



LIFE05 NAT/LV/000100
TECHNICAL FINAL REPORT
Covering the project activities from 01.08.2005 to 30.11.2009
Reporting Date
25.02.2010
LIFE PROJECT NAME

Marine Protected Areas in the Eastern Baltic Sea

Data Project	
Project location	Estonia, Latvia, Lithuania (Russia)
Project start date:	01.08.2005
Project end date:	30.11.2009
Total Project duration	52 months
Total budget	2,940,363 €
EC contribution:	1,470,181.50 €
(%) of total costs	49%
(%) of eligible costs	50%
Data Beneficiary	
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1. LIST (I) KEY-WORDS AND (II) ABBREVIATIONS

In the following partner names and identification numbers as well as project area codes are listed:

Partners:

- B: Baltic Environmental Forum - Latvia (BEF-Latvia) - *Latvia*
- P1: Baltic Environmental Forum - Estonia (BEF-Estonia) - *Estonia*
- P2: Baltic Environmental Forum - Lithuania (BEF-Lithuania) - *Lithuania*
- P3: Estonian Environment Information Centre (EEIC) – *Estonia*
- P4: Estonian Marine Institute (EMI) – *Estonia*
- P5: Estonian Ornithological Society (EOÜ) - *Estonia*
- P6: Marine and Inland Waters Administration (MIWA) –*Latvia*
- P7: Latvian National Armed Forces (NAF) - *Latvia*
- *P8: Institute for Aquatic Ecology of Latvia (LIAE) – *Latvia*
- P9: Latvian Ornithological Society (LOB) – *Latvia*
- P10: Latvian Fish Resources Agency (LATFRA) – *Latvia*
- P11: SIA Vides Filmu Studija /Wildlife & Environmental Film Productions / (VFS)
- P12: PO Socially Oriented Project Agency/ (SOPA) - *Latvia*
- P13: Institute of Ecology, Vilnius University (EKOI) – *Lithuania*
- P14: Coastal Research and Planning Institute, Klaipeda University (KUCORPI) – *Lithuania*
- P15: Centre of Marine Research (CMR) – *Lithuania*
- P16: PO Baltic Fund for Nature (BFFN-RU) – *St. Petersburg, Russia*
- P17: BirdLife International
- **P18: Environmental Board (EB)- *Estonia*
- P19: Metsähallitus - Natural Heritage Services (Metsähallitus) – *Finland*
- ***P20: Federal Agency for Nature Conservation (BfN) – *Germany*

** legal status of the partner P8 has changed, partner became independent agency*

*** legal status of partner P18 has changed TWICE, partner was absorbed by new national roof organisation, which took over partnership in the LIFE project as legal entity*

**** new partner as change from co-financer to partner*

The above-mentioned changes were accepted by the European Commission on 14 February, 2007 and on 14 July 2009

Project areas:

- 1EST: East Gulf of Finland
- 2EST: West Gulf of Finland
- 3EST: Väinameri
- 4EST: West Saaremaa
- 5EST: South Saaremaa
- 6EST: Irbe Strait
- 7LAT: Ainaži-Tūja
- 8LAT: West Coast of Gulf of Riga
- 9LAT: Irbe Strait
- 10LAT: Akmeņrags - Pāvilosta
- 11LAT: Nida - Pērkone
- 12LIT: Palanga
- 13LIT: Neringa

2. EXECUTIVE SUMMARY

The **project objectives** as defined in the grant contract (Section C) were the following:

1. Complete the establishment of Natura 2000 in the marine territories of Estonia, Latvia and Lithuania (site selection, designation, protection, and management);
2. Assess and reduce the impact of fishery by-catch on target bird and mammal species;
3. Assess and address other threats to marine Natura 2000 sites (e.g., caused by construction/development, disturbance of species by economic or recreational activities, pollution);
4. Increase public and stakeholder awareness on Natura 2000, marine protected areas and biodiversity in general in Estonia, Latvia, Lithuania and Russia;
5. Promote transboundary networking and capacity building on marine protected areas between the Baltic States, other EU Member States and Russia.

The list of key deliverables and outputs as defined in the grant contract is indicated below. It contains all deliverables with modified deadlines and indication where we reported on them.

Deliverable or Milestone	No of associated action	Deadline	Completed	Submitted*
Project management structure established	F.1; F.2, F.3	2005.10.01	2005.10.01	PR 1, technical report
Project website established to promote transboundary networking and establish project communication platform	E.2	2005.11.01	2005.11.01	PR 1: Annex 5, E2
Methodology, related to the inventories of species/habitats, harmonized	A.2; A.3; A.4; A.5	2006.01.01	2006.01.01	PR 1: Annex 2; PR 2: Annex 5.1.
Production and distribution of 2 information flyers for stakeholders and fishermen	E.1	2006.01.01	2006.08.01	PR 1: Annex 5, E1 PR 2: Annex 5.3.
All partners and staff trained for their tasks	A.1	2006.06.01	2006.06.01	PR 1: Annex 2, A1
Concept for Management Plans developed	A.7	2006.06.01	2006.06.01	PR 1: Annex 2, A6/A7
Alternative fishing gear provided to fishermen	D.1	2006.12.01	2006.12.01	PR 1: Annex 4
Sites for management plans selected	A.7	2007.04.01	2007.04.01	PR 1: Annex A6/A7, PR 3: Annex 2.1.7.
IBA / SPA conference held established to promote transboundary networking	E.8	2007.07.01	2007.10.06	PR 3: Annex 2.3.2.
Film produced and distributed to raise public awareness	E.3	2009.11.01	2009.11.01.	FR: Annex 8.4.2.
Inventories of species and habitats completed and final sites for designation proposed	A.2; A.3; A.4; A.5	2009.07.01	2009.07.01	PR 3: Annex 2.1.2 FR: Annexes 5.2 – 5.7
Methodology, related to the assessments, harmonised	C.1; C.2; C.3; C.4	2008.07.01	2008.07.01	PR 3: Annex 2.2.1 – 2.2.4
Several experience exchange seminar(s) on legal implications held	E.8, A7	2009.10.01	2009.10.01	PR 3: Annex 2.1.7 - 2.3.3. FR Annex 5.7.8, 5.7.9
Information tables produced and installed to raise public awareness about the sites	E.5	2009.11.01	2009.11.01	FR: Annex 8.6.
Workshops with fishermen held to raise stakeholders awareness	D.1; C.1	2009.07.01	2009.07.01	PR 3: Technical report
By-catch of birds and marine mammals assessed (report completed)	C.1	2009.07.01	2009.07.01	FR: Annex 6.1.
Other marine threats assessed and reports completed (dumping/dredging materials, pollution, disturbance)	C.2; C.3; C.4	2009.07.01	2009.07.01	FR Annex 6.2 - 6.4
Management plans for selected sites completed	A.7	2009.11.01	2009.11.01	FR: Annex 5.7.10.

Book produced and distributed	E.6	2009.11.01	2009.11.30	FR: Annex 8.7.
By-catch of marine mammals and birds reduced from use of alternative fishing methods	D.1, F5	2009.07.01	2009.07.01	FR: Annex 7.1. 9.5
Layman's report produced and distributed	E.9	2009.11.30	2009.11.30	FR: Annex 8.10.
GIS prepared with 5 layers information and N2000 data forms filled	A.6	2009.11.01	2009.11.01	FR: Annex 5.6.
Articles from newspapers, videotapes from TV reports	E.4	2009.11.01	2009.11.01	FR: Annex 8.5.
Public events held to increase awareness	E.7	2009.11.01	2009.11.01	FR: Annex 8.8.
Selected N2000 sites designation approved by competent authorities	A.7	2009.11.01	2009.11.30	FR: Annex 1.3, 5.7.12.; 5.7.14.
Final Project Report elaborated	F.2	2009.11.30	2009.11.30	FR
After-LIFE Conservation Plan elaborated	F.7	2009.11.30	2009.11.30	FR: Annex 9.7.
Final project presentations held	E.10	2009.11.30	2009.11.30	FR: Annex 8.11.

* PR 1, PR3 stands for progress report 1 and 3, PR2 stands for Interim report and FR for final report

Summary of Project Framework

The project was successfully led by the applicant, Baltic Environmental Forum Latvia, and implemented according to its plans in excellent cooperation with 20 highly motivated partners from Estonia, Latvia, Lithuania (the core partners) as well as from Russia, Finland, Germany and BirdLife International. Due to administrative reforms several partners and co-financers in Estonia and Latvia have either changed legal entity form or shifted the co-financing to new budget schemes. Partner P18 even twice changed legal entity. Furthermore the original co-financer BfN Germany became a partner as being involved in the technical implementation of a project measure. The project has twice been modified: once for legal entity modifications at partners and once for budget modifications - mainly re-allocation of co-financing among partners and co-financers. Those changes have been accepted by the European Commission and contract has been modified twice: on 14 February, 2007 and on 14 July, 2009.

Summary of Project implementation and results

A. A1, Training & education of project staff addressed techniques and methods for habitat and species inventories and assessment of the findings. Furthermore 3 study visits were conducted: to Germany, to Netherlands (external funding) and to Russia. Russian partners have gone through capacity building measures accompanying the actions of the project and evaluated their participation as very positive.

The inventory actions (A2 – A5) were the most resource consuming actions of the project. In four years and different field seasons benthic habitats, water birds, marine mammals and fish species were investigated. As main results the investigated areas proved as important for the species and habitats of concern. Some new breeding sites for water birds were identified, some new species abundance discovered, some species behaviour and abundance specified. Reefs proved to be a very important habitat, while sandbanks were heavily discussed in Latvia and Lithuania and concluded not represented in these two countries' investigated waters according to habitat classification.

A6 – A concept for GIS data bases was developed jointly and harmonised among the countries. It is handed over for use at national level.

A7 – The project has proposed 7 new marine sites to the Latvian competent authority (positive Cabinet of Ministers' decision from 05.01.2010). For Lithuania one new site and two modifications of existing sites was proposed (one modification already submitted to EC, the other rejected as no matter of substantial changes), the new site was approved (08.01.2020). For Estonia no modification of existing boundaries of the investigated areas was proposed, as the current boundaries were found sufficient. Furthermore, six management plans have been elaborated and are to be approved by end of March 2010 in all three countries.

B. No "B" actions were defined in the project.

C. Actions C1 – C4, dealing with assessment of possible threats to species and habitats from 1) by-catch in fishing gear, 2) from dumping of dredged materials, 3) from disturbance from human activities and 4) from pollution of hazardous substances, have concluded that the assumed threats are lower than originally thought, especially the impacts from coastal fishery have been overestimated and could be marginalised. The listed threats, however, are low due to low economic activities and must be monitored from time to time to control their impacts and take decisions if measures have to be undertaken.

D. The “D1” action became one of the “flag ship” activities of the project with its testing and promotion of alternative fishing methods and is getting famous in Estonia and Lithuania; even in Latvia, where the measure was not planned to be implemented, the fishermen started to be involved and the fishing gear has been tested there as well. Similar to the front runner Estonia also in Latvia and Lithuania in future these alternative fishing methods will be included into the structural funds for fishing activities as measure for subsidies.

E. All visibility and awareness raising actions were implemented successfully. The deliverables were: two project flyers, the web site, a DVD with 20 video clips, 28 notice boards, a book, and a Layman’s report. Further more a variety of reports from national and international events and media records. The project has been presented at 29 international conferences and lead to 9 published scientific articles and 4 diploma works.

F. The project management scheme proved being well-designed and functional - continuous financial supervision of partners was undertaken; partners participated actively in decision making; the steering group was advising and supporting well – and overall no project management problems were encountered.

Summary of Conclusions

The project has been a great success as evaluated by all partners, the competent authorities and representatives from stakeholder groups and foreign guests during the final project event in October 2009. One of the main conclusions is that an important set of new data and information on marine nature values has been gathered in the Baltic States that would not have been possible without the LIFE project, its funding and the excellent job of all partners. The project has brought the Baltic States a step ahead in designation of marine Natura 2000 sites, but it also has indicated the size of further actions – and the need of enormous human and financial resources - to complete the designation in the countries’ territorial waters (Estonia) and in their EEZ. The LIFE project has contributed to better knowledge on costs for such actions, it has given conceptual guidance for further work and contributed to capacity building of marine biology experts in the region. It also has raised awareness at stakeholders and involved them into the discussion about the values of marine biodiversity for their economic activities and motivated them to participate in decisions for zoning and management activities in future. Finally, it has lead to a new LIFE project proposal in 2009 going a step further with those partners that proved to be think tanks for marine eco system protection in the region and address marine monitoring and biodiversity indicators utilising the lessons learned from the Marine MPA project on content design and project management.

3. INTRODUCTION

Background, problem and objectives

The project had as main goal to contribute to the overall objective of protection and sustainable use of marine biodiversity in the Eastern Baltic Sea and in this context specifically to the establishment of the Marine Natura 2000 sites in the territorial waters of Estonia, Latvia and Lithuania. Ecosystem protection is going across national borders and therefore the integration of Russian stakeholders into project activities also was a small goal respecting transboundary ecosystem protection and the need for regional cooperation.

The project has been initiated due to lack of available information on distribution and abundance of different marine species and habitats resulting in a lack of effective protection of marine areas. Additionally, there was also a lack of methodological expertise concerning selection, protection, management and monitoring of marine protected areas in the Eastern Baltic Sea. To overcome these gaps and fill them with information and expertise was the main motivation behind the project and its partners to contribute to it.

The project has been acting in 13 sites along the coast of Estonia, Latvia and Lithuania (see Annex 2.2) as its "project areas" – they were either extensions of nominated sites, larger complexes of small nominated sites or areas potentially to be nominated as Natura 2000 sites. At these project areas inventories of the following species and habitats were performed: **Waterbirds** such as: Steller's Eider, Black-throated Diver, Red-throated Diver, Goosander, Velvet Scoter, Long-tailed Duck, Goldeneye, Razorbill, Black Guillemot, Little Gull, Sandwich Tern, Common Tern, Whooper Swan, Bewick's Swan and Barnacle Goose; **Marine mammals** such as Grey & Ringed Seals and Harbour Porpoise; **Fish species** such as Twaite Shad, Spined Loach and Bullhead, **Habitats** such as Sandbanks, Mudflats, Coastal Lagoons, Large Shallow Inlets and Bays and Reefs (see Annex 2.1: List of species and habitats investigated).

A complex of threats has been identified prior to project application with the aim to proof the assumptions (based on not sufficient information about the marine territories of the Baltic States) that the impacts of the threats are significant. The following main threats were named in the application: undesired by-catch of birds and seals in fishing nets, which was assumed being the main threat to the target species. Furthermore it was assumed that physical destruction of habitats would be caused by construction and dumping of dredged material. Hazardous substances in our coastal waters were identified as threat to destruct vulnerable species and habitats. And, at last, it was mentioned in the application that the increasing shipping transport, infrastructure development as well as growing recreational activities can be potential threats to sites and species. The project teams have investigated these threats and came to conclusion about them.

The project was acting in the socio-economic context of coastal zone development and the cross-cutting between conservation of nature values, economic growth by infrastructure & recreational activity development and keeping traditional lifestyle as integer part of coastal life. Integration of stakeholders at early stage into management plan development was supposed to guarantee acceptance of nature protection measures and motivation for later participation in management activities to establish sustainable inter-relations between the stakeholders.

Results

The project has resulted in Natura 2000 site proposals for marine areas of Latvia and Lithuania and it confirmed the existing sites' boundaries in Estonia. The gained detailed knowledge on species/habitats and understanding of threats to marine Natura 2000 sites has lead to a six well-prepared management plans for selected sites and protection regime proposals for the other investigated areas. Data and information gained at the project are handed over to the competent authorities to support them implementing the EC requirements.

Alternative measures to reduce fishery by-catch of protected species have been tested, promoted and a large number of fishermen have started to implement them and noted substantial reduction of by-catch from their gear.

At the end of the project stands the substantially increased capacity and awareness of a large amount of experts, stakeholders and the general public on all aspects of conservation of marine Natura 2000 sites which created an added value for Natura 2000 implementation in marine areas in the whole EU. In addition the cooperation with Russian experts and stakeholders has been strengthened and shall lead to better eco-system protection in the Eastern Baltic Sea region beyond EU borders.

4. LIFE-PROJECT FRAMEWORK

Working method and project actions

The project has implemented the following core actions:

- Inventories (during 3 years and different field seasons) of marine species and habitats of Community interests and related data compilation and analysis;
- Assessment of the impact of fishery by-catch, construction and dumping activities, disturbance and pollution on target species and habitats;
- Preparation of six management plans (two per each Baltic country) for selected areas, proposal for 7 new sites in Latvia and 2 site modifications in Lithuania; provision of general recommendations for protection and management of marine Natura 2000 sites;
- Testing and promotion of alternative fishing methods and gear in order to reduce by-catch of birds and mammals of Community interest; and
- Capacity and awareness raising of stakeholders to implement Natura 2000 network in marine environment (by workshops and info days, publications and information in media).

The sub-actions were defined as follows:

A.1 Training of staff	C.1 By-catch assessment	E.1 Information flyers	F.1 Steering Group
A.2 Benthos inventory	C.2 Dumping assessment	E.2 Project website	F.2 Project administration
A.3 Waterbird inventory	C.3 Disturbance assessment	E.3 Project Film	F.3 Management Board
A.4 Mammal inventory	C.4 Pollution assessment	E.4 Media work	F.4 Country Co-ordination
A.5 Fish inventory	D.1 Alternative fishing	E.5 Information boards	F.5 Project Monitoring
A.6 Elaboration of GIS		E.6 Book	F.6 Audit
			F.7 After LIFE
A.7 Management plans		E.7 Public events	Conservation Plan
		E.8 International experience exchange	
		E.9 Layman's report	
		E.10 Final presentation	

The project activities were implemented synchronically in the three Baltic States based on harmonised methods and according to a joint planning schedule (see Annex 3).

