



Protection and Management of Coastal Habitats in Latvia



# PROTECTION AND MANAGEMENT OF COASTAL HABITATS IN LATVIA

LIFE02NAT/LV/8498



## SECOND PROGRESS REPORT WITHOUT PAYMENT REQUEST

Covering period 1 June 2003 – 21 June 2004

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## INTRODUCTION

### BACKGROUND OF THE PROJECT

The Baltic Sea coast of Latvia is an area of outstanding biological diversity, including habitats of Community importance – embryonic, white, grey and wooded dunes, western taiga and coastal meadows. The number of visitors in the sea coast is steadily growing, and natural habitats suffer mainly from the activities of visitors and inappropriate management. To preserve endangered coastal habitats of Community importance, while promoting the development of local economy, efforts must be made to map the priority natural habitats, maintain and restore endangered habitats, manage human activities, and to educate the public.

The Project area is the entire Baltic Sea coast – an approximately 300 m wide coastal zone beginning from the waterline in the terrestrial direction. In Latvia, this territory is traditionally protected as the Baltic Sea coastal protection belt. In areas where threatened habitats of Community importance (dunes, coastal meadows) continue outside of this belt, project actions extend to cover the entire areas of the habitats. The total surface area of the project is 18 000 ha. A total of 45 % of the proposal project territory is in Latvia's legally protected territory system. However, at present, integrated habitat protection and management of the coast are not yet conducted in Latvia.

### OVERVIEW OF MAIN CONSERVATION ISSUES BEING ADDRESSED

The project aims at direct conservation measures for 23 habitat types listed in Habitats Directive Annex I (7 of them EU priority), and 9 habitat types according to the Bern Convention Resolution N° 4 (1999), 4 Habitats Directive Annex II species, 1 Bern Convention Resolution N° 6 species, and 16 Birds Directive Annex I species (2 of them priority). Embryonic shifting dunes, shifting dunes along the shoreline with *Ammophila arenaria* (white dunes), fixed coastal dunes with herbaceous vegetation (grey dunes), wooded dunes are typical coastal habitats in Latvia.

Between 1945 and 1990, access to the seashore in Latvia was restricted, because the western boundary of Latvia was also the border of the USSR. Access was allowed only in particular locations. While this system degraded the traditional economical and cultural environment, it ensured that natural habitats were protected and that building was restricted in the largest part of the coast, in contrast with most of the European countries. These restrictions were removed after renewal of independence in 1991.

Now, the number of visitors in the sea coast is growing exponentially. Natural habitats suffer both from the activities of tourists and from the inappropriate management. Impact to coastal habitats is increasing, causing destruction of ecosystem structure and promoting erosion.

Main threats to the coastal habitats in Latvia are:

**Degradation of coastal natural habitats by recreation and activities of tourism.** With the increase in the numbers of visitors to the seashore in Latvia, impact to shore habitats is increasing, causing destruction of vegetation, ecosystem structure and promoting erosion. This is caused by trampling, camp fires, and camp sites.

**Deterioration of coastal ecosystem by motorised vehicles.** Pressure from vehicles on coastal habitats has significantly increased during the past five years. The sea coast, particularly low moist beaches, is used as a transport route. It disrupts natural shore development processes, changes ecosystem structure, causes erosion and decreases stability.

**Destroying of indigenous flora and vegetation by aggressive alien species.** Several foreign, expansive species occur along the Baltic seashore, of which the most dangerous are *Rosa rugosa*. In specific locations, these species have been planted for strengthening dunes, and in others they have escaped from gardens. Alien species are not currently a major threat along the entire coast, but in some areas of the south-west they have started to dominate and rapidly expand in specific locations, completely destroying natural vegetation.

**The reduction of area of grey dunes.** The grey dune area is decreasing because of overgrowing and tree planting. Planting of forest is one of the main factors threatening grey dunes. Succession of grey dunes normally leads to overgrowing with pine and development of forest. However, natural development occurs in the long-term, and results in forested dunes formed by sparse pines and dune patches. Artificially planted areas support dense *Pinus sylvestris* and *Pinus montanum* stands. The main cause of this is the poor knowledge of foresters regarding the threatened status of grey dunes in Europe, their ecology and management.

**Decreasing area of semi-natural meadows.** Meadows are overgrowing because of a decline in their management and the effects of environmental eutrophication.

**The decrease of forest biological diversity resulting from inappropriate management.** Land reform resulted in return of forest land to private landowners who often have poor knowledge on forest management, and who are not informed about protected forest habitats and management regulations. As a result, forest stands and their structure are disrupted by removal of dead wood, cutting oldest pine trees, cutting branches from old trees, and degrading or destroying of the forest understorey.

**Decrease in area of endangered habitats due to building and due to inappropriate coastal management.** Houses are being built in the dune zone in areas of endangered

habitats. Infrequently, also coastal management carried out by local municipalities destroy endangered habitats. For example, car parking places, camping sites and resting places for visitors have been built in the habitats of EU priority. Less valuable habitats could be chosen for building, leaving the endangered habitats untouched.

**Deterioration of endangered habitats in protected nature areas due to lack of management plans.** Protected nature areas are holding high biodiversity and they are also very attractive for visitors. Local municipalities want to ensure the protection of endangered habitats. However, due to lack of information, habitats are managed in inappropriate way.

**Deterioration of natural habitats due to low public awareness.** There is a lack of information about the coastal habitats and species. This regards to landowners, local authorities, forest managers, local residents and visitors. Most of the literature about the habitats of Community importance is distributed only in-groups. For some subjects (alien species etc.), there is no literature at all.

## **OBJECTIVES OF THE PROJECT AS DEFINED IN THE APPLICATION**

The **aim** of the project is the conservation, restoration and sustainable management of 23 habitat types (7 of them EU priority) and 4 plant species listed in the Habitats Directive, 9 habitat types according to the Bern Convention, and 16 species listed in Birds Directive; development of the basic framework for sustainable management of the coastal protection belt of the Baltic Sea in Latvia; promotion of a network of protected nature areas and micro-reserves of the Baltic Sea coast; raising of public awareness regarding the need for protection of habitats of Community importance.

Main **actions** of the project are:

- Mapping and evaluation of habitats of Community importance in the whole coastal protection belt;
- Planning of the appropriate protection and management measures in protected nature areas where there currently are no management plans;
- Implementation of management measures in the coastal zone in areas with large and increasing visitor activity;
- Restoration and maintenance of coastal meadows and grey dunes in areas where immediate protection actions are required (cutting of trees, reeds and bushes, mowing, grazing); removal of aggressive alien plant species (in some areas where they are rapidly expanding in distribution and destroying indigenous flora);
- The preparation and dissemination of information about LIFE project and about threatened coastal habitats of Community importance and their protection.

The main **results expected** are:

- Conservation measures to protect habitats of Community importance - tested in 14 demonstration sites (including 20 ha of grey dunes and 115 ha of coastal meadows) involving the implementation of habitat protection / management;
- Proposed Natura-2000 site network (which is in progress) evaluated; to possible amendments proposed;
- Potential Natura-2000 sites in the coastal protection belt identified and assessed;
- Digital maps, data bases, functional zoning and appropriate protection measures for coastal habitats of Community importance created and stored in municipalities and governmental environmental institutions;

- Plans for appropriate protection measures and management for 4 protected nature areas;
- Conducted public awareness programmes for local residents, visitors, land owners, decision makers, business structures (approximately 200 information boards and educational nature path established in the dune zone, 11 seminars held, 7 booklets, 20 leaflets, 1 book published, 2 films produced).

## **SUMMARY OF ACTIVITIES DURING THE REPORT PERIOD**

During the report period, the main actions of the project were: habitat mapping, elaboration of management plans for protected nature areas and rising of public awareness. The most significant activity was the habitat mapping. Work was started with elaboration of method, training of experts. Habitats were mapped in all the project area. Habitat type, value, disturbances and other parameters were registered for every habitat at every site.

Four management plans for protected nature areas were elaborated and submitted to Nature Protection Board, Ministry of Environment. For all these areas, functional zoning (plans of protection measures) was elaborated.

Information about potential micro-reserves in forests, grasslands, dunes and other habitats was gathered. Action plan for the establishment of micro-reserves within the protected habitats was established.

Particular attention was devoted to public education. Three booklets were issued, film about Bulļusala was taken, 5 seminars organised, home page actualised. Many hours were spent in communication with landowners, representatives from municipalities, employers - listening their opinion and explaining speciality of the coastal protection.

Practical works for the management of habitats of Community importance was started; 35 hectares of grasslands were mown, 6.5 hectares of shrubs were cut, 5 cows bought and grazing in 20 hectares started. In coastal habitats of Saulkrasti municipality, network of paths was established, observation tower renovated, eroded dune bank was strengthened. This summer, 2004, similar management will continue in 13 more municipalities at the coast of Latvia. In all sites where practical work is planned, monitoring was accomplished.

Work on the establishment and installation of information boards and signs was started. Technical project about design, number, types of information boards and signs was elaborated.

The administration of the project was improved significantly. Two regional coordinators and 12 local coordinators were employed. It is important. Now, representatives of 14 coastal municipalities are taking part in our project and solving the problems of the protection of coastal FFH habitats.

## OVERVIEW/CONSOLIDATED TABLE OF RESULTS SINCE THE START OF THE PROJECT

Table 1. Summary table of the activities, 31.05.2004.

Nr.	Action	Time plan	Status
A.1.	Preparation of database of landowners and their interests regarding land use and coastal development.	April 2002 – July 2003	In progress (close to finish).
A.2.	Digital mapping of habitats of Community importance in the coastal protection belt.	April 2002 – July 2004	In progress (almost finished).
A.3.	Plans of protection measures (functional zoning) for habitats of Community importance in the coastal protection belt.	September 2003 – April 2005	In progress.
A.4.	Making agreements and signing contracts with subcontractors and local farmers.	October 2002 – April 2004	In progress <sup>1</sup>
A.5.	Training of habitat experts.	April 2003 – July 2003.	Finished.
A.6.	The preparation of technical projects for restoration and management of coastal habitats of Community importance.	April 2003 – April 2004	In progress (prolonged until August, 2004).
A.7.	Development of management plan for protected nature area Piejūra Nature Park.	April 1, 2002 – January 1, 2004	Finished.
A.8.	Development of management plans for the protected nature areas Bernāti Nature Reserve and Užava Nature Reserve.	April, 2003 – January, 2004	Finished.
A.9.	Development of management plan for Vidzemes Akmeņainā Jūrmala Nature Reserve.	April, 2003 – January, 2004	Finished.
A.10.	Establishment of micro-reserves for habitats and species of Community importance.	July, 2003 – July, 2005	In progress.
C.1.	Restoration of grey dunes by cutting trees and shrubs in the coastal protection belt between Ziemeupe and Pāvilosta.	July, 2003 – April, 2005.	In progress. Complications.
C.2.	Restoration of Boreal Baltic coastal meadows in Vakarbuļļi and Daugavgrīva Nature Reserves in Rīga city.	July, 2003 – April, 2005	In progress.
C.3.	Management measures for Boreal Baltic coastal meadows and white dunes in the Vakarbuļļi and Daugavgrīva Nature Reserves in Rīga.	July, 2003 – July, 2005	Started.
C.4.	Restoration of grey dunes and white dunes by destruction of expansive plants.	April, 2003 – October, 2004	In progress.
C.5.	Restoration and management of wooded dunes and white dunes in Saulkrasti.	October, 2003 – April, 2005	Almost finished.
C.6.	Restoration and management of Boreal Baltic coastal meadows, embryonic dunes in Ainaži and Salacgrīva.	October, 2003 – July, 2005	Started.
C.7.	Restoration and management of wooded dunes and white dunes in Roja.	October, 2003 – April, 2005	Consolidated with E.17.
C.8.	Restoration and management of wooded dunes and western taiga in Jūrmala	July, 2003 – July, 2005	Started.
D.1.	Maintaining of Boreal Baltic coastal meadows by mowing and grazing.	July, 2003 – December, 2004	In progress.
D.2.	Ensuring adequate control and protection in coastal zone at Piejūra Nature Park.	April, 2003 – December, 2005	In progress.
D.3.	Ensuring adequate control and protection in coastal zone of North Vidzeme Biosphere Reserve.	October, 2002 - December, 2005	In progress.



