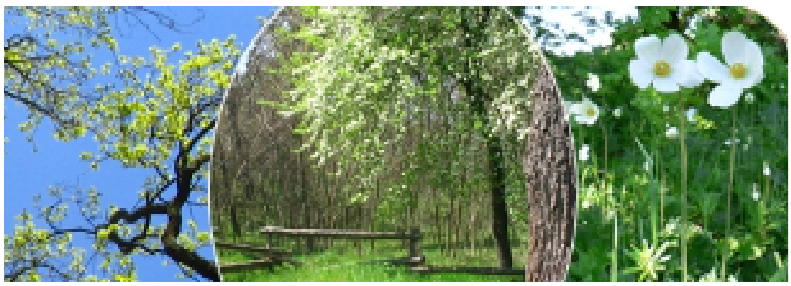
PUSZTAI TÖLGYESEK
WWW.PUSZTAITOLGYESEK.HU



Conservation of *Euro-Siberian steppic woods* and *Pannonic sand steppes* in 'Nagykőrösi pusztai tölgyesek' pSCI

Project Nº LIFE06/NAT/HU/000098

Final Report

Covering period:

1st September 2006 – 31st December 2011

Report compiled by:

György Verő

project manager

Duna–Ipoly National Park Directorate

H-1121 Budapest, Költő u. 21., Hungary

WWF

DUNA-IPOLY NEMZETI PARK 1997

NATURA 2000

VIDÉKFEJLESZTÉSI MINISZTÉRIUM

15th June 2012

LIFE Project Number

LIFE06 NAT/H/000098

FINAL REPORT

Covering the project activities from 01.09.2006 to 31.12.2011

Reporting Date

15.06.2012

LIFE PROJECT NAME

Conservation of *Euro-Siberian steppic woods* and *Pannonic sand steppes* in 'Nagykőrösi pusztai tölgyesek' pSCI

Data Project

Project location	Hungary
Project start date:	01.09.2006.
Project end date:	31.12.2011.
Total Project duration (in months)	64 months
Total budget	1 863 236 €
EC contribution:	1 397 427 €
(%) of total costs	75%
(%) of eligible costs	75%

Data Beneficiary

Name Beneficiary	Duna-Ipoly National Park Directorate
Contact person	Mr György Verő
Postal address	Költő u. 21., H-1121, Budapest
Visit address	Költő u. 21., H-1121, Budapest
Telephone	+36 1 391 4636
Fax:	+36 1 200 1168
E-mail	verogy@dinpi.hu
Project Website	www.pusztaitolgyesek.hu

1. List of Contents

2. Lists of key-words and abbreviations

Key words:

Central-Hungary, Euro-Siberian steppe oaks, Pannonic sand steppes, conservation, management, invasive plant management, Natura 2000

Abbreviations:

DINPD- Duna-Ipoly National Park Directorate

NKÖ - Local Government of Nagykőrös Town

KöVa - operator of Pálfája Education Centre

WWF - World Wide Fund for Nature

MEW - Ministry for Environment and Water

MRD – Ministry of Rural Development

SFS - State Forestry Service

NEFAG - Nagykőrös Forestry Company

pSCI - proposed Site of Community Importance

SAC – special areas of conservation

PR1 – 1st Progress Report

PR2 – 2nd Progress Report

PR3 – 3rd Progress Report

MTR – Mid-Term Report

3. Executive Summary

Present document is the Final Report of HUNSTEPPICOAKS LIFE-Nature project. This project aimed at improving the conservation status of 'Nagykőrösi pusztai tölgyesek' SAC. The most important qualifying habitat type (Euro-Siberian steppic woods with *Quercus spp.*) on this site is among the most endangered habitats in Hungary and has a prominent European Community importance as well. The fragments of steppic oaks near Nagykőrös, Hungary are among the most important remnants of it in respect of size and biodiversity. All the remaining sites of lowland steppic forests in Hungary suffer similar and severe threatening factors: plant invasion, commercial forestry, fragmentation, drying production site, overstocked big game populations and the unexposed situation to public awareness. Although many of these factors should be fought on regional or national level, with the necessary financial tools available, some of them are manageable even at local scale. Such factors are plant invasion, overstocked big game and the lack of public awareness. To a limited extent, fragmentation and commercial forestry are possible to be changed in a

favourable way as well. In the 64 months long HUNSTEPPICOAKS project, the negative effects of these factors were combated by the Beneficiary, DINPD and it's Partners, NKÖ and WWF.

As a benefit of our project, 175 ha private land became target site for nature conservation for 90 years. The total project area, altogether 420 ha of priority habitats became 90-95 % free of invasive plants. This is the most significant result of our project in respect of the state of the habitats, and resulted in an unusual image on the Hungarian Plain. 260 ha was fenced, so natural forest regeneration is no more impeded by heavy grazing pressure of big game. Transforming 65 ha land occupied by plantations of introduced species into native habitats through plantations of native tree species has been launched and going on. Pálfája Educational Centre and Nature Trail was founded, and it became very popular and an integrated part of cultural life in Nagykőrös (for details on results, see **5. Technical implementation of project actions by 31.12.2011**).

Lacking any national protection, designation of Natura 2000 network of Hungary in 2004 was the first chance to get large volume conservational actions into force. The LIFE fund of the European Commission provided the necessary financial basis for such actions.

First step towards a successful application and project implementation was to find cooperative stakeholders. Forest owners and managers, representatives of the forestry authority SFS were involved, together with future project partners NKÖ and WWF.

Following the successful application in 2005-2006, the infrastructure and labour inevitable for the presence of state nature conservation represented by DINPD had to be established. A well-equipped office, a 4WD car and a full-time employed ranger made the conservation efforts of DINPD in the region visible, available for the public and effective. Binding partnership with project partners was also completed, so the work was about to start (Action A1).

As a heritage of the decades long era of forced agricultural cooperation, the project target area is characterised by diverse property conditions. State and private properties are mixed in the region, together with some land owned by local governments. Among private lands, there are sites with unclear ownership and ones with hundreds of owners. To involve private owners and forest managers into the project, a special 90 years long leasing contract was signed (Action B1). Following this in 2008, public procurement of the first, large volume management actions could be started (Action A4).

Parallel to getting the rights to accomplish conservation management, the proposed forest management actions were communicated to the forestry authority, as the 10 years long forestry management plans were under compilation right at the project starting date (Action A4).

In autumn 2008, large-scale management actions were launched. Harvest of invasive trees (Action C1) and forestations had been accomplished (Action C2). In spring 2009, most of the game exclusion fences were ready (Action C3), and the first season of post-treatment of invasive plants (Action D1) and forestations (Action D2) began and continued until the end of the project and are about to go on in the After-LIFE period as well (Action F5). In the same year, further elimination action started on the rest of the 420 ha project area. In spring 2011, last portion of the fences was constructed and the last target area of forestation was planted with native saplings.

In 2007, reconstruction of an NKÖ owned building was prepared in order to start environmental education program in the region (Action A3). The Pálfája Educational Centre and Nature Trail was inaugurated in June 2008 (Action C4 and E7). An educational strategy

was elaborated (Action E3) and used in practice with good responses (Action E5 and E7). Thanks to the efforts on the referring communication actions (Action E4), the Centre soon became popular and well-known among residents of Nagykőrös and the neighbouring settlements.

Dissemination of project results and the significance of the priority habitats was an important activity and was done through various media, both in site and at national level. Project logo and promotional materials were designed and distributed (Action A2), project website www.pusztaitolgyesek.hu was launched and updated continuously (Action E2) and broad media appearance was achieved (Action E1). At the project closure, full colour, A4 format Layman's report was published in both Hungarian and English (Action E8).

Professionals were also addressed by dissemination actions. Besides field visits organised for conservation experts, conservational NGOs and forest managers, an international conference was held in October 2011 with 139 participants, and a thematic monograph was published, both in cooperation with HUNDIDI LIFE-Nature project (Action E6). Regular participation on scientific conferences was also part of this action.

Biodiversity and management monitoring surveys aimed at detecting the spontaneous dynamics of the priority habitats and effects of the managements. Data collection was continuous during the project span, so altogether 5 years long monitoring period was accomplished in tens of permanent sampling plots. Besides this systematic monitoring, data was collected on several arthropoda taxa and big game density was also detected in 2007 and 2011. The vegetation monitoring in particular provided valuable hints on After-LIFE management tasks, together with new data on species emerging after habitat restoration (Action F2 and F3).

As an output of the management experiences and monitoring surveys, the Natura 2000 Management Plan was compiled (Action A5). As many of the management actions were subject of continuous adaptive management, the approval of the Natura 2000 Management Plan is delayed. First round of approval by MRD will let us discuss the Plan with the stakeholders. Following that process, the final approval by MRD can take place. According to this process, we count on having an approved Natura 2000 Management Plan by the end of September 2012.

The project team ensured the overall project management. DINPD employed a full-time ranger. Project management was another full-time job, financed partly as DINPD own contribution and partly out of project budget. Environmental educator was another full-time project employee, while all the participating organisations contributed with part-time employees as well. Regular formal and informal meetings were held with not only the project Partners but with other stakeholders, too (Action F1).

After-LIFE Conservation Plan (Action F4) includes agreements with the Partners and with NEFAG. Together with the Natura 2000 Management Plan and the land-leasing contracts (Action B1), the conditions of long-term management are given.

The total project budget (1 863 236 €) has been overspent (113,43 %). Main reasons are the changing VAT regulation (since 2008, VAT is not reimbursable anymore) and the extra costs of some Actions, like C1, C2, D1, D2, C4, together with the purchase of Strázsa-hegy land, which was an action not foreseen, but the only way of getting the management rights. For details on project budget, see Financial Report and **7. Comments on Financial Report**

Below table summarizes the list of key deliverables and outputs as main achievements within a framework of individual actions as at 31/12/2011, the project ending date.

Action	Status	Description
A1 - Establishment of the project system	completed	kick-off meeting is held
		Partnership Agreement is bound
		new staff is recruited (ranger, educational coordinator)
		equipment is acquired (1 4WD car, 2 notebooks, 2 GPS, 1 digital photo camera, personal computer, chain saw, clearing saw)
		project information brochure is edited (10000 items - 9000 in Hungarian 1000 in English), and reissued (3000 copies)
		2 information boards are erected
		Advisory Board is set up
A2 - Brand design of the project	completed	logo and design of the program is created
		promotional material is prepared (700 folder, 700 pen, 700 textile bag, 1000 magnet, 10000 sticker, 120 T-shirts)
A3 - Preparation of the reconstruction of the buildings	completed	authorised final plans of the reconstruction of the buildings and its surroundings are compiled
		public tendering procedure is implemented
A4 - Preparation of the conservational management actions	completed	exact management needs by forest compartments are documented
		new forestry management plans are compiled in which the management needs and change of function is included
		planned management is agreed by the forest owners, managers
		5 tendering procedure is completed for 2008-2009 large volume management on 397 ha
		Tendering procedures are complete for further management in 2009-2011
A5 - Elaboration of the conservational management plan of 'Nagykőrösi pusztai tölgyesek' Natura 2000 site	technically completed	Natura 2000 Management Plan is elaborated

Action	Status	Description
B1 - Taking over the restricted right of disposal of habitats Euro-Siberian steppe woods and Pannonic sand steppes	completed	6 detailed pre-contracts are bound with forest owners and managers on the take-over of the restricted right of disposal of habitats Euro-Siberian steppe woods and Pannonic sand steppes, for 90 years (17.12.2007.)
		6 final contracts are bound (12.08.2008)
C1 - Removal of arboreal invasive species using mechanical and chemical methods	completed	Woody invasive species are harvested, or stem injected on 420 ha land. Trees above 10 cm diameter are partly injected in Pálfája forest (60 ha) and Strázsa-hegy (28 ha)
C2 - Artificial forest regeneration with indigenous species	completed	cca. 65 ha of land formerly planted by woody invasive species has been planted by native species (01.11.2008- 15.04.2009, and 03.2011)
C3 - Natural forest regeneration with the exclusion of game	completed	260 ha is getting fenced around by 27406 m long fence of 3 types: permanent, temporary and electric fence
		most of big game is eliminated and continuously monitored
		fences are permanently maintained and repaired
C4 - Reconstruction of building complex for educational and ecotouristical purposes	completed	Both the building and its surroundings are reconstructed. It was inaugurated on 05.06.2008. Equipment is purchased.
D1 - Treatment of herbaceous invasives, follow-up treatment of arboreal invasives	completed	cutting of Robinia and Prunus sprouts (2009-2011)
		chemical treatment of Robinia and Prunus sprouts (2009-2011)
		chemical treatment of Asclepias syriaca (2009-2011)
D2 - Follow-up treatment of artificial forest regeneration	completed	hoeing of rows of saplings (2009-2011)
		mowing of lanes between rows of saplings (2009-2011)
		chemical treatment of Robinia and Prunus sprouts (2009-2011)
		Supplement of saplings (2009-2011)
E1 - Information to the general public - Media work	completed	continuous media presence is achieved

Action	Status	Description
		opening press conference and press trip for the national media is held (08.05.2007.)
		press conference and press trip for the national media is held to the inauguration of Educational Centre (05.06.2008)
		press trip for national media on 12.02.2010 (game driving volunteer program)
		closing press trip 08.10.2011 (international thematic conference)
E2 - Information to the general public - Website	completed	website is set (02.04.2007.)
		links are established
		website continuously operates (cc. 130 000 visitors)
E3 - Development of programmes for the educational centre	completed	questionnaire inquiry on environmental education needs of locals (181 items)
		information exchange within national parks and other LIFE-programs
		syllabi for nature trail programs, outdoor-school classes and summer camps are ready
		Teaching Aid Booklet is published (500 pieces, A5 format)
E4 - Communication of the educational programme to target groups	completed	establishment of education webpage (cca. 11000 visitors)
		communication with local educators and target groups
		presence in local media
		participation in local events with stand
		cooperation with local NGOs and educational institutes, schools, kinder gardens
E5 - Starting up the educational programme and continuous operation of the educational centre	completed	56 ‘outdoor school’ classes
		148 groups on guided Nature Trail programs
		22 summer camps

Action	Status	Description
E6 - Mutual communication aiming at different groups of professionals and dissemination of scientific results	completed	project was presented at professional conferences, meetings (9 presentations)
		field trip for 20 NGO members is held (13.10.2007.)
		visit to Hortobágy NPD
		presentation of seedbed making machine
		field trip for NPDs
		International conference held (06-08.10.2011, Kecskemét, Hungary) in cooperation with HUNDIDI project
		Thematic monograph was published (500 pieces) in cooperation with HUNDIDI project
E7 - Development of a Nature Trail	completed	track of Nature Trail (1800 m) and an additional bicycle route (2700 m) are inaugurated and operate continuously
E8 - Compilation of Layman's report	completed	1000 copies in Hungarian and English is published
F1 - Project operation, organizing cooperation with the partners	completed	communication between partners is continuous and effective
		annual project opening workshops were held
		thematic workshops were organized
		Advisory Board participated in field trip
		local office is rented
		project equipment is in operation
F2 - Conservation management monitoring	completed	vegetation sample plots (20) were designated in 2007 and supplemented with 5 more in 2008, 2 more in 2009-2011, when 5 plots were abandoned
		vegetation quadrants were sampled in 2007, 2008, 2009, 2010, 2011
		pitfall traps (85 items) and window traps (4 items) operated in 2007, pitfall tarps (40 items) in 2008, 2009, 2010, 2011
		game monitoring was carried out in 2007 and 2011

Action	**Status**	**Description**
F3 - Monitoring of biological status of habitat types of community importance	completed	sample plots (10) were designated
		vegetation quadrants were sampled in 2007, 2008, 2009, 2010, 2011
		pitfall traps operated in 2007 (45 items) and 2008, 2009, 2010, 2011 (30 items) and window traps (1 item) operated in 2007
		survey on weevils, longicorn beetles, orthoptera, moths were implemented in 2007 and 2008
		dead wood material was examined in 2007
F4 - Continuation of the activities after project completion and preparation of an After-LIFE conservation plan	completed	After-LIFE Conservation Plan is elaborated
		After-LIFE agreements are bond with project Partners and NEFAG

4. Introduction

Euro-Siberian steppic woods is a characteristic habitat of those sand ridges of the Hungarian Plain, which are free of floods. This habitat type has a close connection to the habitats of the steppe woodland zone. Regarding the physiognomy of the steppic oak forests, the overstory is more or less thinning, the shrub layer and herb layer developed under the canopy is present. In drier localities, the woodlands form a mosaic with open sandy grasslands

Euro-Siberian steppic woods with Quercus spp. and Pannonic sand steppes are of special importance regarding their conservational value on the regional, national and EU level.

The steppic oak forests of Nagykőrös represent the largest forest block on sand in the Danube-Tisza Interfluve region, which remained in the most natural state. These forest fragments in a mosaic with sandy grasslands form the last relatively extensive continuous steppe woodland remaining in Hungary.

Both habitat types are proposed to be declared as strictly protected habitats on the national level. Steppic oak forest habitat is listed in the Hungarian Red Data Book of Habitats as endangered. Euro-Siberian steppic woods with Quercus spp. and Pannonic sand steppes are priority habitat types listed in Annex I. of Habitat Directive.

Euro-Siberian steppic woods with Quercus spp. are of unique value, not even similar habitat types have been documented in the Carpathian Basin or in Central Europe. This habitat type at the edge of extinction reaches its western margin in Hungary. The extent and quality of habitat types Euro-Siberian steppic woods with Quercus spp. and Pannonic sand steppes are continuously declining.

Threatening factors

Spread of alien species

The remaining fragments of steppic oak forests and Pannonic sand steppes are located wedged between extensive adventive tree plantations, whose alien species are constantly dispersing into the natural habitat types. The spread of Robinia pseudoacacia and Prunus serotina is very intensive while it is of moderate degree in the case of Ailanthus altissima and Pinus spp. In this respect, Asclepias syriaca is a rather dangerous adventive herbaceous species.

Problems of natural forest regeneration caused by decrease in ground water level or/and excess in game stock

Presently few years old oak individuals don't occur within the Euro-siberian steppic oak forests, despite those fact that following the years of sufficient nut production usually numerous seedlings appear on the site. In the opinion of the forest managers this phenomenon is a direct consequence of the decline in water supply caused by water regulation carried out in the past 80 years. (Due to the construction of channels and river regulation, in Danube-Tisza Interfluve area the ground water table decreased with an average 2-3 m.) This unfavourable change in the environmental conditions can't be solved on the local level, therefore until the problem is not addressed on the regional level, the decreased ground water level has to be considered as an altered environmental factor.

However, as a result of the excess in game stock, rooting and gnawing can be often observed on the site, which can also reach the extent when these impede the natural regeneration processes. In 2000-2001, Duna-Ipoly National Park Directorate fenced off an

area of 20x20 m. Currently inside this square there is a few oak individuals of 1,5-2 m height already present.

This fact refers to that the decrease of ground water level did not account alone for the elimination of the natural forest regeneration processes, at the most it influences the reduction of its extent. Objective research on natural forest regeneration processes of the steppic oak forests has not been carried out in a larger scale so far.

Forest management activities

For the time being, forest management activities approved by the forestry authority are of intensive technology based on clear cutting and complete soil preparation in the whole forest block of Nagykőrös, consequently in the habitats of community importance as well. In patches of steppic oak forests even a shift to different, more gentle forest management methods (e.g. Pro Silva method, selection system) is impossible without damaging the natural habitats as

a) approaching any wood harms the precious herb layer homing several species under protection

b) the effect of the decrease in ground water level on natural forest regeneration processes in the habitat hasn't been clarified yet, but it is probable that the habitat is shifting towards a more open form characterized by lower forest cover, in which using even selection system would easily lead to the total disappearance of the forest patches.

Certainly, owing to the forestry management activities, sandy grasslands wedged between the steppic oak forests are also endangered as even in their area artificial forest regeneration is performed.

As the owners of the forest compartments intend to utilize the project area for forest and game management, any implementation of conservational management tasks needed for the protection of the site or restriction on forestry management can be carried out exclusively on the basis of agreements concluded by the owner together with providing compensation (at least partly) of his lost benefits. Restrictions alone are not sufficient to achieve the conservational aim, owing to the fact that resulting from supposed or legal owner interests illegal or enduring damage can emerge. To avoid this, the only appropriate solution is the cooperation with the owners on the voluntary basis.

Fragmentation

As a result of intensive forest management activities, in the past decades in large areas white locust, black and Scotch pine as well as hybrid poplar plantations were settled following complete soil preparation. These intensive and adventive plantations gradually divided and changed the steppic oak forests, which are currently present in small, heavily fragmented parts, isolated from each other. Due to their small size, in the remained natural habitat patches the invasion of adventive species is remarkable.

Ignorance of society, lack of information

Although the surrounding area of town Nagykőrös possesses outstanding natural values, this special status is not well-known among the inhabitants and local interested groups.

Owing to this fact, although in the past years (prior to the designation of Natura 2000 network) clear cutting of steppic oak forests were still implemented it were not followed by debates or request of reporting in public life despite the scientific plenum signed the need of

conservation of the area. For the time being, conservation of the steppic oak forests of Nagykőrös is not supported even by localpatriot emotions and inhabitants rather feel with the forest managers, who are facing with restrictions in their work.

To implement the long-term conservation of the area, development of environmental education, environmental thinking of children as well as students is inevitably important. In Nagykőrös, currently there is no environmental educational program being performed.

The importance of the presentation of the natural values and their conservation is highlighted by establishing Natura 2000 network announced in 2004. Connected to this, a larger segment of Hungarian society fears from restrictions on Natura 2000 areas than finds it attractive. If it becomes obvious that Natura 2000 sites provide services accessible to everyone and attractions for settlements, a better acceptance of Natura 2000 network and strengthening liability towards the conservation of the natural values of the European Union as well as Hungary develops.

The significance of the conservation of steppic oak forests exclusively stressed by botanists, special staff working in conservation and foresters of modern thinking, but this level of communication is not able to reach the broader levels of society. To promote social liability, natural values and their significance should be mediated through comprehensible and varied manners (brochures, web page, interactive services and programmes). To achieve this goal, the establishment of the infrastructural background is essential as well (nature trail, information boards, educational centre).

Project objective

Reconstruction of the favourable conservational status of Euro-Siberian steppic woods and Pannonic sand steppes priority habitats and its long-term maintenance.

Active conservational management, transformation of forest management practices and raising social liability.

To achieve the reconstruction of the favourable conservational status, the elimination of the adventive species and the transformation of invasive plantations is implemented.

The conflicts with forest managers are solved by self-imposed agreements concluded with the owners on the voluntary basis.

For the enhancement of social liability a broad campaign and complex environmental educational service is set off.

For the utilisation of the results achieved and experiences gained the conservational management plan of the Natura 2000 site is elaborated.

5. Technical implementation of project actions by 31.12.2011

Below, there is basic information for each action that describes expected and actual results of the project, discrepancies compared to project proposal and how the action was implemented. The referred Annexes of previous reports are attached to the present Final Report in digital format on DVD.

Expected results: refer to results foreseen in the project proposal

Achievements: summarize the achievements reached by the end of the project, i.e. the final achievements within the framework of the present Project, but not necessarily ultimate achievements within a framework of the site conservation strategies.

Action status: describes status of the action – i.e. the extent to which the individual action was implemented within the Project span.

Modification of the activity against the plan: describes necessary major adjustments/modification of the action compared to the project proposal.

Planned completion date: refers to completion date in accordance with time-table in the Project proposal.

Actual completion date: refers to actual completion date.

Reasons for delay: explains reasons for discrepancy between planned and actual completion dates.

Description: describes how the Action was implemented.

Annexes: enumerates all the Annexes reported during the project implementation.

A1 - Establishment of the project system

Expected results:

- official leaders and stakeholders are informed on the project
- personnel is recruited
- local office is rented
- necessary equipment is purchased
- Advisory Board is set
- a full-colour brochure introducing the project in Hungarian and English languages, in 10000 copies,
- 2 information boards

Achievements:

- official leaders and stakeholders are informed on the project
- personnel was recruited (ranger, educational coordinator)
- local office was rented (Nagykőrös, Kálvin square 6. for nearly the entire project span)

- necessary equipment was purchased (4 WD car, 2 laptops, 2 GPS, 1 digital photo camera, chain saw, clearing saw, desktop PC)
- Advisory Board was set
- a full-colour brochure introducing the project in Hungarian and English languages, in 10000 copies was issued and 3000 copies re-issued
- 2 information boards were erected and continuously maintained

Action status: completed

Modification of the activity against the plan:

Purchasing a chain saw, a clearing string saw, desktop PC and multifunctional printer was not foreseen in the proposal and was not authorised by the Commission in advance either. Consequently, the Commission considers the costs of these items only 50 % eligible, and asked to justify their utilization for the project implementation in the present Final Report (Commission's correspondence 09.06.2010).

Planned completion date: 21.12.2006

Actual completion date: proposed tasks: 30.03.2007; purchase of items not foreseen: 31.08.2009

Reasons for delay:

Staff recruitment and set of Advisory board was on time, while the purchase of the equipment, Partnership Agreement, office rent, information boards and project brochure were delayed. In its correspondence (12.06.2007) on the mission of the Extranal Monitoring Team (25.04.2007) the Commission was satisfied with the completed status of this action.

Items not foreseen in the proposal became necessary after the construction of the fences in 2009 and during the continuous project management.

Description:

There were three organizations cooperating in HUNSTEPPICOAKS project. Firstly, the leaders of the partners were officially informed about the fact that the European Commission supports the project. The kick-off meeting of the project with the project participants was held 05.10.2006 in DINPD central office. Here, the project was presented (by Katalin Sipos and Zsolt Baranyai, DINPD staff) and the detailed operative rules of the cooperation were discussed (draft Partnership Agreement) as well as essential documentation of project implementation (final version, financial handbook, etc.) was given to the partners. For the list of participants and minutes of the occasion, see **Annex PR1 A1-1**. The final version of the Partnership Agreement determining the operative rules of cooperation was signed trilaterally on 31.01.2007 (a copy of this document was sent to the Commission on 02.05.2007).

