Błonia Nadbużańskie”	ZDB area	Protection form created before the project start
14	Nature reserve „Ostnice pod Rudnicą”	Dolna Odra area, Rudnica subarea	New protection form created during the project (change for ecological site)
15	Nature reserve „Ostnice nad Kruszarnią”	Dolna Odra area, Trutwiniec subarea	New protection form created during the project (change for ecological site)

Documentations are attached in the Annex 6. Paper versions of the documentations were submitted with Annex 7.1 of MR.
The prepared documentations, together with proposition concerning new form of nature conservation in a given site, were sent to local governments or Regional Directorates of Environment Protection, which are responsible for establishing the new form of nature protection.
The documentaries aim at description of the most important objects (vegetation, species etc.) that needs protection in a given site. Moreover, they should be helpful to local government (or Regional Directorates of Environment Protection) in decision making procedures concerning establishing new areas of nature protection. They are also a kind of theoretical basis for conservation plans (see Action A2). In case of existing forms of nature protection the documentaries are helpful in proper and effective biodiversity conservation on a given site.

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: project workers (local experts with help of project manager and technical assistant)

Localization: Dolna Odra site (subareas: Nawodna, Siekierki, Krajnik, Raduń, Cedynia, Rudnica, Trutwiniec), Kąty site, Żurawce site, Niedzieliska site, Zachodniowołyńska Dolina Bugu site

Modifications and delays:
Originally we planned preparation of 14 documentation for the following subareas or areas: Krajnik, Nawodna (x2), Cedynia, Rudnica, Siekierki, Pamięcin, Stawska Góra, Niedzieliska, Kąty, Żurawce (x2), Dobużek, ZDB.
In the case of Stawska Góra area, Dobużek area and Pamięcin subarea (Ujście Warty area) we did not prepare the documentations. During our project, for Stawska Góra and Dobużek areas RDOŚ in Lublin started preparation of conservations measures plans for Natura 2000 sites. which part was detailed field work. Therefore we desist from doing documentaries for this areas which would be repeating of RDOŚ work. In case of Pamięcin subarea we decided to resign of preparing the documentation because of minor natural value of the patch, which appeared after conducting the action A1d.
Instead, 4 additional documentations have been prepared for the following subareas: Siekierki, Raduń (x2) and Trutwiniec. Therefore in our opinion the action can be assumed as realized (14 planned documentations have been prepared, together with additional 1 – 15 documents in total).
There were no delays in action realization.

Indicators used to test the performance of the action: number of documentation prepared (min. 14 documentations)

Main problems: No problem encountered.

Perspectives and necessities for continuing:
During next few years we will make efforts for establishing proposed in documentations forms of nature conservation which were not created during the project.

Complementary action outside LIFE: -

ACTION A.2: **Preparation of conservation plans for 10 objects**

Description:
We prepared 12 conservation plans: 4 for Natura 2000 sites, 1 for nature reserve and 7 for ecological sites and nature monuments:

No.	protection form	Area/subarea	Status of the protection form	Status of the plan
1	Nature reserve "Słoneczne Wzgórza"	Dolna Odra area, Raduń subarea	Created in 08.2012 r. with the help of the project	Accepted by RDOŚ in Szczecin 03.2014
2	Ecological site "Skarpy w Zatoni"	Dolna Odra area, Raduń subarea	Created in 03.2013 r. with the help of the project	Accepted by municipality Chojna 03.2013
3	Nature monument "Storczykowa Skarpa"	Dolna Odra area, Nawodna subarea	Created in 03.2013 r. with the help of the project	Accepted by municipality Chojna 03.2013
4	Nature monument "Ciepłolubna Wydma"	Dolna Odra area, Siekierki subarea	Created in 04.2013 r. with the help of the project	Accepted by municipality Cedynia 04.2013
5	Nature monument "Ostnicowa Skarpa"	Dolna Odra area, Siekierki subarea	Created in 04.2013 r. with the help of the project	Accepted by municipality Cedynia 04.2013
6	Ecological site Ostnice pod Rudnicą"	Dolna Odra area, Rudnica subarea	Created in 10.2013 r. with the help of the project	Accepted by municipality Cedynia 10.2013
7	Ecological site "Ostnice nad kruszarnią"	Dolna Odra area, Trutwiniec subarea	Created in 10.2013 r. with the help of the project	Accepted by municipality Cedynia 10.2013
8	Ecological site "Murawy w Górzycy"	Ujście Warty area, Górzyca subarea	Created in 08.2013 r. with the help of the project	Accepted by municipality Górzyca 08.2013
9	Natura 2000 site "Stawska Gora"	Stawska Góra	Created before the project start	Still not accepted
10	Natura 2000 site "Żurawce"	Żurawce	Created before the project start	Still not accepted
11	Natura 2000 site "Kąty"	Kąty	Created before the project start	Still not accepted
12	Natura 2000 site "Niedzieliska"	Niedzieliska	Created before the project start	Still not accepted

As a background for preparing some plans mentioned above we used scientific documentations prepared in a frame of Action A1e.
Annex 7.1. of PR contains paper versions of conservation plans prepared during the project.
Annex 9 contains electronic versions of the plans and additionally copies of municipalities councils resolutions and RDOŚ regulations concerning conservation plans approval. Despite of RDOŚ in Lublin assurance four conservation plans for Natura 2000 sites in Lublin Region (Kąty, Stawska Góra, Niedzieliska, Żurawce) are still not approved. Big delay in plans approval arise from long lasting consulting procedures. The four mentioned above plans are already after RDOŚ and GDOŚ consultations. Now they are waiting for social consultations and Lublin Governor approval. Unfortunately we don't have any influence on plans acceptation procedures.

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: project workers (local experts, project manager and technical assistant), external experts

Localization: Dolna Odra site (subareas: Nawodna, Siekierki, Raduń, Rudnica, Trutwiniec), Ujście Warty site (subarea: Górzyca), Kąty site, Żurawce site, Niedzieliska site, Stawska Góra site

Modifications and delays:
Following to the application we planned preparation of protection plans also for the grasslands located in Dobużek and Zachodniowołyńska Dolina Bugu Natura 2000 sites. However, Regional Directorate of Environmental Protection informed us that preparing protection plans for the whole sites will be realized in near future so it is not necessary to prepare separate plans for the grasslands within the sites. Therefore we participated in creation of these plans as a consultants. We decided to prepare protection plans for some other areas in Dolna Odra site instead (see no. 2, 3, 4 and 5 in table above).
Due to the complicated and lengthy procedures of establishment of some forms of protection and then approving their Conservation Plans the entire Action has been significantly extended. It is also one of the reasons for the extension of the project for three months (until March 2014). Planned end date of the Action was the end of 2012. Unfortunately, despite assurances of AB part of the Conservation Measures Plans (for 4 Natura 2000 sites) still has not been approved. Delays in the implementation of the action did not affect negatively the implementation of other tasks.

Indicators used to test the performance of the action: number of plans prepared (min. 10 plans)

Main problems: long lasting procedures connected with creating protection forms and accepting their conservation plans by local governments and RDOŚ.

Perspectives and necessities for continuing:
After finishing the Project it will be necessary to carry out actions from the Conservation Plans. For realization of this actions responsible are local governments, RDOŚ and also owners/managers of the land. Klub Przyrodników is going to monitor and join the process of their realization.

Complementary action outside LIFE: -

ACTION A.3: **Preparation of Habitat Action Plan for xerothermic grasslands in Poland**

Description:
During the realization of the project a working group prepared in cooperation with external local experts from all over the country Habitat Action Plan for 6210 habitat (xerothermic grasslands) for all Poland.
Over one hundred pages document contains detailed habitat characteristic in Poland (abiotic conditions, diversity, characteristic species, occurring in country, current condition and protection etc.), main threats and methods of conservation and protection.
Prepared document is a solid, unified plan organizing and coordinating individual activities for xerothermic grassland all over the country. The main goal of the document is to make much easier for numerous institutions and organizations to protect xerothermic grasslands.
Document is attached in Annex 10.
The document was send to General Directorate for Environmental Protection in Warsaw.

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: project workers (local experts, project manager and technical assistant) in cooperation with external experts.

Localization: All country (also Project areas: Dolna Odra site, Ujście Warty site, Kąty site, Żurawce site, Stawska Góra site, Niedzieliska site, Dobużek site, Zachodniowołyńska Dolina Bugu site)

Modifications and delays: No modifications and delays.

Indicators used to test the performance of the action: elaboration (HAP) prepared

Main problems: no problem encountered

Perspectives and necessities for continuing: -

Complementary action outside LIFE: -

ACTION B.1: Purchase of land with precious patches of xerothermic grasslands

Description:
During the project we managed to purchase 25,62 ha of one of the most precious patches of xerothermic grassland in Dolna Odra and Kąty sites:

No.	Project area/subarea	Owner of the land	Nr of the parcel	Surface purchased [ha]	Data of purchase
1.	Dolna Odra, Raduń	Agricultural Property Agency	175/3, Zatoń Dolna, Chojna	16,63	29.10.2012
2.	Dolna Odra, Krajnik	Chojna community	434, Krajnik Dolny, Chojna	1,28	06.09.2013
3.	Dolna Odra, Krajnik	Chojna community	57/2, Krajnik Dolny, Chojna	0,21	06.09.2013
4.	Dolna Odra, Krajnik	Chojna community	72/5, Krajnik Dolny, Chojna	0,48	06.09.2013
5.	Kąty	Privat owner	1706/1, Wieprzec Wychody, Zamość	5,90	23.02.2012
6.	Kąty	Privat owner	323 Wieprzec Wychody, Zamość	1,12	01.10.2013
			In total:	**25,62**	

This lands had no chance to be protected and managed properly by their previous owners. The parcels mentioned in the table above became a property of Klub Przyrodników and follow the Common Provisions regulations are destined only to nature conservation purposes. Regulations restricted by Article 35 of Common Provisions are provided both in notarial agreement and in land registers of purchased parcels.
On purchased plots we began to execute protective measures - the removal of expansive trees and shrubs, fencing and beginning of grazing (sheep belonging to the Naturalists' Club). Part of the bought land required separation from the larger plots (including arable land), which buying CB were trying to avoid as much as possible.
In the case of plots (no. 1 and 5 in the table above) institutions selling made the land subdivision survey aligned with the land records borders and not by the actual state (borders of xerothermic grasslands patches). Because of this purchased plots contained also fragments of ploughed land, which in the past were grasslands and so far, appear in the records of land as pasture or meadow. Ploughed fragments immediately after the purchase have been subject to conservation measures, which involved restoring damaged grasslands. All those actions are described in detail below in Section *C - Concrete conservation actions*.

The notarial agreements and maps showing purchased plots are attached in Annex 5.

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: project workers (project manager and technical assistant)

Localization: Dolna Odra site (subareas: Raduń, Krajnik), Kąty site

Modifications and delays:
There were no delays in action realization. Moreover, the action started earlier than it was planned in the project timetable. First negotiations with Agricultural Property Agency started in 2010, despite the action should start in 2011. The negotiations concerned possibilities of purchasing grounds located on the subarea Krajnik, Raduń and Cedynia (area: Dolna Odra).

Nevertheless we encountered serious problems in realization of this Action. In consequences we managed to buy only 25,62 ha instead of planed 30 ha (85% of planed area). However localization of the Action overlap with this planed in the Application. According to Annex 1 of Application we purchased grasslands in subareas Raduń and Krajnik (Dolna Odra area) and in Kąty area.