Nr.	Action	Time plan	Status
D.4.	Purchase of cattle for grazing management in meadows.	April, 2003 – July, 2004.	In progress.
E.1.	Establishment and installation of information boards.	July, 2003 <sup>2</sup> – April, 2005.	In progress.
E.2.	Preparation and publishing of leaflets	July, 2002 – April, 2005	In progress.
E.3.	Preparation and publishing of booklets.	January, 2003 – December, 2005	In progress.
E.4.	Seminars for stakeholders.	January, 2003 – December, 2005	In progress.
E.6.	Creation and updating of vortal about the LIFE project and about coastal habitats.	April, 2002 – December, 2005	In progress.
E.8.	Establishment and installation of information signs.	April, 2003 – April, 2005	In progress.
E.10.	Raising of public awareness regarding Boreal Baltic coastal meadows and white dunes in the Vakarbulīi and Daugavgrīva Nature Reserves in Rīga.	July, 2003, 2003 – July, 2005	Started.
E.11.	Restoration of natural habitats in the area of Kolkas rags.	October, 2003 – April, 2005	Started.
E.12.	Restoration and management of wooded dunes and white dunes in Lapmežciems.	October, 2003 – April, 2005	Started.
E.13.	Restoration and management of wooded dunes, grey dunes, embryonic and white dunes in Medze.	October, 2003 – April, 2005	Started.
E.14.	Promotion of public awareness regarding conservation of wooded dunes and white dunes in Saulkrasti.	October, 2003 – April, 2005	Close to finish.
E.15.	Restoration and management of grey dunes and white dunes in Pāvilosta.	October, 2003 – April, 2005	Started.
E.16.	Raising of public awareness regarding conservation of Boreal Baltic coastal meadows, embryonic dunes and white dunes in Ainaži and Salacgrīva.	July, 2003 – July, 2005	Started.
E.17.	Public awareness raising regarding wooded dunes and white dunes in Roja.	October, 2003 – April, 2005	Started.
E.18.	Restoration and management of grey dunes and white dunes in Užava.	October, 2003 – April, 2005	Started.
E.19.	Restoration and management of wooded dunes, western taiga and white dunes in Carnikava.	October, 2003 – April, 2005.	Started.
E.20.	Restoration and management of white dunes, wooded dunes and western taiga in Nīca and Rucava.	October, 2003 – April, 2005	Started. Complications.
E.21.	Raising of public awareness regarding protection of wooded dunes, western taiga, white dunes and grey dunes in Jūrmala.	July, 2003 – July, 2005	Started.
E.22.	Participation in seminars and conferences.	January, 2003 – July, 2005	In progress.
F.1.	Administration of the project.	October, 2002 – December, 2005	In progress.
F.3.	Establishment of steering group and organisation of steering group meetings.	October, 2002 – December, 2005	In progress.
F.4.	Monitoring the effect of management measures on habitats and species.	April, 2003. – December, 2005	In progress.

<sup>1</sup> The duration of this action is changed; various contracts should be signed during the whole project time.

## MILESTONES DURING REPORT PERIOD AND CHECKLIST OF THE DELIVERABLE PRODUCTS

Table 2. Summary of project milestones, 31.05.2004.

Milestone		Date of milestone	Progress
Steering committee established.	F.3	31.10.2002	12.12.2002
Control in coastal zone of North Vidzeme Biosphere Reserve started.	D.3	31.10.2002	01.01.2003
Created vortal about LIFE project.	E.6	31.12.2002	30.10.2002
First seminar about LIFE project organised.	E.4	31.03.2003	31.10.2002
Seminar for habitat experts organised.	A.5	30.06.2003	21.05.2003; 30.05.2003.
Control in coastal zone at Piejūra Nature Park started.	D.2	30.06.2003	10.07.2003.
Participating in conference.	E.22	30.06.2003	24.01.2003.
Maintenance of coastal meadows initiated.	D.1	31.08.2003	17.08.2003 (mowing)
Database about population interests on coastal zone lands established.	A.1	30.09.2003	30.09.2004
Database with 2003. year monitoring data established.	F.4	31.12.2003	01.12.2003
Four local seminaries about LIFE project organised.	E.4	31.12.2003	07.03.2003; 14.03.2003; 10.06.2003; 16.06.2003.
Projects for management systems established.	A.6	31.03.2004	Not finished <sup>1</sup>
Contracts with subcontractors signed.	A.4	31.03.2004	Not finished <sup>2</sup>
Second seminar about LIFE project organised.	E.4	31.03.2004	7.02.2003.

<sup>1</sup> Will be finished in September, 2004.

<sup>2</sup> The project application is inaccurate, concerning this action. This can not be a milestone because contracts are being signed during whole project time.

Table 3. Summary of deliverable products, 31.15.2004.

Product		Planned date	Progress
1 <sup>st</sup> one-page booklet about LIFE project objectives and actions.	E.2	31.03.2003	12.12.2002
3 one-page informational booklets about coastal habitats of Community importance.	E.2	31.03.2003	Delayed, planned in November, 2004.
Film about coastal habitats in Rīga.	E.5	31.12.2003	15.01.2004.
Management plan for Piejūra Nature Park.	A.7	31.12.2003	15.04.2004.
Management plan for Bernāti Nature Reserve.	A.8	31.12.2003	08.04.2004.
Management plan for Užava Nature Reserve.	A.8	31.12.2003	14.05.2004.
Management plan for Vidzemes Akmeņainā Jūrmala Nature Reserve.	A.9	31.12.2003	19.03.2004.
3 one-page informational booklets about coastal habitats of Community importance.	E.2	31.03.2004	Delayed, planned in November, 2004.
2 <sup>nd</sup> booklet about coastal habitats of Community importance and their sustainable management.	E.3	31.03.2004	Delayed * planned in November, 2004.
Coloured booklets about coastal habitats of Community importance in Liepāja region, Rīga region and North Vidzeme Biosphere Reserve.	E.3	31.03.2004	Delayed, planned in November, 2004.

\* Due to shift in priorities, three booklets on other subjects concerning protection of coastal FFH habitats were issued.

## SUMMARY OF EXPENDITURES DURING THE REPORT PERIOD

Ac-tion	Personnel	Travel	External assist.	Durable goods	Consum. materials	Other costs	Over-heads	Total	% of the planned	Planned
A1	715.92	0.00	0.00	0.00	5956.35	0.00		6672.27	124.20%	5372.00
A2	52043.94	3188.32	0.00	15801.50	14710.64	311.88		86056.27	58.71%	146575.00
A3	2074.58	0.00	0.00	0.00	0.00	0.00		2074.58	6.80%	30490.00
A4	808.95	0.00	323.08	0.00	0.00	0.00		1132.03	12.73%	8890.00
A5	0.00	114.73	0.00	0.00	567.77	47.98		730.48	23.64%	3090.00
A6	0.00	0.00	924.49	0.00	0.00	0.00		924.49	1.42%	65040.00
A7	12130.66	2012.46	0.00	0.00	9987.84	0.00		24130.96	63.12%	38230.00
A8	5563.08	1041.00	0.00	0.00	42.63	0.00		6646.71	43.58%	15250.00
A9	3944.09	0.00	0.00	0.00	0.00	79.11		4023.21	28.10%	14320.00
A10	1336.35	0.00	0.00	0.00	0.00	0.00		1336.35	7.00%	19090.00
C1	455.94	0.00	0.00	0.00	0.00	0.00		455.94	12.19%	3740.00
C2	957.48	0.00	2249.34	0.00	0.00	0.00		3206.81	10.73%	29900.00
C3	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00%	36110.00
C4	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00%	8560.00
C5	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00%	5770.00
C6	0.00	0.00	3745.84	0.00	6174.71	0.00		9920.55	19.70%	50350.00
C7	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00%	2880.00
C8	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00%	9410.00
D1	1260.00	0.00	0.00	0.00	761.54	0.00		2021.54	11.96%	16900.00
D2	1718.22	0.00	0.00	0.00	0.00	0.00		1718.22	5.64%	30490.00
D3	14575.14	0.00	0.00	0.00	0.00	0.00		14575.14	24.68%	59050.00
D4	0.00	224.77	0.00	0.00	2230.77	0.00		2455.54	12.38%	19830.00
E1	0.00	0.00	107.93	0.00	0.00	0.00		107.93	0.14%	75410.00
E2	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00%	49300.00
E3	1663.42	0.00	2693.85	0.00	0.00	0.00		4357.26	4.34%	100510.00
E4	1953.26	900.46	0.00	0.00	0.00	2786.31		5640.04	20.12%	28030.00
E5	0.00	0.00	14894.80	0.00	0.00	0.00		14894.80	42.18%	35310.00
E6	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00%	42010.00
E7	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00%	58290.00
E8	381.82	0.00	0.00	0.00	0.00	0.00		381.82	1.44%	26530.00
E9	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00%	5640.00
E10	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00%	61570.00
E11	746.55	0.00	0.00	0.00	0.00	0.00		746.55	2.13%	35090.00
E12	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00%	36380.00
E13	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00%	31400.00
E14	3983.91	156.45	0.00	0.00	2454.11	0.00		6594.47	21.52%	30650.00
E15	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00%	19430.00
E16	0.00	0.00	2691.52	0.00	0.00	0.00		2691.52	1.72%	156240.00
E17	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00%	27070.00
E18	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00%	21730.00
E19	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00%	31190.00
E20	381.82	0.00	0.00	0.00	0.00	0.00		381.82	0.75%	51133.00
E21	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00%	67460.00
E22	0.00	6872.86	0.00	0.00	0.00	0.00		6872.86	18.85%	36460.00
F1	194000.54	4284.74	0.00	4378.10	2276.23	269.54		205209.14	36.00%	570065.00
F2	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00%	16050.00
F3	0.00	0.00	0.00	0.00	0.00	249.22		249.22	1.43%	17430.00
F4	3057.34	968.77	0.00	2367.67	0.00	0.00		6393.77	30.24%	21145.00
Total	303753.00	19764.57	27630.83	22547.26	45162.58	3744.04	31696.98	454299.26	20.01%	2270860.00

## **PROBLEMS OR DIFFICULTIES TO WATCH OUT FOR**

Following difficulties and problems were met during the project period.