The new project personnel indicated in the proposal (ranger: Mr. István Justin, educational coordinator: Ms. Beáta Papp) was recruited on 16.10.2006. For their official task descriptions, see **Annex PR1 A1-2**. Ms. Papp was replaced by Ms. Mária Sápi as environmental educator on 13.01.2009. As proposed, NKÖ took over the environmental education programs on 01.11.2009. Out of project budget, Ms. Sápi continued the leadership of the Educational Centre as an employee of the company KöVa subcontracted by NKÖ for the operation of the Centre. Mr. Justin was replaced by Mr. Dénes Dobrosi as field coordinator on 01.01.2010. Emerging technological and administrative problems regarding the launched forestations (see Action C2, D2) made it necessary to employ a forest

engineer. After Mr. Dobrosi got a higher position job, Mr. Tibor Vincze, DINPD ranger in the area became responsible for the field coordination of the project between 01.04.2011 and 30.06.2011. As Mr. Vincze had opportunity to ignore his basic tasks in the region for a limited time only, we were searching a new field coordinator. However, in the closing year of the project, it was difficult to find a qualified employee for a limited span. Finally, Mr. Ferenc Mező took over this responsibility and was employed until the end of last sapling supplement period (31.03.2012).

We have been renting a local office in Nagykőrös since 01.03.2007. Originally, we aimed to rent a furnished office near the town centre or the project site, which is easy to access for locals. However, as Nagykőrös is a small town with restricted possibilities in this respect, finally we found a suitable building (which is situated at the market place, within easy reach of everyone), but we had to modestly furnish it, partly charged to the project. This office was approx. 80 m^2. It included a bureau, where our ranger and educational coordinator used to work and the meetings were held. This office was part of the so-called national Green Point Network, where people could get information on the project itself or on other conservational, environmental issues as well as take brochures on these topics free of charge. The office contained a small room suitable for overnight stays for the personnel or researchers spending a longer period in the project area. For photos on the office see **Annex PR1 A1-3/a-d.**

After the proposed closing date of the project on 31.08.2011 the rent contract of the office was terminated and a smaller and cheaper one was found. The new office was financed out of project budget, as its primary function was not the management of HUNSTEPPICOAKS project any more. Although conflicts emerged with the owner and DINPD had to leave the office in December 2012, continuous DINPD presence in Nagykőrös is ensured in the After-LIFE period as well, because finally DINPD rented an office from KöVa, operator of Pálfája Educational Centre (see After-LIFE Conservation Plan).

Necessary equipment for the project was purchased by 30.03.2007. The 4 WD car (Ford Ranger, see photo in **Annex PR1 A1-4**), 1 laptop, 2 GPS, 1 digital photo camera were used by the ranger and educational coordinator of DINPD and 1 laptop is by the project personnel of WWF.

The equipment above was supplemented in 2009 by a desktop PC and a multifunctional device (printer, scanner, photocopy machine, fax). Prior was necessary to get able to use ArcGIS software, which has high system requirements. By purchasing the multifunctional device we got able to reduce the time consuming out-of-office faxing and photocopying, which became more frequent after the start of C and D Actions. Complex management actions and tendering procedures of post-treatments required as much local administration as possible by the field coordinator instead of using DINPD main office. Daily control of management actions did not let the field coordinator frequently leave the project site for administrative work in Budapest.

We also purchased a chain saw and a clearing string saw with the necessary safety and maintaining accessories. These tools were mainly used by the field staff for the maintenance of fences (cutting of fallen trees on the fences, mowing of track of electric fences), after we realised that it is a more cost efficient way, than subcontracting it. Maintenance needs of the wire fences mainly occur suddenly, usually after storms, when some trees might fall on the fence. After such an event, the fences are opened and permeable for the game, so it is crucial to repair it as soon as possible. In the present administrative circumstances, contracting such a work needs much more time than favourable. DINPD own staff is able to solve such problems with the chain saw purchased. The maintenance need of the electric fences are more predictable, but quite uneven among the different locations. Comparing the

administrative difficulties to the volume of this task, implementation by DINPD own staff is much more adaptive.

For photos on these equipments, see **Annex PR2 A1-2/1-2.**

Although the need of these equipments is justified above, necessary correspondence with the Commission was missed. Consequently, only 50 % of the relating expenditures are eligible.

The Advisory Board (which consists of the members of DINPD National Park Council) was asked for the task of the scientific coordination of the project on 20.11.2006. On 16.02.2007., the Council accepted the request and Prof. Dr. Gábor Fekete (academic, ecologist and expert of the steppe oaks) was appointed leader of the Steppe Oaks Advisory Board (for these documents see **Annex PR1 A1-5/a-b)**. The foundation meeting was held in our local office on 08.05.2007, where the project was introduced to the members through a presentation (for the memorandum and photo of the occasion see **Annex PR1 A1-6/a, A1-6/b** and list of presentations in **Annex PR 1 G and G/a**). As on the same date the first press conference and trip were also held, the members of the Advisory Board participated in these.

The project introductory brochures were edited by 14.03.2007 and 9000 copies were printed in Hungarian, 1000 copies in English (for the final version of the brochure see **Annex PR1 A1-7/a-b**, and also **Annex PR1 A2-3**, **one Hungarian and English brochure was attached to the PR1**). The state authorities as MEW, SFS, local stakeholders (forest owners, managers, forestry company, educational institutions, etc.) were also sent brochures for their information. For the final brochure distribution list of Partners see **Annex FR A1-1**. As we had savings in this budget and the brochure is popular, it was re-issued in 3000 copies in 2009.

Two boards were erected providing information on HUNSTEPPICOAKS project. On the two sides of each board, in Hungarian and in English, the short description of the project and information on LIFE-Nature and Natura 2000 can be read (see final versions of the texts in **Annex PR1 A1-9/a-b**). One of the boards is located at the market place, which is near town centre and locals visit the place in high numbers (apparently, it is in the neighbourhood of our former office, see photo in **Annex PR1 A1-10/a**). The other board is erected on the corner of the Pálfája forest, where the Pálfája Educational Centre is located (see photo in **Annex PR1 A1-10/b**). The photos were taken on the inauguration of the boards, on 22.03.2007, with the participation of project members.

Annexes:

PR1 A1-1: Memorandum and list of participants of project launch workshop
PR1 A1-2: Task descriptions of recruited project personnel
PR1 A1-3/a: Photo on office building
PR1 A1-3/b: Photo on Green Point Office
PR1 A1-3/c: Photo on bureau before furnishing
PR1 A1-3/d: Photo on bureau after furnishing
PR1 A1-4: Photo on 4 WD car of the project
PR1 A1-5/a: Request towards National Park Council
PR1 A1-5/b: National Park Council accepts the ask to form Steppe Oak Advisory Board
PR1 A1-6/a-b: Memorandum and photo of foundation meeting of Steppe Oak Advisory Board
PR1 A1-7/a: Project launch brochure 'Life on sand' (Hungarian)
PR1 A1-7/b: Project launch brochure 'Life on sand' (English)
PR1 A1-9/a-b: Texts of information boards in Hungarian and English
PR1 A1-10/a-b: Photos on the inauguration of the information boards
PR1 A2-3: Photo on promotional materials
PR1 G/a: Presentation on foundation meeting of Steppe Oak Advisory Board
MTR A1-1: Distribution of project launch brochure

PR2 A1-2/1-2: Photos on equipment purchased in 2009 (chain saw, clearing string saw, desktop PC, office machine)
PR2 A1-1: Distribution of project launch brochure
PR3 A1-1: Distribution of project launch brochure
FR A1-1: Distribution of project launch brochure
Project launch brochures (Hungarian and English) were attached to PR1

A2 - Brand design of the project

Expected results:

- identifiable and distinctive project logo and graphical elements that make up an easy-to-understand, nice and consistent brand design
- different types of promotion objects in altogether 3000-3500 pieces

Achievements:

- project logo was designed and it is in use
- graphical elements that make up an easy-to-understand, nice and consistent brand design were elaborated and used to create the project website, the information brochure and the promotional material
- different types of promotion objects decorated with the logo of the LIFE programme and with that of the project were obtained: 700 pcs of pens, 700 pcs of textile bags, 700 pcs of folders, 1000 pcs of fridge magnets and 10,000 pcs of colour stickers

Action status: completed

Modification of the activity against the plan: N/A

Planned completion date: 31.12.2006

Actual completion date: 28.09.2007

Reasons for delay:

Most of the items were delivered by 30.04.2007. Paper folders were delayed for out of project reasons (see below), those were deliveres on 28.09.2007. In its correspondence (12.06.2007) on the mission of the Extranal Monitoring Team (25.04.2007) the Commission was satisfied with the completed status of this action.

Description:

WWF Hungary implemented the creation of the project brand in cooperation with the Partners. To define the unified message of the logo and design as well as harmonize the styles required for different uses and target groups (e.g. professionals, general public, children) a personal meeting was organized with the participation of the communication staff of WWF and DINPD on 28.11.2006.

Three professional graphic designers were contracted to create and present on drafts different ideas for the possible project logo and the graphical elements for the brand design. We evaluated the received drafts involving the project partners and then the author of the

best proposal received the contract for the elaboration of the selected draft with graphic elements for different uses.

However, another proposal for the digital design elements was also rewarded and used as a basis for the project website design.

The final logo package was elaborated and delivered by 27.02.2007. Final version of the logo was attached to the PR1 (**Annex PR1 A2-1**).

The defined budget for promotional material allowed us to obtain 3100 promotional objects of higher value and 10000 colour stickers. The promotional materials were delivered by 30.04.2007, with the exception of the paper folder. The producer firm of this object, which had given us the best offer, later faced serious business problems and could not produce the objects. We had to contract another company, which finally delivered the folders by 28.09.2007.

In spring 2009, we issued 120 T-shirts with the project logo, Partner logos, LIFE and Natura 2000 logos on it. **A piece of T-shirt is attached to present Final Report**.

The acquisition of a wide range of objects made possible to use them for several purposes, such us events and interactive on-line activities for the general public, representation activities of the project, involving experts, partners, stakeholders and decision-makers. The promotional material was used by all members of the partnership, however WWF Hungary was coordinating its distribution. The final status matrix of distribution is attached in **Annex FR A2-1.**

The logo of the LIFE programme and that of the project appear on all promotional objects. On larger objects the logo of the Natura 2000 network and that of all project participants and co-financers, together with the URL of the project website also appear. Photo of the promotional objects is in **Annex PR1 A2-3. An item of pen, textile bag, folder, fridge magnet and colour sticker was attached to the PR1.**

Annexes:

PR1 A2-1: Logo of the project
PR1 A2-3: Photo on promotional materials
MTR A2-1: Distribution list of promotional materials
PR2 A2-1: Distribution list of promotional materials
PR3 A2-1: Distribution list of promotional materials
FR A2-1: Distribution list of promotional materials
A textile bag, pen, sticker, magnet, folder were attached to PR1
A T-shirt is attached to the present Final Report

A3 - Preparation of the reconstruction of the buildings

Expected results:

- authorised reconstruction plan for the buildings of 'Pálfája' forest, which meets the environmental educational requirements both in appearance and function.

Achievements:

- authorised reconstruction plan for the buildings and their surroundings in 'Pálfája' forest, which meets the environmental educational requirements both in appearance and function.

Action status: completed

Modification of the activity against the plan: N/A

Planned completion date: 31.03.2007

Actual completion date: 20.12.2007

Reasons for delay:

Although this Action was delayed, it was nearly completely covered in the subsequent Action C4, as it was implemented only with a month delay.

Description:

For drafting the reconstruction plans for the main building, outbuilding and the surrounding area of planned Pálfája Educational Centre, former existing plans for the reconstruction for public welfare purposes (submitted also in the appendix of the project proposal) created a good base. NKÖ, DINPD and occasionally WWF participated at the meetings concerning the planning period of the reconstruction (in office and field e.g. on 22.03.2007.), see photos in **Annex PR1 A3-1/a-b**.

The drafts were designed for a medium-scale renovation. To comply with environmental educational needs, new plans were drafted by a designer charged by NKÖ, which included the solar collectors and the possibility for selective garbage collecting, composting, removal of concrete paving from the courtyard, etc. The plans contained, that buildings would be also accessible for disabled visitors with the help of ramps and special washroom. The plan included the following rooms: main building: warming-up kitchen, employing hall, washrooms (for washing hands only), institutor's room; outbuildings: toilets for women and men, semi open-air showers. For the plans see **Annex PR1 A3-2/a-b, copies of plans are attached to the PR1**. The planned arrangement of the surroundings can be studied on the function map of the garden, which can be found in **Annex PR1 A3-2/c**). The authorisation of the agreed plans was the task of the NKÖ (as owner, property manager of the site).

The public tendering procedure was organised by NKÖ. DINPD, as beneficiary charged an external public tendering consulting company to supervise the whole process of the procedure. (This is compulsory according to the public tendering rules when EU support is used in a certain project. Its cost was not foreseen during the compilation of the procedure.) The date of the call for tender was 28.09.2007., the date of the compilation of the summary on the procedure was 10.12.2007. In the call the following elements were included (for the detailed list see the official summary of the public tendering procedure, in **Annex PR1 A3-3**):

- strengthening on the statistics of the main building (201 m^2)
- architectural works on the main building (e.g. development of a new roof, isolation)
- building in new sanitary ware into side-buildings (toilets 40 m^2, 8 showers);
- inner and outer electric works in the main and side buildings

- mechanical works in the main and side buildings as well as in the garden (water system, solar collectors, etc.)

- arranging in the garden (e.g. entrance and side gate, fence, bicycle storage, table, bench) and in Pálfája forest compartment (see-saw, swing, tables, benches, etc.)

The procedure was valid, however, a problem arose: the 3 bid offers received were all above the amount foreseen in the proposal to a high extent (The lowest bit offer was net 29 149 555 HUF, which equals 115 034 EUR, with the exchange rate of 03.12.2007.). Finally, the next meeting of NKÖ board of representatives set this problem in the agenda and on 22.11.2007 this institution accepted that the remaining net 9 599 555 HUF will be given by NKÖ's own budget for the reconstruction works (not as part of the project expenses). In addition, according to Commission's correspondence a part of this amount of extra cost can be replaced in NKÖ's own contribution. (For the decision of the board see **Annex PR1 A3-4**.) Thus, the contracting date with the winning company was 20.12.2007. Reconstruction works (thus Action C4) launched at the beginning of January 2008. The inauguration of the furnished educational complex and its surroundings, together with the Nature Trail was on 05.06.2008 (see Action C4, E1, E7).

Annexes:

PR1 A3-1/a: Photo on office meeting discussing the draft plans of educational complex
PR1 A3-1/b: Photo on field visit discussing on the future educational complex
PR1 A3-2/a: Plan of the main building of the educational centre
PR1 A3-2/b: Plan of the outbuilding of the educational centre
PR1 A3-2/c: Plan of the surroundings of the educational centre
PR1 A3-3: Summary of the public tendering procedure of the educational complex
PR1 A3-4: Decision of the Board of Representatives of Nagykőrös
A complete draft plan of the educational centre was attached to PR1

A4 - Preparation of the conservational management actions

Expected results:

The results of the preparation and authorisation of modified forest management plans are the following:

- the fragments of priority habitat types get the primarily protection function instead of a primarily economic function
- the preconditions for the nature conservational management actions are established in accordance with the actual forestry management plan
- on the basis of fieldwork the preparation of detailed contracts and public tendering is finished

Achievements:

146 ha forest got the primary function of 'soil protection forest'

Strázsa-hegy forest (28 ha) with unclarified ownership was purchased

In 2010, nationwide revision of management plans was taken place on case of Natura 2000 forest without national protection

7 ha forest became 'opening forest' in forestry register in the After-LIFE period

Nature conservational management actions and LIFE program itself got integrated into the 10-years forest management plans

Management actions were tendered and contracted

Action status: completed

Modification of the activity against the plan:

The project target site was modified; replacement of sites was necessary, the overall area remained the same

The project target site was only partly passed to the soil protection forest category.

Pálfája and Strázsa-hegy forests were out of the first, large volume tendering procedures

Costs of obligatory public tendering company were not foreseen

Planned completion date: 31.03.2007

Actual completion date:

forestry management planning: 24.07.2007

public tendering of first, large volume tasks: 22.12.2008

Reasons for delay:

Contracts on 90 years long leasing of 175 ha private property forest were delayed (see Action B1). Public tendering could be launched only after these contracts were signed. During the procedures, further obstacles emerged: lack of sufficient quality bids in proper number and overpriced bids were provided in some cases.

Further procurement procedures in 2010 and 2011 were in line with the planned actions

Description:

Summary:

In general, forestry legislation has been designed an operated in order to optimise timber production in forested areas for centuries. In recent decades, more and more emphasis have been put on conservational and other utilities of forests. Legislation gradually follows these requirements, however, proper management of sandy forest-steppe vegetation still provides several potential conflicts in this respect. Below significant results achieved in HUNSTEPPICOAKS project are summarised. Below the summary, detailed activities are described.

At the time launching the project, 10-years forestry management plans were under construction. Harvest of invasive tree species were integrated into the plans, and the LIFE project was mentioned in the 'Comments' part of the plan, together with a short description of the management actions. In case of 146 ha forest, the economic primary function was modified to soil protection function. SFS decision was based on the production capacity of the sites in question: under a certain capacity, SFS let the primary function modified. This achievement was important for the following reason: the canopy cover of such forests might

decrease to 30 % without SFS obligation of artificial regeneration. In economic forests this threshold is 70 %. Opening canopy with grassland patches are basic elements of forest-steppe, so it is inevitable to be accepted by SFS. In case of artificial forest regeneration, excepted sapling density is lower as well in sites with soil protection function.

In 2009, a new legislation of forestry came into force in Hungary (Law No. XXXVII./2009). In accordance with European tendencies, conservational aspects got more emphasised. In respect of project site, two main achievements are as follows:

- compulsory revision of forestry management plans in case of forests which belong to the Natura 2000 network but are without national protection

- introducing the term “opening forest”

Further legislative achievements are like “Natura 2000 forest” as one of the protective functions. Regrettably, as there is no further regulation of what this function means in respect of forestry management, potential conservational advantages of this aim are not clear at present. According to SFS verbal communication, Natura 2000 protection function will be registered into the plans when the next 10-year management plans come into force. In respect of the project area, this will happen in 2016.

During the process of revision the forest management plans of all Natura 2000 forest compartments affected by any kind of timber harvest within the term of operative forest management plans was negotiated by SFS and National Park Directorates countrywide. Although in respect of ‘Nagykőrösi pusztai tölgyesek’ pSCI most of DINPD suggestions have been integrated into the management plans, disagreements also have emerged, for example in case of harvest of Nagykőrös 137A forest compartment. In general, DINPD suggestions focused on limited harvest of native timber and forestations with native species.

Term ‘opening forest’ was designed in particular to help SFS to handle forest-steppe vegetation. It is not one of the potential functions or aims of forest compartments. Similarly to the soil protection function, this character let the canopy cover decrease to a lower level (30 %) without the obligation of artificial forest regeneration. In opening forests under artificial forest regeneration, less demand is made by SFS in respect of sapling density.

In spite of several positive elements of the new legislation, lower level legislation on the detailed application (regulatory decrees) were issued with delay or not issued at all to date. In case of opening forests, the following factors obstacle the quick and extensive application:

- *unclear regulation:* hints on opening forests and it’s application are hiding in lower level regulations. SFS is not proactive in helping conservation bodies to have all the necessary regulation at hand. Subsequent SFS decrees on refusal of requests inform us on the relating regulations, while significant time is consumed (**Annex FR A4-1**).

- *level of naturalness*: forestry law describes the naturalness categories of forests. The main aspect of this system is the proportion of introduced and highly invasive tree species in the whole forest. Only forests above a certain naturalness level are allowed to be an opening forest (this rule is against the over-harvest of clearly economic forests of introduced species by using this tool). When an introduced plantation is harvested and replanted with native species, the naturalness (in the forestry register) changes only after the first successful plantation of the native species. First successful plantation means: planted saplings survive the first vegetation period with a certain – high - rate. Only after this can a forest be changed into an opening forest.

- *detailed site survey of the production site of a potential opening forest is obligatory*: this survey is expensive, so in the extent of the project site it might reach 10 000 – 15 000 €. Besides the costs, DINPD is committed to have all these surveys in the After-LIFE period in order to put as many as possible forest compartments into the opening forest category.

Besides the above difficulties, first opening forest compartments are registered (Nagykőrös 98 B, D, E **Annex FR A4-2**). Further initiatives to register forest compartments as opening forests shall follow the observation of the production site. (see AfterLIFE plan)

Tendering and contracting of management actions were possible after the compilation of the forestry management plans and the land-leasing contracts (see Action B1). The initial, intensive management and the first post-treatment were tendered and contracted together in 2008. For 2010 and 2011, yearly contracts were bond.

Details of this Action

1. Forestry management planning

The compilation of the subsequent forestry management plans of the project area was due in 2006-2007. As it was not a modification of valid plans but compilations of new ones (valid for the next 10 years up to 2016), after discussing with the forest managers DINPD itself could negotiate with SFS, competent forestry authority. (It was not the forest manager, who should have applied for the modifications of the plans, as it was foreseen in the project proposal.)

Preliminary talks with forest managers and SFS took place during the preparation of project proposal. Negotiations on the forestry management plans of the supported project launched at the beginning of October, 2006. After presenting the main guidelines, on the subsequent occasions (initiated usually by SFS) SFS representatives and DINPD staff visited each forest compartment in the project site, which took turn with office meetings. The list of the meetings in the above topic is the following:

Date	Place	Topic	Participants
06.10.2006.	Nagykőrös (office)	discussion on the content of forest management plans	representatives of SFS, Zsolt Baranyai (DINPD)
24.10.2006.	Nagykőrös (field)	visit on forest compartments, discussing the content of forest management plans	representatives of SFS, Zsolt Baranyai, István Justin (DINPD)
25.10.2006.	Nagykőrös (field)	visit on forest compartments, discussing the content of forest management plans	representatives of SFS, Zsolt Baranyai, István Justin (DINPD)
26.10.2006.	Nagykőrös (field)	visit on forest compartments, discussing the content of forest	representatives of SFS, Zsolt Baranyai, István Justin (DINPD)

Date	Place	Topic	Participants
		management plans	
08.11.2006.	Pusztavacs (office)	discussion on forest management plan content of each forest compartment	representatives of SFS, Zsolt Baranyai, István Justin (DINPD)
09.11.2006.	Pusztavacs (office)	discussion on forest management plan content of each forest compartment	representatives of SFS, Zsolt Baranyai, István Justin (DINPD)
13.11.2006.	Cegléd (office)	discussion on forest management plan content of each forest compartment	representatives of SFS, Zsolt Baranyai, István Justin (DINPD)
20.11.2006.	Cegléd (office)	discussion on forest management plan content of each forest compartment	representatives of SFS, Zsolt Baranyai, István Justin (DINPD)
11.12.2006.	Cegléd (office)	discussion on forest management plan content of each forest compartment	representatives of SFS, Zsolt Baranyai, István Justin (DINPD)
24.01.2007.	Nagykőrös (field)	reconciliation with forest management plan content of each forest compartment	forest managers, Zsolt Baranyai, István Justin (DINPD)
19.02.2007.	Nagykőrös (field)	taking soil samples from 115 C forest compartment	István Nagy, István Justin (DINPD)
09.03.2007.	Nagykőrös (office)	discussion on the draft forest management plans	representatives of SFS, Zsolt Baranyai (DINPD)
04.07.2007.	Nagykőrös (office)	reconciliation with NEFAG	representatives of NEFAG, Zsolt Baranyai, István Justin (DINPD)
11.07.2007.	Nagykőrös (office)	discussion on the draft forest management plans	representatives of SFS, Zsolt Baranyai (DINPD)
24.07.2007.	Pusztavacs (office)	closing session on forest management plans	representatives of SFS, István Justin (DINPD)

The detailed fieldwork with the authority guaranteed that conservational management works (elimination of invasive species and forest transformation) foreseen in the proposal would be authorized to implement in each forest compartment.

SFS also slightly altered the boundaries and numbering of forest compartments during the compilation phase, for changes see map in **Annex PR1 A4-1/a-b**.

SFS is also the soil protection authority in the project area. As a part of the compilation of the forestry management plans, the 'principal aim or function' was foreseen to change from 'forest for wood production' to 'forest for soil protection'. (This latter expression means that because of unfavourable site conditions, the cover can decrease to 30 % without reforestation liability, as even this low canopy cover can prevent deflation of sandy soil). SFS agreed with the change of the category in the cases of open steppe oak forests forming mosaics with sandy grassland patches, however, in compartments with more closed forest stands, the change was rejected. For this reason in these areas the canopy cover can decrease only to 70 %.

However, the fencing off in these compartments can bring substantial changes on the regeneration conditions (it is presumably strongly supported if the game population is eliminated) and the 70% cover may be reached. If the natural processes head for the opening of the forests here, thus the decrease of the 70% cover, DINPD will initiate reconciliations with the SFS for the modification of the 'principal aim' of even these compartments and to put them into the opening forest category (via the modification of forestry management plans.) For the map of forest aim categories see the map in **Annex PR1 A4-2.**

On Commission's request (25.02.2008) of clarifying the issues on the classification of forest stands described above, we have to underline the following facts. Solely the level of canopy closure accepted by SFS without obligation of aforestation is the distinctive character of 'forest for soil protection' and 'forest with economic aim'. Presence or absence of primacy of conservation issues is independent of the above status of forests. Opportunity of conservational management on a particular site does not depend on the state of it according to the categories in question, but on conservation status (pSCI or not, protected or not) and agreements with owners/managers. Since the classification of SFS is rigid and usually does not include special cases for conservation aspects, denominations of these categories are misleading. Similarly, the removal of woody invasives within the frame of present project - for want of better - was authorized by SFS as 'sanitary harvest', which term is otherwise used for removal of unhealthy tree individuals.

Following Commission's request, we present the table below indicating the present spread of project areas with different SFS categories.

	Forest for soil protection (ha)	Forest with economic aim (ha)	Others (cleaning, slit, ploughland) (ha)
Leased land	94	76	5
NEFAG land	50	80	3
Erdő Bt. Land	2	15	-
Faith-Wood Kft.	-	6	-

Besides the above lands, the target site contains 'Pálfája' (forest for public welfare, 60 ha) and 'Strázsa-hegy' (protected forest, 28 ha).

For Commission's request (11.05.2009) on the issue of principal aim of certain forest compartments, we report that according to Hungarian legislation of forest management, the 10-year forest management plan of a certain compartment provides the basis of any management activity. Elaboration of management plans of compartments involved in our project were done by SFS in cooperation with DINPD, as conservation manager of the pSCI. Management plans involve not only the concrete conservation management we proposed, but the LIFE contribution itself is appointed in them.