Indicators used to test the performance of the action: number of purchased land hectares

Main problems:

Action B1 was one of the most problematic tasks in the project. About the possibility of problems in this matter, CB mentioned in the application form (Form B4 - Expected constraints and-risk ....) and in the Inception Report and the Mid-Term Report. One of the main problems were very long, taking even several years, the procedures of subdivision of land excluding grasslands from larger, also including agricultural land, plots. Another, equally big problem was unclear and protracted, even up to several years, the procedures relating to the issuance by the ANR land for sale. Despite the start of negotiations (land in Krajnik, Raduń and Cedynia) with the Club already in 2010, the first plot of land was finally purchased in 2012.The two more in spite of continuous assurances of ANR that it would put them on sale, we eventually could not bought at all. Delays in purchasing one of the plots in Krajnik were also one of the reasons for the extension of the project (to March 2014).
Unfortunately, despite this extension, we also failed to purchase this plot and thus failed to reach the planned area of purchased land - 30 ha (5.52 ha in Krajnik, which, together with other purchased already land gave the area of total 31.14 ha).
Another factor, that was equally problematic when buying land in the Lublin region, is highly fragmented and complicated land ownership of some parcels.
Based on the continuous assurances by ANR that the Krajnik's plot will be finally offered for sale and that no other people are willing to buy it, Naturalists' Club, bearing in mind the approaching end of the project decided, on the basis of an oral agreement with ANR, to prepare this land for grazing. Shrubs were cut and wooden fence on part of grasslands were put. Finally in March 2014 (!), ANR held a tender for the purchase of the above mentioned Krajnik's plot. The Naturalists' Club was on it outbid by a previously unknown farmer. Despite initial difficulties in establishing contacts with the new owner of the land at the end of May 2014, we managed to agree with him on grazing animals on the purchased land and on accession from 2015 to agri-environmental schemes – what will eventually ensure the maintenance of project's action effects.

Perspectives and necessities for continuing:
On purchased parcels, during the Project were conducted all necessary „preparatory" actions, i.e.: cutting trees and shrubs, fencing the pastures, grassland restoration, starting extensive grazing. Now it is necessary to continue only extensive management of the lands – pasturing and mowing. This activities will be realized by KP ad will be financed from agro-environmental surcharges (application for surcharges is already applied to proper institutions).

Complementary action outside LIFE: -

ACTION C.1: Cutting out or thinning expansive thickets of shrubs and trees

Description:
Action C1 was conducted in 3 stages (I – the end of 2010, II turn of 2011 and 2012, III – turn of 2012 and 2013, always during the Autumn-Winter period. From October till December of 2010 shrubs and trees were removed from grasslands of total area 21,9 ha. From December 2011 till March 2012 we removed another 22,45 ha. Until the end of March of 2013 we finished removing shrubs and trees from another 31,99 ha of grasslands. As a result, bushes and trees are removed at the area of 76,34 ha of grasslands.
The cutting out was conducted in such a way as to uncover the surface of xerothermic grasslands while retaining the dynamic mosaic of habitats (thickets, fringe areas and open spaces). The oldest, compact thickets were left untouched, while loose, younger shrubberies in whose undergrowth grassland flora were still preserved were removed. All shrubs of *Prunus fruticosa* were left intact, as well as well-developed *Juniper* shrubs. Along the borderlines between xerothermic grasslands and arable fields, stripes of shrubs were remain, to serve as a natural buffer protecting the grassland from biogene flow from the fields and from chemicals used in agriculture. Selected thickets were thinned out rather than completely removed. This was the case especially with orchid sites, which prefers semi-shade. All non-native species were removed (especially *Robinia pseudoacacia*). In some cases pine monocultures were removed which have been planted on xerothermic grassland habitats.

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: external contractors

Localization: Dolna Odra site, Ujście Warty site, Kąty site, Żurawce site, Stawska Góra site, Niedzieliska site, Dobużek site

Modifications and delays: No bigger modifications and delays.

Indicators used to test the performance of the action: number of removed shrubs and trees hectares, number of cleared grasslands vegetation hectares

Main problems: No problem encountered.

Perspectives and necessities for continuing:
In case of some objects it will be necessary to cut out re-growing sprouts of shrubs and trees. In Lublin Region it will be realized by RDOŚ in Lublin in a frame of new project entitled „Ochrona bioróżnorodności siedlisk trawiastych (otwartych) wschodniej Lubelszczyzny" (in English: Biodiversity protection on open habitats of East Lublin Region") financed by WFOŚiGW (Voievodship's Fund for Environmental Protection and Water Management). In Dolna Odra and Ujście Warty area it will be realized by Klub Przyrodników. In some cases natural succession is hamper by extensive management reinstated during the project.

Complementary action outside LIFE: -

ACTION C.2: **Removal of non-native invasive species – *Heracleum sosnowskyi***

Description:
The action was realized in 3 stages. The invasive species – *Heracleum sosnowskyi* was mown four time per year, in vegetation season in 2011, 2012 and 2013 at total area of 2.5 ha in the Żurawce area and its vicinity. Particular individuals were removed by hands or cut-off very low, at the root system level.
In the last year of Action realization (2013) we note ca. 50% decrease of *Heracleum sphondylium* coverage on mown area. Moreover, cooperating with us scientists form Maria Curie-Skłodowska University in Lublin analyzed the soil seed bank of invasive species collected on mown and not mown areas. Analysis indicated that in mowed places soil seed bank of *Heracleum sosnowskyi* is less by 30% than on places not mown.

Beneficiary responsible for implementation: Regionalna Dyrekcja Ochrony Środowiska w Lublinie

Executor of the action: external contractor

Localization: Żurawce site

Modifications and delays:
Due to the pure effects in 2012 - the scheduled date of completion of action - activities were extended to 2013. As a result, mowing *Heracleum* resulted in a 50% decrease of covering by this invasive species. It did not, however, completely eliminate the species. The decrease in coverage and seed bank research in the soil, however, indicate that the method generates positive effects, its time execution was though too short. This action will be continued after the project's end by the RDOS in Lublin.

Indicators used to test the performance of the action:
Area overgrown by *Heracleum sosnowskyi* where the invasive species was totally or partially eliminated. Percentage of *Heracleum* coverage decrease.

Main problems:
The main problem was the underestimation of the time required for complete elimination of invasive species from the locality. As it turns out the multiannual and tight patches of this species are very difficult to remove because of the high vigour of the plant and vital and numerous seed bank in the soil. The following activities and related experiences have shown that the minimum period necessary to eliminate this type of *Heracleum* clusters by mowing is 5 years.

Perspectives and necessities for continuing:
As it was mentioned above mowing of *Heracleum sosnowskyi* will be necessary during next few years after the end of the Project. This action will be conducted by RDOŚ in Lublin. Moreover it will be necessary to prepare complex action plan of invasive species elimination entirely in all region. First of all it is crucial to stop spreading out of *Heracleum* along roads, rivers and ditches. First consultation with RDOŚ in Lublin and local governments concerning new project for elimination of invasive species already took place.

Complementary action outside LIFE: -

ACTION C.3: **Removal of illegal landfills**

Description:
During the second year of the project we have removed 10 illegal rubbish dumps occurring on xerothermic grasslands covered by the project. Several dozen tons of rubbish were removed.

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: 6 biggest illegal landfills (Nawodna, Owczary, Pamięcin, Siekierki, Niedzieliska and Kąty) - external contractors; the rest of localities (Kostrzynek, Rudnica, Stawska Góra, Żurawce) - project workers.

Localization: Dolna Odra site (subareas: Nawodna, Kostrzynek, Rudnica, Siekierki), Ujście Warty site (Owczary, Pamięcin), Stawska Góra site, Niedzieliska site, Kąty site, Żurawce site.

Modifications and delays:
We had slight delay concerned removing of the rubbish dump in Nawodna (the removing was moved from the beginning to the end of 2011 year).The rubbish dump in Nawodna subarea was the largest among the 10 removed and therefore we met some problems with finding contractor able to realize the action within planned financial resources. The delay did not affect the realization of other tasks in the project.
We also removed one additional illegal landfill in Siekierki subarea which were not planed in the Application. It was possible thanks to savings in other Actions. The need of this landfill removing appeared after Action A1d conducting.

Indicators used to test the performance of the action: number of removed illegal landfills

Main problems: No bigger problem encountered.

Perspectives and necessities for continuing: -

Complementary action outside LIFE: -

ACTION C.4: **Restoration of degenerated xerothermic grassland patches**

Description:

Stripping the top most layer of the soil, sowing seeds, implants.

This action consists of many different subactions. First of all at the four subareas (Trutwiniec, Górzyca, Owczary, Pamięcin) we removed invasive species *Robinia pseudoacacia* together with belowground root system (trees were extracted from the ground by the machines). Moreover, we removed upper part of soil (c.a. 40 cm depth) characterized by high abundance of seeds and remaining of roots of *Robinia pseudoacacia*. Additionally removed soil was excessively enriched in nitrogen which is negative value of the site for xerothermic grasslands. In the case of Owczary area we also removed remains of old barns. Top soil removal were conducted on 3,1 ha in total.

The areas prepared in this way were divided into several sections (squares 15x15 m) according to type of grassland restoration applied:

1 - sowing seeds collected from adjacent grasslands

2 - transplanting of whole fragments of grasslands (implants) from adjacent grassland patches

3 - leaving for natural regeneration (succession)

The seeds were collected with the help of two methods: general and subjective. In the case of general method we used collecting seeds from the whole area of vegetation. In the case of subjective method we collected seeds from particular (subjectively selected) species. The seeds were collected at the grasslands placed in the vicinity of the regenerated areas in order to keep genetic structure of plant species as close to primeval as possible. The seeds collected in this way were sown by hand.

Transplantation of patches of grasslands were conducted with the help of transplantation of fragment (c.a. 40 cm x 40 cm x 30 cm) of vegetation with upper part of soil. Such fragments were placed in the area where the grasslands need to be restored.

Both the seeds and the implants were collected from the nearest as possible well developed grassland due to not interrupt local genetic pull of xerothermic species.

Before the experiment started at each plot soil samples had been collected. The samples were collecting along the transects by local experts. In total, we have collected 108 samples. For each samples the following chemical characteristics were computed by external contractor: pH (in H_2O and KCl), concentrations of $CaCO_3$, N, C and C to N ratio. The same chemical computations were conducted after the experiments in order to meet before-after-control-impact design of high statistical power ensuring detection of the experiment effect.

The scheme visualizing the experiment in Górzyca subarea (Ujście Warty area) was given in Annex 7.6 of Mid-term Report.

Manually removing of expansive and invasive plants.

Additionally, in the few subareas (Żurawce, Kostrzynek, Czarnów, Rudnica, Błeszyn, Trutwiniec) hand-made removal of expansive and invasive species (among others *Calamagrostis epigejos* and *Solidago canadensis*) as well as seedlings of trees and bushes (*Robinia pseudoacacia, Machonia aquifolia, Cornus sanguinea, Prunus spinosa* etc.) were conducted. In total, the removal was realized at area of 7.1 ha of grasslands.

Covering overgrown grasslands with opaque black film.

The next experimental method of removing expansive plants from grasslands was covering overgrown patches of habitat with opaque black film. The effectiveness of the experimental basis on the restriction of sunbeams. We used not transparent, thick, black material, which was secured by metal sticks and soil. This method was applied for the grasslands totally overgrown with bushes which were clear-cut before the experiment. The foil was set up in the

beginning of June 2012 and removed in the end of July 2013. The experiment was conducted in Stawska Góra site on 0,5 ha.

Raking the layer of conifer needles.
Next experiment which wasn't planed in the Application was raking thick layer of conifer needles after cutting monoculture of pine (*Pinus sylvestris* or *Pinus nigra*) in Żurawce area and Rudnica subareas on 0,8 ha total area.
The effect of dead plant material removal was improving abiotic conditions for regenerating grasslands – enabling direct sunbeam access to the lowest part of vegetation, raising temperature of soil and soil moisture reducing.
For raking we used standard rake. The biomass was removed from regenerated grassland and transported to farm of one of the local farmers.

Restoring ploughed grasslands
Because some part of grasslands purchased in the subarea Raduń and Kąty were ploughed we decided to expand the action C4 to these purchased parcels. In total 8.7 ha of grasslands ploughed recently, located within the subareas Raduń and Kąty were ploughed once again and sow with the seeds of adjacent grasslands. Seeds were collected together with hay by mowing. The hay together with seeds was spread out evenly on all area of the restored grassland. The hay was collected from the nearest as possible well developed grassland due to not interrupt local genetic pull of xerothermic species. In the second year all area was mown.

Main effects of the experiments.
1. Studies have shown a significant improvement in soil abiotic conditions restored habitats after top soil removal. Significantly increased the calcium carbonate content in the soil and pH while the amount of nitrogen and carbon decreased.
2. The monitoring showed that among the tested methods of restoring grasslands sowing seeds of grasslands' species was the most effective.
3. Uprooting the expansive and invasive species, sprouting from the trunk and roots, is much more effective than cutting them. But at an inaccurate uprooting does not eliminate them completely.
4. Covering shrubs suckers with black foil causes over 90% its elimination.
5. Raking of tight layer of dead plant debris (eg layer of pine needles) significantly improves abiotic conditions on the restored grassland. Access of the light has a positive effect on the germination of xerothermic species.