Beneficiary, partners and project-organisation

The project was led by the applicant, Baltic Environmental Forum – Latvia and implemented in cooperation with 20 partners: from **Estonia** (Baltic Environmental Forum – Estonia, Environmental Information Centre, Marine Institute, Ornithological Society, Environmental Board), **Latvia** (Marine and Inland Waters Administration, National Armed Forces, Institute of Aquatic Ecology, Ornithological Society, Fish Resources Agency, Wildlife and Environmental Film Productions, Socially Oriented Project Agency), and **Lithuania** (Baltic Environmental Forum – Lithuania, Institute of Ecology, Coastal Research and Planning Institute, Centre of Marine Research), as well as **international partners** (Baltic Fund for Nature of St. Petersburg Naturalists Society, Birdlife International, Metsähallitus – Finland, Federal Agency for Nature Conservation – Germany) (see Annex 4: list of partners).

The project management was organised on four levels: i) financial project administration bilaterally: project leader and individual partner; ii) decision making in consensus among all partners in partners' meetings led by beneficiary; iii) action implementation in cross-country teams led by one of the partners; and iv) management plan development, although with harmonised cross-country methodology, in national settings led by BEF offices. The Russian partner was participating in most actions to learn from Baltic experts (see Annex 5.1.6: Russian partner's report), international partners were giving input to selected actions depending on their special knowledge.

Modifications according to initial proposal

Two substantial modifications of the contract have been made:

Due to administrative reforms and re-organisation some partners in Estonia (P18) and Latvia (P8) have changed the legal entity form. Some co-financers shifted the co-financing to new budget schemes (from Latvian Environmental Fund to Latvian Ministry of Environment and from Estonian Ministry of Environment to Environmental Investment Centre and State Nature Conservation Centre - P18). Furthermore the original co-financer BfN Germany became a partner as being involved in the technical implementation of a project measure. Those changes have been accepted by the European Commission and contract has been modified on 14 February, 2007. (Annex 1.2: letter of confirmation of modification).

Result of new administrative reforms was a second change in the legal entity of partner P18 to its final administrative form: Estonian Environmental Board. Furthermore due to shaking governments in the economic crises and the permanent administrative reforms, the project of legal backstopping of site designation at the competent authorities and partners (e.g. P18) was delayed. Therefore the project had applied for a four month extension of the project. At this point also a financial modification was applied: the beneficiary reduced its own estimated contribution and other partners and co-financers upgraded their shares.

These changes were accepted on 14 July 2009. (Annex1.2: letter of confirmation of modification).

Legal entity changes after project end

Three partner organisations have changed their legal entity due to re-organisation from 1 January 2010, which we would like to notify to the European Commission herewith. The new organisations have taken over all responsibilities, also the LIFE project final reporting. The organisations were the following (see Annex 4.1):

P10 Latvian Fisheries Agency	new: "Institute of Food Safety, Animal Health and Environment" - "BIOR"
P13 Institute of Ecology, Lithuania	new: "Nature Research Centre"
P15 Centre for Marine Research	new: "Marine Research Department" of Environmental Agency Lithuania

5. ACTION DESCRIPTION, IMPLEMENTATION AND FINAL RESULTS

A Preparatory actions/management plan preparation

A1 Training of project team

Action leader: B – BEF Latvia
Key partners involved: all
Action start: 01.08.2005
Action end: 30.06.2008
Delays or modifications: no modification, delayed Russia trip
In-depth action report: Annex 5.1

http://www.balticseaportal.net/media/upload/File/Deliverables/Action%20reports/A1_final%20report.pdf

Summary action description and output achieved:

Action A1 was meant to provide training and inspiration for the project team to undertake the inventories and also to view marine protected areas as a holistic concept.

For this purpose a **training course on methodology of habitat mapping** was organised at the Finnish partner Metsähallitus: three habitat experts from P4, P8 and P14 were accompanying the Finnish experts for one week (19-23 September, 2005) at habitat mapping activities and learnt about underwater video & scuba diving for inventories, advantages & limitations of different methods and about data analysis, interpretation & intercalibration (see PR1: Annex 2:A1).

The bird inventory team had two trainings: **a course on bird counting from ships** (21-25 November, 2005 in Latvia) was performed by Partner P17, Birdlife International. In total 11 trainees participated (see PR1: Annex 2:A1). **A course on aerial survey techniques** (3-5 May 2006, in Estonia) was conducted by a Dutch expert and two senior experts of P5, and 8 trainees were trained. In both bird trainings also experts from the Russian partner P16 were participating (see PR1: Annex 2:A1).

Another training element was a **study visit to Germany** to the Agency for Nature Conservation (P20) at its location on the island *Vilm* (13-17 March, 2006). The host provided in-house experts as well as external experts being involved in the German sites designation. The study visit lasted for five days and contained an intensive seminar and two excursions. 17 participants from most Baltic and Russian partner organizations participated in the study visit (see PR1: Annex 2:A1).

A second study visit was organised outside the LIFE project budget as “accompanying activity”: a **visit to the Netherlands** was organised in May 2006 including several seminars and excursions to marine and coastal sites; 30 participants from the LIFE project partners and Baltic States’ competent authorities were participating in the study visit.

A third study visit within the project was directed to **Russian marine territories**, which was implemented in 20-24 May, 2008 (see PR3: Annex 2.1.1). Due to the fact that real marine territories could not be visited because of restriction from the Federal Secret Service (FSB) a smaller group of Baltic experts than originally planned has been travelling to Russia. Nevertheless, the travel was very fruitful and has led to new ideas of cooperation. A key finding of the visit is, however, the issue of security as anticipated by the state authorities and the non-accessibility of marine areas for experts, no matter if national or international. Another key finding is that the Eastern parts of the Gulf of Finland are important for the eco system and biodiversity protection must be intensified, also including international cooperation. During the visit the team has learned about following sites:

- **Berezovye Islands** (Regional complex sanctuaries and Ramsar site) – archipelago in the Gulf of Finland, near a town- Primorsk; established for protection of coastal shallow water areas as resting sites of waterfowl, seal breeding sites, spawning grounds of fish species as well as unique plant species communities on the islands.
- **Gladyshevsky** (Regional complex sanctuaries) – situated partly in the territory of the St. Petersburg; established for protection and reproduction of natural salmon population and endangered mollusc species (freshwater pearl mussel).
- **Nyzhnesvirsky State Nature Reserve** (also Ramsar site) – strictly protected area situated in the south-eastern coast of the Lake Ladoga; established to preserve the nature complex of the coastal zone and resting site of the migratory birds.

As **result** the courses on habitat and bird inventories were attested by the participants an excellent quality and high importance for the project. The feedback from participants of study trips was also very positive: they evaluated the trips as successful and useful.

All activities were implemented according to the planned schedule and fulfilled the set goals, so **no major problems** or drawbacks were encountered, except the problem of accessibility of Russian

marine territories, which, however, did not lead to any problem for implementation of the LIFE project as the Russian study visit was not the main target.

A2 Inventory of Benthic Habitats

Action leader: Georg Martin, Estonian Marine Institute, P5
Key partners involved: Vadims Jermakovs, Latvian Institute of Aquatic Ecology, P8
Darius Daunys, Coastal Research and Planning Institute, LT, P14
Action start: 01.08.2005
Action end: 30.06.2009
Delays or modifications: prolonged until 30.06.09 due to overall project prolongation
In-depth action report: Annex 5.2
http://www.balticseaportal.net/media/upload/File/Deliverables/Action%20reports/A2_final_report.pdf

Summary action description and output achieved:

The main goal of action was to perform detailed inventory of Annex I habitat types of Habitat Directive in the three Baltic States at the chosen 13 project areas.

All activities in this action were directed towards the stated goal. **Benthic habitat inventories** were performed in all three countries in selected sites. For this purpose the **methodology was developed and tested** based on the combination of traditional sampling and observation techniques as well as innovative methodologies as UW video systems. Series of workshops were conducted with purpose of development and harmonisation of underwater observation techniques, defining the target habitats, development of **new approaches for classification** of benthic habitats (see PR2: Annex 5.1.2.).

The actual field inventories took place during the summer season of 2006 and 2007. During these activities total area of sea bottom covered by inventories was in Estonian coastal waters 2387 km², in Latvian coastal waters 1772 km² and in Lithuania waters 1849 km². Direct observations were carried out in **more than 3000 locations**.

A **habitat classification system** (see Annex 5.2) was developed to utilise the information collected during the field studies. This new classification system was developed in consensus between project teams from all three countries and the project areas were classified according to this classification system so giving additional input information for development of management plans of already existing marine protection sites or enabling to develop such plans for new, planned areas.

The **main results** achieved are: the **sea bottom and distribution of benthic habitats** and Habitat Directive Annex I habitat types was mapped for 2 project areas in Lithuanian territorial waters, 2 areas in Latvian territorial waters and 6 area in Estonian coastal sea; furthermore the new **Habitat classification system** was developed for Eastern Baltic Sea area being fully comparable with EUNIS classification system; **New geological features** called "underwater moraine ridges" were **discovered** in Lithuanian coastal waters. Distribution of reefs (1170) and sandbanks which are slightly covered by sea water all the time (1110) were specified for all project areas.

As **conclusion** the experts stated from the detailed inventories that such underwater habitats as **reefs (1170) and sandbanks (1110) are partly rare and vulnerable** in Eastern Baltic Sea area while their existence support high degree of biological diversity. Furthermore they confirm that the **protection of habitat type „reefs“ is crucial** as at present most of this habitat type is located outside of existing protected areas and the new sites in LV will contribute to FCS of the habitat.

Main lessons learned: the new methodology developed during the project (combination of UW video with traditional investigation techniques) is suitable for large-scale benthic habitat inventories and gives great amount of useful scientific information. And, the experience with organising large-scale underwater inventories showed that careful planning and especially weather factor is crucial in achieving the success.

A3 Inventory of Water Birds

Action leader: Mindaugas Dagys, Institute of Ecology, LT, P13
Key partners involved: Antra Stipniece, Latvian Ornithological Society, P9
Andres Kalamees, Estonian Ornithological Society, P5
Action start: 01.10.2005
Action end: 30.06.2009
Delays or modifications: prolonged until 30.06.09 due to overall project prolongation
In-depth action report: Annex 5.3
http://www.balticseaportal.net/media/upload/File/Deliverables/Action%20reports/A3_final_report.pdf

Summary action description and output achieved:

The main **goal** of this action was to gain comprehensive information about the abundance, distribution and conservation status of waterbirds in coastal and offshore areas of Estonia, Latvia and Lithuania during wintering, migration and breeding seasons. Such data was essential for identification of important breeding areas and areas of significant non-breeding aggregations of waterbirds, for revision of boundaries of the already proposed SPAs and for delineation of new SPAs.

A variety of **methods** were used during the inventory in order to obtain as complete area coverage (both temporal and spatial) as possible. The methods used partly differed among the three countries, primarily because of different physical characteristics of the project areas as well as different target species of waterbirds. Survey methods included waterbirds counts from the coastline, surveys from ships (transect counts), surveys from aeroplanes (transect counts and total counts) and surveys of breeding birds on islands (in Estonia only). These surveys covered all the thirteen project areas several times in all relevant seasons.

Waterbird inventory surveys were carried out during three seasons in 2006–2009. In Lithuania, nine ship surveys were carried out, with both Lithuanian project sites surveyed during eight of these surveys. In Latvia, eight ship surveys were carried out, covering each of the five Latvian project sites 4–8 times in different seasons. Six joint Latvian-Estonian ship surveys were carried out in the Irbe Strait, covering project areas both in Latvia and Estonia. Aerial surveys were used primarily in Estonia, where 15 surveys from airplanes were carried out in different project areas. Several special aerial counts and a number of occasional observations from aeroplanes were carried out in Latvia. Breeding bird survey in Estonia in 2006–2008 covered 226 small islands.

All the data collected during the waterbird inventory surveys were stored in GIS databases and used for the analysis of waterbird distribution and abundance. Identification/delineation of important areas for waterbirds was based on the Marine Conservation Criterion (MCC).

As **main result** the project allowed to vastly **improve our knowledge on species** composition, abundance and distribution of waterbirds both during the breeding season and outside it – on migration and wintering, in the selected project areas in Estonia, Latvia and Lithuania.

Although no new sites for the protection of birds or expansion of the existing ones have been proposed in **Estonia** at this stage, a number of very important findings were revealed during this project in the existing SPAs. New concentrations of international importance (>1% flyway population) were observed in Väinameri Sea for the Long-tailed Duck *Clangula hyemalis*, Common Eider *Somateria mollissima* and Smew *Mergus albellus*; in Irbe Strait for Velvet Scoter *Melanitta fusca*, Mute Swan *Cygnus olor* and Northern Pintail *Anas acuta*; in Pakri area for Tufted Duck *Aythya fuligula* and Smew *Mergus albellus*. New information was also obtained for the Steller's Eider *Polysticta stelleri* and Little Gull *Larus minutus* – large concentrations of these birds were observed outside the Vilsandi Archipelago SPA, therefore extension of this site or designation of a new one may be necessary there in the future. Breeding bird survey revealed that *ca.* 30 species of waterbirds breed on small islands in Estonia. For 10 of these species this is the primary breeding habitat, while it is also very important for another 12 species of waterbirds. Most abundant and diverse breeding waterbird fauna was recorded in Kahtla-Kübassaare site and Vilsandi Archipelago. Although overall waterbird numbers, observed during this project in **Latvian** waters, were considerably lower than those observed in the 1990's, data collected during the inventory resulted in the proposal of **five new SPAs** that broadly coincided with the previously identified Important Bird Areas (IBAs) in Latvian waters. Ainaži-Tūja site in the eastern part of the Gulf of Riga was found to be important for Little Gulls *Larus minutus* in spring (up to 9,000 birds estimated) and wintering divers *Gavia stellata/acrtica*. West Coast of Gulf of Riga – another proposed SPA in the Gulf of Riga, holds significant internationally important numbers of divers *Gavia stellata/acrtica* (up to 5,600 birds), Velvet Scoters *Melanitta fusca* (up to 27,000 birds), Long-tailed Ducks *Clangula hyemalis* (up to 22,000 birds) and Little Gulls *Larus minutus* (up to 15,000 birds). The third proposed Latvian SPA is located in the Irbe Strait and it has the greatest variety of qualifying waterbird species –

Velvet Scoter *Melanitta fusca* (up to 40,000 birds), Common Scoter *Melanitta nigra* (up to 20,300 birds), Long-tailed Duck *Clangula hyemalis* (up to 22,000 birds), Black Guillemot *Cepphus grylle* (up to 1,400 birds), Little Gull *Larus minutus* (up to 3,000 birds) and divers *Gavia stellata/arctica* (up to 1,800 birds). The last two proposed Latvian SPAs are located along the open Baltic Sea coast – Akmeņrags-Pāvilosta and Nida-Pērkone sites both hold significant numbers of Little Gulls *Larus minutus* migrating in late summer (up to 4,700 and 2,400 birds, respectively). Nida-Pērkone site is also important for wintering Goosanders *Mergus merganser*, with up to 4,650 birds recorded in January.

Similarly to Latvia, numbers of waterbirds observed during the project in **Lithuania** were also considerably lower than the ones recorded during the surveys in the 1990s. Reasons for this decrease are unclear for both countries, but overall decrease in population numbers, climate change and fishery impact may be named as some of the possible contributing factors. Ship surveys revealed that abundant and dense aggregations of Velvet Scoters *Melanitta fusca* extend far beyond the borders of the present SPA along the Curonian Lagoon, thus clearly indicating the need for the extension of this SPA (or the establishment of a new one). Up to ca. 40,000 Velvet Scoters *Melanitta fusca* were estimated to winter in this area. The proposed site is also important for dense aggregations of Little Gulls *Larus minutus*, as well as numerous (although below threshold) concentrations of divers *Gavia stellata/arctica* and Razorbills *Alca torda*. Rather stable and dense aggregations of Velvet Scoters *Melanitta fusca* and, to a lesser degree, Razorbills *Alca torda* were also observed at depths exceeding 30 m off the coast of Palanga. However, these aggregations did not meet the criteria for the delineation of new SPAs, since the absolute numbers of birds there were below the population threshold.

Main lessons learned from the project are that the **methods used** for the surveys of waterbirds during this project **proved to be robust and reliable**, even though often labour intensive and sensitive to weather conditions and availability of suitable ships/airplanes. Site delineation methods and data analysis techniques were also straightforward and rather unambiguous, although bird density distribution analysis methods still have some room for improvement, particularly in terms of more advanced modelling techniques, including the addition of more environmental variables. Finally, despite the fact that waterbird inventory lasted for almost three seasons, weather conditions (particularly in winter) were rather mild during all of them, which did not allow to assess the previously (in the 1990s) observed importance of investigated areas for waterbirds in cold or severe winters.

A4 Inventory of Marine Mammals

Action leader: Ivar Jussi, Estonian Environmental Board, P18

Key partners involved: Anda Ikaunieca, Latvian Institute for Aquatic Ecology, P8

Action start: 01.01.2006

Action end: 30.06.2009

Delays or modifications: prolonged until 30.06.09 due to overall project prolongation

In-depth action report: Annex 5.4

http://www.balticseaportal.net/media/upload/File/Deliverables/Action%20reports/A4_final%20report.pdf

Summary action description and output achieved:

Action consisted of three separate and independent sub-actions: Inventory of Harbour porpoises (*Phocoena phocoena*), Grey seal (*Halichoerus grypus*) survey and Ringed seal (*Phoca hispida*) survey.

The **main goals** of the actions were different regarding the three sub-actions: while for the Harbour porpoise the detection of its presence in the Eastern Baltic Sea was the goal, for the Ringed seal it was the estimation of abundance of the species and for the Grey seal it was to follow the use of marine habitat by the species and to find important areas in different periods of its annual life cycle, understand the role of coastal areas and offshore banks as foraging sites.