At present, state of artificial forest regeneration sites (see Action C2-D2) forces us to pass further forest compartments into soil protection forest or opening forest categories, in order to decrease the legal pressure on the density of sapling in afforested sites. For details of regarding problems, see Action C2-D2.

In the case of a certain forest compartment, 115 C (leased), soil samples were taken (as an additional cost not foreseen for this action) to justify the supposition that the soil conditions of this compartment do not enable the regeneration of forests at all. The survey proved that there is a soil layer (below 50 cm depth), which contains hydrocarbonate in a high concentration. Here, owing to the fact that the roots of seedlings spread in this layer and they cannot reach the water table as well as in the region generally there is precipitation shortage, successful regeneration is impossible to achieve.

For an example of a newly compiled forestry management plan see **Annex PR1 A4-3.**

The fence building was also negotiated with the authority. It forms part of another authorisation procedure, initiated by DINPD, as conservational manager of Natura 2000 sites. The permission is given in every case as the purpose of fence is game exclusion. The SFS adjudicated to permit on 26.08.2008 (**Annex MTR A4-1**).

The owners consented to the execution of conservation management works in the overwhelming majority of the planned areas. However, they insisted on the construction of temporary fences in the forest reconstruction areas, due to the excessive game population (which is underpinned also by the results of game monitoring of 2007, see on **Annex PR1 F2-7 on CD**). For this reason the mobile electric fences and game repellents are changed for fences with presumably higher expenses (which are to be classified to infrastructure costs).

2. Public tendering of management actions

a) First, large volume activities, 2008-2009

DINPD reserved other field days for the compilation of the detailed content of the technical documentation for the public tendering procedure, which practically meant visits and estimations on each forest compartments. The list of field trips as follows:

Date	Place	Topic	Participants
31.10.2006.	Nagykőrös (field)	visit on forest compartments, discussing the content of the data forms	István Justin, Zsolt Baranyai (DINPD)
02.11.2006.	Nagykőrös (field)	visit on forest compartments, discussing the content of the data	István Justin, Zsolt Baranyai (DINPD)

Date	Place	Topic	Participants
		forms	
23.01.2007.	Nagykőrös (field)	detailed estimations in each forest compartments on the basis of data forms	Zsolt Baranyai (DINPD)
08.02.2007.	Nagykőrös (field)	detailed estimations in each forest compartments on the basis of data forms	István Justin, Zsolt Baranyai (DINPD), László Gálhidy (WWF)
14.02.2007.	Nagykőrös (field)	detailed estimations in each forest compartments on the basis of data forms	István Justin, Zsolt Baranyai (DINPD)
21.02.2007.	Budapest (office)	preliminary discussion on public tendering	Katalin Sipos, Zsolt Baranyai (DINPD)
06.03.2007.	Nagykőrös (field)	detailed estimations in each forest compartments on the basis of data forms	István Justin, Zsolt Baranyai (DINPD)
07.03.2007.	Nagykőrös (field)	detailed estimations in each forest compartments on the basis of data forms	István Justin (DINPD)
10.04.2007.	Nagykőrös (field)	detailed estimations in each forest compartments on the basis of data forms	István Justin, István Nagy (DINPD)
12.04.2007.	Nagykőrös (field)	detailed estimations in each forest compartments on the basis of data forms	István Justin (DINPD), László Gálhidy (WWF)
25.04.2007.	Nagykőrös (field)	detailed estimations in each forest compartments on the basis of data forms	István Justin (DINPD), László Gálhidy (WWF)
22.05.2007.	Nagykőrös (field)	detailed estimations in each forest compartments on the basis of data forms	István Justin, Zsolt Baranyai (DINPD)
14.08.2007.	Nagykőrös (field)	detailed estimations in each forest	István Justin, Zsolt

Date	Place	Topic	Participants
		compartments on the basis of data forms	Baranyai (DINPD)

We organized a workshop and field program with the aim of exchange of experiences in invasive management between national parks and external scientists of the topic in Hungary. (Also representatives of LIFE-Nature projects were present.) For the minutes of the occasion and photo see **Annex PR1 A4-6/a-b**.

DINPD compiled a data sheet that contains all the relevant information for the technical material of the public tendering procedure by forest compartments (see an example in **Annex PR1 A4-4/a** and photo **PR1 A4-4/b**) and also technical descriptions. As a result of negotiations on forestry management plans, technical description became different at some points to that of the project proposal (for details see Action C1, C2, C3)

We hired an external public tendering company for the implementation of the whole tendering procedure, as it is compulsory in the case of EU project support according to the Hungarian regulations, Law on Public Tendering, which need was not foreseen during the compilation of the procedure (and has an additional cost). Certainly, the technical material for the procedure is provided by DINPD.

From the viewpoint of public tendering procedures Action C1-D1, C2-D2 and in case of some procedures (see below) C3 were managed together. The first, large volume of tendering involved the implementation of Actions above by the end of 2009. This included the initial management Actions (C1, C2, C3) and the first year of post-treatment Actions (D1, D2).

According to the negotiations with the consulting company, we had to separate min. two sessions of public tendering procedures, in which we have to use completely different types of procedures on the basis of the status of the forest compartments. In case of leased areas, we had right to initiate tendering procedure of open character, as this right of DINPD is recorded in the contract of restricted right of disposal (see Action B1), signed by the owner as well as the forest manager. In case of areas which are not subjects of lease, the Hungarian law on forests (both the former law and the one in force at present) gives the manager exclusive right for managing the area, which fact had to be taken into consideration when selecting the type of procedure. For this reason, these procedures were of inviting character, containing altogether two procedures (one by forest managers). Two of altogether four forest managers concerned in the project did not subscripted to forest restructuring on their compartments directly neighbouring leased areas (**Annex MTR A4-2/1-4**). Since these compartments contain no patches of habitats of community importance, we did not leased them, but thought of as potential buffer zones. Although in such a procedure there is a single tender, DINPD has right not to accept the bids in case the offer is significantly higher than experienced in procedures with competing tenders.

Altogether 5 procedures resulted in contract. For the summary of 5 procedures resulted in a contract, see **Annex MTR A4-3/1-5**

Procedure No. (generated for this report only)	1	2	3	4	5
Procedures which resulted in contract (please note: for D actions, procedures and contracts involve only the 1st year of post-treatment)	C1-D1 and C2-D2 on leased land (158 ha)	C1-D1, C2-D2 and C3 (8071 m fence) on un-leased land (133 ha) (forest manager: NEFAG)	C1-D1, C2-D2 and C3 (2250 m fence) on un-leased land (15 ha) (forest manager: Erdő Bt.)	C1-D1 and C2-D2 on leased (17 ha) and un-leased (6 ha) land, C3 (14666 m fence) on leased land (forest manager on un-leased land: Faith-Wood Kft.)	C3 (14685 m fence) on leased (14317 m) and un-leased (368 m) land (forest manager on un-leased: NEFAG)
type of procedure(s)	open invited	invited	invited	open	invited invited
result	open: none of the bidding documentations were valid invited: contract	contract	contract	contract only on : C1-D1 and C2-D2 on leased (17 ha) and un-leased (6 ha) land. Bids on fence construction were invalid or very high	1st invited: cancelled due to lack of enough bids 2nd invited: 2 contract for 2 sub-areas, with the same tender
date of launch	open: 27.12.2007 invited: 19.05.2008	23.06.2008	14.07.2008	03.07.2008	1st invited: 30.10.2008 2nd invited: 17.11.2008
date of contract	03.07.2008	31.07.2008	01.09.2008	24.09.2008	22.12.2008
start of implementation	01.09.2008	01.09.2008	01.09.2008	01.10.2008	01.01.2009
end of implementation	31.12.2009	31.12.2009	31.12.2009	31.12.2009	15.04.2009

In respect of the objects of different procedures, particularly in case of fence construction, the implementation of tendered activities is connected to each other for practical reasons. There are fences in which different sections are subjects of different public tendering procedure types. Thus, launch dates and deadlines of implementation were synchronized as far as possible.

For an overview of managers and leasing state on the target site, see **Annex MTR A4-8.** This might help to clarify the complex property and manager conditions of the target site.

During the procedures No. 1, 4 and 5 the following factors delayed the process.

In Procedure 1 all the bids had shortcoming of providing all the necessary documents, so all the bids were invalid. On Commission's request (13.06.2008) we emphasis, that the necessary documents were not provided, although they were clearly requested in the tendering documentation; thus the mistake lies on the site of offering parties. For the minutes and summary of the Board reviewed the offers, see **Annex MTR A4-4/1-2.** This is why a new procedure began with invitation of all the tenders of the open procedure. Because of this delay, the schedule of implementation got modified in the Technological Documentation.

Procedure 1 included all the leased land except for compartment 136 C. This is the compartment which replaces 108 A, 103 B, 104 A, B, E forest compartments in the target area (for reasons, see below), public tendering became possible only after Commission's approval on change of the target area. Hence compartment 136 C became object of another procedure (No. 4), launched later.

In Procedure 4 the forest manager of the un-leased fragment (compartment 173 L) consented to hiring an open procedure. The bids on fence construction were significantly higher than either pre-calculated or acceptable considering the project budget. On this score DINPD contracted only parts of the tender referring to Action C1-D1, C2-D2 (the structure of this tender made it possible), and decided to initiate a new procedure on fence construction (Procedure 5). Considering the assessed costs of fence construction of DINPD within a year, the Hungarian Law on Public Tendering allows of a simplified procedure of invited character. After inviting 4 tenders, it cleared up that only 2 of them intended to make an offer. In view of bids on fence construction in Procedure 4, it seemed inevitable to create competition among the tenders. To achieve this, we invited 2 more tenders, so finally we got 4 bids, which resulted in a much lower final offer than that in Procedure 4, although it was still higher than estimated in the Technological Documentation. For Procedure 5, we rationalized the track of fence around two neighbouring lands, 140 B (leased) and 56 B (un-leased, NEFAG) forest compartments. For the following explanation please see **Annex MTR A4-6**, which helps understanding. In a primary version these two compartments were planned to be fenced with using a section of an existing but very low quality fence on one side of 56 B, and at the same time establishing a section separating the two affected compartments, as this track is the border of leased land. However, in respect of the section with the existing fence around 56 B, NEFAG consented to hiring a procedure with tenders invited by DINPD (**Annex MTR A4-5**). As a result of this, 140 B and 56 B will be joint as a fenced area with new, temporary fence. The extra length of the modified track is only 19 m. Other two sections of fence around 56 B was contracted earlier in Procedure 2.

b) Post-treatment activities, 2010-2011

Following the first, large volume tendering procedures, further actions were tendered.

Procurement of continuing management faced some initial obstacles. As evaluation of the study complied by the forestry expert was under process a detailed description of methodology had not been available yet. Furthermore, a decree of the government (**Annex**

PR3 A4-2) did not allow initiating any public tendering procedures up to the date of establishment of the new government following spring parliamentary elections. Although a subsequent decree has acquitted EU funded projects of the prohibitive decree, procurement has started in accordance with it, as described below.

Large-scale procurement of initial management activities had several positive effects on the implementation of project goals. For continuing management involving mainly post-treatment activities an altered system of procurement seemed to be more adaptive. For improved quality control, sapling purchase was separated from other contracts. Purchase of chemicals and contracting authorised controlling personnel for chemical treatments was another procedure. The developed soil preparation method (see Action C2-D2) requires special appliances and as such, it was procured separately. Subject of two other procedures were tasks with requirement of mid-level machinery (tractor) and tasks with hand tools and manual labour. As public tendering was paused and procurement was in season, all these procedures were conducted in accordance with DINPD Procurement Statutes. Public tendering company hired stated that above separation of procurements is on accord with legislation. For the minutes on evaluation of bids, see **Annex PR3 A4-3/1-11.**

While preparing procedures mentioned above it have become clear that volume of manual labour would reach the limit of public tendering, so an open public tendering procedure was launched on 20.07.2010. Similarly, to the prior procedure, call for applications allowed bids for four sub-sites. However, only two of the four sub-sites were applied, there were no bids concerning the other two. Consequently, a repeated procedure had been launched. Although this procedure was an invited tendering and call for applications were sent to potential subcontractors having experiences with management to be procured, no bids were handed in. In case of one sub-site (Strázsa-hegy land), tasks could have been rescheduled, but regarding the other one, subtask chemical treatment of root-sprouts was not possible to postpone. DINPD staff implemented, considering the special circumstances, sprout chemical treatment on one sub-site. Tasks on NEFAG land was procured in one procedure according to DINPD Procurement Statutes. For the summaries of the procedures, see **Annex PR3 A4-3/10-11.**

Procurement design in 2011 was similar to that in 2010. In accordance with DINPD Procurement Statutes, the following procurements were completed in the last year of the project:

- soil preparation (Strázsa-hegy land, supplementary forestation in leased lands)
- sapling purchase for spring plantations
- mid-level machinery (Strázsa-hegy land, leased land)
- chemicals and control of chemical treatment
- manual labour and mid-level machinery on NEFAG land

Public tendering procured manual labour, which is a time consuming process. It started in December, when consent of MRD was requested for the launch of procurement of a public tendering company. In the call for bids, the activities were spitted by sub-sites and activities, and partial offers were accepted. Although several potential tenders were gathered, only a few bids arrived by the end of May. Due to the advanced stage of vegetation, decision was made to contract the best bids. However, in case of some activities in Action D2, bids were unrealistically high. In this case, the tender was not contracted as there was only one offer, so so-called “seasonal employees” recruited by DINPD accomplished the affected management activities. Their salary, which was paid on a daily basis, was covered out of project budget, as such costs were not foreseen in the proposal. In one case, the bid was much lower than the others were. According to our earlier experiences on Action D1, we did

not consider that offer feasible, so the next cheapest offer was contracted. For the summaries of all the procurement procedures in 2011, see **Annex FR A4-3/1-8** .

A request for modification of Grant Agreement was submitted in 2011. An element of the requested modifications is the extension of project period to 31.12.2011. One of the underlying circumstances is that the complex structure of procurements is more feasible to accomplish for the entire set of management that ranges throughout 2011.

3.Problems encountered and their solutions

a)

108 A, 103 B, 104 A, B, E forest compartments are in the property of cc. 140 forest landowners. We planned to lease also this compartment in the original proposal, for this reason, the official leader of the landowners in that period signed the pre-contract (attached to the project proposal).

However, the landowners changed their leader in 2007. Subsequently, DINPD presented the project on one occasion as well as sent again official information letters (for the new leader and every owner) on the management actions to be implemented on the area of the landowners. Despite all these efforts, at the next official meeting of landowners, the members (by voting) rejected the participation in the project**.**

We made steps to find cooperative forest owners, who possess further steppe oak habitats in good condition to lease and manage these as a substitution for the property of the landowners, and replaced it with 136 C forest compartment (of similar size as the dropped out ones).

On Commission's request (25.02.2008) we emphasized in the MTR that forest compartment 136 C is located in the pSCI, and has similar quality as the replaced compartments.

For maps of proposed and actual areas to manage see map in **Annex PR1 A4-5/a-b.** Besides the case described here, the target area has not changed.

b)

At the beginning of the project, the ownership of other forest compartments (98 A, B, C, D, E, together known as Strázsa-hegy) were not regulated. (These are under local nature protection. The protection was initiated by NKÖ in 1979, and the fact of its protection was enforced in 2004). In here the registered property manager was still the long-ago dissolved farmer's cooperative.

About the third of it's 28,5 ha stretch used to belong to several private owners. We contracted with the successor of a farmer's cooperative, which owned cca. two-third (23686/34770) of the land. Signing a contract with most of the private owners was a slower process for administrative reasons and personal issues of the owners. In order to make the undertaken management besides the above circumstances possible to implement, we initiated registration of DINPD as the forest manager of the land. The process of registration of DINPD as the forest manager of the Strázsa-hegy stand was completed on 29.01.2009 (for the initiating letter see **Annex MTR A4-7,** for the decree on registration see **Annex PR2 A4-2**).

Besides of the positive elements the new forestry law introduced, some problems also emerged as the necessary enacting clauses were published only on 13.11.2009. This resulted in some difficulties in starting management in Strázsa-hegy: neither timber harvest

nor fence construction was possible to be authorized by SFS without having the forest management plan that we have to claim from the SFS, too, as recently registered forest managers of Strázsa-hegy stand. We claimed the forest management plan in August 2009 and then again after the enacting clauses came into force presenting the necessary application form. Following multiple requests of forest manager DINPD the management plan was finally issued by SFS (**Annex PR3 A4-1/a and A4-1/b on DVD.**) For our requests, see **Annex PR2 A4-3, A4-4**.

c)

NEFAG agreed with the execution of the conservation management work on its property (see agreement in the annex of project proposal, we also had subsequent meetings with its representatives). However, the company seemingly intends to implement the works at a considerably higher price than the marketable value. They presumed on leasing their areas to us, however, in the case of a state organisation this is option was excluded. This is also a good reason why we intended to launch time-consuming open procedures first: we were able to use the bid offers as financial orientation in the procedures of inviting character.

Annexes:

PR1 A4-1/a: Map of forest compartment modifications I.
PR1 A4-1/b: Map of forest compartment modifications II.
PR1 A4-2: Map on the principal aim of the forest compartments
PR1 A4-3: A new forestry management plan
PR1 A4-4/a-b: Data sheet and photo of detailed field survey
PR1 A4-5/a: Modification of project target area I.
PR1 A4-5/b: Modification of project target area II.
PR1 A4-6/a-b: Minutes and photo on invasive workshop
MTR A4-1: Declaration of SFS on fence establishment
MTR A4-2/1-4: Forest owner's declarations on management on un-leased lands
MTR A4-3/1-5: Summaries of public tendering Procedures 1-5 resulted in contract
MTR A4-4/1-2: Documentation of invalid bids in the open stage of Procedure 1
MTR A4-5: Consent of NEFAG to invite more tenders to fence segment in 56 B
MTR A4-6: Track of fence and buffer zone around *Ciconia nigra* nest in 140 B and 56 B
MTR A4-7: DINPD initiates to register it as forest manager of Strázsa-hegy
MTR A4-8: Overview of leased lands and forest managers on un-leased lands
PR2 A4-1: Overview of leased lands and forest managers on un-leased lands
PR2 A4-2: Decree on registration of DINPD as forest manager of Strázsa-hegy land
PR2 A4-3: 1st request for forest management plan of Strázsa-hegy
PR2 A4-4: 2nd request for forest management plan of Strázsa-hegy
PR3 A4-1/a: Decree on forest management plan of Strázsa-hegy land
PR3 A4-1/b: Content of forest management plan of Strázsa-hegy – on DVD
PR3 A4-2: Decree of government on public tendering
PR3 A4-3/1-11: Summaries of procurement procedures
- PR3 A4-3/1: Soil preparation
- PR3 A4-3/2: Saplings
- PR3 A4-3/3: Mid-level machinery
- PR3 A4-3/4: Manual labour on leased and NKÖ land (Pálfája stand)
- PR3 A4-3/5/a-b: Manual labour and mid-level machinery on NEFAG land
  - PR3 A4-3/5/a: Summary of evaluation of bid
  - PR3 A4-3/5/b: Minute of negotiation with bidder
- PR3 A4-3/6: Manual labour on Erdő Bt. Land
- PR3 A4-3/7: Mid-level machinery on Erdő Bt. Land
- PR3 A4-3/8: Chemicals
- PR3 A4-3/9: Control of chemical treatment
- PR3 A4-3/10: Public tendering – first attempt
- PR3 A4-3/11: Public tendering – second attempt

FR A4-1: Request of 'opening forest' registration
FR A4-2: SFS decree on 'opening forest' registration

FR A4-3/1-8: Summaries of procurement procedures

A4-3/1: Soil preparation
A4-3/2: Mid-level machinery – plantation
A4-3/3: Mid-level machinery – mowing of forestations
A4-3/4: Manual labour and mid-level machinery on NEFAG land – minutes of negotiation with bidder
A4-3/5: Fencing Strázsa-hegy land
A4-3/6: Chemicals
A4-3/7: Professional control of chemical treatment
A4-3/8: Public tendering of manual labour on leased land, NKÖ land and Strázsa-hegy

A5 - Elaboration of the conservational management plan of 'Nagykőrösi pusztai tölgyesek' Natura 2000 site

Expected results:

Long-term management plan of 'Nagykőrösi pusztai tölgyesek' pSCI is elaborated in digital and paper format as well as it is officially approved by the competent authority before end of the project. Basic and management data are recorded in GIS. The overview of the historical aspects - especially on forest use - are collected and analysed in a study.

Achievements:

Data was collected, study on the history of land use around Nagykőrös was completed

Long-term management plan of 'Nagykőrösi pusztai tölgyesek' pSCI is elaborated

Action status: completed but not approved

Modification of the activity against the plan:

At the time of Final Report the approval process of the plan is not completed. The approval process together with the integration of stakeholder opinions is going to take place in the After-LIFE period

Planned completion date: 31.12.2011

Actual completion date:

Management Plan is elaborated: 31.05.2012 (no costs generated after 31.12.2011 are claimed in the LIFE budget)

Reasons for delay:

- the target site has not been any legal protection before Natura 2000 designation, so available data and former plans were limited
- experiences on proper management methods were gathering continuously during project implementation, so the subsequent elaboration of the management plan was started in the last year of the project

Description:

As stated in the project proposal and experienced during the implementation, a coherent, operative and useful long-term conservational management plan is inevitable for the effective conservation of the priority habitats and species. Stakeholders and residents of the region might have both altering land-use goals and altering perceptions of a certain vegetation type. Even the basic definition of the habitats in question might vary among opinion-shapers. One principal aim of a conservational management plan is to provide a resource of information for the stakeholders on the target objects of conservation efforts. The other principal goal is to determine those practices that are in favour of the priority habitats and species. Both the legislation of Natura 2000 management plans and our own considerations underlined the need of such a division of the plan.

Descriptive part of the plan contains list of species from several animal and plant taxa known for the SAC. In several cases, the source of such data was the research accomplished in the project framework. Although the species list of a site does not describe all characters of the habitats present there, in the daily lobby work against other land-use interests species data is one of the most effective tool. General descriptions of the habitats are also present in the plan. The steppic oak habitat in particular is a field of misunderstanding when discussing it with SFS and forest managers.

A GIS-based study on the history of forests around Nagykőrös was compiled and published in the *Rosalia* volume (see Action E6). This paper provides useful information on the previous state of natural/semi-natural habitats

Operative part of the plan states general principles of conserving the priority habitats and species as well as concrete actions and practical considerations. Most of the latter emerged during the project implementation. Undertaking a trailblazer volume of invasive management in Hungary, we faced unavoidable technical obstacles, so our experiences are valuable for future managers. There are issues, like invasion control, when even well meaning use of improper methods by managers might cause opposite results, so such hints are very important. Management advises are distinct according to the present conservational state of the sub-sites within the SAC. Target area of the present LIFE project is one category, patches with priority habitats out of the target area are another zone in respect of management, while plantations of introduced timber species are the third main form of habitats to be managed.

The elaboration of the plan is accomplished by the time of present Final Reporting. For the *Natura 2000 Management Plan of the 'Nagykőrösi pusztai tölgyesek' SAC,* see **Annex FR A5-1** on DVD attached to the present Final Report. However, approval by MRD and discussions with stakeholders are delayed to the After-LIFE period. Reasons for the delay are as follows: as the 'Nagykőrösi pusztai tölgyesek SAC had nearly no national protection before the designation of Natura 2000 network in Hungary, so baseline data and previous management plan drafts were available and useful to a limited extent only. First round of approval by MRD will let us discuss the Plan with the stakeholders. Following that process, the final approval by MRD can take place. According to this process, we count on having an approved Natura 2000 Management Plan by the end of September 2012.

HUNSTEPPICOAKS project had several trailblazer actions. The legal construction of land leasing from private owners who are not willing to sell their property, large volume invasion control with selective mechanical and chemical methods and less destructive afforestation methods were all subject of continuous learning by doing. Besides the actual application of experiences in order to fulfil the undertaken actions, the context of the evaluation of the experiences was the long-term application at regional scale. In this view, the conservation management plan was under continuous elaboration. However, advantages and

disadvantages of the applied methods got clear only in the last phase of the project, so a chance for compiling a coherent system of management recommendations emerged at that time.

Annexes:

FR A5-1: Natura 2000 Management Plan of the 'Nagykőrösi pusztai tölgyesek' SAC - on DVD

B1 - Taking over the restricted right of disposal of habitats Euro-Siberian steppe woods and Pannonic sand steppes

Expected results:

Discontinuation of economic forest use on patches of habitats of community interest (altogether 175 hectares) as well as establishment of a long-term professional cooperation between the conservational manager and private owners

Achievements:

- 6 contract bound guaranteeing the discontinuation of economic forest use on patches of habitats of community interest (altogether 175 hectares) for 90 years as well as establishment of a long-term professional cooperation between the conservational manager and private owners
- Final contracts containing the precise square measure of leased lands were signed on 12.08.2008

Action status: completed

Modification of the activity against the plan: N/A

Planned completion date: 31.12.2006

Actual completion date:

Pre-contracts signed: 17.12.2007

Final contracts signed: 12.08.2008

Reasons for delay:

The sort of contract DINPD initiated proved to be the first one to be bound in Hungary, so the preparation phase was significantly more time consuming than proposed

Description:

The project proposal included the agreements bound on the restricted right of disposal of habitats with the forest owners. For the compilation of the contract, which is valid for the next 90 years, DINPD hired an external real estate lawyer with remarkable experience gained in this field. (The reason for this act was: after submitting the proposal our law expert left the institute and was not replaced.) With this, additional costs not foreseen were added to this action. During the internal negotiations, Katalin Sipos, Zsolt Baranyai drafted the elements to be included into the contract and the real estate lawyer converted these into the special language of law. During the reconciliations with the forest owners and managers, the external lawyer and DINPD staff answered the questions posed by the stakeholders, problems, certain cases were discussed and the elements required by the owners were included in the draft proposal.

We had to note, that the sort of contract initiated by DINPD (taking over restricted right of disposal over habitat types) was the first to be bound in Hungary. For this reason, we could not have learnt from earlier experiences and as the contract is quite complex as well as valid for an extraordinary long term, this phase of the project proved to be very time-consuming.