1. Bureaucracy. The level of bureaucracy was already known from the previous report period. Moreover, the legislation is changing. Sometimes, even officers of the same office have various opinion and decisions about the same operating procedure.
2. Changing attitude of municipalities. Previously beneficial, they can change the attitude about their aims concerning nature protection. Economical interests and interests of nature protection can conflict. Sometimes, small municipalities prefer short-time financial benefits by allowing for rich people to build their homes within intact nature areas. For this reason, the approval of management plans for protected nature areas is hindered.
3. Local coordinators are inexperienced. It was unplanned that they will need a time to learn things necessary for the preparation for elaboration of technical projects (both technical things like planning, elaboration of financial beak - downs and also awareness about nature values of the coastal areas). Therefore, the elaboration of technical projects was hindered. However, this shortage is countervailed by the fact that these people will stay and work in their municipalities in future.
4. Turnover of staff in municipalities. For every municipality, it's part, role and works in our project must be explained. It is time-consuming because 13 municipalities are our co-financiers and some of them are located 200 kilometres away. And, sometimes, after successful agreements, staff is changed or even new head of municipality is elected, and all the explanation must be started from the very beginning.
5. Unexpected difficulties with Action C1 - Restoration of grey dunes by cutting trees and shrubs in the coastal protection belt between Ziemeupe and Pāvilosta. Decrease of area of grey dunes due to overgrowing and tree planting is the problem in many countries at the sea coast. Also in Latvia, pines were planted in large areas of grey dunes. Nowadays, the attitude to this habitat is changed, and large restoration projects of grey dunes are performed in several countries (LIFE-Nature project "Restoration of dune habitats along the Danish West coast" and other).

In Latvia, the first attempt of restoration of grey dunes (20 hectares) was planned by this project. However, there are problems to get permission from the state to perform this action. In Latvia, the clear-cut has never been performed as an action for the habitat restoration. Therefore, the institutions and society is not ready for such action. Active communication with institutions must be continued.

## DETAILED REPORT OF ACTIVITIES

### A. PREPARATORY ACTIONS, ELABORATION OF MANAGEMENT PLANS AND/OR ACTION PLANS.

**Action A.1.** Preparation of database of landowners and their interests regarding land use and coastal development.

**Time plan:** April 2002 – July 2003.

**Planned:** database and survey of landowners in coastal protection belt.

**Progress.** This action consists of: building database of addresses of coastal landowners; preparation and sending questionnaires; processing results.

To elaborate the data base, the information about landowners was acquired from the State Land Service of Latvia. Then, private and state properties were separated. While planning this action, we considered that there should be appr. 3500 private landowners within the coastal protection belt. After processing of data, we received appr. 6639. Unfortunately, the database of State Land Service is incomplete; 190 records were old, addresses wrong or expired.

Questionnaire of 36 questions was prepared. Questions can be divided in three parts: statistical information about people, information about their interests and aims; questions studying their knowledge about value and management of habitats.

Questionnaires are sent to 6382 landowners. Answers are still being received (therefore, the summary is not presented here). Currently, 1370 answers were received.



A1. Preparation of questionnaires for sending to the landowners.

After the sending of questionnaires, many landowners contacted us, offered their opinion and help.

**Changes/complications.** 1. Action is not finished; the last questionnaires were sent 1 month ago and answers are still being received. Time-lag of this action does not hinder the progress of other actions.

2. Due to unplanned high number of landowners, expenditures on mail (post-stamps) increased.

**Additional information:** Questionnaire in Annex.

**Action A.2.** Digital mapping of habitats of Community importance in the coastal protection belt.

**Time plan:** April 2002 – July 2004.

**Planned:** Mapping of habitats in whole project area, scale 1:10 000.

**Progress.** During the spring, 2003, the potential habitat boundaries were digitised. A reference images orthophotos were used. Next step was preparation of hard copies from orthophotos, topographic maps and habitat boundaries at scale 1 : 5 000. To achieve better printout quality special maps system was developed.

In summer and autumn, 2003, experts did habitat mapping in sites. Afterwards the computer experts edited and verified the digital habitat boundaries, built the topology, created attribute data bases and linked them to spatial data. Habitat experts verified the newly created data base.

Final step is to cross-check the habitat data base to gain its integrity. Only after that point maps of habitats will be ready for delivery. Cross-checking occurs now.

Here is a demand for our habitat maps. Municipalities, planners have understood the necessity of these maps for their work. Maps are already delivered to several municipalities.

**Additional information:** habitat maps for Engure – in Annex.

**Action A.3.** Plans of protection measures (functional zoning) for habitats of Community importance in the coastal protection belt.

**Time plan:** September 2003 – April 2005.

**Planned.** Functional zoning is a digital map with layers which show habitat types, their assessment, appropriate regime of nature protection, management, and it must be elaborated for whole project area. Functional zoning is based on habitat maps (Action A.2).

**Progress.** It is already finished in areas where management plans were elaborated - Piejūra Nature Park (A7), Užava Nature Reserve (A8), Bernāti Nature Park (A8), Vidzemes Akmeņainā Jūrmala Nature Reserve (A9). During the elaboration, it was discussed with municipalities and physical planners.

The elaboration of physical plans of municipalities are supervised by the Ministry of Regional Development and Municipal Affairs. There is an in-official agreement with this Ministry, that the representatives from our project are taking part in the evaluation of both new and existing physical plans of coastal municipalities. Currently, physical plan of Engure municipality were evaluated; the use and protection of several sites were specified.

This co-operation gives a certainty that the functional zoning elaborated by our project will be taken in account in the elaboration of physical plans.

According to changes in the “Law on protected belts” (19.06.2003.), the border of the coastal protection belt must be evaluated and updated in every municipality; that must be

started in this year. It must be done using the method elaborated by Ministry of Environment and in conformity with the Ministry of Regional Development and Municipal Affairs. The project is taking part in this process.

**Action A.4:** Making agreements and signing contracts with subcontractors and local farmers.

**Time plan:** October 2002 – April 2004.

**Planned:** contracts with subcontractors and farmers.

**Progress:** All the contracts of cooperation with co-financiers are signed. Now, various contracts with performers of works are being signed. Sometimes, the signing is delayed due to changes of state regulations concerning this action.

In the project application, it was planned to sign all the contracts until April, 2004. That was erroneous. We must prolong this action because various contracts with performers of works will be signed until the end of the project.

**Additional information:** In Annex – copies of contracts with partners, subcontractors, farmer, other performers of works.

**Action A.5:** Training of habitat experts.

**Time plan:** April 2003 – July 2003.

**Planned:** Experts learn the method of habitat mapping. This was an preparation for the action A.2 – digital mapping of habitats.

**Progress:** finished. Using the experience from year 2002, the classification of habitats and the method of evaluation is improved for the year 2003. In May 21, 2003, seminar on habitat mapping for experts was organised. In May 30, 2003, field training for experts was organised. 11 habitat experts as well 3 computer experts visited various habitats, filled the maps and discussed potential confusions. Action was continued also during whole summer - experts discussed various habitat types, visited some sites together.

**Action A.6:** The preparation of technical projects for restoration and management of coastal habitats of Community importance.

**Time plan.** April 2003 – April 2004.

**Description.** This is the preparation for actions E10 – E21, restoration and management of coastal FFH habitats. These actions require construction and installation of footpaths, wooden bridges, stairs, barriers, establishment of resting sites for visitors, parking sites, bird-watching towers. For all these works, technical projects must be elaborated.



**Progress.** For this work, local coordinators were involved – representatives of each municipality where management works are planned. The choose of these people was conformed with the municipal boards.

Three meetings with local coordinators were organised, to inform them about the procedure and bureaucracy of the works planned. Than, coordinators elaborated detailed financial break-down, did the choose of locality for management measures.

Various types of projects are needed for planned works (according to the legislation of Latvia). For paths and resting sites, the “sketch project” is sufficient. For observation towers, stairs, strengthening of dunes, parking sites, technical project is required.

Procedure of elaboration of technical project includes conforming with various requirements issued by state institutions and municipalities. Finally, technical project must be approved by the Building department of the municipality. Requirements can differ among various municipalities. For example, public discussion can be required (in Lapmežciems).

In some cases, not only technical project but also “detailed” project is required for car parking places. Detailed project is the detailed part of the physical plan and it meets more time-consuming procedures.

Within the protected nature areas, management must be conformed with the management plan. If the management plan for this protected nature area site is not approved, one must wait until the management plan is approved or to get the permit from the regional environmental board.

The success of elaboration of technical projects differs between various municipalities. Now, technical projects are elaborated and approved in four municipalities – Saulkrasti, Jūrmala, Roja, Rucava.

Reasons for delay, in other municipalities:

In Jūrmala, contract with co-financier was signed just in the year 2004. In Carnikava, it took long time for the municipality, to choose the local coordinator. In several municipalities, management measures must be included within physical plans and management plans of protected nature areas.

Currently, both elaboration of technical projects and final approval of management plans for protected nature areas are hastened.

Although most of the management works will start in this summer, the elaboration of plans will continue. There is a lack of practical experience about the way how to manage the coast. It is learning by doing – the search for the easiest legal way for the performance of management actions for the ensuring of protection of FFH habitats.

Table 4. Progress of elaboration of technical projects

Site	Action	Progress
Ainaži	C6, E16	Elaboration of technical project is started. Must wait until the approval of management plan of Nature Reserve "Randu pļavas".
Carnikava	E19	Started.
Jūrmala	C8, E21	Technical project is approved. Works will be started soon.
Kolka	E11	Detailed plan is approved. Technical project under preparation.
Lapmežciems	E12	Started.
Medze	E13	Started.
Nīca	E20	Technical project in progress. Currently, all works are stopped due to conflict in municipality.
Pāvilosta	E15	Started. Expected to be finished until 20 July.
Rīga	E10	Discussions with various departments; price quotation is performed.
Roja	C7, E17	Technical project finished and approved.
Rucava	E20	Technical project elaborated and approved.
Salacgrīva	C6, E16	Preparation.
Saulkrasti	C5, E14	Technical project elaborated and approved, many practical works are finished.
Užava	E18	Started. Must wait until the approval of management plan of Užava Nature Reserve.

It is expected that technical projects will be elaborated until August, 2004. Supposedly, practical works will be accomplished in accordance with time plan.

**Additional information:** Technical project of Saulkrasti– please see in Annex. (Other projects are similar in content and size and are not attached here.)