The overall activities implemented were three separate surveys targeting at the species:

Harbour porpoise inventory: Passive acousting monitoring devices (T-PODs) were deployed to three main and one supplementary location during the survey. Altogether 2290 POD/days of data collected from arrays of three locations in one area in Estonia, one transboundary with Latvia and one in Lithuania;

Grey seal survey: 6 seals (2 males and 4 females) tagged with Fastloc/GSM tags and their routes were recorded and analysed;

Ringed seal survey: An absolute abundance survey (systematic aerial strip census) was carried out in 2006. The ice conditions in 2007 – 2009 were not suitable for the aerial census method; therefore breeding habitat surveys were in 2007 – 2009 conducted to identify key areas for the species. In 2008 total counts of moulting seals carried out in Vainameri area and northern part of Gulf of Riga in the haul-out sites. Telemetry was applied for the ringed seal habitat study with 4 Fastloc/GSM tags. Data about foraging places and seasonal importance of different sea areas was obtained from this investigation.

Results achieved and conclusions:

Harbour porpoises: Porpoises are **extremely rare** in Eastern Baltic coast. **No porpoises detected** in study sites. Main known threat in the Baltic is by-catch in set nets (salmon, turbot and cod). It is not feasible to apply special local restrictions when only vagrant individuals can pass the area. Special additional protection measures can not be applied for protection of the species in project areas.

Grey seals: behaviour and habitat use have **large individual variation**. They can change the haul-out places often (sub-adults and males), but can have strong site fidelity for breeding, resting and also for foraging areas (adult females). Foraging in summer is mainly in deep waters (water column 50 – 90 m), in cold season on coastal slopes and reefs. Regular migrations between the most important haul-out sites in Central Baltic Proper were observed. Because of very large seasonal and individual variation **much more study animals are needed** for comprehensive overview of critically important habitat. This study has to be made in **whole core area of Baltic grey seal distribution**, in cooperation with Finland and Sweden.

The experts stated that **telemetry** is the only tool for detailed description of 3D environment. This must be an essential part of any EIA dealing with marine areas' development where seals are present.

Ringed seal survey: Abundance estimate: Population size of ringed seals in the Gulf of Riga in 2006 was estimated to be about 1475+/- 30% individuals. Alternative census from haul-outs during ice-free spring (2008) give similar minimum population size, 1047 seals counted. This method is applicable when standard survey is not possible to carry out. Abundance is same as 10 years ago (1407 +/- 42%). Considering the known biological increase rate of 6% per year (e.g population in Bothnian Bay), normal healthy ringed seal population far below carrying capacity of environment should have been doubled during this time – *where is the biological justification for this statement, i.e. why it should be doubled?*, therefore we state that there is an **acute problem** in population, it is endangered!

Breeding habitat surveys: ice conditions were generally favourable in 2007 and 2009, however, main breeding areas were found in northern part of Gulf of Riga (2007) and in Vainameri (2009). Breeding failed almost 100% in 2008 because it was the warmest winter for 100 years. In these warming climate conditions the **population is at very high extinction risk**. Habitat quality is the key factor – and this is **ICE**.

Conservation status for Grey and Ringed seals:

Grey seals: All major haul-outs (resting places) in Eastern Baltic are protected and are out of risks. New small moulting places were found but there is no need to apply new special protection measures, minor changes in protection regime for some places are necessary.

Ringed seals: Ringed seal population in Gulf of Riga is endangered. No signs of recovery during last 10 years in Gulf of Riga and Gulf of Finland. Warming climate has very strong negative impact on breeding success. Animals are vulnerable on disturbance at breeding and resting sites.

One **more lesson learned:** the LIFE project was targeted on species and large areas. But marine mammals are utilizing their habitats in very variable seasonal and spatial scale. It is possible to protect marine mammals only in whole range of their main activities and not in spatially restricted sites as Natura 2000 areas.

A5 Inventory of fish species

Action leader: Markus Vetemaa, Estonian Marine Institute, P4
Key partners involved: Atis Minde, Latvian Fisheries Agency, P10
Linus Lozys, Institute of Ecology, LT, P13
Action start: 01.08.2005
Action end: 31.03.2008
Delays or modifications: no modifications
In-depth action report: Annex 5.5
http://www.balticseaportal.net/media/upload/File/Deliverables/Action%20reports/A5_final_report.pdf

Summary action description and output achieved:

Baltic marine fish populations are, in general, studied rather extensively. In all three Baltic States there are monitoring programs to collect ichthyologic data. However, these programs are financed by the fisheries' administrations. So, the focus is rather on the commercially important species. The bulk of the effort is directed to gather data on cod, herring and sprat, and lesser extent to some commercially more important coastal stationary species. Concerning many small-sized fish important from the point of view of biodiversity protection and eco system assessment, there are no data collection mechanisms, since they are not catchable with sampling gear designed for fish stock assessment.

So, the main aim of the action was to collect data (distribution, abundance etc.) about **fish species most important from the point of view of nature conservation** like species listed in the Habitat Directive Annex II, Bern Convention, IUCN Red Data Book, National Red Data Books etc. These species of the highest interest (further: project species) were: Twaite shad *Alosa fallax*, Asp *Aspius aspius*, Spined loach *Cobitis taenia*, Vendace *Coregonus albula*, Whitefish *Coregonus lavaretus*, Bullhead *Cottus gobio*, River lamprey *Lampetra fluviatilis*, Snake blenny *Lumpenus lampetraeformis*, Mud loach *Misgurnus fossilis*, Shorthorn sculpin *Myoxocephalus scorpius*, Ziege *Pelecus cultratus*, Sea lamprey *Petromyzon marinus*, Rock gunnel *Pholis gunnellus*, Longspined bullhead *Taurulus bubalis* and Fourhorned sculpin *Trigloopsis quadricornis*. In aim to collect data about the project species three main methods were used in all 13 project areas: a) gill net fishing using a large variety of mesh sizes, b) hand seining in very shallow coastal areas, and 3) food analysis of predatory fish during regular commercial fish monitoring (small-sized species are often prey for larger predatory fish).

Since the Baltic States use somewhat different commercial fishing assessment, the comparability of data was the main concern before the start of the project action. In aim to enable quantitative comparisons on abundance of fish, the action used fully standardized techniques (standard mesh sizes of gill nets etc.) over all project areas. Therefore, it can be argued that the implementation of the action was the **first comprehensive, simultaneous and standardized study of fish communities** in three Baltic States, as it covered both warm- and cold-water communities and applied different sampling methods to target both big- and small-sized fish species.

Comprehensive information about distribution, seasonal abundance and migrations of project species is stored in the databases of the respective partner institutes, and in the form of data-sheets attributed to all 13 project areas delivered to the national environmental administrations. From findings it might be noted that two new species for Lithuania, longspined bullhead *Taurulus bubalis* and black goby *Gobius niger*, were scientifically documented. Also, it was found that two Habitat Directive Annex II freshwater species are actually abundant also in the brackish coastal sea of Estonia (spined loach *Cobitis taenia* in area 3EST and bullhead *Taurulus bubalis* in area 4EST).

These species (and most other species of nature protection interest) are already protected by existing conservation system.

However, results of the study clearly demonstrated the importance of the **Lithuanian** coastal waters (especially project area 13LIT) for *Alosa fallax* spawning migrations to the Curonian Lagoon. *Alosa fallax* population spawning in the Curonian Lagoon is the only abundant population of the species in the Baltic Sea. Therefore, a **protected area** for *Alosa fallax* was proposed and established in 2009 within 13LIT area, aiming to ensure favourable conservation status for the species. In addition, a set of measures related to reduction of by-catch in fisheries and stock monitoring were proposed and included into the management plans for 12LIT and 13LIT areas aiming to ensure stability of the population in a future (see Annex 5.7.10).

The present study didn't confirm the widespread view that fishery has strong negative impact on the coastal fish. By compiling the inventory and commercial fisheries data, the study concluded that coastal fishing effort has steadily decreased during the last decade and **now fishery has actually little if any impact on the fish species** in need of protection. The most important threats are **eutrophication and pollution**, which unfortunately can not be beaten by independent acts on spatially restricted areas. Therefore, another important conclusion is that the most important tool to protect rare and endangered fish species is to **preserve vulnerable coastal sea habitats**.

A6 GIS

Action leader: Merle Kuris, BEF Estonia, P1
Key partners involved: Uudo Timm, Estonian Environmental Information Centre, P3
Edgars Bojars, BEF Latvia, B (and contracted expert)
Gediminas Vaitkus, Institute of Ecology, LT, P13
Action start: 01.08.2005
Action end: 30.11.2009
Delays or modifications: prolonged until 30.11.09 due to overall project prolongation
In-depth action report: Annex 5.6
http://www.balticseaportal.net/media/upload/File/Deliverables/Action%20reports/A6_final%20report.pdf

Summary action description and output achieved:

The main goal of the action was to create a national GIS database in each of the three Baltic States for all project areas containing background data (depth, coastline etc.), data from inventory and other information that can be processed in GIS. Furthermore the action aimed at generating secondary data for maps according to the needs of other project activities such as threat assessments, developing management plans and protection rules. It was also aimed to fill in the Natura 2000 data forms based on data gathered by the project.

One of the first activities of the action was the elaboration of a **concept for the GIS data base** among the experts from the three countries; further data collection was harmonised to achieve a common structure of a data base among the three countries including a reporting format. Three meetings of the GIS experts were held, two of them together with the management plan experts of Action A7 to base the concept on the needs of its application further in the project.

During the next phase of the action **background data** were gathered on bathymetry, economic activities etc. that was agreed and necessary for elaboration of maps for management plans, threat assessments and stakeholder communication.

In the third phase of this action the gathered **data from inventories and other project actions** were inserted into the national databases; maps were produced for stakeholder communication purposes and for management plans as well as final project report (Annex 5.6.3.). Furthermore information from the project data base was submitted to the Ministry of Environment for national **Natura 2000 databases** (Estonia and Lithuania) respectively project experts from partner institutions filled in the Natura 2000 data forms (Latvia). The project data were handed over to the Ministries of Environment of Estonia, Latvia and Lithuania.

As results valuable achievements on harmonization of data collection and databases between the three Baltic countries have reached. Data from inventories and other project actions have been inserted into national databases and handed over to the national competent authorities; The Natura 2000 data forms were filled respectively the necessary information was provided to the Ministries of Environment of Estonia, Latvia and Lithuania; a series of maps for stakeholder communication, management plans and presentation of project results were produced.

Main lessons learned:

GIS activity is a supporting action for other project actions.

It takes a lot of time and efforts to harmonize data collection and database structure in 3 countries where different institutions and authorities are using different GIS programmes and database structures. However, harmonization is worth efforts because it enables creation of joint maps or joint databases and comparison of data/results if needed.

The main difficulty in this project was related to the frequent changes of GIS experts in Latvia and Lithuania.

A7 Management Plans

Action leader: Anda Ruskule, BEF Latvia, B
Key partners involved: Merle Kuris, BEF Estonia, P1
Edgars Bojārs, BEF Latvia, B
Liutauras Raudonikis, Institute of Ecology, LT, P13
Action start: 01.01.2006
Action End: 30.11.2009
Delays or modifications: prolonged until 30.11.09 due to overall project prolongation
In-depth action report: Annex 5.7
http://www.balticseaportal.net/media/upload/File/Deliverables/Action%20reports/A7_final%20report.pdf

Summary action description and output achieved:

A7 action was the central activity of the project - it integrated results of the inventory actions as well as threat assessments and applied them for designation of Marine Protected Areas (MPAs) and management plan development.

National legal systems for development of management plans of protected areas existed in all three Baltic States already at the beginning of the project. However, they were made for terrestrial areas and none of the Baltic countries had experience with planning of MPA management. Therefore the **main goals** of the action were to develop concepts of management planning of MPAs and to prepare pilot management plans in Estonia, Latvia and Lithuania. The action included also designation of new MPAs to contribute to the marine Natura 2000 network in the territorial waters of the Baltic States.

Concept development and related events

A concept for management plan development was prepared in first half of 2006. It was based on international experience, existing national and international (EC, HELCOM) guidelines, discussed at project partners meetings and an international seminar on "Concepts for management plan development", held on 29-30 March, 2006 (see PR1: Annex 2:A6/A7). As result a concept paper was prepared, including background overview on existing guidelines for marine management planning, identification of specific tasks of the project with regard to management planning and cross-country co-ordination and experience exchange, detailed time schedule, description of national specifics for site designation and MP development as well as proposal on content list of marine MPs (see PR1: Annex 2:A6/A7).

Further on a **system for evaluation of species and habitats of Community and national importance** was developed in second half of 2006 and discussed at the following project partners meetings (see PR2: Annex 5.1.7). It included the list of parameters for assessment of conservation value of particular features for which a site is/should be established as well parameters for evaluation of the site itself. The evaluation of selected sites was carried out by the project experts based on data gained from the inventory actions (A2, A3, A4, A5). The application of such system insured more harmonised approach among the countries for defining common conservation values and priorities.

Conceptual input for management plan development was provided also by the **expert meetings and seminars**, which because of actual discussion needs were called up more frequently than initially planned, but within the planned seminar budget of the A7 action. Workshop on "Stakeholder involvement in management plan development" was held on 8-9 February, 2007 (see PR2: Annex 5.1.7) to discuss various socio-economic interests in marine areas and potential conflicts with regard to nature conservation within the group of wide range of stakeholders. At the event the project partners were present and additionally a large group of most important representatives of stakeholders from the three countries. It at the same time initiated also a kick-off for the stakeholders of the communication with the project team and became therefore a large event with 60 participants.

In continuous discussion between the project experts, competent authorities and stakeholders on economic interests within or in vicinities of existing and potential marine Natura 2000 sites it has turned out that in the Baltic States there is very little knowledge and no experience regarding impact assessment of different projects like construction works off-shore wind parks or similar constructions on marine nature values (assessment of plans and projects according to the Habitats Directive, Article 6.3). Therefore a series of meetings were organised with the help of foreign experts to raise

competence of experts and authorities on impact assessment according HD Art 6.3 and support management plan development and improvement of legal system for protection of MPAs:

- Workshop on “EIA for off-shore wind parks – potentials for conflicts with Natura 2000 designation” held on 19-20 June, 2007 (see PR3: Annex 2.1.7.);
- Workshop on “Planning offshore windfarms in line with Natura 2000 requirements”, held on 28-30 May, 2008 (see PR3: Annex 2.1.7.);
- Expert meeting on “Habitat and species assessment methodology”, held on 6-7 November, 2008 (see Annex 5.7.7);
- Expert meeting “Which kind of legal frame we need?” held on 15-17 April, 2009 (see Annex 5.7.9).

In the final stage of management plan development an expert meeting on “Cross-border aspects of management plan development for MPAs” was organised on 10-11 March, 2009 to discuss compliance in setting conservation objectives and exchange experience in definition of management measures and zoning (see Annex 5.7.8).

The costs for those additional meetings were covered from savings from the event budget from earlier seminars which were smaller than planned and from the funds for an additional event under E.8, applied with the interim report, which at the end was not found needed for reaching the project objectives. The German speaker for the event “which kind of legal frame we need”, Ms. Ursula Prall from Kuhbier lawyers, produced after the event on the request from participants a background paper based on her very valuable lectures which led to an increase of the contract costs, however, well-justified by the product received and needed for future site designation and assessments.

Management Plan development

Elaboration of management plans started in 2007 and continued until the end of the project. Each country followed the official procedure set by national law. Still active cross-country co-ordination and experience exchange was organized through regular project partners meetings and international seminars to gain experience and add on quality of the plans.

The project partners in cooperation with responsible competent authorities (Ministries of Environment) have **selected the following sites for MP development:**

- Estonia: Väinameri (3 EST) and West-Saaremaa: Küdema (4 EST);
- Latvia: West Coast of Gulf of Riga (8 LAT) and Nida-Pērkone (11 LAT);
- Lithuania: Palanga (12 LIT) and Neringa (13 LIT).

In Latvia initially a management plan was also foreseen also for the Irbe Strait site (9 LAT), but later it was decided to step back from it due to insufficient data from the outer areas (deep water) available for assessment of the conservation values of the site.

The management plan development included the following steps: general description of the site; socio-economic analysis; species and habitat assessments (based on results of actions A2, A3, A4, A5); threat assessments (based on results of actions C1, C2, C3 and C4); site assessment (except Estonia, where this is not part of an MP), conservation objectives definition and elaboration of a set of measures; zoning (except Estonia, where rules do not foresee zoning) and monitoring requirement elaboration. In Latvia proposals for individual protection and management rules (legal documents) were also developed and attached to the management plans.

Management and conservation measures: specific for marine sites is that there is very little possibility to apply any active management measures. Therefore the proposed measures mainly concern regulation of economic use (e.g. fishery, tourism, port development and maintenance, extraction of mineral resources, offshore wind farm development, etc.), administrative measures, monitoring, scientific research as well as rising of public awareness. Essential measure for protection of marine nature values is the EIA procedure and the Natura 2000 assessment, however additional guidelines or specification in the legal procedure are necessary to ensure appropriate assessment of impacts on marine nature values.

An intensive Stakeholder dialogue and involvement process was carried out in all three countries in parallel to the management plan development. In **Estonia** 5 public events were held and constant consultations took place with key stakeholders and environmental authorities. Communication with stakeholders was successful - no major conflicts were experienced. In **Latvia** 2 public events and 5-6 supervisory board meetings were held per each site. Good contacts were established with local stakeholders, agreements reached with local port authorities, however, difficulties were faced regarding zoning due to development interests of local authorities. To

support the communication with stakeholders and to enhance acceptance of the management measures a full scale socio-economic analysis was carried out for the both sites, including explanation of the costs and benefits related to establishment of the MPAs (see Annex 5.7.11). A contract was concluded with a Latvian expert for this purpose, which costs were substantially higher than planned (20 000€ instead 5 000€). This work has significantly contributed to the success of the stakeholder acceptance of the sites in Latvia and at the end to a designation and approval by competent authority by project report submission. This work has been performed the first time at all in Latvia (and Baltic States) and got high attention from stakeholders, socio-economic assessment of nature conservation measures have been unknown before and the perspective of “eco-system services” are very innovative, therefore the costs were found justifiable and covered from available savings from event costs.