Effects of statistical analysis are shown in Lyman's Report attached in Annex 12.
Realization of the Action:

Task	Planned	Realized
Stripping the top most layer of the soil	6 ha on 4 subareas (Trutwiniec, Gorzyca, Owczary, Pamięcin)	3,1 ha on 4 subareas (Trutwiniec, Górzyca, Owczary, Pamięcin)
Covering ploughed patches of grasslands with opaque black film	1 ha on 2 areas (Stawska Góra, Żurawce)	0,5 ha on 1 area (Stawska Góra)
manually remove undesirable plants	1 ha	3 ha on Żurawce area – *Prunus spinosa, Cornus sanguine, Viburnum opulus* seedlings removal. 0,2 ha on Kostrzynek subarea – mowing of *Calamagrostis epigejos*

		1 ha on Czarnów subarea – mowing of *Calamagrostis epigejos* 1,8 ha on Rudnica subarea - mowing of *Calamagrostis epigejos* 0,9 ha on Błeszyn subarea – handmade removal of *Mahonia aquifolia* 0,2 ha on Trutwiniec subarea – handmade removal of seedlings of *Robinia pseudoacacia*
Sowing the seeds	6 ha on 4 subareas (Trutwiniec, Gorzyca, Owczary, Pamięcin)	3,1 ha on 4 subareas (Trutwiniec, Gorzyca, Owczary, Pamięcin)
Transplanting the implants	6 ha on 4 subareas (Trutwiniec, Gorzyca, Owczary, Pamięcin)	3,1 ha on 4 subareas (Trutwiniec, Gorzyca, Owczary, Pamięcin)
Restoring ploughed grasslands	Originally not planned	8,7 ha on 2 subareas (Raduń, Kąty)
Raking the layer of conifer needles	Originally not planned	0,8 ha 2 subareas (Żurawce, Rudnica)

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: external contractors (removing invasive species – *Robinia pseudoacacia*, stripping the top most layer of the soil, covering with opaque black film, manually remove expansive plants - part, ploughing and sowing with seeds and hay ploughed grasslands); project workers and volunteers (sowing the seeds manually - part, transplanting implants, manually remove expansive plants, raking the layer of conifer needles).

Localization: Dolna Odra site (subareas: Raduń, Rudnica, Trutwiniec), Ujście Warty site (Górzyca, Owczary, Pamięcin), Stawska Góra site, Żurawce site, Kąty site.

Modifications and delays:
This action was slightly changed in comparison to the declarations included in the Application, however the changes did not affect other actions and general aims of the project. Firstly, the time of realization of this action was prolonged to the end of 2013 (planed data – half of 2012). Secondly, the localization and methods of degenerated grassland regeneration was changed. Originally, we planned to remove the upper part of the soil at 6 ha of degenerated grasslands in the subareas Trutwiniec, Pamięcin, Owczary, Górzyca and we planned to cover with black foil 1 ha of grassland in Stawska Góra and Żurawce sites. Finally, we managed to remove upper part of the soil at 3.1 ha in the subareas Trutwiniec, Pamięcin, Owczary, Górzyca (in each of the subareas we conducted the removal at slightly lower area as compared to original plans). Moreover, we covered with the black foil 0.5 ha of degraded grasslands in Stawska Góra site.

On the other hand we significantly increased the scope of the coverage of manual removal of expansive species - from 1 ha up to 7.1 ha. On the part of the surface, where topsoil removal and black foil covering was to be done, this this method was used. After the detailed field vision, it turned out to be completely sufficient, and that more drastic measures that were there previously planned, are not necessary.
In addition, within the C4 action two not previously planned activities was performed - restoring habitat on a plowed land, purchased under the project (in total 8.7 ha) and raking needles (on a total area of 0.8 ha).

As a result, despite that the soil removal and foil covering was conducted in smaller area than previously declared, the whole area affected by the C4 Action was by 6,1 ha larger then declared (12 ha declared – 20,2 ha done).

Indicators used to test the performance of the action: number of restored grasslands hectares (min. 12 ha)

Main problems: No big problem encountered.

Perspectives and necessities for continuing:
It is necessary to continue monitoring and extensive management (grazing or mowing) of recreating grasslands. Monitoring will be realized by workers of KP. Management will be realized by Klub Przyrodników thanks to agro-environmental schemes.

Complementary action outside LIFE: -

ACTION C.5: **Strengthening the population of *Echium russicum***

Description:
During realization of the Action two population of *Echium russicum* – one of the most rare xerothermic species in Poland have been boosted by 280 individuals (160 in ZDB site and 120 in Dobużek site).

Area	Number of cultivated and planted individuals per year				In total
	2010	2011	2012	2013	
ZDB	30	40	20	70	160
Dobużek	0	20	30	70	120
In total	**30**	**60**	**50**	**140**	**280**

Moreover in frames of the Action we conducted additional activities which goal was to facilitate survival and reproduction of reintroduced specimens. In ZDB, since 2010 we were mowing and removing the biomass at area of 3 ha where the species was planted before. Additionally in Dobużek area the dead plant biomass was racked and removed at 0,1 ha in vicinity of natural sites of the species.

Beneficiary responsible for implementation: Regionalna Dyrekcja Ochrony Środowiska w Lublinie

Executor of the action: external contractors

Localization: Zachodniowołyńska Dolina Bugu site, Dobużek site.

Modifications and delays: no modifications and delays

Indicators used to test the performance of the action: Number of seedlings reintroduced

Main problems:
At the beginning of the project this Action was rather problematic because of the lack of *Echium russicum* seeds and problems with species germination. Finally the action was realized according to the declarations in the Application.

Perspectives and necessities for continuing:
It will be necessary to extensive maintain (pasturing or mowing) the localities of *Echium russicum* covered by the Project. Additionally monitoring and further reintroductions (if necessary) will be conducted. It will be realized by RDOŚ in Lublin in a frame of new Project entitled: „Ochrona bioróżnorodności siedlisk trawiastych (otwartych) wschodniej Lubelszczyzny". Moreover, on station in Dobużek extensive pasturing is realized by landowners with whom KP signed the agreement (see Action C8 description below).

Complementary action outside LIFE: -

ACTION C.6: Testing of the mobile pasturage method

Description:
This was one of the most difficult actions planned during the Project. Despite this, its realization followed the schedule. 23 isolated patches of xerothermic grasslands of total area equal to 28,79 ha were pastured (area declared in the Application denoted 15 ha). 60 or 80 sheep and goats (depending on grasslands conditions) were used in the pasturage. The pasturage was conducted 4 to 6 months, from April or May until September or October (depending on weather conditions and area of grasslands that need to be grazed) every year of the project. The pasturage was conducted in Dolna Odra and Ujście Warty sites.
Localization, area and time of pasturage is in the table below:

Area	Subarea	No of grassland patches	Total area [ha]	Time of pasturage
Dolna Odra	Krajnik	1	6,81	one season in 2013
	Raduń	2	6,81	0,7 ha - 2010-2013 (6,11 ha – one season in 2013)
	Rudnica	10	7,38	2010-2013
	Kostrzynek	5	2,52	2010-2013
	Trutwiniec	1	1,33	2010-2013
	Gozdowice	1	0,14	2010-2013
Ujście Warty	Górzyca	1	3,80	2011-2013
In total		**23**	**28,79**	

During realization of the action C6 we built simple fences made of wood of total length denoting 14480 m and 14 shelters for the sheep. We also bought electric fence for the pasturage consist of net, accumulators, electrizator and solar cells.
During the pasturage we used also equipment of Klub Przyrodników (e.g. Ford Transit was used for transporting the sheep, camping and in the beginning of the project also electric fence).
Every year we were employing peoples as shepherds. The flock was supervised around the clock by 2 season workers.

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: season workers of the project (shepherds) with help of other workers of the project.

Localization: Dolna Odra site (subareas: Krajnik, Raduń, Rudnica, Kostrzynek, Trutwiniec, Gozdowice), Ujście Warty site (Górzyca subarea)

Modifications and delays:
Due to the verification of methods of mobile pasturage in the first year of the project, we decided to increase the number and area of grazed grasslands. In 2013 into grazing areas we also included the purchased plots near Zatoń Dolna (Lower Oder area, subarea Raduń - 6.11 ha), and grasslands in Krajnik (Dolna Odra area, subarea Krajnik - 6.81 ha). As a result, the above-mentioned two grasslands "trigger grazing" was made. After completion of the project, the grassland near the Zatoń Dolna will be grazed by the Naturalists Club, and grassland in Krajnik by the new owner of the land within the agri-environlmental schemes.

Indicators used to test the performance of the action: number of pastured hectares and patches of grasslands (min. 15 ha)

Main problems: no bigger problem encountered

Perspectives and necessities for continuing:
Mobile pasturage method has been tested and improved during four years of the Project. Now it should be continued on grasslands that still can't be utilized by the owners or managers. If possible it should be extend on other small and isolated grassland in region. This action will be realized by KP in a frame of our statute activities.
This method appeared to be so effective that other institutions and organizations started to use it in their projects.

Complementary action outside LIFE: -

ACTION C.7: **Channelling tourism**

Description:
The action was realized in almost all area of the project. The table below show type, localization and number of designed and produced elements of small architecture, which goal was to help channelling tourism on grassland area:

Element	Planed	Realised	Localization
Educational trails	4	3	Dolna Odra area (Kostrzynek sub-area), Ujście Warty area (Owczary sub-area), Żurawce area
Scenic overlooks	6	4	Dolna Odra area (Kostrzynek and Raduń sub-areas), Ujście Warty area (Owczary sub-area), Żurawce area
Informational and educational boards	23	65	ZDB, Dobużek, Żurawce, Stawska Gora, Kąty, Niedzieliska areas, Dolna Odra area (Błeszyn, Truteiniec, Kostrzynek, Rudnica, Nawodna, Raduń, Siekierki sub-areas), Ujście Warty area (Górzyca, Pamięcin and Owczary sub-areas)
Road barriers (barriers for controlling erosion)	7	6	Ujście Warty area (Pamięcin and Owczary sub-areas)
bike stands	6	0	-
Benches	15	22	Ujście Warty area (Owczary sub-area), Dolna Odra area (Błeszyn, Gozdowice, Siekierki, Kostrzynek, Raduń)
Baskets	15	0	-
Shelters	3	3	Dolna Odra area (Gozdowice sub-area), Ujście Warty area (sub-area Owczary)
In total:	**79**	**103**	

The facilities listed above increased the accessibility and attractiveness of the grasslands, characterised by outstanding aesthetic merits and, at the same time, by relatively high resistance to anthropomorphic pressure. Consequently, the sites of rare species or vulnerable patches of naturally valuable habitats were relieved.
The action has certainly not solved the problem completely, but it has definitely improved it in a significant degree. It has also made it possible to use the areas for educational and didactic purposes.
Project of educational boarders are attached in Annex 17.

Beneficiary responsible for implementation: Regionalna Dyrekcja Ochrony Środowiska w Lublinie

Executor of the action: external contractors

Localization: Dolna Odra site (subareas: Raduń, Nawodna, Rudnica, Kostrzynek, Trutwiniec, Siekierki, Gozdowice, Błeszyn), Ujście Warty site (subareas: Górzyca, Owczary, Pamięcin), Stawska Góra site, Niedzieliska site, Kąty site, Żurawce site, Dobużek site, Zachodniowołyńska Dolina Bugu site

Modifications and delays:
There were no delays in action realization. We also channelled tourism within the planed areas, which were under the strong anthropogenic pressure. However the scope of the task changed slightly. Instead of 79 elements we prepared 103. We prepared a little less

educational trails (3 instead of 4), viewpoints (4 instead of 6) and road barriers (6 instead of 7). We also resigned from constructing bike stands and baskets. But we produced more boards (65 instead of 23) and benches (22 instead of 15). We made decision about changing the number of planed elements after analyzing specific features of each area during the A1d action (Determining on-site, together with local experts, the methods, dates and scale of planned actions). In many cases single educational board with bench was more accurate than big construction of scenic overlook or educational trail, which are more interrupting for the landscape (independently how good are they designed).
Despite of undertaken decision concerning changing of elements number, we are confident that the effect of the action has been reached. Thanks to this action on nearly 25 most threatened by anthropogenic pressure grasslands covered by the project tourism has been channelled.