**Introduction to actions A7, A8, A9:** management plans for protected nature areas.

Management plans in Latvia are elaborated in accordance to Regulation "Recommendations on the elaboration of management plans for protected nature areas" (2002). Regulations determine both the content of plan and the procedure (meetings of steering group, public discussion, submission of plan in various institutions).

Every management plan must be supplemented with "Regulations on the Conservation and Exploitation". These regulations are approved by the Cabinet of Ministers. Regulations are in force of law (since other regulations are issued).

Though all plans were elaborated in year 2003 (and plan for Piejūra Nature Park in year 2002), their final approval was delayed because of asking of municipalities. In several municipalities, physical plans are being elaborated and we took the opportunity to integrate management plans within physical plans.

In table 5, the progress of elaboration of all management plans is shown. Summaries of each plan are given in Actions A7-A9.

Table 5. Progress of elaboration of management plans.

	<b>Piejūra Nature Park</b>	<b>Užava Nature Reserve</b>	<b>Bernāti Nature Park</b>	<b>Vidzemes Akmeņainā Jūrmala Nature Reserve</b>
Action	A7	A8	A8	A9
Area	8808 ha (4560 sea, 4103 terrestrial)	3225 ha (1969 sea, 1256 ha terrestrial)	2945 ha	3849 ha
Municipalities	3 (Rīga, Saulkrasti, Carnikava)	1 (Užava)	1 (Nīca)	2 (Salacgrīva, Liepupe)
Meeting of steering group	16.05.2002 20.08.2002	26. 08. 2003. 24. 09. 2003. 03. 12. 2003. 23. 03. 2004.	24.11.2003. 20.02.2004.	27.17.2003. 29.09.2003. 29.10.2003. 19.06.2004.
Public discussion	25 <sup>th</sup> – 27 <sup>th</sup> November, 2002.		31.10.2003. 24.11.2003.	29.11.2003.
Other meetings	30.11.2003. 25.06.2003. 17.09.2003. 25.06.2003. 22.04.2004. (meetings with various departments of Rīga City Council)	meeting with landowners: 15.10.2003.	meetings with landowners 15.02.2003. 16.06.2003.	meeting with landowners 29.08. 2003; 17.10.2003.
Final version delivered to municipalities	15.04.2004.	14.05.2004.	08.04.2004.	19.03.2004.
Situation with physical planning in the municipalities	In Rīga, physical plan is being revised. Carnikava: first public discussion in 10 <sup>th</sup> March, 1004. Saulkrasti: plan elaborated in 2003; refused; now being revised.	Užava village: first public discussion in May, 2004.	Nīca municipality: first public discussion in May, 2004.	Salacgrīva town: first public discussion in May, 2004. Liepupe village: elaboration of plan started, first public discussion planned this summer.
“Regulations on the Conservation and Exploitation” approved	-	-	April 8 <sup>th</sup> , 2004.	-
Further activities	C2 (restoration in Rīga) C3 (fences etc. in grasslands) D1 (mowing, grazing) D2 (control in Rīga) E1 (inf. boards) E.5 (1 <sup>st</sup> film) E8 (inf. signs) E.10 (paths etc. in Rīga) E19 (restoration in Carnikava) C5, E.14. (restoration in Saulkrasti) E14 (restoration in Rīga)	E8 (restoration) E1 (inf. boards) E8 (Inf. signs)	E20 (restoration) E1 (inf. boards) E8 (Inf. signs)	C5, C6 (restoration) D1 (mowing, grazing) D3 (control) E1 (inf. boards) E8 (Inf. signs)

**Additional information.** Electronic copies of all management plans are attached in CD disc. Hard copy of North Vidzeme management plan is attached. Plans are similar in structure and size.

**Action A.7:** Development of management plan for protected nature area Piejūra Nature Park.

**Time plan:** April, 2002 – January, 2004

**Planned:** elaboration of management plan

**Progress.** Plan was elaborated already in previous report period. During the last year, discussions with municipalities, landowners, planners occurred; plan was improved. Piejūra Nature Park is located within area of 3 municipalities. Rīga municipality argued about park's border at the area of harbour and about zoning in Vakarbuļi (concerning potential building). Together with Department of Development and Department of Environment, details about zoning and management were discussed; opinion of municipality is included in the plan. Currently, all municipalities are evaluating the plan and preparing the final approval.

The area is divided into following functional zones: strictly protected zone; zone of nature reserve; zone of nature park; neutral zone.

Main FFH values are: boreal forests, wooded dunes, embryonic dunes, white dunes, coastal and lowland hay meadows etc.

Main management measures of the plan are:

1. the development of management system (for the establishment of the administration of Park, in near future);
2. management for habitats and species (maintenance of grasslands etc.);
3. development of infrastructure for recreation and tourism (paths, parking sites etc.);
4. sort-out of land property information (there are many private properties; owners are interested in compensations; contracts with landowners must be signed; money should be found for the buying-out or for compensations);
5. distribution of information, rising of public awareness;
6. research and monitoring (sites where it is necessary are shown).

Possible performers (other than the project) are discussed with municipalities.

**Complications.** Unfortunately, the plan is still not approved. The process of getting acceptance from municipalities took very long time period.

**Action A.8.** Development of management plans for the protected nature areas Bernāti Nature Park and Užava Nature Reserve.

**Time plan:** April, 2003 – January, 2004.

**Planned:** elaboration of 2 management plans.

**Progress.** **Bernāti Nature Park** is located at the SW coast of Latvia and its main FFH values are various types of natural forests, mainly wooded dunes and boreal forests as well humid dune slacks. Main threat is the increasing recreation pressure.

Main actions of the management plan are: establishment of micro-reserves within the protected habitats; establishment of resting sites, paths and educational paths; establishment of parking place; information signs and information boards; preparation and dissemination of information.

Territory is divided into 3 functional zones. Zone of nature reserve is established for the protection of protected habitats. Zone of nature park is established for the protection of all natural habitats, landscape and cultural environment as well for recreation and education. Neutral zone is for the development of tourism infrastructure. On 8th April, 2004, "Regulations on the Conservation and Exploitation" were approved.

**Užava Nature Reserve** is located at the NW coast of Latvia. Its FFH values are grey dunes, boreal forests, wooded dunes. Area is divided into following zones: strictly protected zone; zone of nature reserve, zone of adjustable regime.

Main threat to FFH habitats and species is the antropogenic pressure, due to increasing recreation. Otherwise, FFH habitats exist in a good condition therefore specific management measures are not needed.

Therefore, main management measures are dealing with the diminishing of antropogenic pressure. Planned constructions are: paths (appr. 500 m), car parking sites (3 small ("pockets") and 3 large), several barriers on unacceptable road; two resting sites (with sites for tents). Fences (appr. 1500 m) will prevent the driving in dunes; apertures in fences will lead people to the paths and to the sea.

Measures for rising of public awareness are: information signs (appr. 25) and information boards (7). One information page was prepared for the local residents, during the preparation of management plan. Another information page for visitors is in preparation.

These measures will be financed not only by LIFE-Nature project but also by the State Stock Company "Latvia's State Forests" and by Užava municipality. Currently, local coordinator is elaborating detailed plan for information signs, information boards etc. This year, main activities are planned at the outlet of Užava River.

**Complications.** Nīca Municipality does not support the management plan of Bernāti Nature Park. Within the last 10 years, several people have bought the land here. Responsible institutions did not inform them that this land is located in the protected area where building is restricted. Several of these land properties are located within FFH habitats – wooded dunes, boreal forest, dune slacks. Some properties are in sites exposed to active erosion (during the last 2years, 40 meters of the coast were taken by the sea, landwards); it would be not wise to build homes here. Nevertheless, municipality advocates the interests of landowners.

**Action A.9.** Development of management plan for Vidzemes Akmeņainā Jūrmala Nature Reserve.

**Time plan:** April, 2003 – January, 2004.

**Planned:** elaboration of management plan.

**Progress.** Vidzemes Akmeņainā Jūrmala Nature Reserve is located in NE part of Latvia, it's main values are various types of natural forests, vegetated sea cliffs, semi-natural grasslands, various types of beaches. Unlike typical protected nature areas, this territory is settled.

Main management measures are development of infrastructure for recreation (paths, ladders etc.); management of habitats (grasslands), preparation and dissemination of information, further investigations.

Area is divided into following zones: strictly protected zone, zone of nature reserve and zone of landscape protection.

Elaboration of plan was hindered after asking of municipalities and administration of North Vidzeme Biosphere Reserve, to integrate this plan in municipal physical plans, which are being elaborated now.

Now, final approval from both municipalities is received.

**Action A.10.** Establishment of micro-reserves for habitats and species of Community importance.

**Time plan.:** July 1, 2003 – July 1, 2005.

Microreserve is a small protected nature area for particular habitats and species, usually 0.1 - 20 ha. **Planned:** establishment of network of microreserves in whole project area.

**Progress.** Currently, gathering of information about sites of potential micro-reserves (small protected nature areas for particular habitats and species, usually 0.1 - 20 ha) is nearly finished.

Area of potential micro-reserves in forests is ~700 ha. Most of this area is covered by conifer forests, rather rare are deciduous forests, mainly alluvial forests. Information was collected by certified forest ecologists (trained for the evaluation of potential woodland key habitats). In report period, all the private forests in project area were inventoried.

Area of potentially protected grasslands is 239.5 ha. Data are gathered by experts of the project "Inventory of semi-natural grasslands in Latvia" (Latvian Fund of Nature). Currently, the necessity for establishment of micro-reserves for 118 sites is being evaluated.

Potential sites for micro-reserves within habitats of dunes and humid dune slacks were inventoried within habitat mapping (Action A.2) and are being evaluated now.

Currently, the priorities are:

1. to establish micro-reserves within forest habitats in Bernāti Nature Park, Piejūra Nature Park, Vidzemes Akmeņainā Jūrmala Nature Reserve;
2. to accomplish the evaluation of seminatural grasslands and establish microreserves here. It is planned to finish this work until end of August, 2004. At the same time, evaluation of valuable dune and dune slack habitats is being continued;
3. to establish microreserve in grey dunes in Pāvilosta.

Procedure of microreserve establishment includes: submission of various documents (form of the application; map of micro-reserve (scale 1:10 000); inquest about land properties, issued by State Land Service or State Forest Register); proposal is being evaluated by Nature Protection Board, Regional Environmental Board, municipalities. The Ministry of Environment or the Ministry of Agriculture arrives the final decision about the establishment of micro-reserve.

The establishment of micro-reserves in Latvia was started just in year 2002 therefore there still are confusions about this procedure and it is often changed by new regulations issued by state.

**Changes/complications.** The establishment of microreserve in Pāvilosta and Saka (largest grey dunes in Latvia, priority FFH habitat) is complicated. Several meetings with landowners and municipalities occurred; proposal for the establishment of microreserve is published. Municipalities do not agree; they want to allow building here. Together with the Ministry of Environment, we are searching for compromises with municipalities.

## **C. NON-RECURRING HABITAT MANAGEMENT**

**Action C.1.** Restoration of grey dunes by cutting trees and shrubs in the coastal protection belt between Ziemepe and Pāvilosta.