In **Lithuania** consultations with local stakeholders were carried on face-to-face basis. Proposals for new site boundaries and conservation measures were introduced at official public meetings with national and regional authorities.

All the management plans are submitted to the competent authorities:

- **Estonia:** Official submission of the management plans to the Ministry of Environment and the Environmental Board was on 18 January, 2010, although the Environmental Board have received the plans already in November 2009. The reason for delayed official submission was the new regulation on preparation and adopting of MPs – the regulation was passed in November 2009 and still more than month was needed to establish relevant procedures and commission. Also the responsible authority for adoption of the MP was changed: before it was Minister of Environment, but with issuing the new regulation the responsibility was taken over by the Environmental Board. Approval of management plans is expected by end of March, 2010.
- **Latvia:** According to the procedure in Latvia, the management plans were submitted to the Nature Protection Board (on 16 September, 2009 for the Nida-Pērkone MPA and on 6 November 2009 for the West Coast of the Gulf of Riga MPA). After examining plan compliance with the national requirements, the Nature Protection Board submitted them to the Ministry of the Environment on 11 December, 2009. Approval of the management plans by the Minister of the Environment on 25 February, 2010.
- **Lithuania:** The final draft of the management plan of the Palanga seacoast (project site LT12; SPA code: LTPALB001; pSCI code: LTPAL0001) was submitted for the final approval to the relevant stakeholders (including responsible authority - State Protected Areas Service) on the 10th November, 2009. The last comments were received by 28 December, 2009. After additional corrections, the draft of the MP was submitted for the legal approval on the 29th January 2010. Expected time of the final approval - February 2010. The final draft of the management plan of the Kursiu nerija seacoast (project site LT13; SPA code: LTKLAB001; pSCI code: LTNER0005) was submitted for the final approval to the relevant stakeholders (including responsible authority - State Protected Areas Service) on the 15 January, 2010. The last comments have not been by 28 January, 2010 yet. After additional corrections, the draft of the MP will be submitted for the legal approval in February 2010. Expected time of the final approval is March 2010.

The 6 management plans developed by project are attached in Annex 5.7.10.

Management plans of Latvia: http://www.balticseaportal.net/bsp_section/web/?id=1422

Management plans of Estonia: http://www.balticseaportal.net/bsp_section/web/?id=1427

Management plans of Lithuania: http://www.balticseaportal.net/bsp_section/web/?id=1429

Designation of MPAs

Proposals on designation marine Natura 2000 were prepared in Latvia and Lithuania based on results of habitat, birds and fish inventories. The map of the existing as well as proposed and approved marine Natura 2000 sites see attached in Annex 2.2.

In **Estonia** a network of marine Natura 2000 sites within the territorial waters already existed at the beginning of the project. Inventories carried out within the project confirmed that **no changes of boundaries of the already designated Natura 2000 sites are needed**. Investigations outside already nominated areas were not part of the LIFE project and therefore no new sites were proposed.

Latvia: no marine Natura 2000 sites have been designated before, except the extensions of seven terrestrial areas into the sea. The project has proposed designation of 7 new MPAs (3 SPAs; 2

pSCIs and 2 combined sites). The proposals were submitted to the Ministry of Environment (MoE) on 2 December, 2008. MoE accepted the proposals and has prepared a regulation for designation of these sites for Cabinet of Ministers, which after long and difficult stakeholder dialogue (mainly due to permanently shaking government and economic crisis in 2009, as well as opposition from some ministries and local authorities) was approved on 5 January, 2010 and is in force from 16 January. Official procedure until nomination to EC has been started. The Ministry of the Environment has assigned NATURA codes for the MPAs and prepared amendments in the Annex of the Law on Specially Protected Nature Areas in February, 2010. Formal adoption of the amendments of any law is a process that must at its end go through the Parliament of Latvia (expected after May 2010). After adoption of the new Amendments, the Ministry will submit the marine sites together with Natura 2000 data sheets to the European Commission for nomination. Maps of the 7 designated MPAs proposed by the project are attached in Annex 5.7.12.

Lithuania: marine Natura2000 sites have been defined already before the beginning of the project. However, the results of project investigations showed that major changes of borders are required. As result the following proposals have been submitted:

- 1. Designation of a new SPA.** Project experts proposed designation of a new marine SPA for the protection of the Velvet Scoter *Melanitta fusca*, Razorbill *Alca torda* and Little Gull *Larus minutus*. The proposed site is located in the coastal zone, to the west from the western border of the Curonian Spit SPA; code - LTKLAB001 (see in Annex 5.7.13.). The proposal of the project experts on new SPA was first presented to the State Protected Areas Service on September 22, 2008 and to the Ministry of Environment on September 24, 2008. Official proposal was submitted to the Ministry of Environment on 25 September, 2009. This proposal was discussed by the Official Commission on the designation of the protected areas under MoE on the 23 December, 2009 (The Commission was established by the Order of the Environmental Minister No D1-491; 26 August, 2009). The decision of the mentioned Commission was to designate the proposed site, first, as a Biosphere Polygon. After that, it was decided to nominate the Biosphere Polygon as SPA. The decision of the Commission is presented in its official protocol No. V5-01 of 8 January 2010 (see in Annex 5.7.14). Considering existing national procedures for establishment of protected areas and current economic situation, it is expected that the new marine protected area would be designated by the end of 2012. As soon as the protected area will obtain national protection status, MoE will propose to the Lithuanian Government to nominate the site as SPA (Natura 2000).
- 2. Modification of the pSCI Curonian Spit (Kursiu nerija); code - LTNER0005.** The project experts proposed modification of the former Curonian Spit pSCI boundaries covering a part of the marine waters of the Curonian Spit National Park. The modification was driven by following factors: a) northern part of the area is important for the spawning of Twaite shad (*Alosa fallax*); b) investigations carried out identified that the habitat "sandbanks which are slightly covered by sea water all the time" (1110) do not occur as initially was declared. Therefore the pSCI was suggested to be modified to exclude the area nominated for 1110 habitat and include the area important for Twaite shad. The proposal was accepted by the MoE and the pSCI Curonian Spit was modified accordingly (Order of the Environmental Minister No D1-210 on the 22 April, 2009). Modification of the boundaries see in attached in Annex 5.7.15. The updated information about the site has been submitted to the EC in November, 2009.
- 3. Modification of the pSCI Palanga seaside (Palagos priekrante); code - LTPAL0001.** Project proposed to draw more accurate borders of the current pSCI (a little bit reducing its area). The proposal was included in the MP of the site (see in Annex 5.7.10) and presented for the representatives of MoE. The argument for this proposal was more of administrative character – to define a more logical border, which would allow users of the area to identify easier their location with respect to the pSCI. Currently existing borders of the site are based on 20 meters isobath, which actually differs in different maps. The proposal was to fix the border to the longitude coordinated. The proposal so far has been rejected by the MoE, because it does not concern significant changes of the borders, which already now cover the major part of the reef habitats, and therefore is not of urgent matter with regard to complete designation of marine Nature 2000 sites.

Results: The goals of the action have been successfully achieved – a concept for management plan development for MPAs was prepared and tested in practice – 2 management plans per each country were elaborated and submitted to competent authorities. Proposals for marine Natura 2000

sites submitted and confirmed by the competent authorities thus adding up to the marine Natura 2000 network within the territorial water of the Baltic States – in Latvia and Lithuania completing it, while in Estonia still large parts of its territorial waters remain without investigations due to size of coastline and limits of resources (investigations were not foreseen in the current project due to limited budget). The action also gave an understanding of volume and needs for future investigations outside the currently addressed areas. In Estonia additional inventories and site designation is needed outside of the existing Natura 2000 sites within territorial waters (already undertaken by another project) as well EEZ. In Latvian and Lithuania additional inventories and designation of marine Natura 2000 sites is needed within the EEZ.

Lessons learned: The development of marine management plans is possible within the frame of existing national legal procedures; however it requires different approach in stakeholder communication – while in terrestrial areas local stakeholders are mostly concerned about establishment and management of the site, in marine areas strong economic interests are involved without a concrete relation to a “piece of land”, in larger distance, but also more powerful stakeholder organisations, partly national authorities such as Ministry of Transport and Ministry of Regional Development.

To achieve desired results active communication with all concerned national authorities shall be undertaken, particularly, because management measures mostly concern such important sectors as shipping, port development, fishery, energy production and defence. Establishment of MPAs is relatively new issue - people are not familiar with it and do not know what to expect, therefore serious concerns and mistrust from the side of stakeholders is experienced.

B **Land purchase** - No action in this section

C **Non-recurring biotope management**

C1 Assessing and reducing impact of by-catch on species of community interest

Action leader: Mindaugas Dagys, Institute of Ecology, LT, P13

Key partners involved: Antra Stipiece, Latvian Ornithological Society, P9

Atis Minde, Latvian Fisheries Agency, P10

Andres Kalamees, Estonian Ornithological Society, P5

Action start: 01.08.2005

Action End: 30.06.2009

Delays or modifications: prolonged until 30.06.09 due to overall project prolongation

In-depth action report: Annex 6.1.

http://www.balticseaportal.net/media/upload/File/Deliverables/Action%20reports/C1_final_report.pdf

Summary action description and output achieved:

The main goal of this action was to investigate in detail the impact of fisheries on waterbirds and marine mammals in the Eastern Baltic Sea and, if necessary, to provide recommendations for mitigation of any significant impacts. In addition, the impact of fishery on seals was investigated in Estonia. In Lithuania and Latvia, only waterbird by-catch in fishing gear was investigated, whereas in Estonia, seal by-catch as well as seal damage to fishing gear was investigated in addition to the waterbird by-catch.

As an initial preparatory step of the action, detailed **background information on commercial fishery** in each of the three countries was collected and summarised in a report. This summary includes various organisational aspects of the fisheries – spatial organisation (fishing sectors), licensing, distribution of fishing quotas, reporting, fishery control, fishing restrictions (temporal, spatial, gear type, catch size, etc.) as well as information on the numbers and type of vessels/companies involved, fishing gear used, intensity trends, catches, etc. Extensive literature survey was carried out on the available studies, publications, reports on bird and mammal by-catch in relevant fishing gear, measures for mitigation and avoidance of such by-catch suggested or implemented elsewhere.

By-catch data were collected in several ways during the project. First of all, data on waterbirds and seals (in Estonia only) caught in fishing gear were collected from co-operating fishermen, operating under normal conditions along their normal fishing schedule and with traditional fishing gears. In addition, **experimental fishing** was carried out in Lithuania and Estonia, in order to collect an

unbiased sample of by-catch data. The collected data were analysed in order to obtain by-catch rates, which allowed rough estimation of by-catch victims as well as comparison of different types of fishing gear in respect of the threat posed to birds.

Analysis of **seal by-catch** in Estonia revealed that ca. 280 seals drown in fishing gear in Estonia every year, 90–95% of them being Grey seals. While any by-catch of seals in fishing gear is ethically hardly acceptable, by-catch does not appear to have hampered the continuing growth of populations of grey seals, while Ringed seals appear to be caught seldom. Thus, by-catch of seals in fishing gear at present in Estonia should **not be considered a major threat on a population level**. No direct recommendations for actions were proposed to the CA, however, indirect measures for reduction of by-catch of seals were undertaken based on the success of the action D1 (see below) by including the tested alternative fishing gear into the subsidised fishery activities at national Fishery funds.

Information on more than 700 **waterbird by-catch** events was collected during the project in all the three countries. Although the species composition of by-catch victims differed among the countries and reflected species composition of birds concentrating in different seasons in areas of commercial fishery, most common by-catch victim in all the countries was the **Long-tailed Duck**, which accounted for 50–60% of all the caught birds. Other common victims in Latvia and Lithuania included Velvet Scoter, divers and alcids, while in Estonia – Tufted Duck and mergansers. In all the three countries, large mesh size gillnets (>50 mm) were found to be most dangerous to birds, although only in Lithuania by-catch rate and its extent were considered to be high enough to warrant inclusion of special mitigation measures into management plans for Lithuanian SPAs.

The overall finding of by-catch assessment was that the **present threat posed to waterbirds in the Baltic countries had a tendency to decrease**, which is facilitated by the overall decrease in fishing effort in most areas as well as decreasing numbers of wintering birds, be it due to mild weather conditions or the overall decrease in waterbird populations. However, by-catch of birds in fishing gear **cannot be overlooked and ignored**, as it poses a real threat to many species of birds, can cause large numbers of casualties under certain conditions and is still poorly monitored and regulated. Obligatory reporting of bird by-catch in fishing gear is one of the measures that could facilitate both understanding the scope and extent of the by-catch phenomenon as well as reducing this threat to birds.

C2 Assessment of possible impact of construction and dumping of dredged material on habitats of community importance

Action leader: Georg Martin, Estonian Marine Institute, P5
Key partners involved: Evija Smite, Marine and Inland Water Administration, LV, P7
Darius Daunys, Coastal Research and Planning Institute, LT, P14
Action start: 01.01.2006
Action End: 30.06.2009
Delays or modifications: prolonged until 30.06.09 due to overall project prolongation
In-depth action report: Annex 6.2.
http://www.balticseaportal.net/media/upload/File/Deliverables/Action%20reports/C2_final_report.pdf

Summary action description and output achieved:

The main goal of action was to gain comprehensive information on the extent and characteristics of impacts of dumping of dredged material or other mechanical activities in marine Natura 2000 sites in Latvia, Estonia and Lithuania. To assess the vulnerability of different biological communities or habitat types, a study was undertaken using the basic approaches of analysing existing information and modelling exercises.

During this activity the assessment of impact of possible dredging and dumping activities in project areas of all three countries were carried out. For this purpose extensive **hydro-dynamical modelling** was performed describing sediment dispersion from dumping and dredging sites located inside the project areas. Based on the information gathered from the inventories projects the assessment of the extent of the impact was carried out. The project team met in several small workshops/expert meetings with the aim of development and harmonisation of methodology and assessment approach.

A “**Habitat sensitivity matrix**” against the impact of three levels of sediment disturbance was developed for the identified habitats. This matrix was applied on the modelling and observation results and on this basis the final assessment was made.

The result achieved was sediment dispersion from the known dumping and dredging sites was **modelled** for all project areas in Latvia and Lithuania. Furthermore the known dumping sites were described based on the dumping statistics for all Estonian project areas. And, an **assessment of the impact** from the different levels of dumping activity was carried out for all project areas and the results were quantified for different dumping activity scenarios.

Studies were carried out in all six project areas in Estonian coastal sea where for each project area separate impact model was constructed and evaluated. For Latvian and Lithuanian areas modelling was done simultaneously for all coastline including 10 dumping sites in Latvian coastal areas and 3 dumping sites in Lithuanian areas.

The **conclusion** from the action is that impact from the current level of dredging and dumping activity on benthic communities and habitat types protected in marine Natura areas is low in most locations. At the same time intensification of these activities in future may cause loss of habitat quality in different project areas.

The main lessons learned from this action were, that assessment techniques and methods used in the project were adequate and enabled the fulfilment of goals; Intensive hydrological modelling and impact assessment using habitat sensitivity matrix should be carried out prior to every planned new dredging and dumping project especially in the vicinity of Natura 2000 sites and, the **general impact of dredging and dumping activities was lower than expected prior the project start**. Most probably economic activities have been overestimated.

C3 Assessment of impact of disturbances on waterbird and seal species of Community interest

Action leader: Mindaugas Dagys, Institute of Ecology, LT, P13
Key partners involved: Antra Stipniece, Latvian Ornithological Society, P9
Andres Kalamees, Estonian Ornithological Society, P5
Action start: 01.07.07
Action End: 30.06.2008
Delays or modifications: prolonged until 30.06.08 due to overall project prolongation
In-depth action report: Annex 6.3.
http://www.balticseaportal.net/media/upload/File/Deliverables/Action%20reports/C3_final_report.pdf

Summary action description and output achieved:

The main goal of this action was to assess the potential disturbance threat to waterbirds and seals posed by various human activities in the investigated project sites. Since the Baltic Sea areas under investigation can be characterised by rather intensive human activities, assessment of their potential disturbance effects on waterbirds and seals at different stages of their annual life cycle could not be overlooked. Such an assessment was also needed as an important input into nature management plans produced during this project.

The **assessment of disturbance impact** from various economic activities in the project areas and adjacent areas on waterbirds and seals was implemented as a desk study without any special field investigations. The assessment involved extensive literature review of the published information related to the **effects of various disturbance sources** (traffic, windmills, military training, noise pollution, recreation, etc.) on waterbirds and seals. Information on the existing and planned developments, which can be considered potential disturbance sources, in the project areas were collected from various, primarily official, sources – county authorities, municipalities, legislation and other legal documents, strategic, territorial and other plans, feasibility studies, environmental impact assessment reports.

Finally, the assessment of potential disturbance impact was carried out on **site-by-site basis**, comparing the available information on the existing/potential disturbance sources and their intensity, literature data on the effects of such disturbance factors, and the data on distribution/abundance of various waterbird species and seals in these sites, collected during the inventory actions of this project.

The **main potential disturbance sources** identified and assessed during this study included windmill parks, recreational activities (power boating, kite boarding), fisheries (only the disturbance effect), shipping, military training activities, dredging/dumping. The thirteen project sites investigated differed considerably in terms of the variety and intensity of human activities that could be considered potential disturbance sources for waterbirds and seals. A map of all existing and potential sources of disturbance was produced for each project site along with an assessment of the importance of such impacts, their potential effect on different species and their temporal distribution. For any potentially significant impacts site-based mitigation solutions were proposed.