Indicators used to test the performance of the action: number of designed and produced elements (min. 79 boarders, benches, trailers etc.), number of grassland patches on which the tourism was canalized (min. 23 objects).

Main problems: no bigger problem encountered

Perspectives and necessities for continuing: Designed and raised elements must be preserved in future from damaging by the tourists and weather conditions (e.g. Painting the wood elements). In Rudnica, Kostrzynek, Trutwiniec, Siekierki, Gozdowice, Błeszyn and Górzyca sub-areas and partially in Raduń sub-area this work will be conducted by the State Forests – the administrator of the grasslands. In Owczary and Nawodna sub-areas and partially In Pamięcin and Raduń sub-areas – by Naturalists' Club. In Pamięcin sub-area the work will be done by Regional Directorate for the Environmental Protection in Gorzów Wielkoposlki, which is the administrator of this land. Elements in Stawska Góra, Niedzieliska, Kąty, Żurawce, Dobużek, Zachodniowołyńska Dolina Bugu areas will be also preserved by their administrator - Regional Directorate for the Environmental Protection in Lublin.

Complementary action outside LIFE: Complementary actions for the task are all other activities concerning ecological education and creating tourist infrastructure in Natura 2000 sites covered by the project. For example those conducted by the Naturalists' Club in Owczary or by Regional Directorate for the Environmental Protection in Lublin in all sites covering xerothermic grassland in Lublin region.

ACTION C.8: **Reinstating extensive grazing on xerothermic grasslands**

Description:
We have signed 6 agreements with farmers that declared to utilize 38,6 ha of grasslands in total. Copies of the agreements are attached in Annex 2.
The more detailed data concerning the action are given in the following table:

Area/subarea	Area [ha]	Declared owner activity	Our help	Remarks
Dolna Odra/ Czelin	13,3	Extensive grazing: 1. mixed flock of horses and sheep 2. density up to 1 LSU/ha 3. time frame of the grazing: 15.04–15.10 4. leaving 20% of the grassland ungrazed each year (in different location in each year).	1. 200 wooden stumps and 300 m of fence, 2. realization of fencing 3. shrub removal at area of 1 ha	Agreement signed 30.06.2010. The agreement concerns period of the project and 5 years after its end.
Dobużek	9,8	Extensive grazing: 1. flock of cows 2. density up to 0.6 LSU/ha 3. time frame of the grazing: 15.04–15.10 4. leaving 20% of the grassland ungrazed each year (in different location in each year).	1. transfer of 5 cows (race Highland Cattle) with the detailed documentation concerning origin. 2. set of electric fence 3. trailer for the cattle transport 4. realization of fencing (300m long) 5. shrub removal at area of 0.5ha, 6. building of wooden shelter for the cows	Agreement signed 22.02.2011. The agreement concerns period of the project and 5 years after its end.
Dolna Odra/ Raduń	5,5	Extensive grazing: 1. flock of horses 2. density up to 0.6 LSU/ha 3. time frame of the grazing: 15.04–15.10 4. leaving 20% of the grassland ungrazed each year (in different location in each year).	1. 250 wooden stumps for fencing, 1230 wooden perches for fencing, 250 electricity insulators. 2. realization of fencing 3. shrub removal at area of 1.4 ha	Agreement signed 19.09.2011. The agreement concerns period of the project and 5 years after its end.
Żurawce	6,2	Extensive mowing from 15.07 to 30.09 at height 10 cm above ground	1. Help in joining agri-environmental schemes 2. shrub removal	Agreement signed 20.11.2011. The agreement concerns period of the project and 5 years after its end.
Dolna Odra/ Nawodna	2,8	Extensive grazing	1. shrub removal 2. fencing	Agreement signed 02.03.2012. The agreement concerns period of the project and 5 years after its end.
Dolna Odra/ Nawodna	1,0	Extensive grazing	1. shrub removal 2. fencing	Agreement signed 16.02.2012. The agreement concerns period of the project and 5 years after its end.

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: workers of the project (project manager and technical assistant) with help of external contractors (e.g. shrub removal)

Localization: Dolna Odra site (subareas: Czelin, Nawodna, Raduń), Dobużek site, Żurawce site

Modifications and delays:
There were no delays in action realization.
However we changed the amount of equipment and animals. In case of Dobużek site we bought cows instead of sheep and goats. On the basis of opinion of landowners and farmers as well as with local experts we concluded that apart sheep and goats also other animals can be used for pasturage in some areas. In the application we declared that we will buy sheep and goats. However, some of the grasslands located in Lubelszczyzna region are characterized by extremely high plant biomass covering nutrient-rich soils. Grasslands occurring on this kind of habitats can be mowed by cows in low densities. This presumption was confirmed by information on habitat use of this plots in the past – landowners and farmers claim that cows and horses were kept for mowing these plots. Therefore, in case of Dobużek site we bought cows. It should be underlined that the total financial effort for purchasing the animals was kept constant (cows are more expensive relative to sheep or goats, however less cows are needed per ha of grasslands which let us to keep overall costs animal purchasing constant). The costs of keeping cows (shelters, fences etc.) was similar too. This change is also partially justified by opinion of farmers which declare higher willingness to receive cows relative to sheep or goats.
Moreover, in the case of some areas, farmers had their own animals, so there was no need to purchase additional sheep or goats. Farmers, within the action, were given only fences. In addition, within the project Club has prepared pastures for grazing (trees and shrubs removal) and helped farmers to join agri-environmental schemes.
Despite these changes, the aim of the action was achieved. Instead of the planned 30 ha managed to restore grazing on nearly 40 ha of grasslands.

Indicators used to test the performance of the action: number of hectares on which the pasturage was restored

Main problems:
Although the action, in the course of its implementation encountered considerable land owners resistance against restoring of grazing. Most farmers were not interested in grazing, which in their opinion, although agri-environment schemes continues to be unprofitable and troublesome.

Perspectives and necessities for continuing:
After finishing the project it will be necessary to continue extensive management of the grasslands, which is ensured by agreements signed by KP and landowners and also by joining the landowners the agro-environmental programme.

Complementary action outside LIFE: -

5.2 Dissemination actions

5.2.1 Objectives

The aim of the group D actions was to disseminate information about the project and the values, threats and methods of protection of grasslands among as diverse group of people as possible, mostly among children and young people, local communities, but also among farmers and foresters and laymen. To reach this aim, a series of "products" that could hit the different social groups were produced:

- Folder about the Project (English and Polish version with German and Ukrainian summary) (Action D1)
- Brochures for different social groups (Action D1)
- Posters (Action D1)
- Educational boards for schools (Action D1)
- CD with grassland recordings (Action D1)
- Photo-Album about grasslands (Action D2)
- Workshops for children (Action D3)
- Open air workshop with photographs (Action D3)
- International conference about grassland conservation and restoration (Action D3)
- Conference finishing the Project (Action D3)
- Documentary (film) in xerothermic grassland and the Project (Action D4)
- Project's website (Action D5)
- Information boards about the project (Action D6)
- Layman's and scientific report (Action D7)
- Trips for Project workers – supporting the informational flow of information about LIFE projects and xerothermic grassland conservation (Action D8)

Planet and realized awareness raising and communication in a frames of Actions from Section D:

Workshops, seminars, and conferences		
Target audience	**Planed number of participants**	**Realized**
Local/Regional general public	75-100	183 (meetings within framework of Action A1)
National general public	75-100	41 (conference finishing the project)
Local/Regional specialised audience	0-25	134 (workshops for youth)
National specialised audience	0-25	13 (open-air workshop for photographers)
Local/Regional very specialised audience	0-25	21 (workshops for children)
National very specialised audience	0-25	29 (Polish participants of international conference)
International very specialised audience	0-25	57 (participants of international conference from other counties than Poland)
Media and other communication and dissemination work		
Type of media	**Planed number**	**Realized**
Project website: average number of visitors per month	150	394
Press releases made by the project	10	0

General public article in national press	1	8
General public article in local press	10	5
Specialised press article	1	8
Internet article	10	11
Film produced	1	1 (500 copies)
CD with music produced	not planed	1 (1000 copies)
Film presented in events/festivals	1	1
Project notice boards	23	55
Publications		
Type of publication	**Planed no. published/no. of copies/languages**	**Realized**
Layman's report	1/2000/English, Polish	1/2000/ English, Polish
Brochures	5/3000/English, Polish, German, Ukrainian	2/2500/English, Polish, German, Ukrainian
		3/1500/Polish
Posters	3/200/Polish	6/3000/ Polish
		2/1000/English
Books	1/500/ English, Polish	1/500/ English, Polish
Educational activities		
Estabilishment involved	**Planed no. of students**	**Realized**
Primary shools	1330	3137

5.2.2. Dissemination: overview per activity

ACTION D.1: **Preparing, publishing and dissemination of educational materials**

Description:
In result of this task, the following educational materials were created and widely distributed among different social groups throughout the whole period of the project's lasting:

- A folder about the project (nearly 50 pages), in two language versions (Polish and English, with summaries in German and Ukrainian), containing basic information about the project (2500 copies were printed in total).
- A set of brochures (3 types) about xerothermic grasslands, their problems and methods of protection, for three different social groups – farmers, foresters, and children and teenagers (1500 copies were printed in total).
- Eight kinds of posters promoting xerothermic grasslands (4000 copies were printed in total).
- Two kinds of information boards about xerothermic grasslands for schools. A total of 24 copies were printed and sent to schools in Mieszkowice, Moryń, Tyszowce, Niedzieliska, Telatyn, Staw, Tomaszów Lubelski, Lubycza Królewska and Jarczów. 2 copies were hanged in Fild Station of Naturalists' Club in Owczary.
- A CD with grassland sounds (1000 copies were issued).

Thanks to designing and producing numerous, diversified and nice-looking materials, widely distributed during many meetings, workshops and conferences the awareness of the conservation of xerothermic grasslands raised among more than 8000 people.
Publications mentioned above are attached in Annexes 14. CD with music is attached in Annex 15. Project of educational boarders for school – in Annex 18.

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: workers of the project (project manager, technical assistant and local experts) - preparing the materials (texts, photographs etc.); external contractors – printing, materials designing, sounds recording etc.

Modifications and delays:
We planned to print ca. 3000 copies of different folders and brochures and 200 copies of posters and information boards. Instead of that, thanks to some savings we managed to print 4000 copies of folders and brochures and 4024 of posters and boards. Increasing of above mentioned products edition appeared necessary. All copies had been distributed during many meetings, workshops and conferences.
Moreover, because some funds were saved from the Consumables category, we decided to finance production of the soundtrack from the xerothermic grassland. The soundtrack (compact disc) is a kind of unusual advertisement of xerothermic habitats and is helping to understand aural diversity of this habitat.
Due to the additional printing of folders and decision on utilising savings for producing CDs with grasslands' recordings implementation of the action has been extended in both 2011 and 2012, however, it did not affect adversely any other implemented action.

Indicators used to test the performance of the action: min. 3000 copies of different folders, min. 200 copies of posters and educational boards, spreading awareness of the conservation of xerothermic grasslands among more than 3000 people.

Main problems: No problem encountered.

ACTION D.2: **Creation, publishing and distribution of an album about xerothermic grasslands in Poland**

Description:
148-pages album (30cm x 30cm) with the photos presenting xerothermic grasslands covered by the Project was prepared and published, in volume of 500 pieces. There are 144 photos in the album presenting the landscape of grasslands as well as species occurring on them along with genre scenes from sheep and goats grazing.
The album is attached in Annex 14.

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: external contractors (album designing and printing), photographs – participants of the open air workshops in Owczary (photographers) and workers of the Project.

Modifications and delays: There was slight modification concerning number of photographs in the album. We planned to purchase about 60 photographs and instead of that we managed to purchase 99 (the rest was made by Project workers).

Indicators used to test the performance of the action: min. 500 copies of the album, spreading awareness of the various values of xerothermic grasslands among 500 people.

Main problems: No problem encountered.