**Time plan:** July, 2003 – April, 2005.

**Planned:** cutting of trees in 20 ha area, SW coast of Latvia. Habitat – overgrowing grey dunes and the transition to wooded dunes.

**Progress.** Site for cutting is chosen, performers of work are found (staff of local forestry). Monitoring (Action F4) is performed both in open and forested grey dunes. One student started his research work, to study the plant succession after tree removal in grey dunes. Cutting was planned in January, 2005 (in January, the soil is frozen therefore works don't destroy the vegetation).

**Complications – problems to get permission from the state.** To cut trees, permission must be received. The area of this action is located in the coastal protection belt. The "Law on protected belts" prohibits the clearcuts in the coastal protection belt. Our action is a clearcut and therefore it is not allowed.

Theoretically, it is possible to perform this action, after the change of the legal status of the land use. Though, after various discussions, the Ministry of Environment decided to ask us to stop this action, due to several reasons.

Reasons for this decision. 1. Often, people want to cut forest in the coastal protection belt. Than, various institutions are forbidding it. Also representatives of our project have been taking part in assessments which resulted in ban of cutting of forest. Our wish to cut trees in coastal protection belt (moreover, in large area, 20 hectares) is in contradiction to our previous actions and words. It would be difficult for the society to accept it.

2. The active management of habitats is just started in Latvia. It took long time for the society, to accept the necessity of mowing of grasslands for the management of habitats. The society still don't fully accept the management of grasslands by free living grazing animals. Other methods of habitat management, especially management by clear-cutting, are not discussed openly. In Latvia, the clear-cut has never been performed as an action for the habitat restoration. Therefore, the society is not ready for such action.

Due to circumstances independent on us, this action can lead to failure. The time is too short to change the attitude of the society. We will continue the dissemination of information and the communication with institutions. Possibly, trees will be cut in smaller area (few hectares).



Forested grey dunes in Ziemeļi, in site where restoration is planned.

**Action C.2.** Restoration of Boreal Baltic coastal meadows in Vakarbuļi and Daugavgrīva Nature Reserves in Rīga city.

**Time plan:** July, 2003 – April, 2005.

**Planned:** restoration of 80 ha of meadows by: cutting of shrubs (25 ha), removing of illegal sheds, collecting wastes etc.

**Progress.** Vakarbuļi and Daugavgrīva Nature Reserves are located in Buļļu Island, Piejūra Nature Park. In August and September **2003**, 1.5 ha of shrubs (also alien species *Amelanchier spicata* and *Rosa rugosa*) were cut in grasslands of Vakarbuļi. Shrubs were collected and burned.

Before the cutting and mowing (Action D1), all landowners were informed about the activities planned. The permit from Regional Environmental Board was received. Cutting was managed by representative of local forestry board. (It was successfully because he is the authority for local people.) After the mowing, we received positive response from local residents.



In spring 2004, 5 ha of shrubs in Daugavgrīva were cut. Currently, the destruction of illegal garden sheds is discussed with the municipality.



Cutting of *Rosa rugosa* in Vakarbulī



Illegal garden sheds in Daugavgrīva

**Action C.3.** Management measures for Boreal Baltic coastal meadows and white dunes in the Vakarbulī and Daugavgrīva Nature Reserves in Rīga.

**Time plan:** July, 2003 – July, 2005.

**Planned:** 2 cow shelters, fencing (~1 km).

**Progress.** Works are hindered due to the bureaucracy of Rīga council – every activity must be accepted by many departments and institutions. Illegal garden sheds (picture above) are located in site where cow shelter is planned. For their removal, decision of municipality is necessary. Currently, correspondence with various departments occurs, to facilitate the decision.

Supposedly, works will be accomplished in accordance with time plan.

**Action C.4.** Restoration of grey dunes and white dunes by destruction of expansive plants.

**Time plan:** April, 2003 – October, 2004.

**Planned:** extraction of *Rosa rugosa* and other expansive alien plants in ~100 ha, SW coast.

**Progress.** In previous year, the distribution of invasive species was studied. Three students did scientific studies on three invasive species. Currently, the final maps are being drawn. Cutting is planned in the middle of this summer. Cutting will be performed by staff of Vērgale and Nīca Forestries.

**Action C.5.** Restoration and management of wooded dunes and white dunes in Saulkrasti.

**Time plan:** October, 2003 – April, 2005.

**Planned:** strengthening of dune bank, ~2000 m<sup>2</sup>, with a fence of woven branches.

**Progress.** Fence of woven branches is constructed (please see pictures below), length of 2 000 metres. Erosion is hindered significantly. Work will be continued.



**Action C.6.** Restoration and management of Boreal Baltic coastal meadows, embryonic dunes in Ainaži and Salacgrīva.

**Time plan:** October, 2003 – July, 2005.

**Planned:** cutting of bushes (10 ha), cleaning of ditches (2.3 km).

**Progress.** Technical project is in preparation.

Supposedly, works will be accomplished in accordance with time plan.

**Action C.7.** Restoration and management of wooded dunes and white dunes in Roja.

**Time plan:** October, 2003 – April, 2005.

**Planned:** strengthening of dune bank.

**Changes.** There is a need to consolidate this action with Action E.17. due of change of locality of this action. For detailed reasons, please see progress of Action E.17.

**Action C.8.** Restoration and management of wooded dunes and western taiga in Jūrmala.

**Time plan:** July, 2003 – July, 2005.

**Planned:** strengthening of dunes; removal of alien species.

**Progress.** Technical project is elaborated in accordance to management plan of Ragakāpa Nature Park. Project is approved by Department of Building (Jūrmala municipality). The strengthening of eroded dunes by woven spruce branches is planned in area of 420 m<sup>2</sup>. The contract for the cutting of invasive species *Rosa rugosa* is prepared.

## D. RECURRING HABITAT MANAGEMENT

**Action D.1.** Maintaining of Boreal Baltic coastal meadows by mowing and grazing.

**Time plan:** July, 2003 – December, 2004.

**Planned:** management of 80 ha in Rīga (45 ha grazing, 35 ha mowing), 20 ha in Ainaži and Salacgrīva.

**Progress. Rīga.** In 2003, recommendations for the management were elaborated. Expert of grasslands (Ivars Kabucis) gave recommendations on preferable methods and times of management for every single site. These recommendations were included in the management plan of Piejūra Nature Park (Action A7).

Monitoring plots in all sites of planned actions were set (Action F4). In August 18<sup>th</sup> and 19<sup>th</sup>, 15 ha of grasslands in Vakarbuļi were mown. Grass was chopped and not removed (it was not useable for food for cattle due to reed and shrubs). Mowing is shown in film (Action E6, film in Annex).

This summer, management of grasslands in Vakarbuļi and Daugavgrīva will continue, using this experience.

**Salacgrīva.** In Salacgrīva, management of grasslands by grazing is started, in area of 20 hectares. Vegetation was monitored and recommendations elaborated in the same way as in Rīga. Management was started with the mowing of the grassland. Possible providers, prices, transport costs were clarified. Building of fences and mowing was organised. Spodrīte Dunda, resident of Salacgrīva, decided to take care on cattle. In November, 2003, 5 animals (1 adult cow and 4 calves) were bought and transported to grasslands. In this spring, one calf is born.

**Complications.** Further stay of cows in Salacgrīva is discussed. S. Dunda is not secure about her future plans; she is not sure if she wants to continue her duties. Until March, 2004, she was contracted on basis of short-time contracts. Permanent contract is prepared but not signed.

It is not easy to find another person for this action. In the coastal meadows of Salacgrīva, the land is divided in small, narrow pieces; every piece has another landowner. The part of municipal land is small. Therefore, we can not sign contract with every other landowner; the area is too small.

Most of landowners don't want to occupy with cows. Some of them don't support the grazing on their private lands. People are not motivated enough. Further work for rising of public awareness is needed.

Communication with local people is continued. Currently, another person is found which is considering the undertaking of this action, in the same area. Other possibility is to relocate cattle in coastal meadows in Ainaži (neighbouring municipality).

In long-term, Salacgrīva municipality should buy-out or rent the land, for the management of habitats.



Cows in shelter.



Cows in fencing, winter.



New calf was born in May, 2004.

**Action D.2.** Ensuring adequate control and protection in coastal zone at Piejūra Nature Park.

**Time plan:** April, 2003 – December, 2005.

**Planned:** coastal supervisors controlling illegal actions in Piejūra Nature Park, Rīga.

**Progress.** In 2003, a pilot project involving two municipal policemen of Rīga Municipal Police was performed in Buļļu island and in Mangaļsala. Typical illegal activities eliminated by polices were: driving and parking in dunes, making fires, damage of information boards and signs, letting loose dogs.

Both policemen were local residents, familiar to other local people. As the result, local residents were often calling and informing about illegal activities. After one season, one policeman submitted recommendations on how to improve regulations of Rīga City Council concerning his work, and recommend sites where information signs as well signs “driving forbidden” etc. should be installed. Recommendations were accepted and included in the management plan.

Rīga Municipal Police wants not only to continue this action but also to broaden it. It is concerned in assuring similar control in other protected nature areas in Rīga (outside of LIFE-Nature project area), using experience of this project.

It is proposed also to integrate Environmental State Inspectorate in this work.

**Action D.3.** Ensuring adequate control and protection in coastal zone of North Vidzeme Biosphere Reserve.

**Time plan:** October, 2002 - December, 2005

**Progress.** Action was started in January, 2003. Typical illegal activities eliminated by environmental inspector were: driving and parking in natural habitats and carrying away stones. (Stony beach is found here and it is very untypical in other sites. People take stones for building etc. This activity contribute to erosion.)

Many illegal activities are caused by the lack of information. Therefore, North Vidzeme Biosphere Reserve is cooperating with Vidzeme regional television and elaborating chain of stories about the protection of coast in North Vidzeme.

Here is one **common problem** about controlling illegal activities, both here and in Rīga (Action D2.). Every legal authority has one's rights and restrictions. Municipal policeman can penalise for the offence of regulations of local municipality but not for the offence of general legislation concerning protected nature areas. Environmental inspector can penalise for the offence of general legislation but not for the offence of regulations of local municipality. In most cases of illegal activities, these two legislation's overlap. However, municipal police can not penalise for some actions of destroying habitats etc. if these actions are not listed in the Regulations of municipality.

The recommendation for further similar activities in Latvia, to improve the control in protected nature areas, is that municipal polices and environmental inspectors should work together.

**Action D.4.** Purchase of cattle for grazing management in meadows.

**Time plan:** April, 2003 – July, 2003; April, 2004 – July, 2004.

**Planned:** purchase of 25 beef cattle.

**Progress.** Five cattle were bought. One adult, female (The Latvian Brown, local breed), four calves (hybrids between *Sharole* and *Highlander*, 3 females and 1 male).