For the list of negotiations, see the table below:

Date	Place	Topic	Participants
17.10.2006.	Nagykőrös (NKÖ office)	presentation of the concept of contract on restricted right of disposal over the habitats	forest owners, managers, Katalin Sipos, Zsolt Baranyai, Annamária Csóka (DINPD)
06.02.2007.	Budapest (DINPD office)	launch of the compilation of contract with the help of the external real estate law expert	real estate lawyer, Katalin Sipos, Zsolt Baranyai (DINPD)
27.02.2007.	Nagykőrös (NKÖ office)	reconciliation on the concept with the owners	forest owners, managers, Katalin Sipos, Zsolt Baranyai (DINPD)
01.03.2007.	Nagykőrös (NKÖ office)	reconciliation on the concept with the owners	forest owners, managers, Katalin Sipos, Zsolt Baranyai (DINPD)
10.08.2007.	Budapest (DINPD office)	discussion on the content of the contract	real estate lawyer, Katalin Sipos, Zsolt Baranyai (DINPD)
15.08.2007.	Budapest (DINPD office)	discussion on the content of the contract	real estate lawyer, Katalin Sipos, Zsolt Baranyai (DINPD)
16.08.2007.	Budapest (County Land Registry Authority)	discussion on the possibilities of the inclusion of restricted right of disposal into the land register	representatives of the County Land Registry Authority, real estate lawyer, Zsolt Baranyai (DINPD)
29.08.2007.	Nagykőrös (project office)	reconciliation with forest owners on the content of contract	forest owners, managers, real estate lawyer, Zsolt Baranyai, István Justin (DINPD)
05.09.2007.	Nagykőrös (project office)	reconciliation with forest owners on the content of the	forest owners, managers, real estate lawyer, Zsolt

Date	Place	Topic	Participants
		contract	Baranyai (DINPD)
20.09.2007.	Budapest (DINPD office)	further discussion on the detailed content of contract	real estate lawyer, Katalin Sipos, Zsolt Baranyai (DINPD)
04.10.2007.	Nagykőrös (project office)	reconciliation with forest owners on the content of the contract	forest owners, managers, real estate lawyer, Zsolt Baranyai, István Justin (DINPD)
15.10.2007.	Budapest (DINPD office)	further discussion on the detailed content of the contract	real estate lawyer, Katalin Sipos, Zsolt Baranyai (DINPD)
05.11.2007.	Budapest (DINPD office)	compilation of final version of the contract	real estate lawyer, Katalin Sipos, Zsolt Baranyai (DINPD)
04.12.2007.	Budapest (real estate lawyer's office)	final reconciliations on the text of the contract	real estate law expert, Zsolt Baranyai (DINPD)
05.12.2007.	Budapest (real estate lawyer's office)	final reconciliations on the text of the contract	real estate law expert, Zsolt Baranyai (DINPD)
06.12.2007.	Budapest real estate lawyer's office	final reconciliations on the text of the contract	real estate law expert, Zsolt Baranyai (DINPD)
07.12.2007.	Budapest (real estate lawyer's office)	final reconciliations on the text of the contract	real estate law expert, Zsolt Baranyai (DINPD)
11.12.2007.	Nagykőrös (project office)	presentation of the final version of contract to owners, discussion	real estate lawyer, Katalin Sipos, Zsolt Baranyai (DINPD)
13.12.2007.	Nagykőrös (project office)	final version of contract to owners, discussion	real estate lawyer, Katalin Sipos, Zsolt Baranyai, István Justin (DINPD)
17.12.2007.	Nagykőrös (project office)	contracting (pre-contract with approximate square measure of leased	forest owners, managers, heads of DINPD, Katalin Sipos, Zsolt Baranyai, István

Date	Place	Topic	Participants
		lands)	Justin (DINPD)
12.08.2008	Nagykőrös (project office)	contracting (final contract with precise square measure of leased lands)	real estate lawyer, forest owners, managers, heads of DINPD, Katalin Sipos, Zsolt Baranyai, István Justin, György Verő (DINPD)

The contract founds value of assets right, right of common, for 90 years, documented in land registry.

The contracts signed on 17.12.2007 were formally pre-contracts, however, regarding their content those were finalised. The reason for this: the land registry authority indicated that if the lease did not refer to complete plot numbers, drafts on the leased areas had to be drawn by geodetic experts. This act took place in 2008 and resulted in additional expenses in this action, which we could not foresee in the proposal.

On 12.08.2008, the final form was signed. The previous pre-contract regulated each aspect of the cooperation of the contractors and so enabled the launch of public tendering procedures, After preparing the partition of plot numbers, final contracts could contain the precise square measure of leased lands, and consequently the exact measure of offset of restricted right of disposal.

Finally, 6 contracts were bound with the 4 forest owners, for the following reasons: one owner's mother has widow's right on the area to be leased, and a separate contract had to be compiled for her, one owner's wife has different proportion of property on each plot numbers to be leased, and she has also her own contract. As forest managers also have responsibility in this legal construction, they also signed the contract.

For the text of pre-contract (one example) see **Annex PR1 B1-1/a on CD** and the photo on signing the pre-contract in **Annex PR1 B1-1/b**, for an example of final contract see **Annex MTR B1-2 on DVD**, for photo of signing the final contract, see **Annex MTR B1-1.**

The most important elements of the contract:

- the contract is valid from the date of contracting
- in the contract there are references on the Natura 2000 network, present LIFE-Nature program, the conservation of steppe oaks and public interest of conservation
- forest owners are primary targets of the contract but it includes regulations for the forest managers as they have responsibilities as well
- the owner has an obligation to inform the customers, inheritors, forest managers on the content of the contract

- the contract has to be registered in the land registry and in the forestry registry
- DINPD and its all-time successors are displayed in the contract
- the notice to quit is excluded regarding all-time owners/managers
- the owner/manager has to preserve the natural state of the area independently from the branch of cultivation (it can be forest, grassland, pasture but not plough land)
- hunting objects (except for game-watching towers), game plough lands are not allowed to operate in the project area
- the reconciliations for preliminary decisions of special authorities (conservation, forestry) is the role of DINPD regarding the conservational aims and management named in the contract (also for the actions in the project and long term management plan)
- the wood originated from the management works is a property of the owner/manager, its transportation is the task of the party to the contract
- every benefit deriving from the proper use of the area concerns the party to the contract, DINPD will not establish a claim for these
- the owner/manager is obliged to avoid cases of double founding
- all the land use plans of the area has to be previously approved by the DINPD and it can interpose veto for conservation damage uses
- the owner has an obligation that he continuously charges a forest manager on the area
- during 90 years, the tasks connected to the forest manager's status have to be accomplished by the forest managers at their own expenses (compilations of forest management plans, data providing, etc.)
- the contracting party takes into consideration that the conservation management works of the project are contracted as a result of public tendering procedures; he accepts that he is not exclusively entitled for the implementation of the management works, however, he is obliged to participate in the authorisation phase
- the forest manager has a right to make a bid offer for the public tendering procedures

At the time of project closure, some experience is gained on the operation of the contract. Administrative goals are achieved, commercial logging had been abandoned on the sites in question, and conservation goals have primacy in the forestry practice. On the other hand, contracted owners and forest managers in general are cooperative only to the extent the framework of the contract oblige them. The improvement of partnership is a continuous task.

During our work, we faced the following problem:

108 A, 103 B, 104 A, B, E forest compartments are in the property of cc. 140 forest landowners. We planned to lease also this compartment in the original proposal, for this reason, the official leader of the landowners of that period signed the pre-contract (attached to project proposal). However, the landowners changed their leader this year. Subsequently, DINPD presented the project on one occasion as well as sent again official information letters (for the new leader and every owner) on the management actions to be implemented

on the area of the landowners. Despite all these efforts, at the next official meeting of landowners, the members (by voting) rejected the participation in the project**.**

We made steps to find cooperative forest owners, who possess further steppe oak habitats in good condition to lease these as a substitution for the property of the landowners and replaced these with 136 C forest compartment. As a result of this, the contracts cover 175 ha altogether.

On Commission's request (25.02.2008) we emphasize that forest compartment 136 C is located in the pSCI, and has similar quality as the replaced compartments.

For the map of the areas indicated in the project and actually taken over, please see **Annex PR1 B1-2**

Annexes:

PR1 B1-1/a: Contract of restricted right of disposal - on CD
PR1 B1-1/b: Photo on contracting
PR1 B1-2: Map of areas under restricted right of disposal
MTR B1-1: Photo on signing final contract on 12.08.2008
MTR B1-2: Sample of a final contract - on DVD

C1 - Removal of arboreal invasive species using mechanical and chemical methods

D1 - Treatment of herbaceous invasives, follow-up treatment of arboreal invasives

As the overall goal of these two Actions are the same, it is reasonable to report about them in a unified chapter.

Expected results:

C1: Considerable repress of invasive species, the decrease of load of invasives on Euro-Siberian steppic oak forests and Pannonic sand steppes and regeneration of grasslands on the total project area (altogether 405 hectare).

D1: As a result of the action the removal of 99% of herbaceous invasives and arboreal invasive plants is expected on the whole project area (405 hectare).

Achievements:

- 90-95 % of invasive species (99 % of black locust) are eliminated on 420 ha, large extent of priority habitats are lacking invasive species
- remaining presence consists mainly of large trees in Pálfája-forest (site of gradual elimination) and *Prunus serotina* seedlings
- elimination of illegal waste is completed

Action status: completed

Modification of the activity against the plan:

- Technology was modified

- 1 ha stand of black locust was not harvested in Pálfája forest

- Overall 420 ha was managed
- In Pálfája forest (60 ha), gradual elimination is taking place

Planned completion date: C1: 30.11.2011; D1 31.12.2011

Actual completion date: C1: 31.03.2011; D1 31.10.2011

Reasons for delay:

Implementation was delayed to the original proposal, but it was on accord with the Modification of Grant Agreement

Description:

Summary:

Eliminating invasive plant species in such extent was a key action and is one of the most important results of HUNSTEPPICOAKS project. Having a landscape matrix full of introduced species, managed habitats show a very unusual view to most experts coming to see the site: highly fragmented sandy oak stands without invasive species.

Although there had been some experience on invasive control in Hungary before the project, the volume of management was prominent. The issue of volume induced new considerations, which resulted in shifts in the applied technology.

At the start of the action, black locust seemed to be the toughest species to eliminate, as it was stated in the proposal, too. By now, technology of black locust elimination seems to be developed and 99 % of the targeted individuals and stands are eliminated. Remaining individuals are concentrated in Pálfája forest where the recreational function must be kept in mind, and gradual elimination is the right practice. In case of Nagykőrös 91B forest compartment (cca. 1 ha), which is in Pálfája forest as well, black locust elimination was cancelled for reasons described below and at Action C2-D2.

At the time of the project closure and the in the After-LIFE period, most post-treatment efforts have to be focused on the high amount of black cherry seedlings. High rate germinating from the soil seed bank and fruits distributed by birds make black cherry an object of a prolonged management.

To achieve this result, the project staff combated several financial and technological obstacles reported earlier (see PR2, PR3). Costs of forestry works (including Action C2-D2), especially the post-treatments turned to be much higher than proposed. Regarding the invasive management, we summarize the most important technological experiences below. These experiences on methods are disseminated in the Natura 2000 Management Plan (see Action A5), in the *Rosalia* issue and on the thematic conference in Kecskemét, Hungary, both organized jointly with HUNDIDI project (see Action E6), and other scientific forums (see Action E6).

Details of these Actions:

1. Schedule of activities

As the project target site has a complex property and management right condition, management was launched at different date at different sites.

The table below summarizes the schedule of invasive management activities (Action C1, D1) as well as that of forest transformations (Action C2, D2) and fence constructions (Action C3).

Sites affected with management	Management action	Start of management	area (ha)
Leased land, NEFAG land, parts of un-leased land (native plantation)			319
	Logging and stump treatment	09.2008	
	post-treatment (sprout treatment)	06.2009	
	game exclusion wire fence and electric fence	12.2008	
	partial soil preparation and first plantation	11.2008	
	post-treatment of forestations	05.2009	
Parts of un-leased land and NEFAG land (homogeneous stands of introduced species)			10
	logging	09.2008	
	total soil preparation and first plantation	11.2008	
	game exclusion wire fence and electric fence	12.2008	
	post-treatment of forestations	05.2009	
Un-leased land (Nagykőrös 139 A)			2
	game exclusion wire fence	12.2008	
Pálfája forest			59
	Logging and stump treatment of trees below 10 cm dbh	09.2009	
	post-treatment (sprout treatment)	06.2010	
	stem injection of selected trees	07.2011	
Strázsa-hegy land			28
	stem injection	09.2009	
	logging	12.2010	
	first plantation, post-treatment of forestations, game exclusion wire fence	03.2011	
	post-treatment (sprout treatment)	06.2011	
	stem injection	07.2011	
Total target area			418
	Chemical treatment of common milk-weed	05.2009	

In the first, large volume phase of implementation started in September 2008, all leased land, all NEFAG land and all un-leased private land were involved. The subcontractors were

chosen by public tendering process, as described at Action A4 in detail. Pálfája forest, Strázsa-hegy forest and a small patch around black stork nest were out of this round.

The complete management was left in a 1.6 ha patch of Nagykőrös 140 B (leased land), which forms a semicircular area of about 100 meters radius around a nest of *black stork (Ciconia nigra),* discovered after the application of the present project, but possibly inhabited for a longer time. Black stork is a strictly protected species in Hungary, species of Annex 1 of the Directive 79/409/EEC., species of Annex 2 of the Bern Convention (19 September 1979), species of Annex 1 of the Washington Convention (CITES). Regrettably, in spring 2009, only one black stork individual was observed around the nest on forest compartment Nagykőrös 140B and in it's broader surroundings, and no nesting was observed at neither the two artificial nests we established in February 2009 in Nagykőrös 55 G and 137 F forest compartments, nor elsewhere in the SAC. This is why we directed the subcontractor to harvest black locust on this spot in October 2009 by the technology used on the rest of the leased land in 2008. As out of the 100 meters radius buffer zone, large volume black locust harvest was done, we consider the effects out-of buffer zone management as the reason for the abandonment of the nest. The size of buffer zone is included in the protection plan of black stork, but in this case, it proved to be insufficient. For a map of the area in question, see **Annex MTR A4-6.**

Since Pálfája is the recreational forest of the town of Nagykőrös, it has quite a lot of individuals of introduced but not invasive tree species, typical in parks in residential areas. In respect of this, and the recreational use of the stand, we implemented a less intensive removal of introduced species. In October 2009, we started management in the Pálfája stand. The elimination of invasives smaller than 10 cm in stem diameter at breast height was subcontracted. In 2011 years DINPD own staff implemented small-scale stem injection, on accord with the gradual elimination paradigm used in this recreational site.

In case of Strázsa-hegy, obstacles described at Action A4 in detail let management start in September 2009. On 10 out of 28 ha of Strázsa-hegy black locust individuals were stem injected. This action affected the majority of black locust individuals in Strázsa-hegy, including the homogeneous stands. In 2011 DINPD own staff implemented small-scale stem injection on the rest of the land.

Homogeneous stands of stem-injected black locust were harvested in winter in 2010-2011. As DINPD is the forest manager in Strázsa-hegy, DINPD had the right to sell timber. This income is declared in the Financial Report. All the income was spent for covering the extra costs of forestry works (see also Comments on Financial Report)

Harvest (and subsequent forestation) was cancelled in Nagykőrös 91B forest compartment (1 ha) in the Pálfája forest. SFS did not permit it, as the time of management was too late for chemical treatment. Although this decision of SFS caused difficulty in the project, considering DINPD experiences on chemical treatment of invasive plants it is positive change in the SFS practice. As the area of this forest compartment is not significant compared to the entire target area, the cancellation does not mean significant reduction of the managed area. Further reason of cancellation is technical difficulties and the indefinite state of forestations in respect of forest legislation (see Action C2-D2), which implies not starting new forestations before clarification of the situation.

Post-treatment Action D1 was implemented on the entire area affected by Action C1. In each case, it started in the following year after the initial harvest and lasted to the last season of the project in 2011. On the majority of the sites, with altering intensity, it is going to go on in the After-LIFE period.

Treatment of common milkweed was accomplished within the woody invasive post-treatment framework, so it started in 2009. As in Strázsa-hegy we faced obstacles in respect of management rights, this action started in 2010.

2. Methods

In the first, large volume management, which was implemented in 2008, each individual of woody introduced species above 5 cm of stem diameter were stem cut. After its preparation at the site of cut, the wood material was transported by machine power, taking care of the vegetation as much as possible. Pulling unprepared logs was allowed only on artificial forest regeneration areas without grassland of conservation value. Soon after the start of implementation, it became clear that the manual transportation we had expected in many cases would have lead to serious delay of exploitation, considering the volume of the action and the seasonal limits of implementation.

Indigenous shrub-layer was treated differently according as it was in an artificial forest regeneration patch or not. In prior case, it was mostly harvested, left standing only bigger size individuals and those within small patches of oaks. In the latter case, the indigenous shrub-layer was protected and merely damaged where it was either unavoidable, or necessary according to labour safety regulations, due to their proximity to harvested tree individuals.

Places for storage of wood material were marked in consideration of least possible damage of vegetation by transportation both to the storage and from the storage by the forest manager.

Within 3 days after harvesting, chemical treatment of stump cut surfaces took place. This process is necessary only in case of heavily sprouting, non-indigenous species with an invasive character like *Robinia pseudoacacia, Prunus serotina, Acer negundo, Celtis occidentalis, Fraxinus pennsylvanica*, but can be left after cutting *Pinus* spp. The chemical was to be applied by brush, only in dry and windless weather in order to avoid the uncontrolled distribution of the chemical. We used a coloured mixture of "*Garlon 4E*" and diesel oil in 1:1 proportion

Elimination of harvesting waste took place in four ways. Since in September and October 2008 there was a ban for burning in forest areas due to lack of precipitation, the waste was stacked up. On approximately 25 % of the managed area, a special mobile machine (for photo see Annex MTR C1-1/4) chopped the stacks. Although DINPD consented to dispersing the chopped material on the area, the forest manager transported a significant part of it.

Commission made note (11.05.2009) on the necessary removal of un-dispersed stacks of chopped logging waste. However, we experienced in many cases that both ants (*Formica rufa*) inhabited the stacks and adults of *Oryctes nasicornis* (legally protected species in Hungary) were found inside and around the stacks. Larvae of latter species grow in dead wooden material, which fact explains their presence around these stacks. According to order 13/2001. (V.9.) KöM ant-hills of Formica rufa are legally protected. Consequently, we decided not to disturb these artificial microhabitats any more, although we began to remove them to the track of fences in order to make their maintenance easier.

After the burning ban, rest of the waste was eliminated by burning. This waste management is on accord with Commission's note (12.06.2007).

Complete soil preparation (Action C2) was applied on un-leased lands (15 ha), since the forest manager of these areas consented to artificial forest regeneration with indigenous species only in case of using complete soil preparation, as the conventional method of

artificial forest regeneration on the Hungarian Plain (Nagykőrös 128 B, 139 C, 140 C). On these sites all the vegetation but oak individuals was removed, including stumps, so using chemicals was not necessary in this stage of invasive removal. Stumps were transported from the sites, while harvesting waste was eliminated as part of soil preparation.

For photos of the Action, see **Annex MTR C1-1/1-5**

In 2009, Action C1 was continued in the skipped Pálfája and Strázsa-hegy forests. In both cases, methods were modified.

In Pálfája, we contracted the elimination of invasives smaller than 10 cm in stem diameter at breast height on 60 ha according to the modified technology used on leased land in 2008. First modification was the fact itself, that we start the elimination with the smaller individuals. We experienced in 2009, that invasive post treatment, rolling back Robinia root sprouts (Action D1) is not compatible with the elimination of smaller tree individuals in organizational aspects: these two tasks require different tools, latter also call for chemical treatment. Bigger individuals are also easier to harvest and their amount is easier to assess after smaller ones are removed. The other modification was that we insisted on the immediate application of chemical to the cut surface, in order to avoid the skip of individuals, which is a serious threat to the effectiveness of the treatment, especially in case of small individuals, which are hard to find in the forest grass layer. The 3-day deadline of stump treatment we had in 2008 is also much more difficult to control.

On 10 ha of total 28.5 ha of Strázsa-hegy stand was stem injected in September and October 2009, mainly on 6,25 ha of homogenous Robinia stands. We consulted on this method with colleagues at Kiskunsági and Hortobágyi National Park Directorates. They both have experience in eliminating Robinia individuals by stem injection in similar abiotic environment. We gained that it is worth to postpone the harvest of injected individuals to the second autumn or winter after injection in order to reduce root sprouting.

The post-treatment and milkweed control methods were as follows:

Mechanical cutting of sprouts were applied twice as part of Action D2, and once out of artificial forest regeneration areas (Action D1). It was accomplished by using manhandled clearing saw and lopper. The amount of sprouts was much higher in the first season than expected, and the time to treat them was rather short, as following the spring drought in 2009, summer precipitation induced very intensive sprouting of Robinia in a short time.

Following the mechanical treatment, spraying of chemical was applied. We experienced that results of treatment in September were faster and more spectacular, than those in October. We suspect that stump treatment is more effective when used by the end of September.

Milkweed was point-sprinkled 1-3 times per season. According to experts of chemical treatments, that of milkweed is not yet a subject of consensus in respect of the applicable chemical and the timing of application.

For the map of implemented Action D1, see **Annex PR2 C1-C2-D1-D2.** For photos on this Action, see **Annex PR2 D1-1/1-2** and **Annex PR3 D1-1** and **FR C1-D1-1/1-5.**

3. Results and experiences

Although we faced significant technical difficulties during the implementation, we achieved satisfactory results by the project closure. 99 % of black locust is eliminated. The remaining quantity is mainly in Pálfája, where a gradual elimination is happening. In case of black cherry, occasionally high abundance of new seedlings decreases the efficiency of the

management to 90-95 %. Besides the big efforts on the implementation, continuous use of new experiences also contributed to the results. Several shifts of methods happened during the implementation.

First, because of negotiations with SFS on forestry management plans, forest owners and managers (Action A4), methods described in the project proposal were modified, since SFS testified its doubts on testing some of the new management methods (stem injection) in such a wide extent.

The methods proposed in the project proposal had to be modified for the further following reasons. We foresaw stem injection in case of trees with a stem diameter thicker than 10 cm as a method of invasive removal on patches without artificial forest regeneration. The trees treated so were to be left standing, then, those that can be removed without destroying the grassland were to be transported, while the others were to be left to decay. However, during a detailed survey of the project target area in respect of spread of invasives, it emerged that much higher density of invasives is present, than assumed. In this quantity, stem injection seemed to be much less cost-efficient a method, because we did not foresee the huge costs of post treatment afterwards. Moreover, other factors lead to change of methods. 133 ha out of 405 ha of the target area is state-owned (trustee and forest manager is NEFAG) and consequently not leased (see Action A4) but mostly characterized by habitats of conservation value. In this case, forest manager NEFAG did not consent to leaving a significant amount of wooden material on the premises the way it was as foreseen in the proposal. The similar viewpoint occurred in the process of leasing contracts. We also considered the hazard of fire this amount of woody debris may cause in the given climatic circumstances. All this lead to preferring stem cut instead of stem injection.

After facing the heavy sprouting of the treated species, especially black locust, modifications had been set, as described above at the treatment of Pálfája and Strázsa-hegy forests. In prior case, we used modified stump treatment, in latter case we got back to stem injection, partly to administrative reasons (see PR2 Action C1). Experiencing the continuous post-treatment need of stump treated sites, the relating costs and technological problems of sprout treatment, we finally realized that stem injection is the sustainable and effective method for woody invasive control. For a comparison of stump treatment and stem injection, see the table below.

stump treatment	
advantages:	disadvantages:
lower costs of the first stump treatment compared to that of stem injection	Optimal season of treatment seems to be short and hard to determine
opportunity of immediate timber harvest	Time of treatment coincides with the time of timber harvest which is a sprout-inducing mechanical disturbance of the shoot system
	lack of short term feedback on the effect of the treatment
	spraying of sprouts is the only way of re-treatment in case of insufficient effect of stump treatment
	spraying of sprouts has high costs for years
	spraying implies a higher risk of chemical dispersion
	root sprouts occur in a more dispersed patterned
	the commonly used herbicide (triklopyr - Garlon 4E) for stump treatment is no longer available in Hungary

stem injection (two seasons)	
advantages:	disadvantages:
optimal season of treatment is longer	higher cost of initial set of treatments
short term feedback	timber harvest must be delayed
opportunity of multiple re-treatment in case of insufficient effect of the first treatment	
there is not any mechanical disturbance of the shoot system as long as the tree is not perished	
harvest is not inevitable, but winter harvest is possible	
as sprouting is not significant, this method is cheaper on the long run	
risk of dispersion of chemicals is much lower than in case of stump treatment and spraying	

Elimination of illegal waste took place in 2009, 2010 and 2011 by DINPD own staff. Majority of illegal waste was removed from the target area. However, small quantities of new deposits are continuously appearing on the unfenced parts of the target area, so it is a small scale but continuous task.

Annexes:

MTR C1-1/1-5: Photos on removal of arboreal invasives
MTR C1-2: Minutes of handover of harvesting on leased and un-leased (NEFAG) lands
PR2 C1-C2-D1-D2: Management on the project target area 2008-2009
PR2 C1-1/1-2: Photos
PR2 D1-1/1-2: Photos
PR3 C1-1: Map of clear-cut on Strázsa-hegy land
PR3 D1-1: Photo
FR C1-D1-1/1-5: Photos

C2 - Artificial forest regeneration with indigenous species

D2 - Follow-up treatment of artificial forest regeneration

As the overall goal of these two Actions are the same, it is reasonable to report about them in a unified chapter.

Expected results:

Transformation of the non-indigenous stands (*Robinia pseudoacacia, Pinus spp.*) of high canopy closure into stands of indigenous species (*Quercus ssp., Populus spp.*) around (60 hectare) and within (28.5 hectare) the priority habitat patches (altogether 88.5 hectare). Enforcement of the stability and unity of the habitat fragments.

Achievements:

- 65 ha planted
- 55 ha partial soil preparation (on leased and un-leased land)
- 10 ha complete soil preparation (on un-leased land)

Action status: completed

Modification of the activity against the plan:

Supplementary forestations were cancelled. Technical problems and related extra costs of more intensive forestations implicated that patches with significant native vegetation should not be influenced by such an action.