ACTION D.3: **Organizing a series of workshops and conferences on xerothermic grasslands and their conservation**

Description:
There were 8 workshops organized within the project, participated by the total of 168 persons. They were, among others:

- Two-days workshops (23-24.05.2011) for the youth groups consisting of 20 persons in Owczary (Ujście Warty area).
- Two workshops for 45 children in total from the vicinity of Żurawce area in Tomaszów Lubelski (I - 23.09.2011, II - 21.09.2011).
- One-day workshops (09.05.2012) for the youngest children groups of 21 persons from the elementary schools from the communes where the project was realized in the Lower Odra valley (Mieszkowice, Cedynia and Moryń).
- Five-days (31.05-03.06.2012), 13-person open air photography workshop in Owczary for the adults who are interested in photography.
- One-day activity (24.10.2012) for three children groups from groups of schools in Lubycza Królewska (Żurawce area), in which 69 persons participated.

Moreover, two conferences were organized:

- Eight-days (24-31.05.2013) international conference entitled "When theory meets practice: Conservation and restoration of grasslands" organized in the cooperation with European Dry Grassland Group (http://www.edgg.org/edgg_meeting_2013.html). The meeting took place in Zamość (Lublin Region). At the same time it performed the function of the annual EDGG congress, called European Dry Grassland Meeting which is held every year in different countries of Europe. During the congress 86 participants were invited to attend from 25 different countries. One of the participants was Mrs. Simona Bacchereti, the representative of LIFE fund. The conference was preceded by two-day trip through the Mazowieckie Voivodeship and Podlaskie Voivodeship which was conducted by the scientists of the University of Warsaw. Oral sessions took place at the historic hotel Mercure, located in the area of Great Market Square in Zamość, the heart of old town. The conference participants could admire the exhibition 'Natura 2000/Lubelskie/PL' about Natura 2000 in Lublin Region, provided by Society for Nature and Man from Lublin in the breaks between debates. The conference participants' readings referred to protection related issues and xerothermic grasslands reconstruction fight against invasive plant species and ways for the local society engagement in grasslands protection by the examples of different projects, funded by the European Union. The lecturers also presented the existing results of the project "Conservation and restoration of xerothermic grasslands in Poland - theory and practice". Within the frames of the conference a number of poster sessions were conducted. Three-days post conference trips directed the congress participants toward the most interesting areas of Natura 2000 that protect thermophilous habitats in Lublin Region, among others, included in the project. The visitors had also the opportunity to taste regional cuisine during the open air lunch.
  For conference purposes we prepared some biodegradable or made from recycled stuff conference proceedings as: conference programme, book of abstracts, coats, bags and others. Each with logo of Beneficiaries, institutions financing the Project and also institutions and organizations which supported the meeting. Conference proceedings (excursion guide and programme, book of abstracts, bag, banner, badge, coat) are attached In Annex 20.

- One-day (02.12.2013) conference which summed up the Project took place at the hotel 'Klasztor in Cedynia', the medieval object, located on the top of the beautiful escarpment of the Odra valley. Beneficiaries of other LIFE projects realized in Poland were invited to the meeting, as well as representatives of local government, State Forests, non-government organizations on nature protection as well as the performers of particular works, farmers and shepherds cooperating within the project, and all the other persons engaged in the project. There were 41 persons from the whole Poland at the conference. The first part of the meeting was devoted to the particular introduction of assumptions and results of the project "Conservation and restoration of xerothermic grasslands in Poland - theory and practice". During the second oral session other LIFE projects realized in Poland were presented. After dinner the participants could watch the movie which was made within the Project.

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: workers of the project with help of external contractors (accommodation, transport, food, preparing of conference materials etc.)

Modifications and delays: We organized 8 workshops instead of 4 planed. No delays in action realization.

Indicators used to test the performance of the action: Min 4 workshops and 2 conferences organized with combined total number of participants ca. 250.

Main problems: No problem encountered.

ACTION D.4: **Shooting and distribution of a documentary on xerothermic grasslands**

Description:
During four years, all action realized during the Project were filmed by the professional film team. As a result, a 38-minute movie was made, which clearly presented the problems of xerothermic grasslands faced in the Project and the ways to solve them. The main emphasis was put on the methods of active protection. The film presented, among others, the clearance, grassland restoration, *Heracleum sosnowskyi* removal, population of *Echium russicum* enhancement and extensive grazing. The film is in Polish version with English subtitles. It was issued in 500 copies on the DVD. The film is attached in Annex 15.
Moreover, we prepared 8 short promoting video concerning the project (4 were provided in Annex 7.2. of MR).

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: external contractor

Modifications and delays: No modification and delays.

Indicators used to test the performance of the action: min. 30-minute documentary, distributed in min. 100 copies.

Main problems: No problem encountered.

ACTION D.5: **Project's website**

Description:
Project website was created in the first year of the project, in Polish and English languages. It is the basic instrument presenting the basics and progress of the project. During the project duration the website was regularly completed with all the most significant events. It contains the basic information about the project: actions, location, information about the objects under protection, actions description, information about beneficiaries and financial institutions. Mean amount of website visitors, after four years of the project is 394.
The website address http://www.murawy-life.kp.org.pl

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: workers of the project (technical part - IT technician; texts and photographs - local experts, project manager, technical assistance)

Modifications and delays: No modifications and delays.

Indicators used to test the performance of the action: Regularly updated website about the project, min. 150 visitors per month.

Main problems: No problem encountered.

ACTION D.6: **Information boards**

Description:
55 information boards about the realization of the LIFE + project were placed in every object included in the project. The boards were put in the strategic points in order for every visitor to notice them immediately. In case of larger and more fragmented objects there were several tables made. On the tables, besides basic information on the project, several additional facts on the threats for grasslands and problems with protection in a given patch (e.g. illegal rubbish dump, overgrowing etc.). The boards also contain beneficiaries and financial institutions logo. The project of the boards area attached in Annex 19.

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: external contractor

Modifications and delays: We produced more than planed number of boards (55 instead of 23). 23 is number of areas/sub-areas in the Project. But during realization of the action we realized that many areas/sub-areas are fragmented and they need more than only single board. This was the reason of rising the number of the boards.
No delays in action realization.

Indicators used to test the performance of the action: min 23 information boards.

Main problems: No problem encountered.

ACTION D.7: **Preparation and publication of a layman's report and scientific report**

Description:
The report is a kind of substantive summary of the project, its aim is to inform about the taken actions and their results. It contains also the reflection about applied methods and opportunities of their further use and possible modifications.
The report has not only the basic information about the project, explaining the main assumptions and the methods of actions which are clear for average recipient, but also specialized scientific and technical description devoted to the more informed readers.
This report was prepared as a brochure (volume: 2000 copies) and script in digital version put on the Project website, in English and Polish versions. The report is attached in Annex 12.

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: text - worker of the project (project manager), printing – external contractor

Modifications and delays:
No delays in action realization.

Indicators used to test the performance of the action: Report available as a brochure (min. 2000 copies) and in the Project website in English and Polish language.

Main problems: No problem encountered.

ACTION D.8: Supporting the international flow of information about xerothermic grasslands conservation.

Description:
Three, several days' long international trips were organized within the project at the EDGG conference in: Slovakia (28.05.-02.06.2010, 5 persons), Ukraine (07-17.06.2011, 11 persons),Greece (19-23.05.2012, 4 persons). Moreover, one trip was organized at the international conference of European Congress of Conservation Biology in Glasgow (28.08-01.09.2012, 3 persons). Finally, there were 16 different persons taking part in the trips. At every meeting the workers of the project presented the information about the project "Conservation and restoration of xerothermic grasslands in Poland - theory and practice". It is worth mentioning that the last EDGG meeting took place in Poland and it was organized within the project (see Action D3).

Beneficiary responsible for implementation: Klub Przyrodników

Executor of the action: workers of the project, external contractor (transport, accommodation, food etc.)

Modifications and delays:
In the beginning we were planning 3 trips to German, Belgium and Hungary. But due to the fact that the workers of Naturalists' Club established earlier cooperation with European Dry Grassland Group (international organization comprising persons and institutions interested in grasslands in Europe), intended to connect trips within the task with regular EDGG meetings taking place every year, each time in different place of Europe, known for the occurrence of valuable xerothermic habitats. This meetings (European Dry Grassland Meetings) are great opportunity to meet many people from all over the Europe that deal with grassland

conservation and take part in LIFE projects. Thanks to this meetings we exchanged our experiences concerning grasslands with much more people than we could do it during the planed trips.
Moreover, because some funds were saved we decided to go for European Congress of Conservation Biology in Glasgow, where nature conservation problems from all Europe and World are broadly discus. It was also great opportunity to exchange the information about grassland protection in our Project.
There were no delays in action realization.

Indicators used to test the performance of the action: Min. 3 trips for project workers and people associated with the project topic.

Main problems: No problem encountered.

5.2.3. List of deliverables:

- Information and educational boards created in frames of action C7 – projects of boards are attached in Annex 17.
- Web site: www.murawy-life.kp.org.pl
- Documentary (film) in xerothermic grassland and the Project) – attached in Annex 15.
- CD with grassland recordings) – attached in Annex 16.
- Photographs concerning Actions realization – attached in Annex 13.
- Layman's and Scientific Report (English version) – attached in Annex 12.
- Layman's and Scientific Report (Polish version) – attached in Annex 12.
- Folder about the Project (English version with German and Ukrainian summary) – attached in Annex 14.
- Folder about the Project (Polish version with German and Ukrainian summary) – attached in Annex 14.
- 3 types of brochures for different social groups – attached in Annex 14.
- 8 types of posters – attached in Annex 14.
- 2 types of educational boards for schools – project of the boards in Annex 18.
- 6 types of information boards concerning the Project – project of the boards in Annex 19.
- Photo-Album "Murawy" ("Grasslands") – attached in Annex 14.
- Conference proceedings (book of abstracts, programme, coat etc) – attached in Annex 20.
- Press cuttings overview – attached in Annex 21.
- Other than mentioned above use of LIFE and Natura 2000 logos and on documents and durable goods: car - Toyota Hilux, computer and monitor for IT technician, chopper, shelters for animals, small architecture erected in a frames of action C7, agreements and other documents signed with external contractors, scientific documentations and conservation plans prepared during the Project (Actions A1, A2, A3).
- Social Media used: Facebook of Klub Przyrodników, Forum Przyroda (http://forum.przyroda.org/)

5.3 Evaluation of Project Implementation

5.3.1. Methodology – success and failures

The Project covered 23 different actions, in which several more or less innovative methods connected with active protection, education, monitoring and management were applied.
One of the most important groups of activities was those discussed in section *C - concrete conservation actions*. As a part of those actions we conducted broadly known and well tested methods. In Action C1 (Cutting out or thinning expansive thickets of shrubs and trees) it was i.e.: cutting during autumn-winter season (in terms of mating and breeding of birds), cutting mainly young and strong growing shrubs instead of living the oldest one, leaving strips of shrubs as a buffers, in the border of farmlands and grasslands, creating dynamic mosaic of open spaces and shrubs/trees. It wasn't surprising that this kind of methods proved well. However during cuttings we applied also several other, more innovative methods. It concerns mainly methods of fighting with invasive species, like *Robinia pseudoacacia*. Detailed descriptions is available in Layman's' and Scientific Report, chapter 4.3 - Summary of effects of the project. It can be assumed that there is no one ideal method of invasive species elimination. Only combination of several methods and systematic and longlasting treatment can bring positive effect (i.e. clearance combined with pasturing and several series of mowing of shoots throughout the year).
Similar reflections concern Action C2 (Removal of non-native invasive species – *Heracleum sosnowskyi*). Applying mowing for four time per year brought positive effect (50% decrease of *Heracleum sphondylium* coverage on mown area and decrease of soil seed bank of this species) but didn't eliminate the species completely. It appears that 4-year Project period is too short for eliminating *Heracleum* only by mowing. In spite of that we believe that further continuation of this method will be satisfying.
Next, very well known in semi-natural habitats conservation method, that we applied in our Project is extensive grazing. It's positive effect is described as a Best Practice below. Also in this action we applied some innovative methods – mobile pasturage (mentioned as an Innovation below). Thanks to the Project it was possible to test and improve the method of protection of small and isolated grassland patches. It was one of the biggest successes of the Project. However it is worth to mention that this method is quite expensive, especially on the beginning. Buying special equipment (car or trailer adjusted to sheep transporting, caravan for shepherds, electric fences with solar cells, light equipment for watering animals etc.) is necessary. Additionally salary for shepherds which are working in non-standard conditions is cost-consuming.
The most experimental method was applied in Action C4 - Restoration of degenerated xerothermic grassland patches. Detailed description is available in this Report in chapter 5.1. -- Technical progress, per task and in Layman's' and Scientific Report. The experiment was a big success. The process of grassland regeneration has been initiated on over 20 ha. On several areas, the strongholds of *Robinia pseudoacacia* were eradicated. Moreover, different methods of grassland restoration which had hitherto never been used in Poland were now tested and compared. Of the three applied methods of grassland restoration in areas where the top layer of soil was removed (seed sowing, transplantation and natural succession), the seed sowing was judged the most effective one. Some early positive effects of the experiments were observed already after a one year. First seedlings of xerothermic species have appeared on the restored surfaces, including rare plants strictly associated with this type of habitats. However it must be underlined that the restoration of species-rich and stable xerothermic grasslands is a very long-lasting process. At least 5-10 years will surely have to pass before the actions described bring stable results.
During the action realization it was crucial to remove all even the smallest fragments of *Robinia* roots. Imprecise extracting trees or leaving roots in soil caused strong re-sprooting of invasive species.
The method is effective and gives spectacular effects but in the same time is expensive.