Overall, with a few exceptions, potential disturbance impact from various human activities was assessed to be **rather low**, below the level that would warrant the need of their special regulation. Positive factor in this respect is the large size of most of the areas, favoured by birds, since this allows birds to safely avoid low intensity disturbance (shipping traffic, fishing boats, etc.). Recreational activities (kite boarding and water scooters) were considered to pose significant disturbance threat to birds wintering in the West Coast of Gulf of Riga site, therefore a seasonal ban of these activities was proposed there. Military training activities were proposed to be regulated (both temporary and/or spatially) in Neringa site, because of their overlap with wintering waterbird aggregation areas. The importance of appropriate EIA procedures, with a special disturbance impact assessment component, was also stressed for all the future developments that can cause the disturbance threat for birds and seals. The mentioned restrictions were included into the management plans of the sites.

In **conclusion**, the assessment of potential disturbance impact on waterbirds and seals is complicated by the fact that there is relatively little published information on the effects of various disturbance sources on wildlife, let alone waterbirds and seals in particular. Only the effect of windmills is more extensively studied, while the effect of military activities, recreation, shipping is still poorly studied and understood.

C4 Assessment of the impact of transboundary and local pollution on habitats and species of community importance

Action leader: Juris Aigars, Latvian Institute for Aquatic Ecology, P8
Key partners involved: Georg Martin, Estonian Marine Institute, P4
Aiste Kubelyte, Lithuanian Centre for Marine Research, P15
Action start: 01.06.06.
Action End: 31.03.2008
Delays or modifications: no modification
In-depth action report: Annex 6.4.
http://www.balticseaportal.net/media/upload/File/Deliverables/Action%20reports/C4_final_report.pdf

Summary action description and output achieved:

Many of the project areas are located in the proximity to the potential pollution sources such as oil transfer terminals, ports or shipping routes. Intensive ship traffic endangers marine Natura 2000 sites both via discharge of ballast waters and with waste liquids from engine rooms. Most of discharged hazardous substances enter the food web and can cause survival problems for marine organisms. Although this threat is well recognized, the actual impact on marine Natura 2000 sites is poorly known and quantified. That being the case, there is a clear need to evaluate risk factor by pollution on the project areas.

The main goal was to **assess pollution level at all project areas** and elaborate suggestions, if needed, for inclusion in management plans. For that purpose sampling of mollusks and sediments was planned in the following project areas: 1EST, 2 EST, 3EST, 4EST, 5EST, 6EST, 11LAT, 7LAT, 8LAT, 12LIT and 13LIT. Further, analyses of heavy metals in sampled molluscs (*Mytilus edulis* sampled from hard bottoms and *Macoma balthica* sampled from sandy bottoms) and analyses of selected congeners of PAHs as well as total oil in sediments with subsequent data analyses and environmental status assessment were planned.

During kick-off meeting and following discussion general concepts on sampling techniques, sample treatment methodology and data treatment were agreed.

Field work (sampling of mollusks, sea grass and sediments).

- Sampling in 12LIT and 13LIT was completed in 2006,
- Sampling in 1EST, 2 EST, 3EST, 4EST, 5EST, 6EST was completed in 2007.

- Sampling in 11LAT, 8LAT and 7 LAT was completed in 2006, 2007 and 2008.
- Analyses of sampled material** in all respective samples were performed within 6 months after sampling.

Data analyses and assessment: Although at some stations observed values of heavy metals significantly exceeded those observed at majority of stations, the **overall concentration level is low** and does not exceed values observed elsewhere in Baltic Sea. Therefore, with rather high level of confidence can be concluded that presently in potential Natura 2000 territories or near them no significant pollution threat is presented. However, due to intensive use of Baltic Sea for shipping and other activities, as well as industrial activities in drainage basin, the pollution by heavy metals and oil compounds is **remaining as potential threat** to be periodically assessed.

In **conclusion**, the activity worked out rather well. However, it revealed scientific gaps in mollusk ecology which should be filled in further activities, preferably in frame of purely scientific project. Most suitable would be EU Scientific Framework program. The additional research is needed because even in such close proximity as it was in this project, benthic habitats exhibit very wide range of species composition and it is impossible to secure necessary amount of material using only one test specie. That means inter-comparison of results measured in different species and so need for recalculation algorithm.

Conclusion and recommendations from all C actions: the threats identified during the project from all four actions are of minor danger; mostly they are a forecast if potentially economic activities will intensify in future. Therefore we propose regular check-up during monitoring activities. A very few direct measures resulted from C actions, however they are very local and were included into the management plans – e.g. restrictions on kite boarding or mesh size of nets or military activity limitations in certain seasons.

D Recurring biotope management

D1 Alternative Fishing

Action leader: Markus Vetemaa, Estonian Marine Institute, P4
 Key partners involved: Atis Minde, Latvian Fisheries Agency, P10
 Linas Lozys, Institute of Ecology, LT, P13
 Action start: 01.10.2005.
 Action End: 30.06.2009
 Delays or modifications: prolonged until 30.06.09 due to overall project prolongation
 In-depth action report: Annex 7.1.
http://www.balticseaportal.net/media/upload/File/Deliverables/Action%20reports/D1_final_report.pdf

Summary action description and output achieved:

Death of seabirds (e.g. wintering sea ducks) has been well documented from various fisheries in different regions of the world. In the southern Baltic (Lithuania and South West coast of Latvia) the most problematic issue is the bird by-catch caused by extensive cod fishery employing gill nets. In the northern areas of the Baltic Sea, in contrary, cod fishery is less extensive due to the very low abundance of cod. At the same time, in Estonia (and some Latvian sites) trap net fishery generates unacceptably high seal by-catch on the one hand, and permanently increasing number of seals causes high economic losses to fishermen, on the other. So, the main goal of the action was to design, construct and use several types of modified fishing gears.

Long-lines were tested in aim to replace gill nets causing by-catch of birds in (mainly) cod fisheries in Lithuania. **Herring trap-nets** were tested in aim to reduce bird by-catch when catching herring, garpike and other species (e.g. perch) in Lithuania. **Seal-safe fyke-nets** (catching many different coastal fish species) were tested in aim to reduce seal by-catch and mitigate the seal-fishery conflict through increasing profitability of fishery by reducing seal damage to gear in Estonia. All tests were carried out, as planned, using the contracted commercial fishermen, under the supervision and guidance of scientists from the participating institutes.

Tested **long-lines** were effective in catching cod. By-catch of fish under commercial landing limit (and of some non-target species) was analogous to gill nets. However, long-lines didn't cause any by-catch of birds. Seals can damage both long-lines and gill nets; however damage for long-lines is minor by means of costs if compared to the gill net damage.

Three **herring trap-nets** used in Lithuania were constructed by Latvian fishermen experienced in use of the gear at the open coastal waters in the western part of Latvia. After some learning period,

Lithuanian fishermen learned to operate these rather sophisticated gears, and the traps proved to be efficient also under Lithuanian conditions. Besides herring, which was regarded as the main target at the start of the project, the gear caught effectively also some other fish species, e.g. garpike and perch. So, in future the traps can be used even during longer season than it was originally expected, which naturally increases the efficiency and fishing revenues.

The **seal-safe fyke-nets** proved to be as efficient as the traditional fykes. At the same time they did not create any by-catch, since the panels at entrance do not allow seals to enter. Extremely strong material ("Dyneema") used to prevent seals to break holes into the fish-keeping chamber proved to sustain seal attacks; only few small holes were found during the three testing seasons. Additionally, the new material didn't overgrow with algae and so the modified gears were lighter and thus also easier to operate alone and from small boats.

In **conclusion**, all three tested methods proved to be usable and efficient. Concerning the seal-safe fyke-nets and herring trap-nets fishermen even started to build additional gears on their own expenses, which is definitely the strongest possible proof that gears have high practical value and will be used also in future. In Estonia it is already decided, that purchase of new environmentally more safe gears by commercial fishermen will be supported by the European Fisheries Fund in coming years. Analogous plans are under preparation also in Latvia and Lithuania. So, there is firm ground to believe that the usage of tested gears will be rather common in future, and the action has met its main aim (pictures and schemes see Annex 7.1.)

E Public awareness and dissemination of information

E Actions: public awareness and dissemination of results activities

Action leader: Zymantas Morkvenas, BEF Lithuania, P2
Key partners involved: BEF Latvia, B and BEF Estonia, P1
VFS, P11 (E3)
SOPA, P12 (E2)
Birdlife, P17 (E8)
All other partners
Action start: 01.08.2005
Action End: 30.11.2009
Delays or modifications: prolonged until 30.11.09 due to overall project prolongation

The project's E actions consisted of ten separate actions which all were successfully implemented and foreseen results respectively deliverables are achieved, although a few activities were a bit delayed due to their complexity.

List of deliverables – publications – (see Annexes 8.1.):

- Project flyers (2) (four and three languages) E1
- Project web site (five languages) E2
- Project DVD (20+1 video clips – five languages) E3
- Notice boards (28) (relevant national language) E5
- Book (1 – five languages) E6
- Layman's report (1 – four languages) E9

Other Deliverables – event reports (E7, E8, E10) and media records (E4) (see Annexes 8.8.; 8.9.; 8.11.; 8.5.).

Summary action description and output achieved:

E1 Production and distribution of information flyers

This action aimed at giving basic information about the project to the main stakeholders and inform about the threats that were targeted with the project actions. A general introductory flyer about the project was printed in the three national languages (Estonian, Latvian, Lithuanian) as well as in English for international community. All together 2000 copies were printed and distributed during project implementation. For the distribution list please see Annex 8.1.

The electronic versions of the informative project leaflet are also available in the project website:

English version:

http://www.balticseaportal.net/media/upload/File/Leaflets/LIFE_leaflet_ENG.pdf

Latvian version:

http://www.balticseaportal.net/media/upload/File/Leaflets/LIFE_leaflet_LAT.pdf

Estonian version:

http://www.balticseaportal.net/media/upload/File/Leaflets/LIFE_leaflet_EST.pdf

Lithuanian version:

http://www.balticseaportal.net/media/upload/File/Leaflets/LIFE_leaflet_LIT.pdf

In order to address fishermen as a specific target group, a separate flyer was printed to focus on by-catch threat and alternative fishing methods to be tested already in an early stage of the project to motivate cooperation. In total 600 copies of this flyer were printed in EE, LV and LT languages and distributed during field works in meetings to the target group. The electronic versions of the leaflet for fishermen about by-catch are also available in the project website:

Latvian version:

<http://www.balticseaportal.net/media/upload/File/Leaflets/Buklets.LAT.pdf>

Estonian version:

<http://www.balticseaportal.net/media/upload/File/Leaflets/Buklets.EST.pdf>

Lithuanian version:

<http://www.balticseaportal.net/media/upload/File/Leaflets/Buklets.LIT.indd.pdf>

Both flyers contributed to the good project visibility right at the beginning of project implementation.

E2 Development and maintenance of the project website

At the beginning of the project a special project website, www.balticseaportal.net, was launched. The website aimed at providing comprehensive information about the project as well as using it as an internal platform among the partners to communicate and compile information, findings and results. The website is available in all project national languages as well as in English.

The web site was criticized at the beginning by the European Commission as not sufficiently informative, however, since the project started with substantial inventories of marine sites and required several seasons to gather information, it took some time to generate information that was possible to make up for general public. Meanwhile the web site contains a lot of valuable information not only about the project actions, but about marine biodiversity in general, economic use of marine environment, challenges and conservation efforts as well as illustrations with an interactive picture gallery. Due to large volume and better structure the interactive information for the general public is linked to <http://visitbalticsea.net/>.

The deliverables of the project are placed in the project website and can be easily downloaded. The main section for deliverables can be found here:

http://www.balticseaportal.net/bsp_section/web/?id=679 (English and other 4 languages).

Based on the statistic analysis (according to Webalizer version 2.1) the web site is visited in average daily by 136 unique visitors per day and nearly 4000 visitors per month. Thus, it can be concluded that the project website is quite popular and used frequently.

The project website will be hosted free of charge for two years following the end of the project, until 30 November 2011, in the server of OCEAN Group SIA. For the letter of confirmation please see Annex 8.3.4. Later the beneficiary will take over the hosting fee and use the web site also for its new-coming marine projects.

E3 Production of film/dvd material

The goal of this action was to elaborate visual video information about the project and its target issues. Video material as awareness raising tool is confirmed to be important to ensure good project visibility and delivering its messages to a wide target audience. The approach of this action was not limited to the production of a "classical" film about project implementation, but to create 20 short stories, each 1 minute long, about the marine environment, its uses and threats. These clips were produced like a "series" called "See the Sea". They were supplemented by a separate clip about the project as such including interviews with project action leaders. The material was published in DVD disk format with a choice of five languages. 3000 copies were distributed to a variety of target groups. For the distribution list please see Annex 8.1. Additionally, the video clips were placed on the "YouTube" platform as well as to the project website. Thus it provided opportunity to widen access to the films beyond the region.

Video clips in project website: <http://visitbalticsea.net/films/>

Video clips on "YuoTube" platform:

English version: <http://www.youtube.com/user/BEF0rum#p/u>

Latvian version: <http://www.youtube.com/user/BEForumLV#p/u>

Estonian version: <http://www.youtube.com/user/Merlekur#p/u>

Lithuanian version: <http://www.youtube.com/user/BEF0rumLIT>

Russian version: <http://www.youtube.com/user/BEForumRU#p/u>

The clips were recognized not only by single groups of stakeholders, but also such institutions as the marine museum in Klaipeda, where it was successfully promoted on Lithuanian national TV

channel, which has shown it on the channel within very popular program for the youth or Libraries which took it into their collection. During stakeholder events the clips were shown and received very positive feedback.

For the implementation of the action main role was carried out by the film producer “Vides Filmu Studija” (Environmental Film Studio), which was not subcontracted but participated in the project as partner. Although this approach is not common in LIFE projects, our strategy proved right: the partner is specialized on environmental video material compilation and benefitted participating in the project on the level of its expertise and access to information and partners. At the same time the given task of the action was very challenging - not only to gather appropriate material, but also to decide how to illustrate the marine environment and compose a sequence of stories. Being a partner the organisation had good opportunity for much more intensive dialogue with the other partners and have an intensive exchange of information, film materials, stories and pictures.

At the end the film delivery delayed from the initial project action plan for nearly a year, which was communicated during interim project report. The delay was caused basically by three reasons: firstly, the overall concept of the video material was very challenging and demanded high creativity of the developers and intensive communication with the partners – it was revised several times until the finally chosen idea came up and was agreed on. Secondly, the scenario of the clips and the video material gathering was depending on the other actions of the project (especially species and habitat inventories) and consequently also depended on weather conditions with all its delays as described in A2 – C4 actions. Thirdly, during concept development it was decided that the video material should supplement the book (E6 action) in its content as well as the style; therefore the video preparation had to be adjusted to the preparation of the book, which was planned at a slightly later stage of the project. After all, to the opinion of all project partners and external parties, the final video material delivered in the DVD disk was accepted as very high quality product, worth given high recourses and efforts.

E4 Work with media

This action was implemented throughout the whole project duration and aimed on rather wide visibility of the project at the classical media sources, such as Internet news portals, national and regional newspapers and TVs. It promoted the project visibility in the scientific community with scientific articles, diploma works and in various international conferences.

The communication with media resulted in 118 (of which 109 were publications in newspapers and Internet news portals, and 9 were TV and/or radio broadcasts) appearances in various media sources in the project region over whole implementation period. It covered rather wide information about the project as such and its implementation process, major findings and results, awareness raising about existing threats and conservation measures, announcements about various project related events. For the full list of media records, please see Annex 8.5.

Furthermore the project and its findings were presented in 36 oral and poster presentations at 23 international conferences held outside of the LIFE project but quoting the project, giving presentations or posters and being a part of their agenda. The travel budget was used only in a few cases, often the travels were paid from other sources. Thus, the action contributed to good replication of project experiences to the most relevant target groups working on marine environment conservation issues. For the full list of these international conferences please see Annex 8.5.3.

The project has also contributed to development of the scientific community in Baltic States. Data gathered by the project resulted in 9 scientific articles, 2 M.Sc. and 2 Ph.D. theses (see Annex 5.3.6.).

E5 Production and setting up information boards at strategic places accessible for the public

As planned in the project application, 28 information boards were setup in total (4 in Lithuania, and each 12 in Latvia and Estonia). In some areas (in Latvia) the project team faced a challenge from the wish of the competent authorities to show maps of the most valuable sites while at the same time it took more than expected time for them to make decisions related to the boundaries of the sites. In Estonia the administrative reform (and P18 changes of legal entity) delayed the process. Consequently for notice boards of some areas more time was required, but, finally, all of them are successfully installed. They contain, besides LIFE programme visibility requirements, information about marine biodiversity values, existing threats and conservation measures. Each board has an own site-specific information focus. Due to successful cooperation with local authorities, harbour

authorities and protected areas administration, the project team has managed to place the information to the most visited locations in the area. For the list of sites, see Annex 8.6.2.

Layout and design of the information boards is different in each country and partly also for the sites, since it was aimed to adopt the design to the existing other information boards in the area rather than making the unique design for all sites.

Maintenance of the information boards, as required by the Life programme rules, will be done in Lithuania (partner P2) and Latvia (Beneficiary) by Baltic Environmental Forum and State Forest Management Centre in Estonia.

E6 Production and distribution of the book

In parallel to the development of video material (action E3) the book was elaborated containing a lot of factual information gathered during implementation of the A-D actions as well as bringing together information from different other sources. The book is called “Sea the Baltic Sea: unique assets we share” and includes a lot of illustrations. During preparation process it was concluded that the book and video material should be strongly linked to the design as well as the content of each other with the aim to create a corporate identity of the project. Even this decision caused significant additional efforts and certain delays, the given result fully justifies the efforts undertaken. The content of the book covers very wide set of topics, starting from history and ecology of the Baltic Sea, explaining separate biodiversity values, economic importance of the sea as well as some historical aspects and finally conservation measures needed to be taken to ensure protection of the targeted species/habitats.