## **E. PUBLIC AWARENESS AND DISSEMINATION OF RESULTS**

**Action E.1. and E.8.** Establishment and installation of information boards and information signs.

(These 2 actions are performed and reported together)

**Time plan.** July, 2003 – April, 2005.

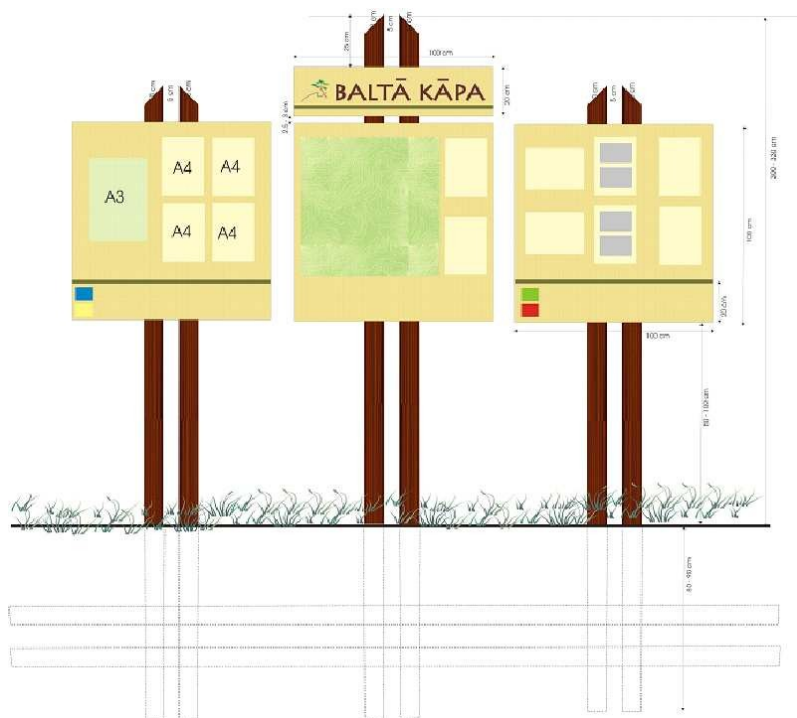
**Planned.** E1: 101 information boards in locations where conservation and restoration actions are implemented as well in areas with heavy visitor pressure. E8: signs indicating potential Natura-2000 sites and FFH habitats.

**Progress.** Information about various information boards and signs in protected areas was summarised and discussed in the project team. Finally, the design of boards was based on the experience of Gauja National Park (GNP), due to their 30-years long experience and because their boards are environmentally friendly, light, easy replaceable, reasonably priced. Design of boards was elaborated by "GNP Information Centre". This organisation was chosen as the main performers of this action.

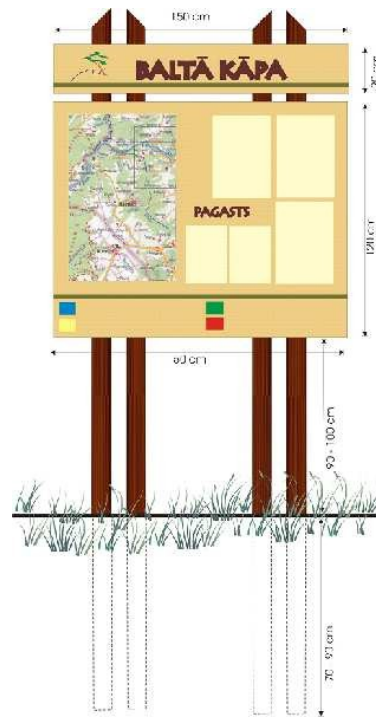
Common design for boards and signs was elaborated. Two types of information boards are planned: one-parted and 3-parted. Information on the boards includes: name of the area; map; description of area; information on protected habitats and species; rules of behaviour;



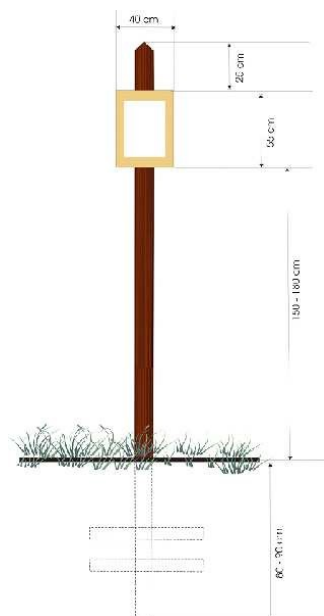
logo's of co-financiers and LIFE; summary in English; telephone and address - where to get more information. Three types of information signs: name of object; name of object and description (3 subtypes); signs of location.



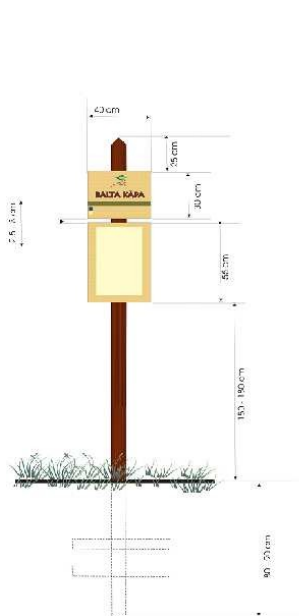
Three-parted information board.



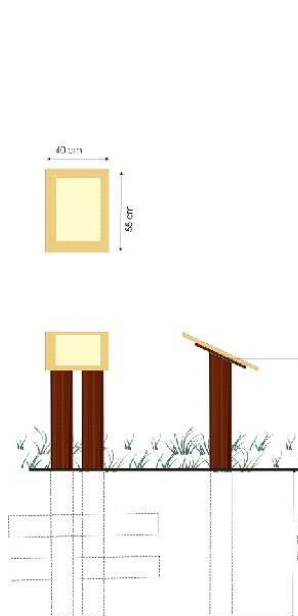
One parted information board



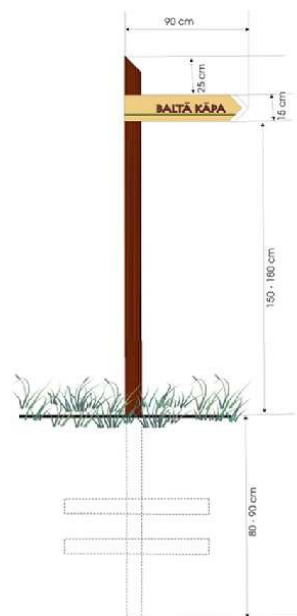
Information sign: name of object and description.



Information sign: name of object (description can be added separately)



Information sign with name of object and description.



Sign of location.



Now, local coordinators are specifying the number of signs and boards in every site (accordingly to finances), drawing localities of signs in maps, gathering information for texts, photos and maps.

On all types of boards and signs, reference to LIFE project will be included.

First boards and signs were established in June, 2004, in Saulkrasti (Action E14).

**Additional information:** Sketch project on elaboration of information boards and signs in Annex.

### **Action E.2.** Preparation and publishing of leaflets.

**Time plan:** July, 2002 – April, 2005.

**Planned:** 20 coloured A4 format leaflets. Of them, 3 in the first year and 3 in the second year.

**Progress.** The first leaflet about the project (issued in previous report period) was printed repeatedly, 7 000 copies, in Latvian. It was done because it was sent to every landowner of the coastal protection belt and because here was great interest about the project.

In preparation is a chain of leaflets - leaflet about Užava Nature Reserve; leaflet about Natura-2000, sites at the coast; about typical plants at the coast, leaflets about protected nature areas.

Leaflet about Užava was elaborated together with management plan of Užava Nature Reserve; however, it was printed just in 100 copies. Improved version is in preparation.

**Changes/complications.** Leaflets will be issued later than planned.

Reasons for the delay are: 1. Shift of priorities. During this time, the priority was direct communication with people – seminars, workshops and personal discussions. By direct communication, more flexible information exchange is facilitated and it is possible to reach more targeted audience. 2. In scope of elaboration of management plans, large communication with society occurred. Meetings and mailings with landowners and residents, distribution of various information and maps.

Currently, action plan for leaflets and booklets is elaborated and we will catch up the time plan in November, 2004.

**Additional information.** Leaflet about Užava Nature Reserve in Annex.

### **Action E.3.** Preparation and publishing of booklets.

**Time plan:** January, 2003 – December, 2005.

**Planned:** 7 booklets (3 about the project, 3 about protected nature areas in Rīga, North Vidzeme, Liepāja district, 1 booklet for schools). Of them, 6 should be issued until now.

**Progress.** Three booklets are issued. They are not directly about the works of project but about topics which are very actual for the sustainable development of protected habitats in the project area. Topics of booklets were chosen after the discussions with people and after the gathering of previous results of questionnaire (Action A.1).

The **first** booklet “Sustainable development of the coast” (3 500 copies, A5, 18 pages, coloured, in Latvian), written by Dr. geogr. A.Melluma, contains recommendations for the physical planning in coastal municipalities.

The **second** booklet, “The sea is attacking, what to do” (10 000 copies, B5, 24 pages, coloured, in Latvian), written by Dr.geogr. G.Eberhards, is about erosion. It shows the level of erosion in various sites, influencing factors and what to do to facilitate the abatement coastal erosion etc. The necessity to allow natural processes at the coast is strengthened.

**Third** booklet, “Restrictions in the use of land property rights within the coastal protection belt” (5 000 copies, B5, 32 pages, black-and-white, in Latvian), written by Dr. iur. I.Čepāne and S.Meiere. The booklet deals with the legal issues connected with the protected belt of the Baltic Sea and the Gulf of Rīga.

**Additional information.** Three booklets – in annex.

### **Action E.4.** Seminars for stakeholders.

**Time plan:** January, 2003 – December, 2005.

**Planned:** 3 general (large) and 8 local seminars (1 large and 4 local until now).

**Progress.** During the report period, 1 large and 5 local seminars were organised (3 general and 2 local also in previous report period). It is more than it was planned. However, these seminars were very useful for the implementation of project actions and for the rising of overall public awareness both for local residents and for institutions.

Name	Where, when	Partici-pants	Description
Actual problems of the coast	Pāvilosta, 10.06.2003.	57	Introduction to management of coastal habitats and Bernāti Nature Park. Discussion about the compensations for landowners.
Management of the sea coast.	Mērsrags, 16.06.2003.	55	Audience – local business people. Erosion of the coast, management, best examples.



Values of nature in Vidzemes Akmeņainā Jūrmala Nature Reserve	Salacgrīva, 29.08.2003.	36	Introduction for the elaboration of management plan. Residents explained their wishes of the management in this area.
Role of natural grazing for the conservation of biodiversity	Salacgrīva, 18.10.2003.	~30	Residents of Ainaži and Salacgrīva introduced in habits of big grazing animals ( <i>Sharole</i> and <i>Highlander</i> ) and their use for the management of grasslands.
Practical experience and solutions for the management of protected nature areas and the coast.	Rīga, 07.05.2004.	89	Exchange of very practical experience about construction of paths, ladders, information boards etc.
Other events organised by the project.			
European green days	Rīga - Vecdaugava - Lilaste - Rīga, 01.06.2003.	25	Excursion. Teachers of biology visited various coastal FFH habitats, learned key elements and species, discussed protection and management.
European green days	Rīga – Ķemeri – Rīga 29.05.2004.	27	Excursion. Students of biology and other persons visited Natura-200 site, learned key structures and species of FFH habitats.
Excursion to Ziemeupe Nature Reserve	Vērgale, Ziemeupe, 31.05.2004.	20	Landowners of Ziemeupe Nature Reserve learned FFH habitats and species. They want to use these knowledge to inform tourists and other visitors to this area.
Competition for pupils, Quo vadis, the coast (Kurp ej, piekraste’')	15.05.2004. – 12.09.2004.	let’s see	In any form, pupils (age 10 – 14) must send their vision about the future of the coast, showing the balance between nature protection and economic development. Hidden goal of this action is to encourage the discussions between children and their parents about this subject.