Additionally broad and diverse education, using not only typical for this kind of activities methods (as folders and website) but also other media like sound (grassland recordings) and visual effects (photographic album) is assumed as one of the biggest successes of the Project.

5.3.2. The results achieved against the objectives

Task	Foreseen in the revised proposal	Achieved	Evaluation	Visibility of effects
Conservation or improving the state of xerothermic vegetation complexes	ca. 225 ha	ca. 225 ha	Achieved the same result as foreseen in the proposal.	immediately visible
Preserving or enhancing biodiversity on Natura 2000 sites	8 Natura 2000 sites	8 Natura 2000 sites	Achieved the same result as foreseen in the proposal.	results will become apparent after a longer time period
Removing or thinning out shrub and tree thickets	77 ha	76,34 ha	Achieved the same result as foreseen in the proposal.	immediately visible
Removing illegal landfills from the xerothermic grasslands area	9 objects	10 objects	Achieved the same result as foreseen in the proposal.	immediately visible
Restoring xerothermic grasslands	8 patches, 12 ha in total	11 patches, 20,2 ha in total	Achieved bigger result as foreseen in the proposal.	results will become apparent after few years
Reintroducing extensive grazing on xerothermic grasslands	45 ha	67,39 ha	Achieved bigger result as foreseen in the proposal.	immediately visible
Preparing scientific documentations for most precious patches of grasslands	14 objects	15 objects	Achieved the same result as foreseen in the proposal.	immediately visible
Preparing conservation plans for Natura 2000 sites, nature reserves, ecological sites etc.	10 documents	12 documents	Achieved bigger result as foreseen in the proposal.	immediately visible
Channelling tourist traffic in Natura 2000 sites	8 Natura 2000 sites	8 Natura 2000 sites	Achieved the same result as foreseen in the proposal.	results will become apparent after few years
Boosting and stabilizing the population of *Echium russicum*	2 populations, 200 individuals more in total	2 populations, 280 individuals more in total	Achieved bigger result as foreseen in the proposal.	immediately visible
Creating professional know-how for further complex conservation of xerothermic grasslands in Poland	1 HAP	1 HAP	Achieved the same result as foreseen in the proposal.	immediately visible
Raising awareness and knowledge about xerothermic grasslands and the need to conserve them in interested members of the public	ca. 1000 persons	More than 15 000 persons	Achieved bigger result as foreseen in the proposal.	immediately visible
Propagating information about conserving	-	-	Achieved the same result as foreseen in	results will become

xerothermic grasslands in the Lublin, Lower Odra and Lower Warta regions			the proposal.	apparent after a longer time period

5.3.3. Effectiveness of the dissemination

During the project there were several different ways of dissemination. First of all – website of the Project. During Project duration there were 20 094 visitors, which gives 394 average number of visitors per month. Additionally we hand out total of 12 144 copies of various kinds of knowledge carriers (posters, leaflets, folders, albums, CD discs, boards), which were presented to various social groups countrywide, and part of them abroad. Furthermore, 42 different types of meetings, workshops and conferences were organized in which over 470 persons took part. 33 articles concerning the Project in press and Internet appeared. Information about the project were presented during several national and international conferences. Actions realized in a frame of project were shown in one TV program.
As a result of that directly in more than 15 000 people we raised awareness and knowledge about xerothermic grasslands and their threat and conservation.

5.4 Analysis of long-term benefits

5.4.1. Environmental benefits for Natura 2000 and species/habitat type targeted

- Ca. 225 ha of xerothermic vegetation complexes (including patches of habitats: 6210 - xerothermic grasslands, 6120 - xeric sand calcareous grasslands, 5130 - *Juniperus communis* formations on heaths or calcareous grasslands, 40A0 - subcontinental peri-Pannonic scrub with *Prunus fruticosa*, 91F0 - riparian mixed oak-elm-ash forests (*Ficario-Ulmetum*)) improved.
- Reduce the impact of invasive species on 3 Natura 2000 sites (Dolna Odra, Ujście Warty, Żurawce)
- Channelling tourism in 8 Natura 2000 sites.
- On 20.2 ha the process of regeneration of xerothermic grasslands (habitat code: 6210) initiated.
- Polish population of *Echium russicum* (species code: 4067) strengthened.
- Habitat conditions on 3 localities of *Cypripedium calceolus* (species code: 1902) improved.
- Habitat conditions on 2 localities of *Carlina onopordifolia* (species code: 2249) improved.
- Habitat conditions on one locality of *Maculinea teleius* (species code: 1059) improved.
- Habitat conditions on one locality of *Maculinea nausithous* (species code: 1061) improved.
- Habitat conditions on one locality of *Colias myrmidone* (species code: 4030) improved.
- 4 conservations measures plans for Natura 2000 sites (Stawska Góra, Niedzieliska, Katy, Żurawce) prepared.
- Habitat Action Plan for xerothermic grassland prepared (habitat code: 6210).

5.4.2. Long-term benefits and sustainability

Xerothermic grassland as semi-natural habitats require repetitive and systematically implemented methods, consisting mainly of hampering natural succession by extensive grazing and cutting shrubs and trees. However, this actions are difficult to apply on many

grasslands nowadays due to long lasting lack of usage, overgrowing by shrubs, lack of pasturage infrastructure, knowledge about proper maintenance or troublesome invasive species.
Our project's goal was to minimize this factors and create reliable base for further grassland protection easy to conduct and connected with traditional extensive maintenance (pasturing or mowing). For this purpose several actions had been done: establishing new forms of protection and elaborating conservation plans for them; create kind of guidelines of methods and vital actions, which have to be taken into account in order to protect xerothermic grasslands in a full and comprehensive way; stopping invasive species expansion; restoring most degenerated patches of grasslands; prepare grasslands to reinstating extensive pasturage (cutting shrubs and trees, fencing, buying equipment and animals for landowners which were interested in cooperation with us), removal of illegal landfills, channeling tourism. We planned this action on the assumption that they will happen once.
Repetitive actions (pasturing, mowing) partially will be continued by landowners which cooperated in a frame of Action C8. On other areas it will be realized by Beneficiaries (CB and AB) as their statute activities. Main source of this actions' financing will be agro-environmental schemes and also external funding for nature protection.
Except natural succession, one of the biggest threat for areas covered by the project is expansion of invasive species, i.e. *Robinia pseudoacacia* and *Heracleum sosnowskyi*. In spite of that the main objective of the project wasn't combat with invasive species. During project's realization it was possible to halt expansion of this danger species and test several methods which brings positive effects in eradicating them.
This methods (i.e. mowing patches overgrown with *Heracleum sosnowskyi* or sprouts of *Robinia pseudoacacia*) will be continued by the Beneficiaries of the Project also after its end until reaching satisfying results.
Our activities contributed to raising interest of the local community in extensive management of grassland in regions covered by the Project. It was shown how this kind of activities can be profitable both for precious habitats and landowners. During several meetings participants became aware of fact that extensive pasturing nowadays is becoming again cost-effective and "trendy". On area covered by the Project animals husbandry and traditional pasturing again begins to be the subject of discussions and interest of farmers and investors. Reappearance of sheep on grasslands and cooperation of several farmers in Project no-doubtly encouraged local communities to extensive usage of grasslands. Our activities in conjunction with trends for slow-food, traditional races of animals and spending time on countryside, and also with agro-environmental surcharges will positively influence the process of reinstating extensive grazing in regions covered by the Project.

5.4.3 Replicability, demonstration, transferability, cooperation

Most of actions realized during the Project can be found as widely practised and well tested methods already implemented in case of many precious habitats conservation, i.e.: cutting shrubs and trees, extensive grazing, illegal landfills removal, channelling tourism connected with building educational trails, scenic overlooks and information boards. Less known and innovative methods of nature conservation realized during the Project and worth further testing are:

- Mobile pasturage
- Grassland restoration by top soil removal
- Grassland restoration by covering overgrown surfaces with black foil
- Mowing for four time per year patches overgrown with *Heracleum sosnowskyi*

- Cutting trunks of *Robinia pseudoacacia* at the height of 120 cm and mowing of *Robinia* shoots throughout the year (4-6 times per year)

Actions mentioned above are easy to replicate not only in a case of xerothermic grassland but also for other precious habitats patches threatened by invasive species. Methodology and equipment used are easy available in all countries of Europe. Detailed information about methods and their realization are presented In Layman's and Scientific Report and on our website. It was also broadly presented on numerous meetings and conferences.

5.4.4 Best Practice

Extensive animals grazing.

Extensive animals grazing is a way of management in the poor quality of pastures which has been used for hundreds of years. Its characteristic way of influence on flora and its structure, species as well as ground in combination with specific natural conditions impacted on occurring and keeping many valuable natural habitats such as xerothermic grasslands. It was treated for a few decades as the basic, well-known and widely used method of protection in the whole Europe. Apart from numerous, todays' studies on the impact of grazing on protected habitats and tested practices, this method has centuries-old tradition and experience. On that basis, one has gained the great knowledge about appropriate ways and grazing date along with stocking density and type of animals adjusted to particular habitats.

There are particular and proven practices in the case of xerothermic grasslands, which were implemented within the project as they took actions associated with grazing. But basically, on the extreme habitats like xerothermic grasslands with poor quality of food base it used the most original, resistant variety of livestock. In Poland these include: different variety of sheep (for example Polish heath sheep and Świniarka sheep), goats as well as Polish primitive horses, and cattle in the thicker grasslands. That is why old local breeds of animals were used in the project (mainly Polish heath sheep and goats adjusted to poor quality of grazing lands).

The great and known advantage of grazing is selective cracking of plants by animals. Especially sheep choose soft-leaves plants, avoiding those with xeromorphic structure – it leads to regulate plant species composition of xerothermic grasslands – getting rid of the expansive meadow and ruderal species and leaving xerothermic ones. However, the goats limit in a natural way the spread of shrubs and trees. Livestock, leaving the densest and older shrubs and biting open areas of grasslands, lead to occurrence of a dynamic mosaic, or the greater diversity of xerothermic habitats. Moreover, animals during grazing move grounds, destroying the dense layer of felt and exposing fragments of the bare earth. It makes it easier for the sunlight to access the lower parts of undergrowth and for the heliotropic seedlings to develop within the grasslands plants as well as to mobilize soil seed bank. In order to take advantage of grazing' asset, it is preferable to jointly use a few type of animals which in different way influence the habitat. This practice was also implemented in the project through grazing of a mixed flock of goats and sheep as a part of action C6.

Another advantage of grazing in the multiple grasslands used in the project is the spread of diaspora of xerothermic species between isolated pieces of grasslands by zoochoras. It is vital to remember that grazing influences positively on grassland, however it is extensive. Too large flock in the small area may lead to destroying valuable xerothermic flora. The optimal number of sheep and goats, grazing in an extensive way during the growing season on grasslands, is max. 5 animals per hectare, and in case of cows- about one animal per hectare.

There are many advantages of the management method. It is related not only to reconstruction of natural values, but also cultural and aesthetic ones. Traditions related to grazing in many regions of Poland are very precious but forgotten element of agricultural landscape.