The book is printed in the five languages in 4000 copies as is distributed to all competent central and regional environmental and municipal authorities of the region, protected areas administrations, schools, libraries, universities, fishermen, various economic users of the sea and to the international audience. For book and its distribution list, please see Annex 8.1.; 8.7.1.

The electronic versions of the book in all languages are available in the project website:

English:

<http://www.balticseaportal.net/media/upload/File/Deliverables/Book/SEE%20THE%20SEA%20EN%20veb.pdf>

Latvian:

<http://www.balticseaportal.net/media/upload/File/Deliverables/Book/SEE%20THE%20SEA%20LV%20veb.pdf>

Estonian:

<http://www.balticseaportal.net/media/upload/File/Deliverables/Book/SEE%20THE%20SEA%20EST%20veb.pdf>

Lithuanian:

<http://www.balticseaportal.net/media/upload/File/Deliverables/Book/SEE%20THE%20SEA%20LIT%20veb.pdf>

Russian:

<http://www.balticseaportal.net/media/upload/File/Deliverables/Book/SEE%20THE%20SEA%20RUS%20veb.pdf>

E7 Public events in Estonia, Latvia and Lithuania

Starting from the second half of project duration a number of public events were carried out, which aimed at informing different stakeholders about preliminary results of the project. This action was aiming not only at general raising awareness about marine biodiversity and related issues, but also at setting up a good basis for the process of negotiation/communication about the management plans in the selected areas. All-together 62 public events (LV: 33, LT: 13, EE: 13, and 3 international events) were implemented within this action, which were fully or partly organized by the project – the latter when the project used the opportunity to contribute to other ongoing events (e.g. Marine Festival in Klaipėda city, Lithuania). Attaching those events to the already ongoing happenings gives also better acceptance of the stakeholders to receive information in the comfortable for them surrounding. For the full list of public events please see Annex 8.8.1.

E8 International experience exchange

Within this action, two larger international events were organized, titled:

1. “Bird conservation in the marine environment: identification, designation and protection of marine protected areas for birds in the Baltic Sea and beyond”
2. “Experience exchange on possible legal implication at future marine Natura 2000 sites in the Baltic States and evaluation of findings from the site inventories 2005-2008”.

The first seminar has been carried out in October 4-6, 2007 in Jurkalne, Latvia with participation of more than 60 participants covering most of EU marine countries (Lithuania, Latvia, Estonia, Spain, Portugal, UK, Germany, Denmark, Netherlands, Greece, Malta, Slovenia) as well as Russia. This event aimed on presenting primary results of the project birds inventory action, share experiences among other marine (bird related) projects in Europe, discuss methodological issues for data treatment, site selection criteria, setting conservation objections for the sites. The event managed

to gather the key experts on marine birds from EU who shared their experiences during very active discussions. This event also highly contributed to further work on birds inventory and management plans actions, since gathered experts gave valuable feedback on preliminary results of the inventory actions. The report from the conference “Bird conservation in the marine environment: Identification, designation and protection of marine protected areas for birds in the Baltic Sea and beyond” was submitted with the 3rd Progress report as Annex 2.3.2.

The second seminar was organized in June 11-12, 2008 in Jūrmala, Latvia with participation of 40 participants from different countries. This seminar was not a direct follow up from the first one, but covered also pSCIs and habitats and was more focused on results of the inventory analysis and proposals for the possible marine Natura 2000 site designation. Representatives from competent authorities from different EU members states, especially Germany, gave the project team a hard time with its inquisitory questioning and challenging of the sites selection process. The report from the round table discussion “Experience exchange on possible legal implications at future Marine Natura 2000 sites in the Baltic States and evaluation of findings from the site inventories 2005-2008” was submitted with the 3rd Progress report as Annex 2.3.3.

Both events were organized in the frame of a separate action, E8, while other international events were attributed to other actions – e.g. A2 or A7 or E10 (final seminar among partners, steering group and external stakeholders). During project implementation the team found this original idea from the application a bit in-consistent – either all international events should have been placed to this action, but then the leadership of this particular action would have become challenging, or all events should have been placed to the A-D actions – however, most events were leading to site selection and elaboration of management plans and this would have on the other hand oversized that action. At the end all planned events have been carried out – even more than planned, more but smaller meetings, but with given resources and partly even additionally fund-raised budgets.

An additional seminar applied with the interim report on Habitats directive, Water Framework Directive and Common Fisheries Policy was not found a burning issue anymore and was replaced by important expert meetings in the A7 action with regard to site designation, impact assessments of threats and legal frame (see above)

E9 Production and dissemination of Layman’s report

As foreseen in the project application, the Layman’s report was elaborated in the very end of the project and printed in 500 copies in English and 100 copies in the language of the beneficiary, Latvian, as required by the Common Provisions. In addition, fulfilling the requirements of EC LIFE Unit as expressed in the letter received on 22 December 2009, also a Lithuanian and Estonian version were produced as PDF – in the application no funds were foreseen for printing more than the English version. All editions are available at the web site.

English version:

http://www.balticseaportal.net/media/upload/File/Deliverables/Laymans%20reports/BEF_ENG.pdf

Latvian version;

http://www.balticseaportal.net/media/upload/File/Deliverables/Laymans%20reports/BEF_LV.pdf

Estonian version:

http://www.balticseaportal.net/media/upload/File/Deliverables/Laymans%20reports/BEF_EST.pdf

Lithuanian version:

http://www.balticseaportal.net/media/upload/File/Deliverables/Laymans%20reports/BEF_LT.pdf

For the publication and its distribution, please see Annex 8.1.

The project management, however, **objects the request** of the EC LIFE Unit to also produce a **Russian version** of the Layman’s report as we consider this **politically not correct** – Russia is not an EU member State and does not implement EU legislation, which was the main focus of the project and which is the main message of the layman’s report. Consequently a Layman’s report that illustrates EU nature conservation requirements and project results referring to it cannot address any Russian target audience and in the given political situation with regard to EU funding for Baltic Sea region and the non-eligibility of Russia in the ENPI funding we do not see it as good practice to publish the layman’s report in Russian. The Russian partner has produced a summary of its project participation, focussed on Russian circumstances and learning, see A1, Annex 5.1.6.

E 10 Final project presentation

The project was presented to the target group in different ways in each country:

While in Latvia in July 9, 2009 a larger meeting with 63 persons and including the minister of Environment was held to finalise the discussion about all proposed sites and management measures, in Estonia a final project presentation was held for stakeholders and competent authorities (32 participants) in the November 30, 2009 introducing to the project results and highlighting the follow up actions in newly developed projects. In Lithuania the final event with 22 participants was held in October 30, 2009, mainly aiming at competent authority, regional environmental department and some economic activities developers awareness raising about the marine sites and measures laid down in the management plans. The reports for Latvian, Estonian and Lithuanian events are listed as Annex 8.11

In addition the project was summarized in an international workshop about marine eco-systems (mainly funded by the Estonian ESTMAR project), October 27-28, 2009 in Sigulda, Latvia, where 50 participants (project partners, competent authorities, stakeholder representatives, external experts) gathered from Estonia, Latvia, Lithuania, Germany, Finland, Sweden and European Nature Topic Centre. The latter also taking part to learn more about the Baltic sites and the results from the LIFE project.

Besides other agenda topics, the action leaders of LIFE and ESTMAR projects presented consolidated reports from the actions and main findings with regard to species abundance and main threats, site proposals and management measures/restrictions. At the end an intensive evaluation from all partners, beneficiary authorities (ministries of environment and sub-ordinate institutions) and economic players was given. Its main messages are integrated in this report. The agenda, participant list and report with evaluation are listed as Annex 5.3.12.

F Overall project management

All F actions were lead by the project manager, Ms. Heidrun Fammler. F5 co-lead by Markus Vetemaa, P4.

F.1 Project Steering Group, monitoring of project progress

In total **four separate steering group meetings** were held and the steering group members participated in the final project meeting and contributed to the project evaluation as part of their steering function (see Annex 8.11.5.)

The project steering group has met first time on 13 January 2006, after the second partners meeting. Representatives from the Ministries of Environment and competent authorities from Estonia, Latvia and Lithuania were invited, the meeting was chaired by the project manager Ms. Heidrun Fammler. Also the major co-financers were represented and different stakeholder groups such as fishermen's association and environmental NGOs. The steering group defined its role and agreed on procedures as well as on next meeting and decided that it should meet approximately each 9 months or once a year. The project was given positive feedback for its ambitions and good start.

The 2nd steering group meeting on 28 September 2006 was chaired by the Latvian Ministry of Environment, Mr. Valdis Bisters. The project team presented the results from the first project year. The steering group gave advice on certain questions, mainly with regards to the legal process of the management plan and protection rules development.

The 3rd steering group meeting on 6 November 2007 was chaired by the Estonian Nature Conservation Centre, Ms. Leelo Kukk. The project team presented the results from the second project year, first inventory findings, data base and concepts for management plans. The steering group gave advice on certain questions, again mainly with regards to the legal process of the management plan and protection rules development. The steering group also gave the feedback that it saw the project on a good way to produce the required data and information for designation of marine sites.

The 4th steering group meeting on 11 November 2008 was chaired by the Lithuanian Ministry of Environment, Mr. Algirdas Klimavicius. The project team presented the results from the third project year – findings from inventories on species and habitats, assumptions and proposals for sites and management plans, publication drafts like film and book etc. The steering group gave feedback and expressed its satisfaction with the project process and its urgently necessary results.

Instead of a 5th steering group meeting its members (competent authorities, environmental NGOs and fishermen's associations) were invited to the final project partners meeting and final project presentation event 27-28 October 2009, chaired by the project manager Ms. Heidrun Fammler. At

this meeting the steering group members gave the feedback that they considered the project having reached its objectives and provided very valuable input for marine nature conservation in the three Baltic states. Latvia and Lithuania expressed their satisfaction about well founded new site proposals and committed further legal processing outside the project actions. Estonia, although not having been found in need to expand site boundaries, acknowledged the additional data and information input and additionally encouraged the project team to go further with new projects to investigate more marine areas.

In conclusion the project steering group has been very supportive to the project and transferred its actions and results into the competent authorities. No obstacles in cooperation can be reported.

F.2 Overall project management and administration

The first project activities in August and September 2005 after and during contracting between European Commission and project beneficiary were setting up of the financial management scheme by the beneficiary. For this purpose, a special account was opened at *AS Hansabanka (currently AS Swedbank)* Latvia, the only bank, which was willing to issue the required bank guarantee for the first rate of the Commission grant. After long negotiations the bank guarantee was issued on 19 October 2005. It operates in form of a “frozen” account, which the beneficiary can access once a month and order payments to partners or to its own operating account to reimburse project spending.

After the project kick-off meeting, the contracts with each partner were prepared. The contracts have been amended after the project modifications (Annex 1.2.). The common budget was divided according to activities & involvement of all partners as laid down in the joint budget, the own financial contribution is calculated as percentage of partner’s budget. According to their budget all partners received a share (7% of their total budget) of the overheads. Partners were made responsible for their budget in terms of pre-payments and reporting in the EU format. Except for some partners’ equipment purchase and some external contract no prepayments were made; most partners were accounting with beneficiary quarterly, some less frequent; partners were regularly submitting time sheets, expenditure reports and copies of all receipts/invoices, which will be stored at the beneficiary according to requirements of the CP. The beneficiary’s bookkeeper controlled all documentation, agreed on revisions where needed and reimbursed the invoiced sums taking into account partners’ own contribution. At the end of each reporting cycle the bookkeeper merged the expenditure reports and produced one joint balance.

Although the financial reporting was tough for the partners, the beneficiary set up such scheme to keep tight control over such a large amount of partners (20) from 7 different countries and such large project budget. At the last partners meeting the partners evaluated especially the financial project management and supervision as very efficient and positive.

Action implementation took place in “cross-country setting” with ONE action leader from one of the countries and relevant counter parts for action implementation in the other two Baltic States. The role of the Russian partner was the one of an observer and trainee learning the methods and comparing to theirs. Experts from the three other partners (Birdlife, Metsahallitus, BfN) were acting as resource persons. The action leaders were responsible for action reporting (final deliverables) to the beneficiary, as well on quarterly basis. Furthermore, the action leaders were participating and reporting at steering group meetings and at country coordination meetings. Joint field visits and discussions on methodologies were rounding up the efforts of the project to create synergies and labour division from the cross-national setting.

As up-to-date communication tool for project management, the interactive web site (“Extranet”) with its partner log-in function was established and used – mostly for inventory data, photos and maps, but also project reports and management communication. However, it has to be admitted that the efforts to create such functional inner communication platform and the later practical uses were inconsistent: the platform had too many shortcomings when the really big files came on it; it required much more technical control and improvements than expected and proved not suitable especially for maps. For future projects we can recommend a much less complicated system with lower ambitions to avoid unnecessary efforts for its repair.

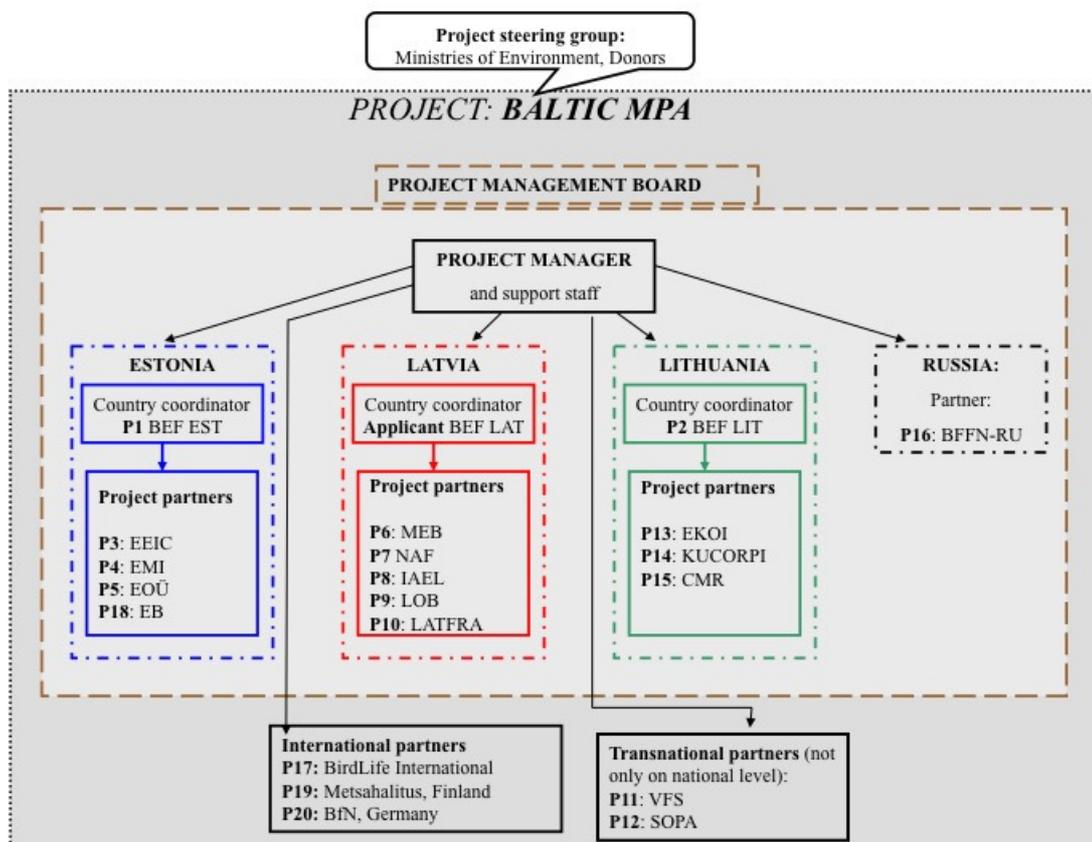
Project manager and the three country coordinators and the assistants from the BEF offices in Estonia, Latvia and Lithuania were meeting frequently to feedback on project progress, administration challenges and undertake project planning jointly. The coordinator at the Russian partner was in close contact to communicate the participation of its experts in the actions and prepared a good summary report of the Russian involvement (see Annex 5.1.6).

The project management scheme was functioning well and was implemented according to its design. At the final partner meeting all partners evaluated it positively and expressed their gratitude to the beneficiary for it.

Last but not least, the project manager was in close contact with the external monitoring team and received valuable advice for improvements e.g. of the project reports.

The project has produced two progress reports, one interim report and one final report.

The updated project management organigramme below is illustrating the partner structure (the updating has been made in terms of second changes in partner P18 name):



F.3 Establishment/meetings of the Project Management Board

The project management board was the decision-making organ of the LIFE project, while the steering group gave advice and brought in donors' interests. Big partners' meetings were organised twice a year – in total **8 events** plus the final project presentation were held. In-between smaller partners' meetings were held during project workshops and gave opportunity to discuss a few topics that were actual and needed coordination. Sometimes the combination with events made it difficult to distinguish between partners meeting and action meeting in terms of reporting, however all meetings were documented with some flexibility in the name of action (see PR1: Annex 6:F3; PR2: Annex 5.4; PR3: Annex 2.4.2.; Annex 9.3.4 for partner meeting reports).

The partners' meetings brought the spirit of cooperation among the countries and different institutions to an optimum in the project and were an excellent tool for project management. The exchange of information helped the holistic view on the ecosystem and avoided too narrow expert judgement. The meetings were chaired by the project manager; action leaders gave regular reports on the progress of their actions, presented concepts or results; all partners actively participated in the meetings and shared their experience or gave input to concepts and project deliverables (especially video and book).

F.4 Country Co-ordination Meetings

Another management level of the project was the national level (in EE, LV and LT, not in RU). For this purpose all partners of one country met frequently under the leadership of the relevant BEF office. Exempted from the national meetings were the two Latvian partners P11 and P12 (film and web maker) who served cross-national project actions. In total, 14 national coordination meetings were held each in Latvia and in Lithuania and 12 events in Estonia (see PR1: Annex 6:F4; PR2: Annex 5.4; PR3: Annex 2.4.3.; Annex 9.4.4 for partner meeting reports).