Planned completion date: 12.31.2011

Actual completion date: 12.31.2011

Reasons for delay:

Implementation was delayed to the original proposal, but it was on accord with the Modification of Grant Agreement

Description:

Summary:

The main purpose of these actions is to rehabilitate the unity of priority habitats fragmented by small-scale plantations of introduced species. The stands to be transformed were inside

or on the edge of priority habitats. The major elements of this idea were the elimination of introduced/invasive species, planting native tree and shrub species, and letting the grass layer regenerate by avoiding total soil preparation (removal of stumps and subsequent deep ploughing, both using heavy machinery and destroying the complete vegetation.) The goal was to establish a mosaic of secondary wooden and grass habitats, which provide a permeable patch for many species of the priority habitats and a site for further natural habitat regeneration. In this view, pattern of the production site determinates the location of wooded patches, instead of having a homogenous forest plantation as expected in commercial forestry.

However, this conservational strategy had to be accomplished within the framework of forestry legislation. As latter was designed to maximise timber production and not biodiversity, besides the broad discussions before and at the launch of the project (see Action A4), several conflicts of interests occurred during the implementation. Compulsory minimum sapling density was determined to the capacity of total soil preparation method, which is a rather effective way of tree cultivation on dry sandy soil. Primarily, the focus of the strategy was on finding the effective method of partial soil preparation that might satisfy the expectations of the forestry legislation. After testing more methods of partial soil preparation, we faced that under the present climatic circumstances (spring drought in 2009, nearly continuous drought from August 2011 to April 2012), partial soil preparation has only limited use in this region. Continuous replanting and supplement of plantations with saplings do not seem to be a cost effective way of conservation management, as these actions are to satisfy expectations of SFS, and not those of nature conservational considerations.

Now, already in the After-LIFE period, efforts are directed into minimising the SFS expectations by using all possible legal tools from opening forest category (see Action A4) to forestations outside of Natura 2000 in order to get the driest sites out of the group of registered forests. Nevertheless, further seek after finding an effective way of forestation without total soil preparation is going on. In the After-LIFE period in 2012, another method, the deep drilling is under test.

On the 10 ha of forestations where total soil preparation was done, expectations of SFS are satisfied. Difficulties presented above regard the 55 ha forestation after partial soil preparation. On these sites, significantly higher expenditures occurred during the implementation, failing to find the best method that could replace total soil preparation to date. For this reason, efforts were focused on the 65 ha launched forestations, instead of involving new sites. The proposed further cca. 28 ha supplement of standing oak forests were consequently considered as sites not cost efficient to start planting with an even less intensive soil preparation (standard drilling). In some sites on altogether 1 ha, supplement has been taken place with the advanced method as on other forested sites (see below).

In case of Nagykőrös 91B forest compartment, 1 ha further forestation was proposed in PR3. However, SFS did not permit it for the late date in the vegetation period for the proper chemical treatment of the black locust stand of the site (see also Action C1-D1) (for the decree of SFS, see **Annex FR C2-D2-1**). As this happened to coincide with the severe autumn drought in 2011 and the consequent reconsideration of the forestation strategy described above, this turn overlapped with the staff's intention not to launch any other forestations as long as the proper legal or technological tools would be available.

On the schedule of forestations, see the table at Action C1-D1, which summarises the schedule of all forestry works.

Details of these Actions:

Schedule and methods

As a result of public tendering Procedures 1-4 (see MTR, Action A4) in 2008 we contracted 60 ha of artificial forest regeneration. Finally, by 15.04.2009 55 ha was planted, as about 5 ha was reconsidered as some patches were not Robinia stands, but highly opened, oak and shrub stands with favourable conservation state. As foreseen in the project proposal, this work covered a more intensive method on patches without significant indigenous vegetation. This is on accord with Commission's note (13.06.2008).

On all of the leased lands and on most of the un-leased land, following the removal of introduced tree species and harvesting waste on patches of artificial forest regeneration, partial soil preparation took place. It means a series of 40-45 cm deep stripes with a distance of 210 cm to each other, in most cases in straight rows. It is 40 cm shorter that the locally general 250 cm distance of seedling lines, though longer than we proposed: a general problem of subcontracted forestry works, that machines for fine scale, less intensive methods are totally absent in the region. Making tracts are more difficult on the area with stumps left, but definitely possible to implement.

Into these tracts were planted the saplings of native tree species with diverse intervals, in a randomly mixed species pattern. For the density of plantation and the indigenous species used on the leased and state-owned un-leased lands, see **Annex MTR C2-4.**

On un-leased forest compartment 128 B, 139 C, 140 C, complete soil preparation was used, with 250 cm distance of seedling lines. After plantation, on these areas the seedlings were cut to root.

For Commission's request (11.05.2009), we confirm that total soil preparation was used solely after dense non-indigenous forest stands, mainly Robinia stands and in one case Pinus stand, where the soil and the herbaceous layer was damaged.

For the number and proportion of seedlings used, see **Annex MTR C2-4.**

Contracted acorn deposition (firstly foreseen to be implemented in autumn 2008, then we decided to postpone it to autumn 2009, due to the lack of fences and the subsequent damage by wild boars) in Nagykőrös 56 B (un-leased, NEFAG) was transferred to artificial regeneration areas of NEFAG in Action D2. We consider 56 B as an area of opened oak stand with high conservation value not worth to disturb with acorn deposition. Furthermore, facing the technological and financial difficulties of these Actions, we cancelled any artificial forest regeneration not obliged by SFS.

Acquiring the seedlings of subordinated, mixing, colouring species like *Ulmus minor, Populus tremula, Betula pendula* proved to be impossible from local areas with similar production site, only from more humid locations of Hungary. This is why we decided to use less species but with local origin, presumably more adapted to the dry production site. On Commission's note (12.06.2007) we clarify that seedling production takes years, hence we had no opportunity to handle this situation. However, in 2010 our forestry expert and recently recruited field coordinator Mr. Dobrosi advised the use of other species nursed in more remote farms.

Following the first, large volume forestations, further sites got involved in 2011 in Strázsa-hegy forest (7 ha) and on leased lands as supplementary forestations in opening oak stands without significant vegetation of conservation value (1 ha). In these cases, a new method was applied (described below at post-treatment).

2009 was the first year of post-treatment in forested sites. It took place on all the 55 ha of forested land.

On areas with partial soil preparation it included hoeing of sapling rows three times, mowing of the area between the rows two times by mowing machine. In most cases, this all meant the cutting of Robinia sprouts. Heavy sprouting caused very serious problems in implementing the follow-up treatment, and besides the dry spring season, it was considered as the most important reason of the unsatisfactory survival (5-20 %) of saplings by the end of summer. In September, chemical spraying was applied on Robinia sprouts with spectacular result. In November, the contracted amount of sapling supplement was accomplished as follows. As there was accord among foresters that a less successful plantation should rather be replanted, than supplemented in high proportion (because of the importance of soil preparation), we directed the subcontractors to plant the contracted amount of saplings to the sites with higher success (15 ha), leaving the less successful sites without.

On areas with complete soil preparation (10 ha), follow-up treatment included hoeing of sapling rows three times and disking of inter line sections two times. As Robinia stumps were eliminated and the soil was deeply ploughed, Robinia sprouting was not significant, and consequently the survival rate of saplings was much higher (about 50-60%). Sapling supplement was carried out on these sites, too. This method equals with the common practice in commercial forestry.

For the map of implemented Action D2, see **Annex PR2 C1-C2-D1-D2.**

In 2010, on 27 ha of partial soil preparation sites where survival of saplings was under expectations a developed method of partial soil preparation was applied: a 60 cm wide 50 cm deep so called seedbed with a rectangular profile was made. In order to secure the even depth of the seedbed, stumps were cut down to make the motion of the tractor more even. Saplings and acorns were planted into this seedbed by the middle of April. This method of soil preparation requires special machinery and a heavy-duty tractor to operate it. The same method was used in 2011 at forestations in Strázsa-hegy stand.

In 2010, high precipitation helped saplings, too, but rotting roots occurred among saplings. Saplings planted into seedbed survived in a satisfactory amount. However, in 2011 another drought period started in August lasting nearly until May 2012 with only slight snow in winter, which had a devastating effect on the plantations by October 2011.

Although Robinia sprouting was still significant in 2010, repeated mechanical treatment secured that sprouting did not compete with saplings as much as in 2009. By 2011, invasion presence in forested sites stopped being a significant problem.

The regular follow-up treatment of forestations was accomplished the same way in 2010 and 2011 as in 2009.

Results and experiences

Altogether 65 ha was forested. In some cases, proposed sites for forestation were cancelled for the reason of significant presence of native vegetation. Only sites with former homogeneous plantations were forested. Forestations are considered as completed, when the long-term survival of trees is assured. There are major discrepancies between the conservational and SFS view of long-term survival of a certain forested stand. As SFS is a competent authority in forest management, it's decrees are binding. These differences are to be bridged by both technical and administrative/legislative solutions.

In the first phase of the implementation, technical solutions, mainly regarding the way of soil preparation that is a key issue, were emphasized. Following the first, smaller scale partial soil preparation, a more intensive method was introduced. Although results in 2010 seemed promising, the autumn drought in 2011 had a devastating effect on the saplings, which did

not gain enough resistance. Following this experience, emphasis shifted to the legislative tools: main goal is to decrease the expected survival rate of saplings by SFS using special forest categories like opening forests. New forestry legislation, its relating orders and the continuous negotiations within the framework of the present project opened the gate for the effective use of such tools.

However, seeking after proper soil preparation methods continues. In the After-LIFE period, deep drilling method is tested. As the further intensification of stripe-shaped soil preparation would lead to the total soil preparation, another direction had to be found. Drilling is a known method, but it is usually cca. 80 cm deep only. In spring 2012, we used 1.5-2 m deep holes and older, 1.5-2 m high poplar saplings. Analysis of the method is going to happen far in the After-LIFE period.

Annexes:

MTR C2-1: Contracted artificial forest regeneration areas
MTR C2-2/1-5: Photos on artificial forest regeneration
MTR C2-3: Minutes of handover of artificial forest regeneration (Procedure 1, 2)
MTR C2-4: Amount and density of planted seedling species
PR2 C1-C2-D1-D2: Management on the project target area 2008-2009
PR2 C2-1: Photo
PR2 D2-1: Photo
PR3 C2-1: Photo
FR C2-D2-1: Decree on the refusal of Nagykőrös 91B clear cut
FR C2-D2-2/1-3: Photos

C3 - Natural forest regeneration with the exclusion of game

Expected results:

12600 m game fence is completed and the possibility of the investigation of the natural regeneration capacity is given. The natural forest regeneration is facilitated by the serious decrease in gnawing.

Achievements:

- 27406 m fence is ready
- most of big game is eliminated
- information plates on each fence

Action status: completed

Modification of the activity against the plan:

Besides the wire net fences, electric fences were established as well. The total length was increased due to forest managers' acceptable demands.

Planned completion date: 31.12.2007

Actual completion date:

leased land, un-leased land, NEFAG land: 15.04.2009

Strázsa-hegy land: 15.04.2011

Reasons for delay:

Delay of land leasing contracts (Action B1) and subsequent public tendering procedures.

Getting the management rights of Strázsa-hegy land had to be preceded by land purchase out of proposed project budget and authorization by SFS.

Description

Summary:

The main purpose of fence construction was to decrease the big game pressure on the priority habitats, on the acorn and oak seedlings in particular. Acorn predation and seedling consumption used to be significant on the project site together with the rooting of wild boars destructing grassland patches.

Experiences with the different types of fences vary. While wire fences are robust and require little maintenance (in case of large falling trees), electric fences are more vulnerable to natural and human impacts like falling trees and thieves and need regular mowing of the track and checking of voltage and the device itself.

4 pieces of electric fence devices were stolen in 2011. The stolen devices were replaced in the After-LIFE period in April 2012. As these cases caused significant financial loss, security cameras are also to be purchased. At present negotiations are going on with security companies (see After-LIFE Plan).

In some cases, lockers that are more robust had to be put on wire fences. Lockers are with numerical codes which are shared with only limited number of stakeholders.

In order to keep the big game abundance zero or low in the fenced areas, regular winter hunting took place. This was supplemented in 2010 with two occasions of game driving by numerous volunteers, without hunting. Exit hills were also established in order to let the game out. Continuous communication with the hunting association is inevitable (see After-LIFE Plan).

Presence or absence of game is continuously detected on the basis of footprints. Big game monitoring has been accomplished in autumn 2011, repeating the survey done in 2007 (see Action F2).

Two sorts of information plates were mounted on the fences in order to inform visitors about the goal of the fences. Fortunately, vandalism has not damaged the plates.

Details of this action:

Construction

As indicated in the Description of Action A4, 2 forest owners and the manager of their land consented to removal of invasives and artificial forest regeneration on un-leased lands of 139

C, D and 140 C only in case a temporary fence out of their budget was established. Regarding the results of big game monitoring in 2007 (see **Annex PR1 F2-7 on CD)**, this was acceptable.

Due to the different structure of ownership and rights of disposal of different parts of the target area, the public tendering process regarding fence construction passed off in three plus one procedures (see Action A4, Procedure 2, 3 and 4-5). The largest proportion of the fencing was the object of the last procedure to be completed.

For the different types of fences and public tendering procedures on the target site without Strázsa-hegy, see **Annex MTR C3-2.**

All the fences except for that around Strázsa-hegy were completed by 15.04.2009. At Action A4 we described factors which delayed the implementation of Action C1, C2. Besides these factors, Action C3 was further delayed by the fact that although it was foreseen in the proposal that it preceded plantation, in most cases fence establishment requires a completed harvest or plantation.

In case of Strázsa-hegy, the fence was completed by 15.04.2011. As Strázsa-hegy is popular among local residents, this fence is supplemented with a gate for hikers (for a photo, see **Annex FR C3-1**).

Three types of game exclusion tools were applied.

So-called permanent game exclusion fence is 2.4 m high, minimum durability is 25 years

So-called temporary fence is 1.9 m high, minimum durability is 10 years

Electric fence is 1.6 m high with seven horizontal electric wires, operating by solar cells.

In case of the permanent and temporary fences they are containing of wooden poles and strained metal wire net with their lower end laid on or buried under ground and covered with soil in order to avoid wild boar-made holes between the lower end and ground.

Electric fence contains of wooden poles, too, but instead of metal net, the poles are carrying horizontal electric wires.

Major characteristics of 3 fence types:

	permanent	temporary	electric
height (meters)	2,4	1,9	1,6
length (meters)	12025	6452	8777
fenced area (ha)	145	75	41
fenced ha / fence m	0,012	0,011	0,005
project proposal	foreseen	not foreseen	foreseen in Action C2

For photos on fence construction, see **Annex MTR C3-1/1-3.**

Maintenance and game control

The delayed construction of the fences was finished after the season of drive hunting so in some areas significant amount of game was included. Individual hunt of game took place through all year, but results were not satisfactory. In October 2009, the next season for drive hunting started, so the local hunting society began to organize such events once a month. During nearly ten occasions, most of the wild boars were eliminated by using shotgun. As fallow deer and roe deer can be hunt only by using rifle, which operates in a much wider range and is consequently more dangerous to all participants of such an event, those were mainly individually hunt. Drive hunts were organized by the hunting society, but in most cases project staff join the driving team, in many cases supplemented by other DINPI and WWF employees and volunteers.

DINPI and the local hunting society (Nagykőrösi Csókáserdei Vadásztársaság) organized a drive of game on the 12.02.2010 without hunting, by opening the fences. This event involved nearly 200 volunteers mainly from Budapest and Nagykőrös, 15 members of the DINPI rangers, with presence of local and nationwide media (see also E1). Altogether 11 fallow deers have left the largest fenced area. For photo on this event, see **Annex C3-1/6, E1-1.**

Following the first volunteer based game driving held on 12.02.2010, a second one took place on 20.03.2010. As a result, significant portion of roe deer and fallow deer were driven out. For a photo, please see, **Annex PR3 C3-1.**

By the end of February 2010, wild boar was nearly completely removed from all the fenced sites. However, a single individual remained and caused damages by digging deposited acorn in forestations of forest stands Nagykőrös 115, 116, 117. Competent hunting society engaged in redeposit acorn to the sites in question, furthermore in establishing artificial hill at the fence that let animals jump out of the fenced area.

Further hunting started in October 2010 in order to eliminate all other big game species. However, game abundance is not a significant problem any more within the wire fences. In latter case, fences are permeable for some extent for roe deer and fallow deer. Presence of wild boar is not reported within sites with electric fences. By the project closure, the game abundance within wire fences reached the favourable level.

For maintaining the fences, DINPI purchased chain saw to eliminate fallen trees and mowing machine to reduce earth of electric fences by grass layer. Latter took place two times in 2009. However, experiences of this winter show that a supplementary power supply is necessary for satisfactory operation of electric fences, as solar cells do not provide enough in winter.

We put 2 sort of information plates onto each fence. The smaller ones indicate the logo of the project, name (“Game exclusion fence”), owner, operator of the fence, phone number, e-mail, website (see **Annex PR2 C3-1/3)** The larger ones are placed to sites with kind of an entrance character of the pSCI, where most visitors enter. Compared to the smaller plates, information above is supplemented with a brief description of the conservation purpose of fencing (see **Annex PR2 C3-1/4)**.

Regarding game exclusion fences vandalism occurred on some locations. Motivation supposed to be material in most cases, while in one case motivation was unclear. Some lockers were damaged, too, so more robust lockers are to be purchased. Regrettably, in 2011 four electric fence devices were stolen. They were recovered, and a security system is under development.

Maintenance of electric fences requires further development. Along supplementary power supply, also a restructuring of the wire system was necessary in 2011: in order to reduce voltage loss by vegetation and snow the bottommost wire is to be insulated from the others and an additional wire shall be placed in cca. 70 cm height

DINPI staff implemented both removal of fallen trees and related repair of fences and mowing the track of electric fences.

Annexes:

MTR C3-1/1-3: Photos on fence construction
MTR C3-2: Tracks of contracted fences
PR2 C3-1/1-6: Photos
PR3 C3-1: Photo
FR C3-1/1-4: Photos

C4 - Reconstruction of building complex for educational and ecotouristical purposes

Expected results:

- a properly developed and equipped building complex with its surroundings is completed for the implementation of Action E3
- reconstructed educational centre (one-storied, with employing hall, auditory and warming-up kitchen)
- ecological devices (solar cells, water recycling device, etc.)
- reconstructed outbuildings (public washrooms)
- open-air wood instruments and playground (tables, benches, bars, crossing gates, etc.)
- arrangement of camping site and sport grounds (tent plots, forest playground, outdoors recreational sites, forest sports ground together with, gardening, renovation of roads in the surroundings)

Achievements:

- building complex, including outbuildings, and its surroundings is restored for the implementation of Action E3, E4, E5
- equipment is obtained
- Solar collectors provide heated water
- open-air wood instruments and playground (tables, benches, bars, crossing gates, etc.)
- arrangement of camping site and sport grounds
- the infrastructure has proved to serve Action E4, E5 very well

Action status: completed

Modification of the activity against the plan:

Planned completion date: 31.05.2011

Actual completion date: 05.06.2008

Reasons for delay:

The minor delay was due the more significant delay of the preparation of reconstruction (see Action A3)

Description

Summary:

To improve the reputation awareness of natural heritage of Nagykőrös, infrastructure of environmental education had to be established first. Being on a nice spot of Pálfája recreational forest, a building owned by NKÖ has been restored. Together with getting a better look, mechanics of the building was developed to be more in line with the sustainability demands of our age. The solar collectors provide all the need of heated water in the building. Furthermore, new elements like outdoor oven, open-air wooden instruments and playground have been introduced to the site, as well. The surroundings of the buildings have been restored, too. The yard of the building is capable and used for educational activities, sport and as a camping area of the summer camps. To launch and continuously operate the educational programs, the necessary equipment was purchased and supplemented.

The security of the goods is satisfactory. Fence and alarm system guard the building. For Commission's request (11.05.2009), we report that vandalism has not involved the Educational Centre by the project closure.

The Pálfája Educational Centre and Nature Trail was inaugurated on 05.06.2008 with the participation of Minister of Environment and Water (see also Action E1). The time that has passed since that day clearly showed how necessary the Educational Centre and it's programmes are. It became not only the centre of the environmental education in town (see Action E5), but a reference site for many other local activities relating to nature.

The building and its surroundings proved to be robust enough to resist the loads of visitors and well-equipped for the educational programs so it is serving its function properly.

Details of this Action:

Following the public tendering procedure (Action A3), the renovation of the educational complex started in January 2008. Technical hand-over took place in March, whereas the opening ceremony of the complex and Nature Trail (Action E7) was held on 05.06.2008, which event was joined by the Minister for Environment and Water (see Action E1).

The complex contains a main building for educational purposes, two outbuildings, one with shower bath, the other with lavatory and toilet, a yard with open-air wood instruments and some playground instruments, and the surrounding of the yard, with open-air wood instruments and playground instruments. The entire complex is in accordance with building standards for disabled persons, including ramps to the main building and toilet possible to use with a wheelchair. The fenced part of the complex and the main building itself is protected by alarm system. Within the complex, the conditions are given to the selective waste management.

The main building remains one-storied, contains a hall capable for both classroom, auditory and dining purposes, a warming-up kitchen, one room for the educators and storing the equipment, a lavatory, a shower-bath to the personnel, and a room for the indoor units of the solar collector. It also has a roofed, but outdoor terrace. Source of water heating is partly from solar collectors.

One of the outbuildings includes shower baths; the other has toilets, including one for disabled persons.

The yard contains open-air wooden instruments (tables with benches), a field with patches of different natural materials, like leaves, gravel, sand, cones, in order to improve tactile senses of children, a fireplace with trunks around it, a composting frame. In 2010, a traditional form, wood-burning outdoor oven was constructed in the yard.

The surroundings contains open-air wooden instruments (tables with benches), playground instruments: two seesaws, jungle gym, wooden sculptures of animals, and a pair of swings.

The broader surroundings include the first and final station of the Nature Trail (Action E7), one of the information boards placed out (Action A1), and the building of so-called "Aréna", which is on one hand a spectacular element of the area, but on the other hand, its condition might be dangerous. Ensuring that children visiting the educational complex are isolated from not only the inside but also the proximate surroundings of the "Aréna" is a important task of the NKÖ, as the owner of the area.

For photos on the Centre and its surroundings, see **Annex MTR C4-1/1-5**

The most important equipments were purchased in 2008. Further purchase included as follows:

- camp beds (for photo, see **Annex PR2 C4-1**) for summer camps
- 8 tents for 4 persons each
- kitchen furniture
- camping mats
- kitchen equipment
- board games
- sport equipment
- handicraft equipment

The equipment purchased serves the more fluent run of summer camps and helps to broaden the range of educational activities of the Centre. In the first season of summer camps tents were borrowed by DINPD from other DINPD campsites. As summer camps turned to be popular, the Centre's own tents were to be purchased. Establishment of outdoor oven was foreseen (see **Annex MTR C4-2**) and getting convinced about the popularity of the Centre, it has been constructed. Kitchen furniture was a need emerged from the experiences of summer camps as well. For photos on outdoor oven and tents, see **Annex PR3 C4-1/1-3**.

Annexes:

MTR C4-1/1-5: Photos on reconstructed building
MTR C4-2: Table of equipment for the Educational Centre
PR2 C4-1: Photo
PR3 C4-1/1-3: Photos
FR C4-1/1-4: Photos

E1 – Information to the general public – media work

Expected results:

- Increased interest on the issues targeted by the project and wide knowledge of the results achieved
- Wide media presence
- 4 press conferences with press trips held for the national media
- 1 press conference with a trip is organised for the international media
- Press releases are issued
- Press articles collected and filed in

Achievements

- Increased interest on the steppe oak woods and the project, especially in the region and among professionals
- Wide media presence generated by the press trips and the press releases
- 4 press conferences with press trips were held for the national media (1 opening press conference, 1 press conference with the opening ceremony of the educational centre, 1 press trip to the drive of game with volunteers and 1 closing press trip linked to the international conference on steppe woods
- Several press releases and articles were issued and sent out to the media
- National and regional television channels broadcast about the project several times
- News and thematic articles were regularly published in the magazines, news papers and websites of the Beneficiary and Partners about the project goals and activities, the steppe oak woods, and the Natura 2000 network
- Articles were collected, filed in and made available on the project website

Action status: completed

Modification of the activity against the plan: N/A

Planned completion date: 31.12.2011

Actual completion date: 31.12.2011

Reasons for delay:

Description:

A list of printed and electronic media appearances (articles, news, interviews, broadcasts) during the whole project is attached in Annex FR E1-1) Selected articles (7 examples from 2011) are also attached (Annex FR E1-2/1-7). Articles from previous years were attached to PR1 in Annex PR1 E1-2, to MTR in Annex MTR E1-3/1-6, to PR2 Annex PR2 E1-4/1-5 and to PR3 in Annex PR3 E1-3 and E1-4/1-5.
Media activities and information to the wide public were continuous during the project. Here we present a summary by year:

2006-2007
In 2006, we announced the beginning in the newsletters of the project partners. During the five years of the project articles and news, related to the project or the habitat have been continuously present in the magazines, websites and monthly paper of the Beneficiary and Partners and in the local paper in Nagykőrös. The first regional press release was issued in March 2007 on the establishment of the information boards of the project. It generated several articles in regional and local media and interviews in radio programmes.

First press trip

The opening press conference and press trip was held on 8 May 2007 with the participation of 13 journalists, the members of the Advisory Body, project staff, guests and heads of the three implementing organisations. After the press conference, a field trip was organized with a short performance of a local archery club as media attraction. Most of the generated publications were issued exactly on the Day of Birds and Trees on 10 May, what gave them special attention. Articles were published in magazines, such as *Vadon* (Wild) and the Hungarian edition of *Natural Geographic*. As information dissemination for non-professionals also a presentation was held in the first year for the Municipality of Nagykőrös and the representatives of one of its twin cities.

2008

Second press trip
On 5 June 2008 a second press conference and field trip was organised for the opening of the Educational Centre and Pálfája study trail. The Hungarian Minister of Environment and Water opened the educational centre. On the event participated the interested journalists, the winners of the children drawing competition (whose works were exhibited), project staff, guests and the heads of the three implementing organisations. As a result of the press conference articles were published in the regional daily news paper, local papers, on-line news portals (e.g. forestpress.hu and greenfo.hu) and thematic magazines, and interviews were broadcast in different radio channels.