European green days, 01.06.2003.



Seminar “Practical experience and solutions for the management of protected nature areas and the coast”, 07.05.2004.



Seminar “Role of natural grazing for the conservation of bio-diversity” (18.10.2004.) – lectures and field trip.



European green days, 29.05.2004

Excursion to Ziemupe Nature Reserve, 31.05.2004

**Additional information:** pictures from various events in Annex (CD disc). Invitation of competition for pupils – Annex.

**Action E.5.** Two films about coastal habitats.

**Time plan:** July, 2003 – October, 2005.

**Planned:** Two films (15 and 20 minutes)

**Progress.** The first film, “The green city” (“Zaļā pilsēta”) is finished. Its length is 30 minutes (instead of 15 planned; another 15 minutes were sponsored by the Studio), in English and Latvian. Film is taken by the studio “Jura Podnieka studija”. It is about Vakarbuļļi and Daugavgrīva Nature Reserves – habitats, species, people and development.

The most significant events where film was demonstrated were: in Rīga City council (~20 spectators), in The Hall of University of Latvia (~90 spectators), the meeting of Rīga deputies and residents of Bolderāja (150), workshop coordinators of teachers of Rīga (26), session of Botanical Society; seminar for teachers of biology (110), gathering of parents, 19th Bolderājas secondary school (53), various events devoted to the "World water day" and other events concerning coastal protection.



Twice, it was demonstrated in television of Latvia. It was demonstrated also in Economic, Agricultural, Environmental and Regional Policy Committee of the Parliament of Latvia.

Copies of film were distributed to deputies of Rīga, schools, environmental NGO'S and other institutions. Presentation of the film will be continued as there is still the interest from schools, local residents etc. We get very positive response from the audience.

K. Goba, editor of films, and B.Laime, project manager.

**Additional information:** Please see film in Annex.

**Action E.6.** Creation and updating of vortal about the LIFE project and about coastal habitats.

**Time plan:** April, 2002 – December, 2005.

**Planned:** website about the project and FFH habitats.

**Progress.** Since May, 2003, approximately 3350 visitors have visited our site, <http://piekraste.daba.lv/>.

New features of the site are:

- image collection with coastal habitat photos, maps of protection areas, emblems and coats of arms. Script for generating image collections was redesign to support multi-languages;
- information about habitat mapping;
- management plans for protected nature areas (including maps);

- digital versions of booklets (“Sustainable development of the sea coast in Latvia” and “The sea is attacking, what to do”).

**Action E.8.** Establishment and installation of information signs.

**Time plan:** April, 2003 – April, 2005.

Please see report on Action E.1.

**Action E.10:** Raising of public awareness regarding Boreal Baltic coastal meadows and white dunes in the Vakarbuļļi and Daugavgrīva Nature Reserves in Rīga.

**Time plan:** July, 2003, 2003 – July, 2005.

**Planned:** paths on wooden base, stairs, barriers on unplanned roads, resting places, bird watching tower, educational botanical path.

**Progress.** Rīga is a capital city and the procedure of preparation for works includes the formal agreeing from various departments and institutions including both state institutions and departments of Rīga City Council. Currently, requirements concerning architectural planning are being received.

Planning and practical works will start in June, 2004.

**Action E.11:** Restoration of natural habitats in the area of Kolkas rags.

**Time plan:** October, 2003 – April, 2005.

**Planned:** network of paths, stairs, bridges, bird watch tower.

**Progress.** Detailed plan of this area was approved 2 years ago. During these years, situation has changed. In autumn, 2002, large storm diminished area of Kolka cape. Plan (paths, site of tower) must be changed accordingly to current situation.

Last summer, barriers on unplanned roads were constructed. Technical project for other works is under preparation.

**Action E.12:** Restoration and management of wooded dunes and white dunes in Lapmežciems.

**Time plan:** October, 2003 – April, 2005.

**Planned:** paths, one small bridge, resting places, parking sites, barriers on unplanned roads.

**Progress.** Elaboration of technical project is started, the construction will start in summer.



**Action E.13:** Restoration and management of wooded dunes, grey dunes, embryonic and white dunes in Medze.

**Time plan:** October, 2003 – April, 2005.

**Planned:** paths, resting sites, car parking site, barriers.

**Progress.** Elaboration of technical project is started. Works were hindered due to complex situation with land ownership. Suitability of several sites was discussed. In site which is chosen for management, part of the area is private land. Currently, signing of official agreements about the land use is being contracted.

**Action E.14:** Promotion of public awareness regarding conservation of wooded dunes and white dunes in Saulkrasti.

**Time plan:** October, 2003 – April, 2005.

**Planned:** stairs, raised paths, barriers; renovation of observation tower.

**Progress.** Technical project was elaborated and following constructions were built: paths with base of wooden chips (928 m<sup>2</sup>), raised paths on wooden base (100 m<sup>2</sup>), one bridge (17 m<sup>2</sup>), one resting site (one table, 2 benches), stairs (170 m). Along the paths with wooden chips, fences of woven branches are constructed. Observation tower was renovated and observation platform (35 m<sup>2</sup>) was built.

More constructions are planned: resting site, site for fire.



Eroded site where building of path is needed



Stairs



Paths



Resting site



Raised path

**Additional information:** observation platform - picture on front-page of this report.

**Action E.15:** Restoration and management of grey dunes and white dunes in Pāvilosta.

**Time plan:** October, 2003 – April, 2005.

**Planned:** network of paths; car parking places; barriers on unplanned roads.

**Progress.** In grey dunes of Pāvilosta, micro-reserve is being established (Action A.10); management is coordinated with the management of this protected site. Elaboration of technical project is just started.

**Action E.16:** Raising of public awareness regarding conservation of Boreal Baltic coastal meadows, embryonic dunes and white dunes in Ainaži and Salacgrīva.

**Time plan:** July, 2003 – July, 2005.

**Planned:** network of paths; resting sites; parking sites; barriers.

**Progress.** Ainaži and Salacgrīva are neighbouring municipalities. In **Ainaži**, works are planned in accordance to management plan of Randu Pļavas Nature Reserve which is being elaborated by Baltic Environmental Forum. In June, this plan should receive the final approval. Technical project is under preparation.

In **Salacgrīva**, technical project is under preparation. Works are co-ordinated by Salagrīva Tourism Information Centre.

**Action E.17:** Public awareness raising regarding wooded dunes and white dunes in Roja.

**Time plan:** October, 2003 – April, 2005.

**Planned:** network of paths, stairs, resting places, car parking place, barriers.

**Changes: locality of action is slightly changed.** In our LIFE project application, works were planned in Rojas Baltā kāpa, site with high wooded dune and high antropogenic pressure. It is located in Ģipka village – appr. 8 km North of Roja centre.

In beginning of this year, Roja municipality found another source of finances and, as restoration of this site was so urgent, the works were started, in cooperation with LIFE-Environment project “Livonian Green Coastal Region – 21”.

After discussion with Roja municipality, other site for management was chosen. It is located appr. 2 km South of Baltā kāpa. Habitats: low moist beach, small foredunes (habitat code 2120), grey dunes (2130\*), boreal forest (9010\*), wooded dunes (2180). In this site, rare FFH species *Bufo calamita* is foraging.

Behind wooded dunes, humid dune slacks (2190) and fens are located. Here, Ģipka Nature Reserve is established just now; it is also the Natura-2000 site.

In Ģipka, number of residents and visitors is growing fast. This is popular site for people from Talsi District. Endangered habitats are threatened by antropogenic pressure. People must be concentrated in less sensitive sites, to direct them away from Nature-2000 site.

So, the locality of action is changed, but it is still in the same municipality, the same village and in coastal protection belt, facing the same threats. Representation of rare FFH habitats and species here are even higher than in previously planned site of this action.

**Planned works in Ģipka are:** car park site, barriers on unplanned roads, barriers on unplanned roads, resting sites, paths on wooden base as well information signs and boards. Works are implemented together with municipality; car park is financed by municipality and paths are financed by project.

In planned construction works, saving of money was possible (because car parking site is already built by municipality). Roja municipality is concerned about the conservation of FFH habitats also close to centre of Roja willage. Here, despite of high antropogenic pressure, foredunes and grey dunes are preserved.





Foredunes and grey dunes at Roja centre. High antropogenic pressure on these habitats can be minimised by construction of boardwalks.

Therefore, **two more boardwalks are planned** in Roja municipality, close to Roja centre. Habitats – small foredunes (2120), grey dunes (2130\*), wooded dunes (2180). These paths will save FFH habitats from deterioration due to activities of visitors.

**Progress.** Technical project is elaborated and approved. In Ģipka, barriers on unplanned roads are already built.



Barrier on unplanned road (former road is behind the barrier; barrier can be opened if necessary).

Road to the sea; boardwalk and information board will be constructed here.

Car parking site; regional and local coordinators.

#### **Action E.18:** Restoration and management of grey dunes and white dunes in Užava.

**Time plan:** October, 2003 – April, 2005.

**Planned:** network of paths, barriers, car parking place, resting sites.

**Progress.** Works are planned in accordance of management plan of Užava Nature Reserve (Action A.8) which has been submitted in the Ministry of Environment, for the final approval.

Technical project is under preparation.

#### **Action E.19:** Restoration and management of wooded dunes, western taiga and white dunes in Carnikava.

**Time plan:** October, 2003 – April, 2005.

**Planned:** network of paths, resting sites, barriers.



**Progress.** Technical project is under preparation. Works are hindered due to long process of approval of management plan of Piejūra Nature Park. Supposedly, works will be accomplished in accordance with time plan.

**Action E.20:** Restoration and management of white dunes, wooded dunes and western taiga in Nīca and Rucava.

**Time plan:** October, 2003 – April, 2005.

**Planned:** network of paths, resting sites, car parking sites, barriers.

**Progress:** Nīca and Rucava are neighbouring villages. In **Rucava**, plan is elaborated in cooperation with Lake Pape LIFE-Nature project and elaboration of management plan of Pape Nature Park. Technical project is elaborated and is being approved now.

In **Nīca**, technical project is being elaborated. Works are planned in accordance with management plan of Bernāti Nature Park (elaborated by project, Action A.8).