The meetings on national level among project partners and competent authorities proved to be very useful for project progress, especially with regard to management plan development but also for stakeholder communication. Action A7, E7 and F4 therefore were closely interlinked, however it was also not so easy to distinguish between those different actions. For future projects we advise less separation of action numbers.

F.5 Project Monitoring (effects of measures)

Action leader: Markus Vetemaa, Estonian Marine Institute, P4
Key partners involved: Mindaugas Dagys, Institute of Ecology, LT, P13
Linas Lozys, Institute of Ecology, LT, P13
Action start: 01.10.08.
Action End: 30.09.2009
Delays or modifications: none
Annexes: for full action report see Annex 9.5.1.

The main aim of the F5 action was to monitor the effects of action D.1 (“use of “by-catch safe” fishing gear in pilot project sites and regular reporting on it”) with a set of indicators. The action F5 was furthermore also related to another action - C.1 (“Assessing and reducing impact of fishery by-catch on species of community interest”), because Action D1 aimed to reduce the by-catch observed in action C1. The action was a desk study based on the results from the above mentioned D1 and C1 actions.

For this purpose the results of the following activities (sub-actions of D1) were analysed:

Type 1: Long-lining in Lithuania. Long-lines were used in aim to replace gill nets causing by-catch of birds in (mainly) cod fisheries.

Type 2: Herring trap-net fishery in Lithuania. Herring traps were used in aim to reduce bird by-catch when catching herring, garpike and other species (e.g. perch).

Type 3: Fyke-net fishery with modified seal-safe fyke nets in Estonia. Seal-safe fyke nets (catching many different coastal fish species) were tested in aim to reduce seal by-catch and increase profitability of fishery through reducing seal damage to gear.

The general set-up of the sub-actions foresaw that the tested gears were used in parallel to the traditional gears, i.e. in the same areas and during the same seasons. In this way it was possible to evaluate their comparative performance. The two main aspects:

- Effectiveness of traditional versus tested new gears (regarding amount of fish caught, time needed to set and haul/collect the gears, strength of gear under unfavorable climatic conditions, and, finally, rate of disturbances by seals)
- By-catch rate of traditional versus tested new gears.

The by-catch data and the effect of alternative fishery methods were monitored with the following **set of indicators**:

BIRDS:

- how many birds died during the years of the project,
- how fishing pattern changed (how many gill nets were set each year).

SEALS:

- number of traditional and alternative fishing gear used,
- seal by-catch: in total and per traditional and alternative fishing gears used,
- seal damage to fishing gear: in total and per traditional/alternative fishing gears used,
- fish catch: in total and per traditional and alternative fishing gears used,
- spread of information about seal-safe fishing methods (telephone interviews),
- possible follow-up actions on the state level.

In summary the assessment team has found out that the alternative fishing gear proved very effective, even more than assumed during project application, and as result of its promotion its uses already during LIFE project went beyond project scope to other fishermen. The detailed results from the assessment of effectiveness of measures indicator by indicator can be read in the full report of the action F5, see Annex 9.5.1.

F.6 Independent audit

Based on best price offer, the company BDO Invest was selected out of three companies and is contracted for the project auditing according to the requirements of the European Commission.

Although the LIFE grant requires the audit only at the end of the project, the bank, “*Hansabanka*” (currently “*Swedbank*”), which gave the bank guarantee and operated the project account, has set the rule that the project account has to be audited in-between to supervise correct financial management continuously. The auditor has therefore followed the expenditure process and documentation of financial documents continuously throughout project duration. The final invoice indicates pre-payment rates for the step-wise audit and final rate.

The auditor has implemented its task according to the requirements set by the European Commission and the final audit certificate and report are attached in Annex 9.6.1 technical report and Annex A, financial report.

According to the audit report the auditor found all financial operations as according to rules and had no objections to the beneficiary’s financial management. The auditor also checked all partner files and backstopping documents and found no inconsistencies respectively on request received the required information. All documentation is available at the beneficiary’s office.

F.7 After-LIFE Conservation Plan

Due to the fact that the project did not have a direct conservation goal linked to concrete conservation measures, the After-LIFE Conservation Plan (ALCP) cannot exactly follow the examples given on the LIFE homepage from other projects, which dealt with practical species and habitat conservation activities that need to be continued after project end. The Baltic MPA project had mainly a policy goal: supporting the establishment of new marine pSCIs and SPAs as well as gathering information and data on marine conservation values and achieving a better stakeholder acceptance through communication and information. Therefore we include in our After-LIFE Conservation Plan policy actions, although they cannot necessarily be implemented by the current project beneficiary and its partners, but their implementation goes partly beyond the consortium – still they are commonly agreed as necessary.

Furthermore the project elaborated six management plans for MPAs – their proposed actions can be defined also as After-LIFE Conservation activities, although in marine sites direct conservation measures are rare, its rather a question of zoning and restricting access to sites. Nevertheless this is a task for future implementation.

Besides these goals only a few direct management measures were implemented (action D1). Their sustainable continuation shall be defined in the ALCP as well as the continuation of promotion of project publications and dissemination materials (if not fully disseminated yet).

Consequently the ALCP addresses of the following issues:

- Policy measures proposed and accepted by CA,
- Management Plan implementation measures,
- Alternative Fishing measures,
- Information and dissemination measures of project results & publications.

For the After-LIFE Conservation Plan, see Annex 9.7.1.

6. EVALUATION AND CONCLUSIONS

Project implementation

a. The process

The overall project implementation process went very well, the team was highly motivated and all partners contributed actively to the success of the project. None of the proposed actions had to be revised – they were well designed, however, they also showed that a lot more efforts are needed in the three Baltic States to establish a well-managed system of Marine protected areas. The LIFE project and its funds have facilitated the start of comprehensive action for protection of the marine environment in the Eastern Baltic Sea. The project actions, although dominated by inventories and related field works, were running well and led to a good result with site proposals, management plans and better stakeholder awareness.

The project activities became quite well-known also beyond partners' circle and stakeholders appreciated their early integration into the management plan development as exercised within the project, although not demanded explicitly by legislation in Lithuania and Estonia (only "public information" not "involvement" is required). The alternative fishery action became a flagship of stakeholder integration and was very attractive for the key stakeholders. Finally, the project video clips, although produced in much longer time than planned are already now named a best practice example for EU projects and through YouTube became much more visible than originally planned. At the end of the project even obviously complicated action, that required more time for concept agreements among partners and implementation in the multi country and multi language setting were finished in excellent quality and given budget – therefore we can state that the overall project implementation process went very well.

b. The project management

No project management problems were encountered and all actions; communications, cross-country action implementation, financial management and reporting was well under control. Experience in partner management proves that the choice of the German project manager working at beneficiary (Western European salary rate) was good, due her long-years experience with large scale multi-national projects and their financial management. In the final partners meeting the partners evaluated the management as very positive and admitted having learned a lot.

Financial reporting was a challenge (especially at the beginning) for most of the project partners, although the beneficiary's team was actively supporting, supervising and controlling – the accounting systems of the partners, especially from Eastern European countries were simply slowly adjusting to EU-grant-conform standards and permanently changing bookkeeping rules in the countries created new obstacles for bookkeeping. Many institutions still do not record personnel costs fully or have no tracing in their bookkeeping systems of EU projects. Those partners being state authority faced additional burden for reporting as the bookkeeping requirements for public authorities are not yet conform to expenditure reporting requirements of EU projects. However, also the international partners unexpectedly did not show much more experience with financial reporting for LIFE projects especially with regard to personnel cost tracing and support documents (payment proofs).

c. Success and failures of methodology applied, results & cost-efficiency of actions

Methodology

At the end of the project no failures with applied methodologies could be noticed. Partly the methods have been developed jointly by the project team, partly they were transferred from international partners (BirdLife International, Metsahallitus - Finland) and implemented first time in the Baltic States. Harmonisation of methods among the countries and data comparability were a goal of the actions and the project put a lot of efforts into it. The action leaders were among the most competent marine biologists in the Eastern Baltic Sea Region and contributed substantially to the methodological development and coordination among the countries - the trans-national cooperation aspect for sure was a great success of the project.

Some specific aspects of methods applied

- The **habitat team** has fine-tuned habitat definitions for marine benthic habitats and elaborated a classification system and manual that goes more into details than the general EU and HELCOM classification systems and can be applied for habitat mapping in the region.
- The **bird team** has used the species assessment methods approved by BirdLife and admitted that their indicators partly need refinement – currently ongoing at BirdLife.

- The **seal team** faced a technical change in tracking methodology: a shift from satellite to GSM based equipment made the results better than originally expected.
- The **fishery team** has developed and tested several alternative and cost-effective fishing methods to avoid by-catch of seals and birds, which proved to be very successful and are being replicated in the region actively.

Results

The project has produced a variety of valuable results from its actions. In the following they are described in brief going along the action order from above and trying to pick out the most outstanding results:

The **best achievement** named by all partners and competent authorities in the evaluation round at final partners and steering group meeting was the **enormous gain in data and information about the marine nature values** in the project areas. For the Baltic States the LIFE project has provided the first systematic investigation and assessment of marine territories despite some spot-wise field works and assessments earlier. The amount of data and information has a great value – for expert and competent authorities.

Furthermore the knowledge and skills gained to gather this data and information was named as great result, too: the experience **how much efforts** the inventories (field work and its analyses) take in terms of time and human resources, how much it costs and what all must be considered as well as what all must be planned in future projects or state monitoring activities has been learned and was evaluated as very important

Results regarding conservation of marine species and habitats

The inventories showed that such underwater **habitats** as reefs (1170) and sandbanks (1110) are partly rare and vulnerable in the Eastern Baltic Sea area while their existence support high degree of biological diversity. However, the protection of the habitat type „reefs“ is a crucial future task for the Baltic States, because at present most of this habitat type is located outside of existing protected areas– the new sites shall be established to guarantee the protection of the habitat.

The project allowed to vastly improve the knowledge on species composition, abundance and distribution of **waterbirds** both during the breeding season and outside it – on migration and wintering, in the selected project areas in Estonia, Latvia and Lithuania. New breeding sites of birds were identified and high concentrations of globally threatened bird species observed and we can state the Baltic States, especially the Estonian Archipelago, the Vainameri Bay, the Irbe Strait, the Gulf of Riga and the waters in front of the Curonian Spit are **important bird areas in European perspective**, even in a global one and must be preserved.

With regard to the **marine mammals** we can state that **Harbour porpoises** *Phocoena phocoena* are extremely rare in Eastern Baltic coast. No porpoises were detected in study sites and there is no reason to establish protected areas for species that only accidentally may visit the waters of the Baltic States. The Baltic population of the **Grey seal** *Halichoerus grypus* is out of risk and has been increasing during the study period ca 7 % per year. All major resting places of Grey seals in Eastern Baltic are protected. New small moulting places were found but there is no need to apply new special protection measures, minor changes in protection regime for some places are necessary. However, the **Ringed seal** *Phoca hispida* population in the region is endangered: we found no signs of recovery during last 10 years in Gulf of Riga and Gulf of Finland. Warming climate has the strongest negative impact on breeding success. The animals are vulnerable to disturbance at breeding and resting sites. Fisheries by-catch is a cause of human induced mortality – although less significant than the upper causes.

The present study did not confirm the widespread view that **fishery** has a strong negative impact on the coastal fish. The project team concluded that coastal fishing effort has steadily decreased during the last decade and now fishery has actually little if any impact on the fish species in need of protection. The most important threats are eutrophication and pollution, which can not be ceased by actions on spatially restricted areas. Therefore, the most important tool to protect rare and endangered fish species is to preserve vulnerable coastal sea habitats. In the project target region only in Lithuania special fish protection measures were proposed and the designation of a pSCI for **Twaite shad** *Alosa fallax* is envisaged to protect this very valuable species.

With regard to the **threat assessments** carried out we can state that **by-catch of seals and birds in fishing nets**, which we assumed being the biggest threat to the marine environment in the

region, for both seal species does not appear to have hampered the continuing growth of populations although, of course, any by-catch of seals in fishing gear is ethically hardly acceptable. With regard to waterbirds we conclude that the threat had a tendency to decrease, which is facilitated by the overall decrease in fishing effort in most areas as well as decreasing numbers of wintering birds, be it due to mild weather conditions or the overall decrease in waterbird populations. The bird by-catch in all the three countries was mostly caused by large mesh size gillnets (>50 mm), which were found to be most dangerous to birds, and in Lithuania the by-catch rate and its extent were considered to be high enough to include special mitigation measures into management plans for Lithuanian Protected Areas.

The general conclusion from the assessment of **impacts from mechanical activities** at the sea is that the impact from the current level of dredging and dumping activity on benthic communities and habitat types protected in marine Natura areas is low in most locations. At the same time potential intensification of these activities may cause a loss of habitat quality in different project areas.

Overall, with a few exceptions, potential **disturbance impact from various human activities** on waterbird and seal species was assessed to be rather low, below the level that would warrant the need of their special regulation. Positive factor in this respect is the large size of most of the areas, favoured by birds, since this allows birds to safely avoid low intensity disturbance. Recreational activities (kite boarding and water scooters) were considered to pose significant disturbance threat to birds wintering in the West Coast of Gulf of Riga site, therefore a seasonal ban of these activities was proposed there. Military training activities were proposed to be regulated in the Curonian Spit site, because of their overlap with wintering waterbird aggregation areas. The importance of appropriate EIA procedures, with a special disturbance impact assessment component, was stressed for all the future developments that can cause the disturbance threat for birds and seals.

Although at some stations the observed values of heavy metals significantly exceeded those observed at majority of stations, the overall concentration level is low and does not exceed values observed elsewhere in Baltic Sea. Therefore, with rather high level of confidence it can be concluded that presently in potential Natura 2000 territories or near them no significant **pollution threat** is presented. However, due to intensive use of Baltic Sea for shipping and other activities, as well as industrial activities in drainage basin, the pollution from heavy metals and oil compounds is remaining as potential threat to be periodically assessed.

Fishing is possible without major by-catch of birds and seals and with affordable equipment and with good harvest of fish – this is the main result from testing alternative fishing gear for coastal fishery. As result of this successful finding the financial support of the fishing gear has been included in Estonian fishery subsidy schemes and will be included in Latvia and Lithuania as well.

All **visibility and awareness raising actions** were implemented successfully. The deliverables were: two project flyers, the web site, a DVD with 20 video clips, 28 notice boards, a book, and a Layman's report. Further more a variety of reports from national and international events and media records. The project has been presented at 29 international conferences and lead to 9 published scientific articles and 4 diploma works. Finally, the project has been presented to concerned local stakeholders in 58 events, mainly at the coastline. The early integration of stakeholders into the process of elaboration of management plans and protection proposals proved a good tool to gain acceptance among the local stakeholders – something that was found much more difficult with the stakeholders at national level, e.g. Ministries of Transport or Regional Development in Latvia opposing strongly the project proposals. During the last project year the video clips have been shown during the events and became very popular.

Cost effectiveness:

To assess cost effectiveness one can take the project budget and set it against some features of activities, time and cost positions: The project budget had a total volume of approximately 3 Million € which were spent among 21 partners and over 54 months for 29 project actions and in 13 marine areas; The project involved more ca. 160 persons from 7 countries having allocated approximately 22 000 working days – which means average costs of 140€ per man day including all project direct and indirect costs. This actually really low figure is to be explained with the low personnel costs in the Baltic States and Russia, where the largest amount of expert man days were located. If taken only personnel costs (ca. 1.3M€ in total), then one man day equals to 60 EUR – a rate which cannot be achieved in more wealthy countries with higher salaries. If dividing the total budget by project areas – 13 areas – then one project area was assessed with a budget of ca. 240 000€ - a rather small sum for a LIFE project that often only covers one site.

The project was very cost effective in terms of external assistance needed for implementation of the project: due to the fact that nearly all works were implemented by the partner's own personnel, external assistance was mainly rent of vehicles (ships, planes, cars) or equipment services, furthermore seminar services and publishing costs – only very few expert days were sub-contracted outside of the competencies of partners. Equipment made only 10% of budget – a rather small amount for a LIFE project; it was mainly needed for reaching sites (boats), data processing and inventories (fishing gear, underwater equipment).

Related to its complexity in size and activities the project can be called very cost efficient!

d. **Comparison against the project objectives**

The objectives of the project were listed in the application as follows:

- Complete the establishment of Natura 2000 in the marine territories of Estonia, Latvia and Lithuania (site selection, designation, protection, and management);
- Assess and reduce the impact of fishery by-catch on target bird and mammal species;
- Assess and address other threats to marine Natura 2000 sites (e.g., caused by construction, disturbance of species by economic or recreational activities, pollution);
- Increase public and stakeholder awareness on Natura 2000, marine protected areas and biodiversity in general in Estonia, Latvia, Lithuania and Russia;
- Promote transboundary networking and capacity building on marine protected areas between the Baltic States, other EU Member States and Russia.

All objectives have been reached by end of the project respectively deadline of submission of final report for actions that were beyond project partners responsibilities (acceptance of site proposals and formal steps for legal designation by competent authorities).

A learning point with regard to **objective 1**: “marine territories” is not equal to “marine waters” and furthermore does not distinguish between “territorial waters” and “Exclusive Economic Zone (EEZ)” – the term “marine territories” was used wrongly in the application: “territorial waters” should have been used in the current LIFE project as objective for the areas as indicated in the project map. However, using the wrong term in the original proposal did not lead to a failure of reaching the project key objective, as the real objective is pretty clear from the detailed description of the particular actions in the project application, and the tasks themselves have been completed successfully.