Removal of shrubs and trees.
This kind of action is one of the most frequently used methods of protection of non-forest semi-natural habitats such as xerothermic grasslands. This method usually makes sense as an initial action, preparing areas to introduce other protection methods that ensure the permanent result (for example, grazing or mowing). Naturalists' Club, based on its long-term experience of nature protection and other experiences, created a few basic principles which are necessary to be respected when cutting shrubs and trees within valuable natural habitats. These principles were used in the project:

- In terms of mating and breeding season of birds, if possible you cut during autumn-winter season (from October to March).
- On specific occasions, in case of species with strong sprouts, it is advisable to perform clearance during the growing season in order to reduce these plants. In such cases cuts should not be made in the larger areas and should concern single individuals or small shrubs, and it is necessary to check them before cutting in order to eliminate possibilities of destruction of bird's nests or animals species' shelters.
- During cutting it is absolutely vital to remove all the invasive species (alien to our flora), including *Robinia pseudoacacia, Padus serotina, Lycium barbarum, Acer negundo, Rosa rugosa, Mahonia aqufolia, Pinus nigra*.
- During removing of expansive shrubs it is necessary to cut mainly new, strong growing pieces, leaving the oldest shrubs.
- In case of grassland borders with intensive exploited farmlands, at the border of field and grassland it is worth to leave shrubs' zone that forms buffer, at least partly protecting valuable habitats against biogenic substance flow and herbicide.
- During cuts it is important to create the dynamic mosaic of open areas and shrubs.
- If possible, one should link cuts in grasslands with grazing. The animals which are grazed regularly chew out systematically new sprouts, thus not allowing the shrubs to develop.
- In case of species that are remarkably vital and form many sprouts, it is necessary to mow sprouts many times a year.
- In case of part of shrubs or tree seedlings, forming sprouts, if possible it is worth to remove them with roots. This method is very slow and expensive (species are usually removed by hand); moreover, if certain species are carelessly removed, they will grow from the roots that are left in soil.
- In case of a part of cut trees and shrubs it is worth to stock them on the outside of grasslands to create convenient hiding-place for small fauna, living in xerothermic grasslands.

5.4.5. Innovation and demonstration

Mobile pasturage.
Extensive grazing of livestock has been a known and used practice on grasslands in Poland for a very long time. However, mobile pasturage is a decisively new practice. This method is not common in Europe, but in some countries neighbouring with Poland, for example in Germany, it was used. During this project this method was used in Poland for the first time.
It is vital to use it due to strong isolation of patches of xerothermic grasslands, their small area, usually large distance from farms and lack of local society's interest in pasturage exploitation.
Grazing was carried out only during the growing season in a rotational way, subsequent on different areas. Firstly, the animals were grazed on the best maintained areas, and then on

those most degraded, which leads to the spread of diaspora of xerothermic grasslands by zoochoras.
Sheep were chased, and in the case of patches located at a greater distance, they were transported from one object to another. Each grazed area was fenced with easy to disassemble electric fence, transported along with a flock to the next area. When distance from human dwellings and sources of electricity was too big, electric fence was powered with the composition of energizer, accumulator and solar battery. Fences' wooden pillars and animal shelters were permanent. Thanks to the fence, quarters of maximum 1 hectare were made, grazed on one place no longer than one-two weeks.
A flock was watched out by the workers employed in the pasture season for 24 hours. The animals were transported by truck owned by the Naturalists' Club, and shepherds lived in trailer, carrying it along with sheep from one grassland to another.

Restoration of strongly degenerated xerothermic grasslands.
The method related to saving strongly degenerated xerothermic grasslands consists in engrafting well preserved patches of xerothermic vegetation onto the designated areas - the so called transplantation. The research conducted to date on the effects of this method in the various European countries have brought various results. For this reason, it was a good idea to test this method in Polish reality.
The method assumed replanting fragments of well preserved grassland, together with the rhizosphere and soil layer with the seed soil bank within it, to the formerly prepared degenerated areas.
The alternative method, also applied within the project, was sowing the seeds of species from the well-preserved grasslands onto the restored areas. In both cases the material was taken from the closest possible areas and populations of species.
Preparing of most degenerated xerothermic grasslands (ie. overgrown by *Robinia pseudoacacia*) consisted in tearing off the top layer of soil in order to remove seed bank and roots of the unwanted species, and related to *Robinia* extensive volume of azote rhizoms of expansive herbal species. In case of the protected grasslands this method assisted also in reaching deeper layers of soil which are richer in calcium carbonate than the alerted surface layer. Larger accessibility of calcium carbonate supports the development of alkaphilous xerothermic vegetation.
Top soil of degenerated habitats removal has been increasingly popular method of protection. In Poland it was applied however solely in case of protection of peat bog, where the surface, demineralized layer of peat had been torn off. This method has not been tested in case of xerothermic grasslands or other habitats of mineral nature.
In order to remove the unwanted shoots of shrubs, the areas of former xerothermic grasslands designated for restoration were covered with black foil. This activity was applied in gardening in order to remove the unwanted weeds. It causes lack of access to sunlight for plants and consequently - their death. In Poland, prior to commencement of the project, it was not applied in environment protection.

5.4.6. Long term indicators of the project success:

- Condition of xerothermic vegetation complexes covered by the project (not less than 225 ha of vegetation with biodiverse mosaic of different xerothermic habitats, rich in specialized xerothermic species, with lack or strong limitation of invasive and expansive species, with strongly limited natural succession by extensive management)
- Area included in the Project where the extensive grazing is still conducted (not less than 45 ha)

- Number of *Echium russicum* individuals in ZDB and Dobużek populations (not less than 100 on each locality)
- Condition of vegetation on patches restored in a frame of Action C4 (presence of biodiverse associations, voided of invasive species, belonging to xerothermic grasslands or associations strongly similar on not less than 12 ha of total area)
- Presence of invasive species – *Heracleum sosnowskyi* on Żurawce Natura 2000 site (non individual presence)

6. Comments on the financial report

General note.
Please note that Financial Statement as of 17/04/2014 delivered to the Auditor slightly differs from this delivered with Final Report. It is a result of three things:

1. wrong attribution of 2 records to the Overheads category while it should be in External assistance category (€ 2597,73). They had been moved (and reclassified in accounting books) to 'external assistance' category.
2. error in counting the total of 'overheads' – an additional row in 'overheads' sheet that included into general sum of the category extra € 4944,47 that is NOT a project expense.
3. Reclassification and then re - attribution of 7 records ('external assistance') as funding NFOŚiGW and reclassification of corresponding amount from other category ('personnel') as EU contribution to balance the percentage of EU-Other sources funding.

Those findings results in changing (in comparison to amounts presented in Auditor's Report):

- final cost of A3 Action giving € 41 975,91
- final cost of 'external assistance' category giving € 271 657,45
- final cost of 'overheads' category giving € 22 237,57
- final percentage and amounts of eligible costs covered by NFOŚiGW giving € 491 602,39 (44,99%), covered by EU giving 49,64% (€ 542 383,23)
- final cost of total project's expenses giving € 1 092 542,38

All below mentioned discrepancies in categories and actions and their explanation take those changes into account.

Additionally, in 'Funding KP' sheet in 'Other source of funding' table in accordance to NFOŚiGW funding for year 2014 one can find an additional amount of 99 350,02 zł (giving € 23 828,94 with exchange rate consistent with CP) that is not reimbursed yet by NFOŚiGW. Klub Przyrodników will ask for reimbursement after the Final Report is accepted by the Commission. If, for some unexpected and today unknown reasons, NFOŚiGW will refuse the reimbursement, the costs will become the Coordinating Beneficiary costs.

6.1. Summary of Costs Incurred

PROJECT COSTS INCURRED				
	Cost category	**Budget according to the grant agreement***	**Costs incurred within the project duration**	**%****
1.	Personnel	€ 481 508,00	€ 481 566,62	100,01
2.	Travel	€ 57 504,00	€ 64 481,40	112,13
3.	External assistance	€ 366 977,00	€ 271 657,45	74,03
4.	Durables: total non-depreciated cost	€ 101 262,00	€ 95 019,33	93,84
	- Infrastructure sub-tot.	€ 49 649,00	€ 45 848,11	92,34

	- Equipment sub-tot.	€ 51 613,00	€ 49 171,22	95,27
	- Prototypes sub-tot.	€ 0,00	€ 0,00	0,00
5.	Land purchase	€ 173 926,00	€ 80 545,19	46,31
6.	Consumables	€ 67 746,00	€ 67 702,30	99,94
7.	Other costs	€ 7 293,00	€ 9 332,51	127,97
8.	Overheads	€ 28 098,00	€ 22 237,57	79,14
	TOTAL	**€ 1 284 314,00**	**€ 1 092 542,38**	**85,07**

Changes in the budget that excess the thresholds specified in art. 15.2 Common Provisions occurred in the categories 'Travel' and 'Other costs'.

Personnel
No significant overruns in the Personnel category are the result of:
- a substantially constant rates of remuneration unchanged for almost entire duration of the project to key people in the project (the differences in the rate between the years are of several euro);
- amendment to the Remuneration Policy in The Naturalists' Club introduced in January 2014 which reduced the salaries of employees;

Travel
The category was exceeded by € 6 977.40 which represents 12% of the amount initially planned in this category. One cannot clearly indicate what caused the overrun due to the fact that the list of expenditure under this category is fragmented at relatively low costs (there are 14 records above 100 € on the list of 1,133 records), however, as the main source of costs generation in this category, one should indicate travel business related to the arrangements for the purchase of land and the implementation of conservation measures. Bearing in mind the fact that:
- most of the costs in this category were generated in the key moments of the project in the 'peak' years of implementation (i.e. 2011-2012)
- the project recorded savings
- these expenditures play a key role – served and favoured personal visits to the area and personal contacts with the owners / managers of land

we kindly ask to accept these exceedances in the project budget.

External assistance
In this category, there are savings of €95 319.55 reported (26% of originally projected budget). This is mainly due to the selection of contractors on the basis of public tenders which usually significantly affect the amount of bids. The greatest saving in this category was noted in the task C4 (described in section 5.1 of the Report), where the scope was reduced what also had a substantial impact on the offered price of the service.

Durable goods: infrastructure and equipment
The costs of the category were made in almost 100% and savings are the result of selection of contractors on the basis of public tenders, which usually significantly lower the prices of services in their bids.

Land purchase
In this category savings of € 93 380.81 were reported which is nearly 54% of the initially projected budget. This state of affairs is a result of purchasing 85% of the projected area

of land but also the fact that the purchase was made below the originally planned cost per hectare of land. Details of the problem of not buying the last plot in Krajnik Dolny, which would achieve the assumed rate of 30 hectares of land are described in section 5.1.

Consumables
Costs in this category were made almost in 100%. Despite the savings recorded in the category in the Action A1 (described in section 6.5), they have been consumed within the Action D1 and D3. As part of the Action D1, an audio CD with the sounds of grasslands has been produced. It is a very unique way to promote the beauty and the need to protect grasslands; it also indirectly promotes the project and its effects in a subtle way. The Action D3 final costs in this category have been exceeded due to the costs of organizing an international conference EDGG in Zamość and conference finishing the Project. Due to savings in Action A1 and fact that quality of both international and project finishing conferences was crucial for good Project and Beneficiaries image we decided to organize conferences on higher level than planned. This was related with higher costs of meeting organization (i.a. the international conference lasts 8 days; longer pre- and post symposium excursions; conference proceedings prepared from recycled sources; higher number of participants).

Other costs
The budget increased in this category by €2 039.51 which is an increase of nearly 28% against the originally planned amount. The increase in costs in the category has been described and signalled in the application for extension of the duration of the project (letter dated 27.09.2013 respectively). This increase is the result of unplanned earlier repair and maintenance of cars - Toyota Hilux and Ford Transit. Originally planned amount was insufficient to cover all the costs of maintenance of these vehicles intensively used in the project. Due to the fact that:

- the total cost of the category 'Other costs' is about 1% of the total project budget (even after currently reported overruns)
- Project reports savings (resulting from public tendering and not the failure of reaching the objectives of the project) in other categories,

we believe that this overrun is negligible from the point of view of the whole project and its objectives, despite the fact that it meets the definition of a substantial change in accordance with art. 15.2 of Common Provisions. And so we kindly ask you to accept such changes in the budget.

Overheads
Costs in the category were made in almost 100%. There are savings noted in amount of € 5860,43. It is a result of not attributing the cost of office subsistence for two months (May and June 2013) as a cost of project and other savings related to lower fixed costs.