**Complications.** Due to conflict with Nīca municipality (described also in Action A8), all works are stopped. Conflict is between our wish to protect FFH habitats and wish of people to build houses here. Head of municipality A.Petermanis is firing our local coordinator A.Maisiņš. Communication with various institutions (including Ministry of regional development and municipal affairs) is started, to solve this problem.

**Action E.21:** Raising of public awareness regarding protection of wooded dunes, western taiga, white dunes and grey dunes in Jūrmala.

**Time plan:** July, 2003 – July, 2005.

**Planned:** network of footpaths, recreation places, barriers. Related to C.8.

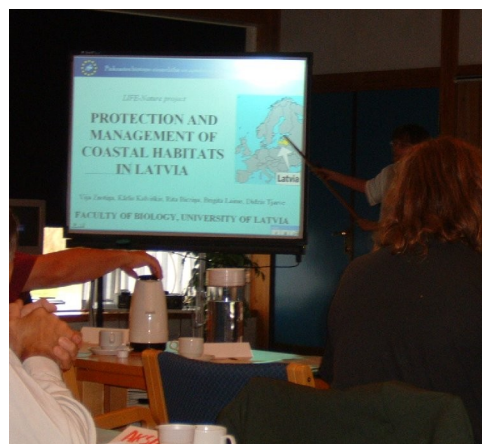
**Progress.** Technical project for paths is elaborated and approved. According to technical project, educational path is planned which consists of various parts – path of ants, path of pines, path of insects, health etc. In some places, eroded wooded dunes will be restored by woven branches of conifer trees. Plan includes also stairs. For observation tower, separate project must be elaborated.

**Action E.22.** Participation in seminars and conferences.

**Time plan:** January, 2003 – July, 2005.

**Planned:** Appr. 2 international events per year; networking with other LIFE projects.

**Progress.** Danish Dune Heath workshop (08.09.-11.09.2003) was organised by LIFE-Nature project “Restoration of dune habitats along the Danish West coast. Participants from our project: 3. Action: presentation (30 minutes). Gain: experience about management of coastal habitats esp. grey dunes.



Meeting of LIFE experts from Latvia and Finland (18.08. – 21.08.2003) was organised by Pori city council, Finland. Participants: 2. Action: Project presentation (1 hour), visit to sites of 2 coastal LIFE-Nature projects (Pori and Viiki Vanhankaupunginlahti, Helsinki). Gain: Experience about management of coastal areas – grazing, building of paths, bird-watching towers, information signs and boards etc.; further contacts and consultations from Pori city council.



Information boards in LIFE-Nature site in Helsinki.



Bird-watching tower in Pori.

Conference about large grazing animals and their role for the management of grasslands was organised by North Vidzeme Biosphere Reserve (Salacgrīva, 13.11.2003.). Participants: 2 Action – presentation (30 minutes). Gain: valuable information about the management of grasslands in Estonia, Latvia and other sites; much practical information.

Conference “Implementation of national and international environmental protection requirements in the Baltic sea coastal areas” (Rīga, 21.11.2003) was organised by Coalition Clean Baltic (network of NGO). Participants: 3. Action: presentation (20 minutes). Gain: (valuable discussions) valuable information about protection of coastal habitats in other Baltic countries.

Seminar “The protection and management of Ziemeļgauja Valey”, organised by LIFE-Nature project (Rīga, 26.01.2004.). Participants: 4. Action: presentation (20 minutes). Gain: various information on management of habitats.

In 62th scientific Conference of the University of Latvia, we took part with 3 reports about various aspects of the project. 1. The plant and lichen communities in grey dunes of Užava Nature Reserve (A.Piterāns, B.Laime, I.Berga, A.Žeiviniece, 11.02.2004.). 2. Mapping of coastal habitats (R.Birziņa, K.Kalviškis, B.Laime, D.Tjarve, V.Znotiņa, 05.02.2004). 3. The role of municipalities and society for the coastal conservation (B. Laime, R. Birziņa, D. Tjarve, V. Znotiņa, K. Kalviškis, 12.02.2004).

Seminar “The inventory of woodland key habitats” was organised by the State Stock Company “Latvia’s State Forests” (Slampe, 26.02.2004.-2.04.2004.). One representative of the project learned the standard method of inventory of woodland key habitats. These skills are very necessary for the evaluation of forest FFH habitats and for the deciding of their best protection regime.

Seminar “Administration of Natura-2000 sites” was organised by Nature Protection Department, Ministry of Environment (Rīga, 11.05.2004.). Gain: information about possibilities and problems of the management of protected nature areas. Representative of the project took part in group discussions and proposed that the administration in large protected areas should be financed by state; however, the management in small protected areas should be organised by municipalities or regional environmental boards.

Seminar about various aspects of the protection of the sea coast was organised by Environmental Protection Club (NGO) in Pāvilosta (13.05.2004.). Action: presentation (20 minutes).

Seminar “Measures of agro-environment” was organised by the Ministry of Agriculture (Rīga, 08.06.2004.). Action: presentation (10 min.).

## **E. OVERALL PROJECT MANAGEMENT**

**Action F.1.** Administration of the project.

**Time plan:** October, 2002 – December, 2005.

**Planned:** administration and cooperation

**Progress.** The administration and the project staff is characterised in previous report. During this report period, 2 more regional coordinators as well 12 local coordinators (in municipalities) are engaged. In Salacgrīva, the function of local coordinator are performed by an organisation (Salacgrīvas Tourism Information Centre).

Project actions are realised in cooperation with various institutions of Latvia, mainly with the Ministry of Environment and Nature Protection Board (development of management plans for protected nature areas), Ministry of Regional Development and Municipal Affairs (physical planning, evaluation of existing physical plans, elaboration of methods, regulation,

laws), Emerald Project (elaboration of list of Natura-2000 sites) as well with other LIFE-Nature projects, administrations of protected nature areas.

The most significant was the cooperation with municipalities (not only co-financiers but all coastal): meetings with heads of municipalities; deputies, residents; landowners. Several seminars for municipalities were organised (Action E4).

**Action F.3.** Establishment of steering group and organisation of steering group meetings.

**Time plan:** October, 2002 – December, 2005.

**Planned:** Meetings in every 3 months.

**Progress.** During the report period, following meetings were organised: 18<sup>th</sup> June, 2003; 1<sup>th</sup> October, 2003; 22<sup>th</sup> January, 2004; 13<sup>th</sup> April, 2004. Members of the group represented following institutions: Ministry of the Environment; Ministry of the Regional Development and Municipal Affairs; Nature Protection Board, the State Stock Company “Latvia’s State Forests”; Environmental State Inspectorate; four Regional Environmental boards. NGO’s: Union of Municipalities; Environmental Protection Club.

The agenda of the day was in accordance to the time plan – accomplished, running and planned works. All the discussions were recorded. Meetings were very valuable because members of the steering group exchanged valuable information and offered significant help.

**Action F.4.** Monitoring the effect of management measures on habitats and species.

**Time plan:** April, 2003. – December, 2005.

**Planned:** monitoring of habitats – before and after the actions.



Sample plots in grey dunes of Ziemupe Nature Reserve.

**Progress.** In year 2003, sites of Actions C1, C2, C5, D1, E11 were monitored. Here, practical management measures in years 2003 and 2004 were planned or started. In every site, following parameters were described: coordinates; area; habitats; vegetation in permanent sample plots; level of antropogenic influence; description of habitats; photos.

After one year, there are no data for the comparison. However, vegetation data are analysed in bachelours' works of two students. One work is about coastal meadows and the second is about grey dunes. It will be a significant addition to our project.

This action is linked to “Monitoring of coastal habitats and species” which is a part of the program of Monitoring of Biological diversity in Latvia, coordinated by the State. There are similar methods. However, in our project, the study of every site is more detailed because of the complexity and size of the project sites.

## **EXPERIENCE GAINED WHICH MAY BE OF INTEREST TO OTHERS**

1. The precondition for the protection of the coastal habitats is the communication and understanding between professionals and local people. Experts must know local problems.
2. For every single patch on undisturbed habitat at the sea coast, protection status should be designated (like micro-reserve, protected nature area or other).
3. Every management action must be evaluated in context with management and future of whole municipality.
3. Every management action should be started with a management plan for protected nature areas. It is the main tool for the appropriate protection and management of protected nature areas.
4. For protected nature areas, administrations should be established. Especially for large areas like Piejūra Nature Park.

## **EFFECT ON CONSERVATION OF SPECIES/HABITAT TYPE TARGETED**

During the report period, the management of Boreal Baltic coastal meadows in Vakarbuļļi and Randu Pļavas Nature Reserves was started. This summer, management measures in these meadows and other endangered FFH habitats will continue.

## **SOCIO-ECONOMIC CONTEXT OF THE PROJECT**

The success merit of the project is the changing attitude of the society. The public awareness about nature protection and about environmentally-sound methods of management.

More and more often, employers, landowners, physical planners, representatives of municipalities, state institutions, NGO's, pupils, students are contacting our project, asking for information about coastal habitats and their management.

More and more often, people are using words “habitat”, “habitat which is protected in EU”, “grey dunes, wooded dunes” etc. That indicates the rising of public awareness concerning protection of habitats.

## LIST OF ANNEXES

Action	Material	Where to find it
A1.	Questionnaire for landowners	Red folder
A2.	Habitat maps, Engure	Red folder
A4.	Contracts with subcontractors, farmers, partners	Yellow folder
A.6, C.5, E.14.	Technical project, Saulkrasti	Separate volume
A.9.	Management plan of Vidzemes Akmeņainā Jūrmala Nature Reserve	Both in CD disc and in separate volume
A.7, A.8	Management plans for Piejūra Nature Park, Užava Nature Reserve, Bernāti Nature Park	Both in CD disc and in separate volumes
E.1, E.8.	Sketch project on information signs and information boards	Separate volume
E.2.	Leaflet – Užava	Red folder
E.3.	Booklet – “Sustainable management of the sea coast in Latvia”	Small book
E.3.	Booklet – “Sustainable development of the coast”	Small book
E.3.	Booklet – “The sea is attacking, what to do”	Small book
E.5.	Film “The green city”	Both DVD disc and cassette
	Pictures from various events, in disc	CD disc
	Press-releases (copies)	Red folder

**PROTECTION AND MANAGEMENT OF  
COASTAL HABITATS IN LATVIA  
LIFE02NAT/LV/8498**

**LIST OF ITEMS**

<b>Action</b>	<b>Item</b>	<b>Where to find it</b>
	Report	Blue folder
	Cover letter	
<b>Annexes</b>		
<b>A1.</b>	Questionnaire for landowners	Red folder
<b>A2.</b>	Habitat maps, Engure	Red folder
<b>A4.</b>	Contracts with subcontractors, farmers, partners	Yellow folder
<b>A.6, C.5, E.14.</b>	Technical project, Saulkrasti	Separate volume
<b>A.9.</b>	Management plan of Vidzemes Akmeņainā Jūrmala Nature Reserve	Both in CD disc and in separate volume
<b>A.7, A.8</b>	Management plans for Piejūra Nature park, Užava Nature Reserve, Bernāti Nature Park	Both in CD disc and in separate volumes
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