As local people have been the primary target group of the communication and awareness raising, during 2008 we were publishing a 2-monthly series of long thematic articles, in relation of the habitat and project activities in the official local paper of Nagykőrös Municipality. Furthermore the main topic of 3rd issue of *Cincér* (DINPD newsletter) in 2008 was the HUNSTEPPICOAKS project. During the five years articles were published regularly in the local news-paper of the Municipality about the project activities in order to inform the locals. This newspaper is sent to all the households in Nagykőrös free-of-charge weekly. We highlighted the programs of the Educational Centre but we also informed people about the forestry works. On the websites of the Beneficiary and Partners, regular news have been placed. Also on popular on-line portals some articles were published. In addition, some local inhabitants (e.g. Tibor Kapás), who are interested in preserving the natural and cultural heritage of their town, have been involved more actively in the communication and education activities. Thanks to their local relationships, their support to the project is very helpful and valuable. Some articles written by Tibor Kapás about the oak woods have been collected and filed as well.

In June, 2008 a team of the Hungarian National Television made a 30-minute-long film, directed by Károly Gyenes, about the project and the conservation value of the steppe oak woods. Several specialists and project staff was interviewed and shooting took place on the project site. The film was on TV two times in October 2008 in M2 (Hungarian National Television) within the series called Natura. This film was also screened on the 20th anniversary event of LIFE and Natura 2000 at the beginning of 2012.

After the 2nd year of the project, thanks to the increased general awareness to the steppe oak woods and the Nagykőrös site, the topic appeared and spread in the most up-to-date on-line communication channels, such us Wikipedia, private blogs on the internet, and the common thematic blog of WWF Hungary and other environmentalist organizations on a popular news portal www.fn.hu .

2009
In 2009 the project had some negative media appearances (described in detail in PR2), which had been directly or indirectly induced by Mr. Ferenc Farkas, a local forest manager who DINPD is in land leasing contract with. Although he repressed his negative opinion on

our goals and methods during negotiations on the leasing contract, as the implementation started, he turned aggressive and found allies in euro-sceptical media and a radical group of hunters.

Local TV channel of Kecskemét had some negative opinions on the project, but they also opened the door to our point of view. This television presented opinions of different stakeholders about the forestry works and nature conservation goals of the project and forests on the plain in general. Later during the year we established a professional relationship with the editor and then some objective news of the project were broadcast.
However, in May 2009 issue of a monthly hunters' magazine, a hostile article was published, full of false statements and inspirations. The magazine has a strong anti-nature conservation attitude, for example in large carnivore issues. In accordance with the Hungarian regulations on media, we initiated emendation. As the editors refused to publish it, we initiated action at law. Consequently, the editorial office of the magazine attempted to retreat in form of some corrections published in the September issue. As we considered it unsatisfactory, litigation was going on. Finally, the judgement (**Annex PR2 E1-5**) of the court of first instance (10.11.2009) stated that 4 of 6 points of our statement of claim were reasonable, so the hunters' magazine had to publish an emendation (a copy of the emendation was attached in **Annex PR3 E1-3)**.

On 02.10.2009, a scandal-focused program of a Hungarian news channel broadcasted a report on the project. Both the program and the channel itself have a Euro-sceptic attitude, which formed the basis for a report on an EU fund project. As it's criticism was more "professional", expressing mostly true statements in a very unfavourable light by using manipulative imaging, editing and comments, we decided not to start an action at law.

2010

Third press trip
During 2009, there were no special event or milestone reached that would have given an opportunity to organize a press trip, in order to balance the negative news. However, in February, 2010 we used the opportunity of the volunteer-based game driving event to organize the next press trip to the project site. As reported in PR2, on 02.02.2010 WWF and DINPD with the cooperation of the local hunting society organized a big volunteer action, in order to drive game out from the biggest fenced site. Volunteers from all over the country were present and a local high school participated with 100 students. To this event we invited local and national TV channels, and as a result there were broadcasts presenting the project in the national M1 TV channel and DUNA TV, as well as in the local Kecskeméti TV channel. For photos and media registration form **Annex PR2 E1-1, E1-2,** for dates of broadcast of footages, see **Annex PR3 E1-1.**

During this year, we have continued to publish the project news in the local newspaper. On one hand, we have given detailed information to the inhabitants about the forestry works, and on the other, the programs of the Educational Centre were continuously present. Apart from the local media this year, we also have published articles in thematic magazines. We organized a nationwide photo contest on the forests of the Great Plain, in order to involve interested people to nature conservation more actively. We received over 45 artworks, and the best pictures were published in the Explorer Magazine and on the project website. For winners see **Annex PR3 E1-2/1-3**

2011
Partly as a reaction to the negative media appearances, in addition to the originally planned publications and communication activities, we decided to publish in 2011 a special thematic issue of the printed WWF Magazine, focused on the project, in 15,000 pieces, in order to give out more information to local people about the nature conservation activities. **A copy of**

the Magazine is attached in to the Final Report. The brochure was distributed through post to all the households of Nagykőrös, together with the local newspaper. Furthermore, it was distributed through the Educational Centre, through other visitors' centres of DINPD and through the supporters' network of WWF. Distribution plan of the publication is attached in **Annex FR E1-3**.
In 2011 WWF became an active member on Facebook, which gave a new opportunity to release small bits of information on the steppe woods project frequently.

Fourth press trip
In the last year of the project, we organized one closing press trip to the project site for the national media. It was linked to the international conference on steppe oak woods and Pannonic sand steppes, held in October 2011 (see Action E6). We tried to invite international media to this trip through the WWF network, but although on the conference scientists from 7 countries participated, we could not attract media from abroad. An invitation to the conference and press trip sent out to international partners and media is attached in **Annex FR E1-4.** With the rapid growth of informational society, it is more and more difficult to get media representatives out to a whole-day trip, even within the same country. In spite of that, the National News Agency, a national television channel, a regional radio channel and representatives of newspapers and on-line media were present on the trip. List of participants on the press trip is attached in **Annex FR E1-5.**

After-LIFE plans:

After the completion of the project the beneficiary and partners will continue to inform the public on the on-going activities on the project site and in the Educational Centre through the website of the project partners. In case of bigger events, e.g. in the Educational Centre press releases may be issued as well.

Annexes:

PR1 E1-1: Media coverage on our project
PR1 E1-2/a selected article: in Herald Cincér of DINPI
PR1 E1-2/b selected article: in regional newspaper 'Petőfi népe'
PR1 E1-2/c: selected article: in newspaper of Nagykőrös town
PR1 E1-2/d: selected article: in national newspaper 'Népszava'
PR1 E1-2/e: selected article: in green paper 'Vadon'
PR1 E1-3/a: Photo on the first press conference on our project
PR1 E1-3/b: Photo on heads of participants planting oak at press conference
PR1 E1-3/c: Photo on archery presentation at press conference
PR1 E1-3/d: Photo on guests try archery
MTR E1-1: Media coverage
MTR E1-2: Opening ceremony at 'Pálfája' Educational Centre
PR2 E1-1: Photo
PR2 E1-2: Press registration form for press trip on 12.02.2010
PR2 E1-3: Media coverage 01.12.2008- 28.02.2010
PR2 E1-4/1-5: Examples of media coverage
PR2 E1-5: Judgement on emendation - 'Vadászlap' hunters' magazine
PR3 E1-1: Media coverage 01.12.2008 - 31.01.2011
PR3 E1-2/1-3: Winners of photo contest
PR3 E1-3: Emendation in hunters' magazine
PR3 E1-4/1-5: Examples of media coverage
PR3 E1-4/1: Önkormányzati Hírek 05.02.2010 / 1 p.
PR3 E1-4/2: Önkormányzati Hírek 28.05.2010 / 1 p.
PR3 E1-4/3: Önkormányzati Hírek 15.10.2010 / 1 p.
PR3 E1-4/4: Önkormányzati Hírek 22.10.2010 / 1 p.
PR3 E1-4/5: Földgömb 2010/3 1 p.
FR E1-1: Media coverage on our project

FR E1-2/1-7: Examples of media coverage in 2011
FR E1-3: Distribution plan of WWF Magazine
FR E1-4: Invitation to conference and press trip
FR E1-5: List of participants on 4th press trip
A copy of WWF Magazine is attached to the Final Report

E2 - Information to the general public – website

Expected results:

- An up-to date website in Hungarian and English version with an e-mail address, downloads, links to a number of other websites (LIFE, beneficiary, partners, other projects)
- Banners and links are established
- A certain amount of visitors (expected number of visitors 30,000 per year) and downloads

Achievements:

- A project website in Hungarian and English on www.pusztaitolgyesek.hu was created, and maintained up-to-date: logos, a direct e-mail address of the project, contact information, project description, news, maps, downloads, photo gallery, links (LIFE, Natura 2000, beneficiary, partners, co-financiers, other projects, etc.)
- Links to the project website were placed on the websites of the Beneficiary, the Partners and other LIFE projects
- Banners were created and placed
- Total number of visitors to the website was over 130,000, after the first year with a stable yearly average around 30,000

Action status: *Completed*

Modification of the activity against the plan: N/A

Planned completion date: 31.12.2011

Actual completion date: 31.12.2011

Reasons for delay:

Description:

The creation of the website (design and programming) was subcontracted to a professional web designer team. For faster updates a user-friendly administration interface was created, through which the communication officer of WWF and the education programme coordinator of DINPD can easily upload new contents. The website was released on 31 May 2007. It was translated into English as well. The content of the website has been kept up-to-date with all the achievements, news, events and photos of the project, in both English and Hungarian. Project reports and publications are downloadable free.

Links to the project website were placed on the homepages of the project participants and other websites (for not exhaustive list see PR1).

In order to attract more interest to the project website after the opening of the educational centre an interactive on-line game was developed during the summer of 2008 (screenshots

of the game are attached in **Annex MTR E2-2/1-2).** The game presented the foreseen conservation activities of the project and made possible for the player to be an active participant of conservation efforts, in the virtual world. In July, August and September a banner campaign was launched on popular, frequently visited on-line portals (e.g. www.startlap.com), to popularize the project website through the interactive game. On the welcome and closing pages of the game links were placed that led interested visitors to the pages of the Pálfája Educational Centre. In 2010, another campaign was set up around the on-line game, what produced a peak in visits again. We made slight modifications in the game to clarify some elements that had been misunderstood by some hunters and foresters, in order to avoid conflicts.

During the last year, the website was used as an interface for the organization of the closing conference of the project, with all the relevant information regarding the event. Abstracts, presentations and posters of the conference were published on the site as well.
See website statistics of 2011 in **Annex FR E2-1**.

Detailed visit and usage statistics of the project website are available from the service providers' own registries and from 2008 on from Yahoo Analytics. The latter gives us details about the traffic on the educational pages, too. Yearly visitors' statistics were attached to each progress report and the midterm report. Total number of visitors to the website during the four and a half year was over 130,000, after the first year with a stable yearly average around 30,000. A summary of visitors' statistics from 01/06/2007 to 31/12/2011 is attached in **Annex FR E2-2** and a content overview, showing the most popular pages of the website **in Annex FR E2-3.**

After-LIFE plans:

The website will be maintained after the closing of the project for the 5-year period covered by the After-LIFE plan, in accordance with the After-LIFE Agreement signed by the partners. However, updates will be made less frequently and only in Hungarian.

Annexes:

PR1 E2-1/a-b: Our webpage in Hungarian and English 53
PR1 E2-2: Webpage statistics on our website
MTR E2-1: Web usage statistics
MTR E2-2/1-2: Screenshots of on-line game
PR2 E2-1: Web usage statistics
PR3 E2-1: Web usage statistics
FR E2-1: Web usage statistics for 2011
FR E2-2: Web usage statistics between 01.06.2007 and 31.12.2011
FR E2-3: Most popular pages of the website

E3 - Development of programmes for the educational centre

Expected results:

- Preparation of the educational strategy for the area;
- Preparation of educational programmes for at least three main educational activities (min. 5 school class, min. 1 summer camp, min. 1 Nature Trail program, with all necessary teaching materials and methods);
- Preparation of a 30 hours "Train the trainer programme";

- Edition of a teaching aid book, in min. 500 copies;

Achievements:

- survey on environmental educational needs in the area
- exchange of experience with environmental educators
- collection of materials for the educational program
- educational programs worked out for the 'outdoors school' classes and the Nature Trail
- teaching aid booklet is published in 500 copies

Action status: completed

Modification of the activity against the plan:

Train the trainer program was cancelled

Planned completion date: 31.05.2008

Actual completion date: 31.12.2011

Reasons for delay:

Compilation of teaching aid booklet was postponed to the end of the project in order to gather all experiences on the educational program

Description:

As there was only a sporadic presence of environmental education in Nagykőrös and the surrounding villages before the LIFE project, an educational strategy had to be processed parallel to making the infrastructural conditions of it. A survey was implemented to assess the local needs regarding environmental education, 'forest schools' and other running environmental education sites were visited. DINPD has its own running educational program, which was used for this action as well.

Following the collection of experiences and ideas and the opening of the Educational Centre, the programs started. Using the experiences of the programs in practice, the syllabi of educational modules were compiled. Since launching the programs, they are flaring continuously with new ideas of environmental educator Ms. Mária Sápi.

In PR2, contra-indication of Train the Trainer program was stated. In its letter dated on 09.06.2010 Commission accepted that implementation of a Train the Trainer program and relating materials would be against the principles of cost effectiveness and value for money.

Compilation of a monochrome teaching aid book (20+4 pp) was published in 500 copies (**a copy of the booklet is attached to the Final Report**). This issue aims to help local teachers to process their own Nature Trail program for their pupils. Although such a booklet cannot involve all the potential modules and programs, it can provide many starting points and helpful hints on subject. The structure follows that of the Nature Trail guidebook, supplementing it with additional information and program ideas. After launching and developing the Pálfája Educational Centre and nature Trail, the next step of deepening environmental issues in the local education is involving more and more teachers. This

booklet is a cost effective and useful tool to reach this goal. For a distribution plan, see **Annex FR E3-1.**

Annexes:

PR1 E3-1: Questionnaire on educational needs of the area 55
PR1 E3-2/a: Photo on our stand at 'Nagykőrös Days' festival 55
PR1 E3-2/b: Photo on playing by our stand at 'Nagykőrös Days' 55
PR1 E3-3: Letter sent to educational institutes with questionnaire 56
PR1 E3-4: Evaluation of the questionnaire inquiry 58
PR1 E3-5: Photo on educational materials 61
PR1 E3-6/a: Photo on visiting nature trail program 61
PR1 E3-6/b: Photo on visit on an experience trail 61
PR1 E3-6/c: Photo on visit in forest school
PR2 E3-1/1-6: Syllabi for environmental education programs, on DVD
FR E3-1: Distribution plan of teaching aid book
A copy of the teaching aid book is attached to the Final Report

E4 - Communication of the educational programme to target groups

Expected results:

- Brochure on the educational centre programmes, 15000 copies
- Three types of green events annually, with 100-150 participants each (in 3 years, altogether on min. 9 occasions)
- The educational section of the main web page is emphasized
- High levels of public awareness on the educational centre and its programs and parallel to this, related to steppe oak forests of Nagykőrös and the Natura 2000 network

Achievements:

- Brochure on the educational centre programmes printed in 15000 copies
- The educational section of the project webpage is in operation and kept up-to-date (information, maps, photos, downloads, etc.)
- A children drawing competition was organized in order to raise public attention to the opening of the educational centre and collect drawings for its decoration
- Family days in the Pálfája Educational Centre in each year
- Participation with stand in events in town, like 'Nagykőrös Days'
- Partnership built with schools and other cultural institutions in Nagykőrös and the region
- Many actions of E1 (articles, news) and many presentations in Action E6 notice the educational activities within the project

Action status: completed

Modification of the activity against the plan: N/A

Planned completion date: 31.08.2011

Actual completion date: 31.12.2011

Reasons for delay:

Continuous operation of educational program

Description:

Within this action, setting the educational section of the project webpage was implemented, both in Hungarian and English languages, at the same time when the website was set up. (A screenshot of the educational section was attached in **Annex MTR E4-1/1-2).** In this section, we have been continuously providing information on the progress in the reconstruction of the centre, the development of the educational programme and the design of the study trail. Milestones and achievements related to the educational centre and the beginning of the classes have also been emphasized in the News section of the home page. All the material that have been produced in relation with the educational programme or the study trail – such as the questionnaire sent to stakeholders, the result of the survey (see description in PR1 Action E3), the itinerary of the study trail, the guiding booklet of the trail, invitation to events, etc. – are available and can be downloaded from the website.

In spring 2008, intensive communication was started in order to raise attention to the educational centre (opened in 05.06.2008). In March 2008, we convened a nation-wide drawing competition for children with the topic of forests on the Great Plain. It was advertised in a press release and the invitation was sent out directly to all the educational institutions of the region, where children of the age 6-14 were studying. We received more than 500 pieces of art, made with different techniques, from all over the country. Some applications arrived even from outside of the country, from a Hungarian-language primary school in Romania. (Five selected examples of the best drawings were attached in **Annex MTR E4-2/1-3.**) Volunteers of the Hungarian National Bank helped to finish the arrangement of the garden and the decoration of the Educational Centre before the opening ceremony. The Minister for Environmental and Water opened the Educational Centre in June 2008. This way the opening ceremony was an event that attracted countrywide media attention to the project and its educational activities.

Our educational and exhibition stand to be used at events was prepared by DINPD staff in November 2007. It is made of wood by a special design, which is nice, easy to assemble as well as to transport (see its photo in **Annex PR1 E4-2).** Steppic oaks project participated in yearly 'Nagykőrös Days' weekend event held in early autumn each year. Since launching, the project staff has not missed a year. Materials on environmental education, steppic oaks project and DINPD were distributed and children were involved in nature relating games. The project stand was a station with tasks within a competition consisting of several stands. For a photo on the stand in 2010, see **Annex PR3 E4-2,** in 2011, see **Annex FR E4-1.**

2009 was the first full year of operation of Educational Centre. Freshly recruited, local resident Education Program Coordinator Mária Vinczéné Sápi started further intensive promotion of programs (for a photo on such an event, see **Annex PR2 E4-1**). Her activity included participating in local NGO-s events, establishing cooperation with organizations, personally meeting representatives of all the local educational institutes. Although the established cooperation with the organizations below is informal, it is probably the strongest basis of the operation of Pálfája Education Centre.
Range of cooperating organizations includes:

Aranykerék Bicycle Club
Horse Club of Nagykőrös
Club of Families Nagykőrös
Club of Retired People of Nagykőrös
Institution of Social Service of Nagykőrös for mentally handicapped people

Child Protection Service of Pest County
Dalmady Győző Kindergarten and Elementary School

As a result, the Educational Centre became part of “Things to see” in town, got integrated into the cultural and educational life and even the social service of Nagykőrös. Local teachers volunteer their time to help programs, entrepreneurs donated firewood or raw material for handicraft programs, local companies consider the Centre as an obvious site for their events. To sum up, the Centre became a significant site of Nagykőrös, confirming both the proposed need for such a location and the efforts of the Education Program Coordinator.

In 2009 the Education Program Coordinator of Pálfája Education Centre, ranger of Dinnyés area (valuable wetland at the western end of DINPD orbit), 4 elementary school pupils from Nagykőrös and 4 from village of Dinnyés represented DINPD on „Together for Nature” competition in Apuseni National Park, Romania. This was an opportunity to report on the project at international level.

In 2009, 2010 and 2011 we involved young students of sciences (one of them from France) as WWF volunteers to the organization of the summer camps in the Educational Centre. Their participation had two purposes: on one hand, they helped project staff with coordination and supervising of the children, and on the other, they learned deeply about the project and the educational work and could spread the information among their fellow students by mouth-of-word. We would like to go on with this tradition during the After-LIFE period as well.

After the first full season, promotion of project relating environmental education activities have became self-sufficient. Kinder gardens and schools in Nagykőrös have integrated these programs into their own yearly agenda and teaching program, and vice versa, these institutes support environmental education with additional suggestions. Close cooperation with ‘Arany János Museum’, Town Community Centre and its library assures as well that programs of the Educational Centre are getting round among town residents. As reported in PR2, it became an integrated part of cultural life in Nagykőrös, so promotion need was limited to scheduling the groups.

During the whole project, the website remained an important source of information about the educational program and events in the Pálfája, but parallel to it, personal contacts and the word-of-mouth became more and more effective promotion tools for the Educational Centre. During the summer, just like in the years before, volunteers of WWF participated in the camps to support the coordination and help programme organization for the children. Visitors’ statistics of the educational section of the project of 2011 is attached in **Annex FR E4-2.** A summary of statistics from 01/01/2008 to 31/12/2011 is attached in **Annex FR E4-3.** During the four years, more than 25,000 visitors visited the educational section of the website.

A brochure on Pálfája Educational Centre was issued in 15,000 copies, presenting the centre and its services (in A4 format piled into 3 parts, full colour, on recycled paper). A distribution plan is attached in **Annex FR E4-4. A copy of the brochure is attached to the present Final Report**.

In 2011 we again organized 2 voluntary days to involve active layman into the outdoor maintenance works of the Educational Centre (refreshing the “touchy trail”) and into the conservation work in the Pálfája woods (repression of invasive shoots and the plantation of acorns). The first voluntary event was held on 2 July, and the second one on 11 November 2011. This was also linked to the international initiative “One Day on Earth 11/11/11”. Photos of the voluntary days are attached in **Annex FR E4-5/1-3.**

Annexes:

PR1 E4-1: Education section of our webpage 61
PR1 E4-2: Photo on the stand of the project 62
PR1 E4-3/a: Photo on the archery tournament at Nagykőrös 62
PR1 E4-3/b: Photo on advertising the project at archery tournament
MTR E4-1/1-2: Screenshots of educational section of project website
MTR E4-2/1-3: 3 of the best drawings received to compete
MTR E4-3/1-2: Volunteer work at the Educational Centre
MTR E4-4/1-4: Photos on Nagykőrös Days 2008 event
MTR E4-5/1: Poster of family day held on 27.09.2008
MTR E4-5/2-7: Photos on Family Day held on 27.09.2008
PR2 E4-1: Photo
PR2 E4-2: Web usage of education section of project website
PR3 E4-1: Web usage of education section of project website
PR3 E4-2: Photo on stand ('Nagykőrös Days' 2010)
FR E4-1: Photo on stand ('Nagykőrös Days' 2011)
FR E4-2: Web usage of education section of project website in 2011
FR E4-3: Web usage of education section of project website between 01.01.2008 and 31.12.2011
FR E4-4: Distribution plan of brochure on Educational Centre
FR E4-5/1-3: Photos on voluntary day
A copy of the brochure is attached to the present Final Report.

E5 - Starting up the educational programme and continuous operation of the educational centre

Expected participation of adult and children groups on the programmes (25 persons per group in average):

'Outdoors' school classes:

- 2008/2009 15 groups
- 2009/2010 25 groups
- 2010/2011 35 groups

Nature Trail programmes:

- 2008/2009 40 groups
- 2009/2010 60 groups
- 2010/2011 80 groups

Summer camps:

- 2008/2009 2 groups
- 2009/2010 3 groups
- 2010/2011 4 groups

Train the trainer programme:

- 2008/2009 1 group
- 2009/2010 2 groups
- 2010/2011 3 groups

Visitors on the education section of the web page:

- 2008/2009 2000 persons
- 2009/2010 3000 persons
- 2010/2011 5000 persons

Achievements:

'Outdoor' school classes:
- 2008-2011 56 groups

Nature Trail programmes:
- 2008-2011 148 groups

Summer camps:
- 2008-2011 22 groups

Visitors on the education section of the web page:
- 2008/2009 2000 persons 2000
- 01.02.2009-28.02.2010 3062 persons
- 01.01.2010-31.12.2010 4576 persons
- 01.01.2011-31.12.2011 2461 persons

Non-educational programs held
Programs became integrated into the cultural life of Nagykőrös.

Action status: completed

Modification of the activity against the plan:

Train the trainer program was cancelled (see Action E3)

Planned completion date: 31.08.2011

Actual completion date: 15.10.2011

Reasons for delay:

Continuous running of educational programs

Description:

The operation of the newly established Pálfája Educational Centre was two-fold between it's inauguration on 05.06.2008 and 31.10.2009. DINPI was supposed to run the environmental education program, while NKÖ, by way of its establishments, was responsible for the operation and maintenance of the educational centre and the Nature Trail, including surroundings of those. NKÖ was and still is entitled to organise events to the centre without educational purposes, but only in case those are not in contradiction with either particular aims of the project or general aims of nature conservation and environment protection.

Opening the educational centre only weeks before the end of school term, educational program started with Nature Trail programs. In the first season in 2008 we hosted 317 guided visitors, most of them by organisation of educational institutes (age of participating children were 5 to 13 years old), some family groups and adult groups. Among the visiting groups, there were both who registered in advance and who come forward during a particular event of E4 like the 'Family Day' in September or the Week of National Parks and the opening ceremony itself.

For photos on Nature Trail programs in 2008, see **Annex MTR E5-2/1-4**

'Outdoor school' classes started in the next school term 2008/2009. In September and October, school groups participated with children at the age of 8 to 10, two groups in each month.

For the statistics of registered visitors in 2008, see **Annex MTR E5-1/1-2**

As recorded in our proposal, from 01.11.2009 the NKÖ took over the running of the educational program, too. NKÖ preferred to subcontract the operation of the Centre with a company owned 100 % by itself. After consulting this issue with representatives of the Commission on 10-11.03.2009 and having the formal statement on it on 11.05.2009, negotiations began between NKÖ and KöVa, the company in question. Finally, a contract on operation was signed between NKÖ and KöVa. Showing the commitment of KöVa to the operation of the Centre, since 01.11.2009 they have employed Mária Vinczéné Sápi, Education Program Coordinator employed by DINPI before that date. This is in accordance with intentions of DINPI on assuring the continual running of programs, highly based on the professional relationships Mária Vinczéné Sápi had substantiated (see also Action E4).