6.2. Accounting system

In accordance with the beneficiary's Instruction of Workflow and Document Archiving, accounting documents shall be signed by authorized persons.
Each document is signed by the President of the Club in terms of content, that allows at the same time to qualify the document for the relevant costs and is also an approval for payment. Chief Accountant checks the documents in terms of accounting and formal issues. This is confirmed with the function stamp and initials.

Accounting documents included in the fiscal accounts have assigned cumulative number starting from 1/ZAK till the end of the year, while other accounting documents, i.e. payrolls, delegations, contracts' bills, Direct Debits have given cumulative number starting from 1 to the end of the financial year.
The beneficiary keeps separate accounting records for the ongoing LIFE project that allows identification of costs divided into LIFE, funds received from the National Fund and the beneficiaries own contribution.
With effect from 01.01.2010 by the President's Decree the updated chart of accounts went in to force. It allowed to separate costs attributed to the agreements with the EC and with the National Fund.

Accounts for costs attributed to the Grant Agreement with EC: **LIFE08 NAT/PL/000513:**

130-21	Bank account
402-1033	Stationery
402-2033	Travel (fuel)
402-5036	Other materials
403-2030	Telecommunication services
403-3034	Bank charges
403-4043	Other services
405-42	Salary
405-54	Salary – specific-task contract
407-1037	Business trips (subsistence)
407-2027	Other costs
740-53	EU grant - costs
840-89	EU grant - income

Accounts for costs attributed to the Grant Agreement with NFOŚiGW: nr **458/2009/Wn50/OP-WK-LF/D** :

401-1	Durable goods depreciation
402-1034	Stationery
402-2035	Travel (fuel)
402-5037	Other costs
403-2029	Telecommunication services
403-4044	Other services
405-44	Salary – specific-task contract
407-2026	Other costs
740-54	NFOŚiGW grant - costs
840-91	NFOŚiGW grant - income

Accounting and financial documents confirming incurred project expenses bear a stamp with the number and title of the project and grant agreement number (in English), if the expenditure is financed by the NFOŚiGW the document bears an additional stamp with the number and title of the project and the distribution of capital or non-investment expenditures (in Polish).

In addition, each document bears:
- Stamp with accounts and costs indication – signed by the authorized person.

- The name of the action in accordance with the grant agreement
- The amount of eligible expenses
- The endorsement of the settlement of the obligation arising from the document (the date of the payment or cash report for cash payment)

The authorized person to make entries or corrections on the financial documents is only Chief Accountant.
The Project Coordinator, Katarzyna Barańska, describes the financial documents in accordance to action and cost category attributed to the project.

If the invoice relates to fixed costs (i.e. the costs of the office rent, heating, waste disposal, telecommunication service, postal services, stationery and other office supplies) beneficiary established the proportion of costs attributed to the project - the ratio of the number of FTEs working in the project in a given month to number of FTEs in Klub Przyrodników.

Employees were required to keep separate records of working time - Timesheets.
Timesheets were signed by the employee and accepted by the Chief Accountant (the Timesheets of the Chief Accountant was approved by the President).
Acceptance by the Chief Accountant consisted, inter alia, for verifying the correctness of records - weekend days, holidays and other days off in a month.

6.3. Partnership arrangements (if relevant)

In each financial year during the project, after the settlement of the annual budgetary plan, the Partner determined amount of its own contribution in that year to cover the expenses of realisation their tasks in the project. At the end or at the beginning of each year Partner had send certified true copies of documents related to performed tasks - invoices, receipts/bills, payment confirmations, contracts, minutes of receipt to the Klub Przyrodników office. All invoices and bills were paid directly by the Partner and were not reimbursed by beneficiary (the amount of 508,80 zł – € 113,74 – was reimbursed in 2012 as EU contribution for the Partner). Klub Przyrodników made the attribution the incurred expenses to the Project and entered the information in the Financial Statement tables.
Partnership agreement with annexes is attached in Annex 1.

6.4. Auditor's report/declaration

Auditor: Przemysław Orlonek
Firm: Ernst & Young Audyt Polska spółka z ograniczoną odpowiedzialnością spółka komandytowa (formerly Ernst & Young Audit Sp. z o.o.)

Auditors' report is in Annex 24.

6.5 Summary of costs per action

(Projects submitting final reports after 1 January 2014 must use this format.)

Action no.	Short name of action	1. Personnel	2. Travel and subsistence	3. External assistance	4.a Infra-structure	4.b Equip-ment	4.c Proto type	5. Purchase or lease of land	6. Consuma-bles	7. Other costs	TOTAL
A1	**Preparing technical documentation**	122 341,46	15 581,00	5 693,67		11 801,22			8 433,66	1 783,66	**165 634,67**
A2	**Preparation of conservation plans**	58 428,06	850,88								**59 278,94**
A3	**Preparation HAP**	31 496,34	3 310,21	3 597,73		1 808,59			999,00	764,04	**41 975,91**
B1	**Land purchase**	22 815,18	4 872,00			3 117,03		80 545,19	292,82	1 174,16	**112 816,38**
C1	**Cutting out or thinning expansive thickets**		28,51	49 834,47		5 500,85			465,32		**55 829,15**
C2	**Removal of Heracleum**			5 986,02							**5 986,02**
C3	**Removal landfills**			8 687,96							**8 687,96**
C4	**Restoration of grasslands**		291,32	124 660,35					2 257,43		**127 209,10**
C5	**Strengthening the population of Echium**			9 349,17							**9 349,17**
C6	**Testing of the mobile pasturage**	29 624,8	4 788,44		20 749,66				3 402,98	424,84	**58 990,72**
C7	**Channelling tourism**			27 786,26							**27 786,26**
C8	**Reinstating extensive grazing**	26 535,43	1 449,00		24 215,84	15 014,76			205,62	1 174,43	**68 595,08**
D1	**Educational materials**	25 335,43		1 941,05					10 934,76		**38 211,24**
D2	**Album**			8 091,5					1 443,76		**9 535,26**
D3	**Workshops and conferences**	14 535,43	2 118,05	257,81		1975,31			31 730,1	937,62	**51 554,32**
D4	**Documentary**			17 776,47							**17 776,47**
D5	**Project's website**	9 462,55				769,11					**10 231,66**
D6	**Information boards**				882,61						**882,61**
D7	**Leyman's report and scientific report**	8 629,26							7 001,18		**15 630,44**
D8	**Supporting the interna-tional flow**		12 503,26						43,87		**12 547,13**
E1	**Management of the project**	87 628,52	12 216,49	7 995,00		9 184,35			491,8	3 073,76	**120 589,92**
E2	**Monitoring**	44 734,16	6 472,24								**51206,4**
E3	**After-LIFE Conservation Plan**										**0,00**
	Over-heads										**22 237,57**
	TOTAL	**481 566,62**	**64 481,40**	**271 657,45**	**45 848,11**	**49 171,22**	**0,00**	**80 545,19**	**67 702,3**	**9 332,51**	**1 092 542,38**

It is assumed, that major discrepancy is a difference ≥ € 5000 in accordance to approved budget.

Action A1. Savings of €17 199.33 are primarily the result of reduced costs of organizing meetings with the owners and managers of the land. Meetings were organized in local centres (community centres, houses of culture) which meant that ultimately the cost of organizing such meetings (catering, room rental) was lower than originally expected. The greater part of the meeting concerned persons / individual entities so there was no need for such room rental or organizing a full catering service. At the same time, the share of personnel costs and travel, due to the greater involvement of employees in the performance of the action (mainly arrangements for land purchase and negotiations with landowners).

Action B1. Savings of € 82 356.62 are primarily the result of purchasing land below the expected (planned) cost per hectare but also not buying the last parcel in Krajnik Dolny (problem described in section 5.1 of the Report). At the same time, expenditures on personnel costs have greatly increased. It is the result of far greater workload on issues related to the purchase of land - negotiations with the Agricultural Property Agency, soliciting the issued plots for sale, plots separation.

Action C4. The difference in the amount of €67 741.90 between planned expenditure in the task and actually incurred is a result of the savings that were created on the basis of public tenders.

Action C6. Exceeding the original cost of the action by €4 932.72 is the result of expenditure increase in the personnel category. During the project, the shepherds (grazing sheep on grasslands) often resigned (especially at the beginning of the project) in the middle of the season. It caused difficulty in finding replacement in a short period. Employment of a new person generated further costs not originally foreseen. Due to the verification of mobile pasturage method we also increased the range of grazing during the project by including the area of purchased land. This also affected the incurred final cost of grazing.

Action C7. Savings of € 8 118.74 are the result of implementing the task on the basis of a public tender awarded by the Regional Directorate for Environmental Protection in Lublin (associated beneficiary) which resulted in a reduction of the cost.

Action C8. Savings of €13 656.92 are the result of changes in the scope of the task (details described in section 5.1 of the Report, in section on Action C8). Instead of buying animals for grazing and equipment (as it was planned), the individuals with whom we signed a contract for the continuation of grazing, rather expressed the desire of fencing purchase and installation than buying flock (which they already owned).

In other actions, no significant differences in costs (differences ranging between €5,91 and €3600) were noted.

7. Annexes

7.1 Administrative annexes

ANNEX 1 - Partnership agreement with Associated Beneficiary (submitted also with Inception Report)
ANNEX 2 - Agreements with the landowners which cooperated in reinstating extensive management on grasslands (Action C8)

7.2 Technical annexes

ANNEX 3 - List of keywords and abbreviations used
ANNEX 4 - Results of the soil studies conducted before and after grassland restoration (Action C4) - report of external contractor (2 documents)
ANNEX 5 - Copies of the purchase acts (4 documents) and maps with localization of purchased lands (3 maps)
ANNEX 6 - Scientific documentations (Action A1) (15 documents – paper version was submitted with Mid-term Report)
ANNEX 7 - Technical documentations for each object covered by the project (Action A1) (3 folders. Paper version of technical documentations for Dolna Odra and Ujście Warty sites were submitted with Mid-term Report. Technical documentation for Lublin Region sites are available only in paper version. Due to large size and big carbon foot print of copying the documents we are sending only the photograph of this documentations. If necessary we will send copies of the documents.)
ANNEX 8 - Action plans for each object covered by the Project (52 maps - paper version of action plans were submitted with Mid-term Report).
ANNEX 9 - Conservation plans for protected areas (Action A2) (12 documents - paper versions of the plans were submitted with Progress Report) and copies of municipalities councils resolutions and RDOŚ regulations concerning protection plans acceptation (9 documents).
ANNEX 10 - Habitat Action Plan for xerothermic grasslands in Poland (1 document)
ANNEX 11 - After-LIFE Conservation Plan

7.3 Dissemination annexes

ANNEX 12 - Layman's and scientific Report (Polish and English version) wersja papierowa
ANNEX 13 - Photographs (15 folders with photographs per Action, 1 folder with photographs of areas, subareas, habitats and species)
ANNEX 14 - Dissemination products – publications (Folder about the Project - English and Polish version, 3 types of brochures for different social groups, 8 types of posters, Photo-Album "Murawy")
ANNEX 15 - Film about the Project (one DVD)
ANNEX 16 - Grassland Recordings (one CD)
ANNEX 17 - Projects of information and educational boards created in frames of action C7 (2 folders). Paper version of the project were partially submitted with Mid-term Report.

ANNEX 18 - Projects of educational boards for schools (2 boards). Paper version of the project were submitted with Mid-term Report.
ANNEX 19 - Projects of information boards concerning the Project (6 boards). Paper version of the project were partially submitted with Mid-term Report.
ANNEX 20 - Conference proceedings (book of abstracts, programme, coat, bag, badge, baner)
ANNEX 21 - Press cuttings overview (5 folders) – some of them are attached also in paper version.
ANNEX 22 - Presentations about the Project (5 presentations)

7.4 Final table of indicators

ANNEX 23 – Table of indicators

8. Financial report and annexes

ANNEX 24 – Independent audit report
ANNEX 25 – Standard Payment Request and Financial Statement/Beneficiary's Certificate
ANNEX 26 – Beneficiary's Certificate for Nature and Biodiversity Project
ANNEX 27 – Consolidated Cost Statement for the Project
ANNEX 28 – Financial Statement of the Individual Beneficiary (Klub Przyrodników)
ANNEX 29 - Financial Statement of the Individual Beneficiary (RDOŚ Lublin)