For the statistics of registered visitors in 2008-2009, see **Annex PR2 E5-1.**

Number of visitors rose significantly in 2009. Programs attracted mainly kindergartens and elementary schools, but adult groups, students of a relating technical college (for hunters), college, high schools, and religious communities were also entertained. Programs were integrated into town level events like 'Nagykőrös Days' or Earth Day. Events of private companies were supplemented by nature trail program guided by the Education Program Coordinator, which was always appreciated by the company groups, too. Most of the groups arrived from Nagykőrös and its neighbouring settlements, but from further parts of Hungary and Budapest as well.

Altogether 5 summer camps were organized, one of them by DINPI itself while the rest by other organizations like Calvinist church, local teachers, schools, sport trainers. Although most of these camps had a particular central topic, like religion, language or sport, they all integrated the environmental education programs provided by the Education Program Coordinator.

In 2010 and 2011, programs continued with significant attendance. Programs in Pálfája start in April and lasts until October with a short break in August between summer camps and autumn school groups. In addition, environmental educator participates in programs held in town library before and after the outdoor season of Pálfája.

Most popular programs were the guided nature trail programs, which overlap with outdoor classes and summer camps, too. Most participants are residents of Nagykőrös and nearby settlements, but several groups from more remote parts of the country have visited Pálfája as well. More and more children participate who are familiar with the forest since they have participated in previous years, too. Comfortably, programs that are more complex could be provided for them. Age of participating students ranges from 5 to 17 years old.

Besides the project's own summer camp, different local organizations and individuals set others up. All the camps were organized with close cooperation of animators and included project related environmental education modules.

For the statistics of registered visitors in 2010, see **Annex PR3 E5-1**, for some photos on programs, see **Annex PR3 E5-2/1-3.** For some photos on programs, see **Annex FR E5-1/1-3.**

Annexes:

MTR E5-1/1-2: Table of guided programs
MTR E5-2/1-4: Photos of educational programs
PR2 E5-1: Summary of visitors of educational programs 2009
PR2 E5-2/1-5: Photos

PR3 E5-1: Summary of visitors of educational programs 2010
PR3 E5-2/1-3: Photos
FR E5-1/1-3: Photos

E6 - Mutual communication aiming at different groups of professionals and dissemination of scientific results

Expected results:

- Experts are continuously informed about achievements in the management tasks as well as they can provide feedback by their comments on these actions
- Approximately 75 scientific experts from all over Europe, as well as 20 Hungarian professionals, get acquainted with the results of the project
- NGOs active in the field of the Natura 2000 site management have the opportunity to learn from the experience of the project coordinators

Achievements:

- Experts are continuously informed about the goals, activities and insofar experiences of the project and have had the opportunity to provide feedback
- Project staff participated and presented the project at several thematic events (conferences, seminars and meetings)
- NGOs, active in the field of nature conservation were informed, got acquainted with the goals and learned about the insofar experiences of the project
- 3 field trips to the project site were organized for representatives of green NGOs, colleagues of other National Park Directorates and for practicing foresters
- 5 fieldworks for volunteers were organized on the project site
- International conference on steppic oak forests and Pannonic sand steppes was organized
- Proceedings of the conference were published in 300 copies
- CD-Rom was published in 500 copies
- Rosalia on on Euro-Siberian steppic woods and Pannonic sand steppes was published in 500 copies

Action status: Completed

Modification of the activity against the plan:

Rosalia issue was published in reduced number

Planned completion date: 30.11.2011

Actual completion date: 31.12.2011

Reasons for delay: Preparation of selected articles to be published in *Rosalia* was delayed

Description:

Participation of project staff at conferences
The communication with professionals started from the first year of the project, with the participation of DINPD and WWF staff in different scientific events. Summary by year of these events (the presentations were attached to the progress reports and mid-term report):

2006
In November, a seminar was organised by a large nature conservation NGO for botanists and conservation professionals about conservation actions to preserve plant species and associations in Hungary. Project staff of DINPD participated in the conference, where Katalin Sipos, Head of Conservation Department presented the project.
2007
In March, WWF staff participated in the yearly National Conference of the Hungarian Environmentalist and Nature Conservation NGOs and National Forest Forum in Kecskemét in order to inform Hungarian green NGOs and forestry professionals about the launch of the project, and to generate a dialogue about the problems of natural forests on the Great Plain. László Gálhidy presented the project and Klára Kerpely managed the information stand.
In the regular NGO forum organized by DINPD, Katalin Sipos presented the on-going projects of the Directorate, thus also HUNSTEPPICOAKS project to the representatives of NGOs.
In June 2007, at the ranger's meeting of DINPD held in Nagykőrös István Justin presented our project to the complete ranger staff of the organisation in field.
Annamária Csóka presented HUNSTEPPICOAKS project among other on-going projects of DINPD in the frame of a lecture to students of applied zoology, in the University of Veterinary, Budapest in December 2007.
These presentations were attached in **Annexes PR1 G/d-h.**
2008
In November 2008, the 5th National Conservation Biology Conference was held in Nyíregyháza. In the Conservation Strategies Symposium, project staff of the Beneficiary (György Verő, Katalin Sipos, Zsolt Baranyai, Beáta Papp) presented the conservation strategy that is being implemented and further developed in the project site in Nagykőrös.
BirdLife Hungary, in cooperation with DINPD, organizes every year a bird-watch competition and educational festival in Tata, when the wild goose and other birds arrive to their wintering place on the lake of Tata. The project manager and the Head of the Conservation Department of DINPD presented the HUNSTEPPICOAKS project to the public, composed of professionals and interested laymen.
These presentations were attached in **Annexes MTR E6-1, E6-2.**
2009-2010
As 2009 and 2010 were years of extensive conservation management work, and due to lack of capacity, we did not participate in conferences. In addition, we wanted to wait at least one full vegetation season to be able to deduct conclusions.
2011
Between 31.08.2011 and 03.09.2011, 11th EMAPi (www.emapi2011.org), an international conference on plant invasion was held in Szombathely, Hungary, where the frontline of the plant invasion science was present. On this occasion, Jan Sliva, representative of the External Monitoring Team of HUNSTEPPICOAKS, HUNDIDI and several other Hungarian LIFE projects made an oral presentation on the technical experiences of Hungarian LIFE projects on plant invasion control. This presentation was co-authored by Mr András Bankovics and György Verő, project managers of HUNDIDI and HUNSTEPPICOAKS projects. Mr. Gy. Verö participated in the conference that allowed an extensive exchange of knowledge and experience.
In November representatives of DINPD and WWF participated at the 7th Hungarian Conference on Conservation Biology in Debrecen and presented the project on poster (see **Annex FR E6-1 on DVD**).

Study trips to the project site
We organized several field trips to the project site for NGOs and professionals, so that we could inform them about achievements in the management tasks as well as they could provide feedback by their comments on these actions. List of participants and photos were attached to the progress reports and midterm report.
Summary by year of these study trips:

2007
First field trip to the project site for the professional target group was organised in October, mainly with the participation of members of NGOs but also joined us some representatives of the media, specialised in environmental issues. László Gálhidy and István Justin gave professional guidance to the group through the project site (photos were attached in **Annex PR1 E6-1/a-b**).
2008-2009
There were no formal study trips organized but during these years we refreshed our working relationship with colleagues at Hortobágy and Kiskunság National Park Directorates, who manage some steppic oak stands on sandy soil, too.
2010
The new method of soil preparation (see Action D2) requires special machinery that is rather unique and not widespread in the country. For this reason dealer of this tool initiated two presentations of the machine in action on the project target site. Altogether, cca. 30 forest managers attended in two events (27.03.2010 and 10.04.2010), getting information not only on this special tool, but on the LIFE project as well.
In 2010, we involved green NGOs and the interested public into management activities (game exclusion) as volunteers. In February and March, we organized two game drive-out events on the project site, with the participation of volunteers of WWF and members of green NGOs. They got deeper insight into the objectives and activities of the project, with the professional guidance of György Verő and Klára Kerpely, while helped to drive game out from the fenced-off areas. As this activity was also linked to Action C3, it was reported there in PR2 (photo was attached in **Annex PR2 C3-1/6, E1-1**.)
In July, another study trip was organized for the members of the Panda Club, a team of supporting partners of WWF, in order to introduce them into our conservation work in the Nagykőrös woods. Mária Sápi and László Gálhidy guided the group. For a photo, see **Annex PR3 E6-1/1-2.**
In October, we organized a field trip for the colleagues of the Hungarian National Park Directorates, members of green NGOs and the representatives of the Ministry of Rural Development. György Verő and Dénes Dobrosi guided the group through the project site and presented the experiences and results of the project, highlighting the achieved progress in the forestry works, the applied new technology and the difficulties and proven best practices in the elimination of the invasive plants. The trip was a good forum for experience exchange among the conservation experts. For photos and registration form, see **Annex PR3 E6-2/1-2.**
2011
The next field trip to the project site for the professional community was organized in March of 2011, the last year of the project. Participants were mainly foresters from the public forestry companies. List of participants (over 35 people) and photos of the visit are attached in **Annexes FR E6-2 and FR E6-3/1-2.**

International conference
The international conference on the steppe oak woods and Pannonic sand steppes, which was planned to be held at the end of 2010, was postponed to the autumn of 2011, in order to be able to present the results of conservation treatments and monitoring activities. The conference was held on 6-8 October 2011 in the city of Kecskemét, the closest relatively large city to Nagykőrös. We chose Kecskemét because in Nagykőrös there is no hotel or conference centre that could have hosted an event with over a 100 participant.

The conference had its own pages on the project website, both in Hungarian and English:
http://www.pusztaitolgyesek.hu/index.php?page=conference
http://www.pusztaitolgyesek.hu/index.php?page=konferencia

We organized the conference together with another LIFE project, which also ended in 2011, “Conservation of the Pannon endemic *Dianthus diutinus*” LIFE06 NAT/H/000104. As it

targeted an endemic plant species of the Pannonic sand steppes, had results worth to disseminate and in spite of that no conference had been planned in that project the Commission approved our joint proposal to organize a shared conference to present the two projects. The costs of the conference were divided between the two projects by cost category. A summary table of the costs accounted to HUNSTEPPICOAKS project budget is attached in **Annex FR E6-4**.

The accommodation and the costs of the catering were covered by the project budget, in accordance with the original plans. Participants had to contribute only a much-reduced special price (3,000 HUF/room) to accommodation costs, which they paid directly to the hotel at registration. This way the project had no income, but we were able to cover the costs, paying a little lower price than the usual prices at a 4-star hotel. On the other hand, it made the event more valuated by participants. For the invited lecturers we covered full costs and provided travel and parking costs reimbursement.

The aim of the conference was to give an overview of the present conservation status of steppe woods in Middle and Eastern Europe, with an outlook to Pannonic sand steppes as well. Special attention was paid to the most important threatening factors, including the effect of invasive plant and animal species, and the consequences of forestry and wildlife management. A practical aim of the conference was to enhance the exchange of experience of researchers, conservationists and trustees/managers of (protected) areas. We have invited keynote speakers from the Carpathian Basin and Ukraine and published an open call to attract more lecturers and poster presenters. In the scientific programme the participants presented 29 lectures and 17 posters from 7 countries across Central and Eastern Europe. The languages of the conference were English and Hungarian with simultaneous interpretation. The representative of the Ministry of Rural Development opened the conference. MRD is responsible for nature conservation area as well. The programme included 2 days of lectures and discussion sessions and the last day we organized a field trip to the project site. As a social programme, we organized a dinner out, at an organic farm nearby. To the field trip we also invited media representatives (see Action E1). Over a 100 professionals from seven countries participated at the event, and most of them joined the field visit to the project site on the last day. We had 139 registered participants, including project staff of the beneficiary and partners, and the interpreters as well. A copy of the registration sheet and photos of the conference and field trip are attached in **Annex FR E6-5 and Annex FR E6-6/1-4**, respectively.

Publications

The abstracts of the presentations and posters were published in a Conference Book in English. The abstract book, the presentations and posters are all downloadable from the project site. The presentations of György Verő about the project and Szilvia Rév about the botanical monitoring in the Nagykőrös site are **attached in digital format on DVD (Annex FR E6-7)**. Conference package, containing pens, notes sheets, abstract book, educational trail booklet and a textile bag (all bearing the LIFE logo and the title of the conference), was prepared and distributed to the participants. A distribution plan of the Abstract Book is attached in **Annex FR E6-8.**

A collection of studies on Euro-Siberian steppic woods, Pannonic sand steppes and *Dianthus diutinus* was published as the sixth volume of the *Rosalia* series of DINPD:
Nature conservation and researches on the Sandridge of the Danube-Tisza Interfluve.
The book is a result of a cooperation with HUNDIDI project. While the edition was an effort of HUNSTEPPICOAKS staff, the costs of publication were fully covered by DINPD as Partner in HUNDIDI project.
The volume was published in 500 issues. This is less, than the proposed 1000 pieces, but considering both the volume and quality of the issue and the prior experiences on *Rosalia*

distribution, we decided to limit the amount. The issue contains 18 publications in Hungarian language in three chapters on 521 pages:

- Conservation of Nagykőrösi pusztai tölgyesek
- Conservation of Pannon endemic Long-lasting Pink
- Outlook – Conservation status of sandy habitats on the Danube-Tisza Interfluve

The papers include the presentation of the two LIFE-Nature projects involved in detail, including the project frame-works, threatening factors to be combated, applied methods, results of actions and experiences of the implementation. Separate papers present the results of monitoring surveys accomplished within the two projects. These include biodiversity monitoring as well as the detection of the effects of management of actions done in LIFE projects. Other publications share results of surveys relating to the habitats and species to be preserved but were independent from the projects. Information on the projects is supplemented with an outlook at conservational issues on a regional scale. These papers provide information on the history, present state and threatening factors of sandy habitats on the Danube-Tisza Interfluve.
Abstracts of all papers and the Contents are also in English.
A paper copy of the book was attached to the Final Report of HUNDIDI project. The whole issue is also **attached in digital format on DVD (Annex FR E6-9) to the present Final Report**. A distribution plan of the book is available as **Annex FR E6-10.**

Within the frame of this action a CD-Rom was compiled that contains the different information materials, published during the project. It has a section for professionals, where the material of the conference and the studies of the Rosalia journal are collected, as well as the methodological material of the Educational Center. In the other section, which targets the public, we collected basic information on the habitat and the project, publications, photos, videos, games and other public-interest material. Distribution of the CD-Rom will be continued after the end of the project to educational institutions, libraries and conservation NGOs. A distribution plan of the CD-Rom is attached in **Annex FR E6-11. A copy of the CD-Rom is attached to the present Final Report.**

After-LIFE plans:

Distribution of the publications will be continued until we have them on stock. The beneficiary and partners, exploring emerging opportunities, will also continue dissemination of the results and lessons learnt.

Annexes:

PR1 E6-1/a: Photo on field trip with representatives of NGOs 62
PR1 E6-1/b: Photo on participants of the NGO field trip
MTR E6-1: Presentation on 5th National Conservation Biology Conference 08.11.2008 on DVDMTR
E6-2: Presentation on 8th Tata Wild Goose Medley 28.11.2008 on DVD
PR3 E6-1/1-2: Photos on Panda Club field trip
PR3 E6-2/1-2: Photos on National Park Directorates field trip
FR E6-1: Conference poster is attached in digital format - on DVD
FR E6-2: List of participants on field trip
FR E6-3/1-2: Photos on field trip
FR E6-4: Conference costs covered from HUNSTEPPICOAKS project budget
FR E6-5: Conference registration sheet
FR E6-6/1-4: Photos on conference and field trip
FR E6-7: 2 presentations of the thematic conference are attached in digital format on - DVD
FR E6-8: Distribution plan of conference abstract book
FR E6-9: *Rosalia* book is attached in digital format - on DVD
FR E6-10: Distribution plan of *Rosalia* book

FR E6-11: Distribution plan of CD-Rom
A copy of the CD-Rom is attached to the present Final Report
A copy of the conference abstract book is attached to the present Final Report

E7 - Development of a Nature Trail

Expected results:

- introduction of the nature value and role of 'Nagykőrösi pusztai tölgyesek' pSCI and Natura 2000 network through 10 stations of the Nature Trail, with 2200 m length
- establishment of the first Nature Trail within the area of Nagykőrös town together with the local government
- free-of-charge service of the educational program
- 8000 copies of A5 format Nature Trail guide
- 1000-1500 visitors per year

Achievements:

- introduction of the nature value and role of 'Nagykőrösi pusztai tölgyesek' pSCI and Natura 2000 network through 10 stations of the Nature Trail, with 1800 m length
- establishment of the first Nature Trail within the area of Nagykőrös town together with the local government
- free-of-charge service of the educational program
- 8000 copies of A5 format Nature Trail guide
- 15 guided groups in 2008, 73 guided groups in 2009, 102 groups in 2010

Action status: completed

Modification of the activity against the plan:

Planned completion date: 31.03.2008

Actual completion date: 05.06.2008

Reasons for delay:

The development of Nature Trail was closely linked to the reconstruction of Pálfája Educational Centre (Action C4), which was proposed to be ready on 31.05.2008 and was finally inaugurated on 05.06.2008.

Description:

In the summer and autumn of 2007, with repeated, detailed field visits and GPS documentation, the track of the Nature Trail was designated (see map in **Annex PR1 E7-1**).

During the designing period, the possible locations of the trail were tested and the topic of each station was discussed in field. With the designation of the track, the exact length of the trail is indicated, which is 1800 m. In the project proposal, we foresaw a 2200 m long trail, however, during the field trips it revealed, that the feasible length couldn't reach 2200 m around the Educational Centre. Nevertheless, as bicycle is a very popular means of getting around in Nagykőrös, the Nature Trail is completed by a 2700 m bicycle route, which offers

also possibility for visiting a more remote site, where forest transformation carried out in the project can be observed. The stations of the footpath and bicycle route are partly overlapping.

There are markings of a so-called “Steppic oak tour” which indicates the way to the nearby patches of favourable conservational status in Nagykőrös 128 A forest compartment, where examples of management activities are also on view.

Stations of the Nature Trail are indicated by oak nut signs with the number of the station on it, made of wood and fixed on wooden poles (**Annex MTR E7-1/1**). This method is more resistant to vandalism, than using information boards at each station and a booklet instead of boards means a portable format of most of the information gained on the trail.

There are 10 stations, their description is in the booklet that belongs to the trail (see below). First and 10th stations are in the surroundings of the educational complex, near the information board. For images on the Nature Trail, see **Annex MTR E7- 1/1-5**.

Stations are as follows:

- Station 1: it is in the entrance area of the “Pálfája” forest stand, at the vicinity of the Educational Centre, the information board of the project established in Action A1 and the building of the “Aréna”, which is spectacular even in its present condition. This station serves the goal of general knowledge about the habitat and the project established to preserve it.

- Station 2: the magnificent oak individual called “Pál fa”, which tree gave the name for the entire forest stand “Pálfája”

- Station 3: a small patch fenced to demonstrate the effects of game and some of the management of the project

- Station 4: a pit to demonstrate the soil profile to show the characteristics of sandy soils and their consequences to the vegetation

- Station 5: a typical patch of the closer typed of steppic oak forests on a more humid production site

- Station 6: a site ideal to demonstrate indigenous shrub species and the structure of the shrub-layer

- Station 7 is supposed to be a site to observe some of the common bird species of oak forests

- Station 8: non-indigenous and invasive arboreal species are shown here

- Station 9 gives an opportunity to learn about the role of coarse woody debris in forest ecosystems

- Getting back to the education complex, Station 10 forms a huge outdoor game board, with laws of the game described in the trail booklet.

The Nature Trail booklet was designed in 8000 pieces. The main features of the design and layout of the booklet are A5 format, painted illustrations designed by two professional nature painters, Márton Zsoldos and Szabolcs Kókay, both of them well known in Hungary for very high quality drawings and paintings of natural topics, especially birds. Having all the illustrations this way, the booklet has a uniquely coherent image, involving historical and

present sceneries into the same visual context. Being printed on recycled paper, it provides a guide to environment friendly design. The booklet, as indicated in itself, is available at two sites in Nagykőrös (DINPD office, Mayor's office and Arany János Community Centre) and downloadable from the project website in *.pdf* format, which format is on the project CD-Rom as well (see Action E6). The booklet is also available at the regional office leased within the frame of the project and afterwards, and the headquarters of DINPD in Budapest.

The booklet contains the description of the stations of the Nature Trail, completed with interesting hints, simple tasks and detailed painted portrayals of typical elements of the habitat. For the booklet itself, see **Annex MTR E7-2**. In the framework of Action E3, a teaching aid book was compiled which is based on the Nature Trail stations and guide booklet, providing supplementary information helping teachers to design their own nature trail program.

We inaugurated the Nature Trail together with the Educational Centre on 05.06.2008 (see Action C4 and E1). Naturally, it composes a functional unit with the Educational Centre, as both of these sites are part of the infrastructural base of the educational activity.

For details on Nature Trail programs held, see Action E5. Here we only add that estimating the number of visitors not having resort to guidance is a heavy task, but since the Pálfája forest stand is a traditional recreational forest of local residents, it is likely to have a significant number of such visitors.

In 2009, some vandalism has occurred along the trail: in some cases, the station marks were damaged. The responsible NKÖ fixed them in each case.

Annexes:

PR1 E7-1: Proposed tracks of nature trail and bicycle route
MTR E7-1/1-5: Photos on the 'Pálfája' Nature Trail
MTR E7-2: Nature Trail booklet
MTR E7-3: Distribution of Nature Trail booklet
PR2 E7-1/1-4: Photos

E8 - The compilation of Layman's report

Expected results:

- 1000 copies of Layman's report in Hungarian and English languages (in A/4 format, on recycled paper, full colour, text with photos and figures)
- a publication documenting the aims, steps and goals of the project
- wider knowledge on the issues targeted by the project and increased awareness towards the Euro-Siberian steppic woods and Pannonic sand grasslands, threatening factors.

Achievements:

- 1000 copies of Layman's report in Hungarian and English languages were published (in A/4 format, on recycled paper, full colour, text with photos and figures)
- This publication documented the aims, activities and results of the project and provide a description of the habitats of community interest

- Distribution of the report started, distribution plan for the After-LIFE period was created

Action status: completed

Modification of the activity against the plan: N/A

Planned completion date: 31.12.2011

Actual completion date: 31.12.2011

Reasons for delay: N/A

Description:

At the end of the project we published the Layman's report that describes the habitats, the objectives and results of the project, actions implemented, positive and negative experiences, lessons learned and the follow-up of the project. It was prepared in 1000 copies, in Hungarian (900) and English (100) languages, in A/4 format, on recycled paper, with full colour photos and figures. This publication will be distributed mainly at events, and to public libraries and Universities. We will use them to disseminate project results to the professional contacts and supporters of the beneficiary and partners as well. **A sample of the printed version of the Layman's Report is attached to the Final Report.** A distribution plan is attached in **Annex FR E8-1.** The Layman's report is downloadable in PDF format in both languages from the website of the project.

After-LIFE plans:

Layman's report will be distributed until we have them on stock.

Annexes:

FR E8-1: Distribution plan of Layman's report
A sample of the printed version of the Layman's Report is attached to the Final Report

F1 - Project operation, organizing co-operation with the partners

Expected results:

Implementation of the project is proceeding effectively, organized with expertise

Achievements:

- project staff works and cooperates
- local office is rented
- workshop was organized with project participants at the beginning of 2007, 2008, 2009
- thematic workshops with partners are held connected to certain actions throughout the year
- Advisory Board was convened once in 2007, 2008, 2009, 2010
- project equipment is in operation

Action status: completed

Modification of the activity against the plan:

Grant Agreement was modified

Planned completion date: 31.12.2011

Actual completion date: 31.12.2011

Reasons for delay: N/A

Description:

For the infrastructure of the project operation, please see Action A1. For the last 4 months of the project, the staff moved to a smaller and more cost effective office, paid out of project budget. The equipment purchased was regularly maintained and so could serve the project implementation effectively. All these tools are going to be used in the project area henceforward in the After-LIFE period (see After-LIFE plan).

During the entire project period, regular formal and informal meetings with project Partners, stakeholders and the Advisory Board of the project were held.

Advisory Board was informed on the closing state of the project on 25.10.2011. For the memorandum, see **Annex FR F1-1.**

Since its launch in 2006, our Project has been confronted with several circumstances that prevent its implementing in accordance with the Grant Agreement. For these in detail, please refer to Action A4, A5, C1, C2.

Therefore, in accordance with the Article 13 of the Common Provisions, an amendment of the Grant Agreement was requested following PR3. The Commission accepted our request, so the project was prolonged by 4 month. The amendment also contained the deadline of some actions, the modification of the project budget and the change in the name of the co-financing organisation.

Annexes:

PR1 F1-1/a-b: Minutes, list of participants and photo of annual project opening workshop
MTR F1-1/1: Photo on annual project workshop 05.02.2008
MTR F1-1/2: Memorandum of annual project workshop 05.02.2008
MTR F1-1/3: List of participants
MTR F1-2/1: Photo on session of Advisory Board on 26.11.2008
MTR F1-2/2: Memorandum of session of Advisory Board on 26.11.2008
PR2 F1-1: List of participants – Annual project workshop 2009
PR2 F1-2: Photo – Annual project workshop 2009
PR2 F1-3: Memorial – Annual project workshop 2009
PR2 F1-4: List of participants – Annual project workshop 2010
PR2 F1-5: Memorial – Annual project workshop 2010
PR2 F1-6: List of participants – Meeting with Advisory Board 2009
PR3 F1-1: List of participants – Meeting with Advisory Board 2010
PR3 F1-2: Memorandum – Meeting with Advisory Board 2010
FR F1-1: Memorandum – Meeting with Advisory Board 2011

F2 - Conservation management monitoring

Expected results:

- the result of the action is the detailed documentation and evaluation of the effects of habitat management actions, through structural variables and indicator organizations
- on the basis of the monitoring data the real effects of the project are determinable and quantifiable, such as the trend of decrease of invasive species (coverage decline during the project, seedling grown up during the project, etc.)
- the results of F2 are important for the long-term management plan (management plan of the Natura 2000 site (Action A5) for determining the necessary tasks

Achievements:

- detailed documentation on basic state of the management quadrants in 2007, 2008 and detailed documentation on the state of the quadrants during three years of management between 2009 and 2011
- pitfall trap samples were collected as basic state survey in 2007, 2008 and as survey on the state during three years of management between 2009 and 2011
- big game was monitored in 2007 and 2011
- clear evidences of the effective management appeared
- results of the monitoring was used in the Natura 2000 Management Plan

Action status: completed

Modification of the activity against the plan:

Due to the delayed start of management Actions C1, C2, C3, D1, D2, monitoring was implemented in the last year of the project as well.

Planned completion date: 31.12.2011

Actual completion date: 31.12.2011

Reasons for delay:

Description:

Conservational management monitoring - botanical part:

Starting in 2007, a 5-year long botanical monitoring was carried out. The number of quadrants involved has slightly changed during the implementations, but remained unchanged in the last 3 seasons. Altogether 22 quadrants were sampled, same as in 2009. For their distribution map, see **Annex PR2 F2-F3-1**

A study of the 2011 survey was compiled similarly to the previous years. The overall analysis of the 5-year study has been done and was published in the *Rosalia* monograph issued in the joint framework of HUNSTEPPICOAKS and HUNDIDI projects (see Action E6). Main statements of the analysis are the evidences of the regenerating flora (hidden species emerged), the need of further control of *Prunus serotina* and some other hints on the further management needs of the priority habitats. Most important of these is the emerging necessity to control the native shrub layer, especially on the species rich forest edges.

In 2009 a forestry expert was hired, for details, please refer to PR2.

The detailed study of 2011 can be found **on DVD, in Annex FR F2-F3-1.** Previous studies are also attached to the DVD (see Annex list below)

Conservational management monitoring - zoological part:

Pitfall traps were operating between 2007 and 2011. The location of sampling sites remained the same between 2008-2011. The overall analysis of the data collected has been done and was published in the *Rosalia* monograph issued in the joint framework of HUNSTEPPICOAKS and HUNDIDI projects (see Action E6). The focus of the analysis was on beetles, in some cases specifically on ground beetles. Main statements of the analysis are: the most species rich sites are the ones with stabilizing vegetation. Sites with disturbances of management like in case of forestations might have a suitable habitat for rare beetle species which are linked with open sand surface. In some cases, high abundance of such species occurred.

A repeated big game monitoring took place in 2011 by WWF employee Zsófia Mária Papanek. Results indicate the significant difference between the game abundance of fenced and unfenced areas. For the study, see **Annex FR F2-F3-2 on DVD**

Annexes:

PR1 F2-1: Map of the distribution of vegetation quadrants in monitoring
PR1 F2-2: Study on vegetation (conservational management) only on CD
PR1 F2-3: Map of the distribution of pitfall and window traps in monitoring
PR1 F2-4/a: Photo on managing pitfall traps
PR1 F2-4/b: Photo on the content of a pitfall trap
PR1 F2-5: Map of game monitoring tracks
PR1 F2-6/a: Report on wild boar observations
PR1 F2-6/b: Photo on wild boar dig in the project area
PR1 F2-7: Studies on game monitoring only on CD
PR1 F2-8: Game monitoring in field
MTR F2-F3-1: Vegetation management and biodiversity monitoring quadrants in 2008
MTR F2-F3-2: Pitfall trap sequences for management and biodiversity monitoring in 2008
MTR F2-F3-3/1: Report on Arachnida, see DVD
MTR F2-F3-3/2: Report on Coleoptera, see DVD
MTR F2-F3-3/3: Report on Orthoptera, see DVD
MTR F2-F3-3/4: Report on vegetation, see DVD
MTR F2-F3-4/1-2: Photos on sampling
PR2 F2-F3-1: Vegetation monitoring quadrants in 2009
PR2 F2-F3-2: Study – vegetation monitoring 2009, see DVD
PR2 F2-1: Study – forestry expert, see DVD
PR3 F2-F3-1: Studies on 2010 vegetation monitoring – on DVD
PR3 F2-F3-2: Photo on pitfall trap operation
FR F2-F3-1: Study on 2011 vegetation monitoring – on DVD
FR F2-F3-2: Study on big game monitoring 2011 – on DVD

F3 - Monitoring of biological status of habitat types of community importance

Expected results:

- the result of the action is the detailed documentation and evaluation of the natural values of the 'Nagykőrösi pusztai tölgyesek' pSCI, especially the qualitative and quantitative state and changes of reference habitat types and its species

- detailed lists of plant and animal species occurring, phyto-coenological records of reference habitat types and maps of the distribution of reference values utilized in editing the conservation management plan of the Natura 2000 site (Action A5).

Achievements:

- detailed documentation on basic state of vegetation in reference quadrants in 2007, 2008, 2009, 2010, 2011
- pitfall trap samples were collected as basic state survey in 2007, 2008, 2009, 2010, 2011
- taxa of weevils, longhorn beetles, moths, Orthoptera, spiders are collected, species lists are compiled
- dead wood material was investigated, species lists are available

Action status: completed

Modification of the activity against the plan:

Due to the delayed start of management Actions C1, C2, C3, D1, D2, monitoring was implemented in the last year of the project as well.

Planned completion date: 31.12.2011

Actual completion date: 31.12.2011

Reasons for delay:

Description:

Biodiversity monitoring - botanical part:

Starting in 2007, a 5-year long botanical monitoring was carried out. In 2011 research took place on the same plots as in previous years. For their distribution map, see **Annex PR2 F2-F3-1**

A study of the 2011 survey was compiled similarly to the previous years, together with the conservation management monitoring part. The overall analysis of the 5-year study has been done and was published in the *Rosalia* monograph issued in the joint framework of HUNSTEPPICOAKS and HUNDIDI projects (see Action E6). Main statements of the analysis are the evidences of the regenerating flora (hidden species emerged), the need of further control of *Prunus serotina* and some other hints on the further management needs of the priority habitats. Most important of these is the emerging necessity to control the native shrub layer, especially on the species rich forest edges.

The detailed study of 2011 can be found **on DVD, in Annex FR F2-F3-1.** Previous studies are also attached to the DVD (see Annex list below).

Biodiversity monitoring - zoological part:

Pitfall traps were operating between 2007 and 2011. The location of sampling sites remained the same between 2008-2011. The overall analysis of the data collected has been done and was published in the *Rosalia* monograph issued in the joint framework of HUNSTEPPICOAKS and HUNDIDI projects (see Action E6). The focus of the analysis was

on beetles, in some cases specifically on ground beetles. Main statements of the analysis are: the most species rich sites are the ones with stabilizing vegetation. Sites with disturbances of management like in case of forestations might have a suitable habitat for rare beetle species which are linked with open sand surface. In some cases, high abundance of such species occurred.

Faunistic data were collected for some Arthropoda taxa during the project. In the *Rosalia* monograph, studies summarise the results on spiders, beetles and Orthoptera taxa (refer to Action E6).

Annexes:

PR1 F3-1: Photo on DINPI staff and researchers in field
PR1 F3-3: Study on vegetation (biodiversity) only on CD
PR1 F3-5: Photo on window trap
PR1 F3-6: Species lists of survey on dead wood material and Arthropoda taxa
PR1 F3-7/a: Moth species list
PR1 F3-7/b: Photo on survey on moths
PR1 F3-8: Photo on grass-netting in field
PR1 F3-9/a: Photo on survey on dead wood material
PR1 F3-9/b: Photo on survey on dead wood material
MTR F2-F3-1: Vegetation management and biodiversity monitoring quadrants in 2008
MTR F2-F3-2: Pitfall trap sequences for management and biodiversity monitoring in 2008
MTR F2-F3-3/1: Report on Arachnida, see DVD
MTR F2-F3-3/2: Report on Coleoptera, see DVD
MTR F2-F3-3/3: Report on Orthoptera, see DVD
MTR F2-F3-3/4: Report on vegetation, see DVD
MTR F2-F3-4/1-2: Photos on sampling
PR2 F2-F3-1: Vegetation monitoring quadrants in 2009
PR2 F2-F3-2: Study – vegetation-monitoring 2009, see DVD
PR3 F2-F3-1: Studies on 2010 vegetation monitoring – on DVD
PR3 F2-F3-2: Photo on pitfall trap operation
FR F2-F3-1: Study on 2011 vegetation monitoring – on DVD

F4 - Continuation of the activities after project completion and preparation of an After-LIFE conservation plan

Expected results:

- An After-LIFE conservation plan
- The successful conservation of the area and the enhancement of the favourable conservational status of the priority habitats are ensured.
- Over the priority habitats conservation disposes, consequently conservational management has priority importance
- The local stakeholders and the public, as well as professionals are continuously informed on the conservational issues on 'Nagykőrösi pusztai tölgyesek' pSCI
- Complex educational programs (with the emphasis on the Euro-siberian steppic oak forests and Pannonic sand steppes) operate in the areas.

Achievement:

- After-LIFE Conservation Plan

- The successful conservation of the area and the enhancement of the favourable conservational status of the priority habitats are ensured.
- Over the priority habitats conservation disposes, consequently conservational management has priority importance
- The local stakeholders and the public, as well as professionals are continuously informed on the conservational issues on 'Nagykőrösi pusztai tölgyesek' pSCI
- Complex educational programs (with the emphasis on the Euro-siberian steppic oak forests and Pannonic sand steppes) operate in the areas.
- After-LIFE agreements with project partners NKÖ and WWF
- After-LIFE agreement with state-owned forestry company NEFAG Zrt.

Action status: completed

Modification of the activity against the plan: N/A

Planned completion date: 31.12.2011

Actual completion date: 31.12.2011

Reasons for delay:

Description:

Achieved management and communicational result have to be maintained on long-term. For this goal, the following documents were prepared:

- Natura 2000 Management Plan (see Action A5)
- After-LIFE Conservation Plan (**Annex FR F4-1**)
- trilateral After-LIFE Agreement with project Partners (**Annex FR F4-2**)
- After-LIFE Agreement with NEFAG Zrt. (**Annex FR F4-3**)
- Land leasing contracts with private land owners for 90 years (see Action B1)

The above documents assure that the achieved results are maintained on a long-term.

Annexes:

FR F4-1: After-LIFE Conservation Plan
FR F4-2: Trilateral After-LIFE Agreement with project Partners
FR F4-3: After-LIFE Agreement with NEFAG Zrt.

6. Evaluation and conclusions

6.1 The Process

The HUNSTEPPICOAKS project was implemented on a site without any national level protection besides the designation of Natura 2000 network, aiming to conserve a unique complex of highly threatened habitats. To reach our goals, new paradigms had to be established at several domains of land use and policy. Forestry management plans had to be modified, potential benefits from new forestry legislation had to be utilized. Our project opened the gate for a forestry legislation more concerned with conservation of steppic oak habitats. Furthermore, private and state landowners had to be involved as partners in order to assure the long-term exercise of nature conservation on private land. Besides authorities, landowners and managers, local public was involved as well. Local residents committed with conservational issues found professional partners like DINPD and WWF. By establishing and operating Pálfája Educational Centre and Nature Trail, which is owned and run by NKÖ, local children and adults could get aware of the natural heritage of Nagykőrös, providing both the public control of land use and the new generations of committed friends of nature. Applied methods of invasion control and forestations had to be revised several times, as the utilized technology had to fit the volume of management.

Project management

The project management was described in the above section 5.3 and in the Section 7 - Results under Actions F1, F2 and F6. In general, project management was fluent. Tasks of project Partners were clearly defined and the overlapping issues like media appearances and educational program were managed properly. The Beneficiary continuously followed with attention the whole project process at each Partner. In case of field coordinator, modifications were necessary. For special tasks of forestations, a new field coordinator with broad experience in such issues was recruited in order to fulfill SFS requirements. Furthermore, the volume of the management actions made the participation of the project manager necessary in the follow up of fieldwork. Other personnel changes have happened for private reasons. These changes did not cause significant hang in the project management.

Partnership

DINPD created effective partnership with both Project partners on the basis of the Partnership Agreement. Tasks of project Partners were clearly defined and the overlapping issues like media appearances and educational program were managed properly. The Beneficiary continuously followed with attention the whole project process at each Partner. Main task of NKÖ was the establishment and run of the Pálfája Educational Centre and Nature Trail. Communication with public and professionals was the prime activity of WWF, while DINPD coordinated all the management actions and took the responsibility for the overall project management.

MRD participated in the project partnership as a co-financer. Being the superior organization of DINPD, MRD was highly cooperative both in co-financing and providing the own contribution of DINPD. Furthermore, MRD provided the additional budget inevitable to purchase Strázsa-hegy land (see Action A4), which is a prominent part of the target site.

6.2 Technical and commercial application (replicability, economic feasibility, limiting factors)

Replicability

Management methods used, environmental educational practice, land-leasing contracts, and the relating experiences gained are distributed through several channels, which all let other conservational managers use the technical outputs of the project. For the various conference activities, including the thematic conference organized within the LIFE project framework, the thematic issue of Rosalia series, see Action E6. The most comprehensive summary of the applied methods and the experiences is the Natura 2000 Management Plan (see Action A5).

These media help the replicability of the results achieved on other sites.

Economic feasibility

The land leasing contracts provide the financial framework to cutback the profit-oriented management on private land in order to achieve the long-term primacy of nature conservation considerations.

Stem-injection method of woody invasive control proved to be a cost-effective way of large volume management on the long run.

However, until now afforestation using partial soil preparation is still not a feasible method in economic respect regarding the present financial compensation system and forestry legislation.

Limiting factors

The above-mentioned factors limit the commercial application of partial soil preparation in forestations. The weaker development of saplings in which this method results is satisfactory for conservational goals in many cases, but not in for profit forestry. Without financial tools and supportive legislation, we do not expect the spread of this method. Drying production site is another factor which obstacles the utilization of this method.

All chemical treatments require special qualification for the contractor, which limits the available number of potential contractors.

6.3 Effectiveness of dissemination activities

Public awareness and dissemination of results were ensured through a broad scope of various actions. Two information boards were erected at higly visited locations in Pálfája forest and Nagykőrös downtown. 148 guided tours, 56 outdoor classes and and 22 summer camps were organised in Pálfája Educational Centre and Nature Trail. Several meetings and other events like field trips with various stakeholders, experts and laymen took place. Attractive informational materials, including bag, folder, T-shirt, brochure, sticker, fridge magnet, pen were produced and distributed. The project web site, available in Hungarian and English, was visited by some 130 000 visitors. The intensive contact with media was established and maintained through the whole Project span. Thematic conference was

organised and a collection of studies was issued.

No special monitoring of effectiveness of dissemination activities was established within a framework of the Project. Therefore, the assessment can only be based on quantity of implemented events, media outputs and participants at specific events or approached public. Generally, the project dissemination activities were intensive, targeting particularly local population. Some actions/outputs however, reached public at the national level as well and even internationally. We got clearly positive responses on the Pálfája Educational Centre. It became an integrated part of the cultural life in Nagykőrös. Furthermore, the Centre serves as the source of knowledge and ideas for other educators in town.

Details of dissemination activities are described under above E Actions and in E-Actions related Annexes.

6.4 Environmental benefits

Regarding the environmental benefits of HUNSTEPPICOAKS project, short-term and long-term benefits should be distinguished.

Short-term benefits are those that are clearly observable during the project period. The prominent benefit at this time scale is the setback of most important invasive species of the area, namely black locust and black cherry. Over 400 hectares were managed with 90-95 % result by the project closure. Although further management is inevitable, vegetation monitoring surveys (Action F2) indicated the positive effects of the repression of these species.

Homogeneous stands of introduces species are removed from the edge and interior of priority habitat patches of the target area.

On the sites of forestations using partial soil preparation, regeneration of native habitats started.

Damage of big game within wire fenced patches significantly decreased, some forms of damage completely disappeared.

The other short-term benefit is the successful involvement of local residents into conservation issues in Nagykőrös. The Pálfája Educational Centre and Nature trail became popular soon after it's inauguration and local people interested in nature related issues met professional partners, so the public basis of local nature conservation got stronger.

Signing the leasing contracts of 175 hectares for 90 years resulted in the primacy of conservation considerations, and made possible the public tendering of management actions.

Predicted long-term benefits are as follows. Natural regeneration and dynamics of steppic forest habitat mosaic can reclaim its potential after the repression of invasive plant species and fencing out of big game. As the woody component of the mosaic and the oak in particular has a slow dynamics, this eventual goal of management is going to be visible on a longer term.

6.5 Socio-economic effects

Pálfája Educational Centre provides a job opportunity (environmental educator) in the After-LIFE period. Large scale management actions, which requires large volume of manual labour, involved several local subcontractors. Pálfája Educational Centre might increase the tourism in and around Nagykőrös.

6.6 Innovation and demonstration value

There were three innovative domains of actions in HUNSTEPPICOAKS project.

Leasing rights are unique legal constructions without any known premise in Hungary. It is considered as a useful tool for implementing conservation actions on private lands in other Natura 2000 areas.

Large volume invasive plant control and the relating experiences have an innovative character and demonstrative value for other conservational managers.

Although forestation using partial soil preparation was known is Hungary, it was totally absent in the region. The special machinery used in our project was a rather new technology, which attracted several forest managers to our demonstration event.

6.7 Sustainability

Restricted right of disposal taken over by DINPI for 90 years on 175 ha ensures that any management activity on the affected sites serves exclusively nature conservation aims.

Maintenance the achieved result in respect of invasive control requires continuous post-treatment.

At present, we are certain that problems of natural forest regeneration are mainly caused by the overstocked game population. Nevertheless, on the long run decrease of ground water level may reach a critical point, when sand steppes will replace oak patches.

In case of the educational centre, the sustainability depends on the local will. Present operator, which is company owned by owner NKÖ, is committed to environmental education.

After-LIFE agreement was bound with the project Partners and with NEFAG company.

Project sustainability indicators:

Project action / Results	Verifiable Indicator (s)	Source of Verification	Status at the closing date
Elaboration of Management plan for 'Nagykőrösi pusztai tölgyesek' SAC	Adoption of Management plan for 'Nagykőrösi pusztai tölgyesek' SAC	Instrument of adoption	Not adopted yet – submitted to MRD before FR

Project action / Results	Verifiable Indicator (s)	Source of Verification	Status at the closing date
Elimination of invasive plant species	density/cover of invasive species	yearly vegetation monitoring surveys	90-95 % decrease of cover of invasive plant species
Abandoned commercial forestry by land leasing on 175 ha for 90 years	rights and obligations in the leasing contracts	leasing contracts	signed contracts
Exclusion of big game	Number of hectares fenced, efficiency of fences	Project reports, project documentation	260 ha fenced, significant decrease of big game in the fenced sites
Pálfája Educational Centre and Nature Trail	Number of visitors, educational programs	Project reports, project documentation, syllabi of program modules	Continuous operation with popular programs that are integrated into local cultural life

Long-term indicators of the project success

Specific long-term indicators might be used in future project success assessments and are presented in below table. They were formulated in consideration of the project main objective what was to restore favourable conservation status and regeneration potential of priority habitats.

Project long term indicators:

Long term indicator	Verifiable Indicator	Source of Verification
Conservation status of targeted habitats	Nationally established Criteria and Indicators for assessing the conservation status of habitats and species of European importance	Regular monitoring of habitats, project reports, vegetation monitoring survey
Regeneration potential of targeted habitats	presence of young oak individuals and other native tree species, state of regenerating grassland in forestations	Regular monitoring of habitats, project reports, vegetation monitoring survey

7. Comments on Financial Report

The beneficiary and two project Partners contributed to the costs of the project and benefited from the LIFE grant as well. All the costs, incurred by these project participants have been registered at analytical accounting systems of respective participants and were properly supported with accounting documentation. Accountings are in HUF. Copies of this documentation are available at the Duna-Ipoly National Park Directorate headquarters.

In accordance with Commission's consent (31/08/2010) in present Final Report, accounting is based on exchanges rate applied by the European Central Bank on the first day of the month in which the expenditure is incurred.

The audit report for the Final Report was accomplished by:

Mr Tamás Szép
SZT – Szép Tamás Könyvizsgáló és Adószakértő Kft.
1052 Budapest, Váci utca 25.
Reg. No.: 000315
For the audit report, see **Annex FR FIN-1.**

VAT

In previous reports until 2008 net costs were accounted on LIFE contribution excluding VAT for whole project period, however, from 2008 on the new national tax legislation excludes all LIFE projects' tax from VAT reimbursement. Hereby from 01/01/2008 on gross costs are accounted (including VAT).

None of the project participants could recover the VAT from the national tax authorities. Tax authority confirms this as follows:

- DINPD - letter from the competent Tax Office and interpretation of the VAT law, see **Annex FR FIN-2.**
- Nagykőrös Local Government - letter from the competent Tax Office, see **Annex FR FIN-3.**
- WWF Hungary - letter from the competent Tax Office, see **Annex FR FIN-4.**

Project Costs and Income

The total project budget (1 863 236 €) has been overspent (113,43 %).
The summary of the total project costs incurred as at the project closing date 31/12/2011 and sources of income for each project participant and the project as a whole are presented in below Table 1 and Table 2.

Table 1 - Project costs incurred during the project period (01/09/2006- 31/12/2011)

Breakdown by category	Proposed total costs in €	DINPD	Nagykőrös LG	WWF Hungary	Incurred total costs in €	Balance
Personnel	238 872	205 066	28 111	24 546	257 723	-18 851
Travel and subsistence expenses	30 886	21 128	160	14 578	35 866	-4 980
External assistance	704 550	731 669	23 916	18 293	773 878	-69 328
Durable goods						
Infrastructure	295 802	223 034	141 468	0	364 502	-68 700
Equipment	45 210	26 836	11 065	2 649	40 550	4 660
Prototypes	0	0	0	0	0	0
Land/rights purchase	463 750	536 047	0	0	536 047	-72 297
Consumables	34 730	26 517	6 945	9 145	42 607	-7 877
Other costs	12 680	18 665	89	1 301	20 055	-7 375
Overheads	36 756	38 468	2 319	1 515	42 302	-5 546
TOTAL	1 863 236	1 827 430	214 073	72 027	2 113 530	-250 294

Table 2 - Sources of income

	DINPD	Nagykőrös LG	WWF Hungary	Total (€)
Contribution from EC	1 200 246,00	139 700,00	57 481,00	1 397 427,00
Contribution by the participants	127 609,79	74 373,00	14 546,00	216 528,79
Co-financing	319 068,00	0,00	0,00	319 068,00
Other sources of financing	135 469,89	0,00	0,00	135 469,89
Profit generated by the project	45 036,32	0,00	0,00	45 036,32
TOTAL	1 827 430,00	214 073,00	72 027,00	2 113 530,00

Comments to expenditures for individual cost categories:

Except Equipment, all budget categories were overspent. The overall reason is the change of the national tax law.

Personnel

Personnel costs were calculated on the basis of timesheets. Project staff prepared timesheets on monthly basis. Timesheets were regularly checked and approved by authorized person, which was different in respect to different positions.

Above Table presents share of costs of personnel for the Beneficiary and each Partners.

The personnel costs were incurred at 107,89 % compared to original budget. Majority of the increase in the Personnel cost was a result of the 4 months project extension caused. The excess is still within limits set in Article 13 of the Common Provisions.

Travel

The reimbursement of travel costs was done according to the national regulation and the own regulation of the project participants. It includes reimbursements for public transport costs, reimbursement of costs related to use of private and official cars for the project purposes and accommodation costs. Only travel costs that were necessary for and clearly linked to implemented project activities have been accounted under the project costs.

Travel costs were overspent – 116,12 % compared to original budget. The excess is still within limits set in Article 13 of the Common Provisions.

External Assistance

External Assistance costs were overspent – 109,84 % compared to original budget. The excess is still within limits set in Article 13 of the Common Provisions.

All the external assistance was procured in accordance with the Public Procurement Act and own regulation of the project partners.

Infrastructure

Infrastructure costs were overspent – 123,22 % compared to original budget. This was caused by the higher cost of the reconstruction of the Educational Centre and of the electric fences (sees Action A3, C3).

Equipment

Equipment costs were incurred at 89,69 % (-4660 €) compared to the original budget. All the equipment was procured in accordance with the Public Procurement Act and own regulation of the project partners.

Land purchase / Land leasing

Land purchase costs were incurred at 115,59 % compared to the original budget. All charges incurred at DINPD. MRD contribution was spent to the purchase of Strázsa-hegy land (see Action A4)

The second paragraph of the land purchase contracts refers to a legislation (for a sample contract, see **Annex FR FIN-5**). This reference serves as the guarantee to the conservation use of the purchased land. The second paragraph states (unofficial translation):

> 2. Contracting parties state that Seller disposes of the … / … proportion of the realty (hereinafter referred to as Realty) that is used due to “cooperative land use right”, belongs to Natura 2000 network, is under local nature protection, is proposed for

expropriation on the grounds of *Law No. XCIII. 1995. on the restoration of protection level of lands under nature protection*, is registered as *Nagykőrös 0821/1* in land register, registered as forest in land register, is 28,5000 ha, is worth of 347,70 AK [income per cadastral acre].

The referred law regulates the governmental expropriation of protected lands those were formerly owned by agricultural cooperatives then were portioned out to private owners (who or whose ancestors were forced to join the cooperative in the 1950s and 1960s) in the early 1990s. The law states that the property manager of the expropriated lands is the local national park directorate. Furthermore, the law states that the goal of expropriations is to restore the strength of conservational legislation to the level of the era before the portioning out to private owners.

Consumables

Costs of consumables were incurred at 122,68 % (7877 €) compared to the original budget. The excess is still within limits set in Article 13 of the Common Provisions.

The following hospitality costs (entertainment expenses) were wholly and exclusively necessary for carrying out the work under the project. For the table of incurred hospitality costs and the referring events, see **Annex FR FIN-6.**

Other costs

Other costs were incurred at 158,16 % (7375 €) compared to the original budget, but not exceeded limit set in the Article 13.

Overheads

Overheads covered general indirect costs needed to support the personnel performing the work on the project.

Overheads were incurred at 115,09 % compared to the original budget.

In accordance with Commissions letter (11.05.2009), we attached copy of below mentioned invoices **Annex FR FIN-7/1-3**:
SZA1056053
UA152981
P7-766/2008

In accordance with Commissions letter (11.05.2009), we attached copy of below mentioned land-leasing contracts **Annex FR FIN-8/1-3**:
2125/14/2007
2125/17/2007
244/30/2008

Annexes to the Financial Report:

FR FIN-1: Audit for Final Report
FR FIN-2: Tax Office letter - DINPD
FR FIN-3: Tax Office letter - NKÖ
FR FIN-4: Tax Office letter - WWF
FR FIN-5: Sample contract on land purchase
FR FIN-6: Summary of hospitality costs
FR FIN-7/1-3: Copies of requested invoices
FR FIN-8/1-3: Copies of requested land-leasing contracts