The project has fulfilled its objectives as follows: in Latvia and Lithuania, where nearly all territorial waters were investigated, the most valuable sites were proposed and accepted by CA. It is not to be expected that the countries will designate more of its territorial waters. In Estonia not all territorial waters were included into the project proposal due to large size of the Estonian relevant aquatoria and limited budget. However, during the LIFE project additional funds were acquired among the Estonian team and more investigation take place outside the LIFE project frame (see below, chapter 5.h – “The future: sustainability” and “After-LIFE Conservation Plan”, Annex 9.7.1).

Furthermore, as a LIFE project cannot act outside nominated or proposed Natura 2000 sites, the full completion of all possible Natura 2000 areas in the marine waters of Estonia, Latvia and Lithuania could not be reached due to the fact that investigations in the countries' EEZ were not planned in the LIFE project and remains a task for further (LIFE) projects.

Environmental benefits, policy and legislation implications

The project has contributed to the better understanding of **habitat definitions** with regard to reefs (1170) and sandbanks (1110) in the Eastern Baltic Sea region and aims at contributing to the discussion at EU level by its in-depth habitat classification manual. The list of Habitats given by the European Commission in Annex I, HD, does not serve the needs of the geographic differentiation for the seas that border the European Union – e.g. North Sea, Atlantic, Mediterranean Sea (and its sub-seas), Black Sea and Baltic Sea. The project proposes experts from those regions to follow the Baltic approach, where the experts proposed a complimentary habitat classification adding up on the EUNIS system, and define their habitats more detailed and based on this to assess their presence in territorial waters and EEZ and relate protection measures to it. The current project for instance has lead to the understanding that in Latvia and Lithuania in the territorial waters sandbanks with biological value are not present. They have been deleted from the data bases and in Lithuania a part of an earlier nominated pSCI is revised.

However, a **lack of good marine biodiversity monitoring concepts and marine biodiversity indicators** EU wide and Baltic Sea wide were visible in the LIFE project when assessing nature values of sites, trying to define favourable conservation status and when interrelating abundance and quality of habitats with species presence and when thinking about future monitoring needs. Here more efforts must be undertaken at EU level to come to better concepts that ease experts in member states to judge and backstop the judgement with internationally agreed indicators, of course, with a regional differentiation. We observed also a methodological difficulty in assessing **bird species** abundance and qualification of concentrations for protection statuses as BirdLife itself is not clear about its methods and their application. Due to the different implementation schemes of the Birds and Habitats Directives at EU level we observe a more critical position from European Commission on the selection of pSCIs – while no proper feedback at bio-geographic seminars of Bird sites. We also find it a problem that there is no interrelation at EU level between bird and habitats/other species site selection and designation processes, because the ecosystem is interlinked. We understand, the reason is historical – but scientific soundness cannot be given by such approach. The Baltic States are important bird areas at European scale with several valuable sites, a fact which the project proved again, and a good set of marine biodiversity indicators linking bird and other species' abundance to quality of habitats and defining favourable conservation status of them in a holistic way would be of benefit for future implementation of Natura 2000 in marine areas.

The project has faced the common problem that **understanding of marine conservation values** and protection of marine species and habitats is not well developed in any EU country, neither in Estonia, Latvia and Lithuania. However, **one assumption, that coastal fishery is the main threat to habitat and species conservation has been refused by the results of the project**: coastal fishery, of course, mainly due to its decline in economic activities, is no major threat to the sites in the territorial waters – in opposite: the sites are important spawning grounds for a variety of fish species and are important for the eco-system; that this also brings benefits to commercial fishery is well understood by fishermen and there was actually little opposition during project duration once this fact has been stated. With the project we proved the known fact that early integration of stakeholders and communication about the problems encountered are best measures to create networks and support and eliminate the myth that Natura 2000 is against any economic development. However, more efforts must be taken Baltic Sea wide and probably **EU wide for systematic socio-economic assessment** of nature conservation measures in the marine areas and of **impacts of economic activities** on the nature values. The project has performed a small exercise in Latvia based on experiences with Water Framework Directive's socio-economic assessment techniques and the **impact on stakeholders opinion was significant** once the term of "eco-system services" was brought into the game – it has shown that gains from nature conservation measures calculated in monetary value can be much higher than administrative costs and losses for economy sectors from restrictions. However, this must be intensified and accompanied with **international expertise at EU level**.

The project has acted as front runner for any systematic activity in the sea in the Baltic States – except minor harbour extension and construction activities and, many years ago, the Butinge Oil terminal in Lithuania (based on an exceptional permitting procedure) no major **infrastructure projects** have been implemented in the territories of the Baltic States. The North European Gas Pipeline and the discussion about it passing Estonian territories as well as first applications for off-shore wind parks hit the Baltic States unprepared, especially with regard to designation of pSCIs for reefs and sandbank, which are naturally also of interest for wind park developers. As noticed by the project team, there is a fundamental lack of experience with **EIA and habitat Directive Article 6 assessments** for plans and projects in the vicinity of (potential) marine Natura 2000 sites. The project partners are concerned and understand the urgency of full site designation and elaboration of management plans for the current sites and the needs for awareness raising on the nature values to be sustained, but the time pressure of economic development might seriously impact Natura 2000 establishment beyond the currently agreed sites in territorial waters. However, Funding restrictions are the main hindering reasons for better investigation of nature values in the region. On the other side, new EU policies such as **Marine Spatial Planning** and discussion on **Sea uses** as well as the implementation of the **Marine Strategy Framework Directive** have not at all been started to be discussed among stakeholders in the Baltic States, which was noticed by the project consortium from a total lack of awareness on the topic at the state authorities and economic players. It is highly **recommended to European Commission** to put additional efforts to promote these policies and integrate all national authorities of its member states into their debate – projects like the current LIFE project otherwise cannot fulfil such objectives of site designation (which in the new LIFE+ programme are set even more stringent) if nature conservation is not integrated into regional and national economy.

e. **Innovation, demonstration value.**

One of the goals of the project was to develop a practical **concept for marine management plans** and test it with a few examples in different countries, aiming at replication in other marine protected areas – in Baltic States itself but also in neighbouring countries where marine management plans are a new measure as well. The project team aims at promoting replication of this management plan concept beyond project duration, especially within the Baltic Sea region, but also in other seas. For sure the intensity of management plan preparation and its systemic approach could only have happened with the LIFE co-funding – management plans financed by national or local sources in the Baltic States so far were only targeting terrestrial sites and were far from being that costly as normally more baseline data were available and the sites easier accessible.

In Estonia and Lithuania management plans defined by legislation are not including such stakeholder involvement activities at all, but due to the LIFE project this was possible and highly appreciated, especially with regard to large and complicated sites like Vainameri area.

Based on the experience from the LIFE project all other marine sites designated in the Baltic States now and in future will be able to get good management plans based on the examples elaborated. Additional funds (EEA grant from Norway) have already been acquired in Estonia and the Estonian LIFE project partners will be able to prepare **four more management plans** based on the LIFE project methodology and based on the inventory data from the LIFE sites investigated, where no MP has been elaborated within the LIFE project. Latvia is still seeking for funds for a similar exercise, due to the fact that its applications to the EEA funding mechanism were not granted. The cooperation and capacity building measure at the Russian project partner will even ensure the methods financed by EU LIFE funds to be replicated in **non-EU countries**. Funds have been applied at the GEF to start implementation also in Russian areas with the current partners, however the project is still in approval process.

The LIFE project was the **first comprehensive and systematic marine project** with practical field work in the region. Previously implemented projects such as the BALANCE project (INTERREG) or the Baltic Sea Regional Project (GEF) did not act on the sea and with inventories as main activity. These projects were mostly driven by data and information, but also conceptual work of Western countries, mainly Nordics, while Baltic States had a minor role. The LIFE project, in opposite, was a first try to estimate costs and develop actions and methods for comprehensive inventories of marine territories with the aim of providing scientifically sound basis for their designation. Meanwhile a series of **new project applications** have been elaborated based on the methodology for site selection, field works and assessments of the LIFE project and based on lessons learned as well as cost estimates (and their improvements) and management approaches from this project. The LIFE project partners formed already new consortia (and continue the successful cooperation started in the LIFE project) and aim at coverage also of the EEZ with projects to help the Baltic States, who cannot afford such costly investigations, to fulfil the requirements of the EU nature conservation legislation.

First contacts have been established to **transfer the knowledge** and experience gained from this project to other regions in need – e.g. concretely: Croatia with its ambitions to join the EU and with its large marine areas full of islets and islands with a variety of biodiversity and economic interests and a chaotic nature conservation administration structure – a challenge.

Furthermore the project has been a starting point for **going further** for the project partners in the field of **marine eco system management** – not to stay at inventories and site designation, but to think more about **marine spatial planning**: a few project partners joint the German-lead Baltic Sea Region (ERDF) project BaltSeaPlan, having started in 2009 and aiming at comprehensive sea use discussion and facilitation of maritime planning activities.

Finally, a consortium lead by BEF has submitted in 2009 a new LIFE project to start another innovative action: on **marine monitoring** and marine biodiversity indicator development – an issue that we learned is of utmost importance for future of marine biodiversity conservation.

f. **Socio-economic effects**

Within the **management plan** development and its **integrated stakeholder dialogue** the socio-economic effects of the plans were described as integrated part of the economic assessment. As the goal of the management plans were to define management activities in large coastal and marine areas targeting at different economic sectors, we assume that it will have positive implications on the **employment structure at the coastal areas** as soon as the new protected areas will be formally designated and demand certain management and supervision.

During the Latvian special exercise on analysis of the marine nature value protection set into connection with **socio-economic effects**, the figures for e.g. reefs as basis for providing “eco system services” were interesting and such studies must be continued and further developed to get better understanding about the interrelations between nature conservation measures and economic figures. This will be a much better argument in future to convince stakeholders for protection measures than to calm down prejudice about no restrictions or cooperation. However, the currently project does not yet give sufficient answers to be able to connect its results with concrete figures about future economic activities or growth in prosperity of coastal regions from measures described in the management plans – more socio-economic research has to be done, the project only raised the issue among experts.

g. The future: sustainability

The aim of the project was to designate marine Natura 2000 sites in the Baltic States respectively, for Estonia to add up data and information to its designated sites, to elaborate pilot management plans and assess threats to the sites. The treat assessments show that actually the proposed and already existing sites are not threatened at the moment, but they are examples of sites with high abundance of species and habitats of Community interests. However, the areas and their connecting coastline are not under **high economic development pressure** - a fact which is important: if economic activities do not increase substantially, these sites will not be threatened; a moderate monitoring and supervision is needed to confirm this. However, if certain economic activities will start destructing the sites, then, yes a threat occurs.

The main question with regard to sustainability of the project result to propose certain areas for protection is if the **protection regime will be kept** and not ceased due to “overwhelming public interest”, the usual argument for state authorities to approve development projects violating nature conservation interests. Experience shows that due to Natura 2000 so far no harbour has been closed in the EU, but protected areas have been chopped to satisfy economic interest. For the currently proposed sites the question of who comes first; protection regime or developers was a question the years ago - in the current economic situation with stagnation of development activities it is hard to forecast future threats and developments, however, they are real and must be taken into view of the nature conservation authorities.

One more issue is the **gap in data and information** in the waters (territorial and EEZ) of the three Baltic States, that still does not give a full picture if actually the most valuable sites have now been protected and which areas are still rich in nature values. For sure a few sandbanks off-shore are in the Latvian and Lithuanian EEZ, which are as well of interests for wind park developers. The current project could not take action to assess the nature values of the sites, but the consortium has been addressed by the wind park developers and asked for information – a reason to believe that action must be undertaken. Therefore we can conclude from the LIFE project with regard to future sustainability that it actually does not directly lie in the areas investigated in the current project, but rather beyond: the Baltic States must get comprehensive information about their marine nature values to be protected and designate areas for nature protection and areas for economic uses; this would mean sustainability of the results of the first LIFE project which by itself only could address a small part of the big task for an EU member state to designate marine Natura 2000 areas.

A very rough estimate of costs based on the experience at the LIFE MPA project and the size of water territories not yet investigated indicates approximately 3-5 M€ each for Estonia and Latvia and 2-3M€ for Lithuania costs for investigations as basis for scientifically sound site selection criteria and, where required, management plan development.

Following this a few **new projects have been prepared** by different LIFE project partners: ESTMAR – four management plans (for sites investigated in LIFE project) and investigations (LIFE methodology) for new sites in Estonian waters, 600 000€ granted by Norway, 2008 – 2011. LATMARINE - four management plans (for sites that were investigated within LIFE project) and investigations (LIFE methodology) for new sites in Latvian waters, 500,000€, NOT approved by Norway, to be re-submitted with improvements. LATWIND – investigations in the Latvian EEZ on sandbanks off-shore which are of potential interest for Natura 2000 as well as for off-shore wind park developers, including a pilot EIA model with methodology discussed during LIFE project seminars on habitat and species assessments for infrastructure EIA, 600 000€ NOT approved by Norway.

MARMONI – marine monitoring and marine biodiversity indicators, a new LIFE+BD application 2009 Latvia, Estonia, Finland and Sweden – taking up the idea of the wind park development and related pilot EIA demonstration, marine biodiversity assessment and pilot marine planning activities. 4M€ for EE and LV Pending – decision expected in spring 2010.

DENLIT – a new LIFE+NAT application by Lithuanian partners for investigations and designation of new sites in the country's EEZ, based on current LIFE' projects methodologies and experiences. Applied 1.6M€. Pending – decision expected in spring 2010.

Remain projects for investigations and designation of MPAs in the EEZ of Estonia and Latvia, a task which both Ministries of Environment have acknowledged as important and necessary and first ideas for project developments have started.

Russia: GEF project: "Marine Protected Area System for the Eastern Baltic Sea: Assessment and Implementation" a project preparatory action was granted to prepare a medium size GEF project with focus on inventories and management plans in Russia (Baltic Sea parts) according EU model (from LIFE Baltic MPA project) in cooperation with the Baltic States, however after two years negotiations the full-scale project was NOT granted as the Baltic States as partners became ineligible for GEF funding. Meanwhile the original idea was incorporated into a Russian marine ecosystem project and is pending in the application procedure of GEF and the Russian Federation out of reach of the LIFE project partners.

h. **Long term indicators of the project success**

As the project did not have a conservation objective for certain species and habitats, classical conservation status indicators cannot be part of this chapter to measure long term success of the project. The project was highly political, it started the process of designation of marine sites in the Baltic States and an intensive stakeholder dialogue (including discussions between different ministries about protection proposals) and therefore we propose a set of rather **political indicators** to measure project success in a long term perspective.

Indicators addressing the protection of the proposed and already designated sites:

- Protection regime proposals as defined by the project team and included in management plans are implemented by competent authority by administrative and financial measures (including setting up the management body for the sites);
- A site specific monitoring of the defined nature values is set up and reports are assessed frequently, the monitoring demands are included into state monitoring programme;
- Protection regime is enforced actively by CA, violations fined and reported;
- Fishery funds are used regularly and comprehensively for subsidising alternative fishing methods to avoid by-catch; They are accessible for all active companies/fishermen;

Indicators addressing the establishment of the complete N2000 network in Marine areas of the Baltic States:

- Projects initiated or commissioned by the Competent Authorities of the Baltic States serving sites selection goals;
- National co-funding allocated for site selection (field work, assessments, maps);
- EU and other external funding obtained (application of third parties supported, EU/other funds allocated in national programmes or fund-raised actively by own applications);
- Project cooperation readiness of Competent Authorities (partnership or lead);
- New sites designated in EEZ and territorial waters;
- Finalisation of amendments of national EIA legislation to define permitting procedures for off-shore projects (wind farms etc);
- Protection of nature values ensured and respected by Maritime Spatial Plans.

7. COMMENTS ON FINANCIAL REPORT

The project has spent 95.22% of its planned eligible costs. All cost position except personnel have fallen short, while personnel costs have been overspent. The final spending in the LIFE project LIFE05NAT/LV/000100 is summarized in the table below:

Table 1 shows the spending by budget positions by 28.02.2007:

LIFE Form	Position	Total cost according EC decision	Cost spent by project end	% of spending
F3	personnel	1,152,863	1,286,837	111.62
F4	travel*	417,865	323,485	77.41
F5	external assistance*	611,391	545,530	89.23
F6	infrastructure	-	-	
F7	equipment*/**	339,215	301,510	88.88
F8	prototype	-	-	
F9	land purchase	-	-	
F10	consumables*	219,346	170,576	77.77
F11	other costs*	168,636	121,599	72.11
overheads	7% of subtotal	202,000	190,826	94.47
total	eligible costs	3,089,016	2,940,363	95.19
total	Real costs	3,111,316	2,962,688	95.22
project duration (months)		52	52	100

- costs including non recoverable VAT
- ** eligible costs

The **exchange rates** used for recalculation of LVL and RUB was the following: EUR/LVL 0.7087 on 1 February 2010. The Ruble was calculated according to European Commission agreement (letter 02.12.2009) based on fluctuating monthly exchange rates (first date of the month) due to the significant devaluation of the currency since project start. Lithuanian Litas and Estonian Krona have fixed exchanged rates to the Euro (3.4528 and 15.6466).

Comments on spending of different budget positions

Answers and documentation of the questions/requests from European Commission after Interim report (07.09.2007) and referred to in further correspondence are included in Annex 1.1 (Technical report).

Originally reported **personnel costs** of partners even had shown an overspending of more than 120%, but in agreement with the partners and knowing that these costs will be classified as ineligible the reported costs have been reduced. The reason for this large overspending of the personnel cost position is the significant salary increase in the Baltic States in 2007 and 2008 at most of partners (except those operating with project bases honorary contracts for their experts), which at date of interim reporting (budget closed in February 2007) was not foreseeable to that extend and therefore the requested increase of personnel budget with the interim report was not found significant and therefore the budget was not changed, which proved to be a mistake at the end. At the end, of course, some actions required more intensive work than planned to finish the project in excellent quality and the given 10% threshold could not compensate both – increased salaries and working hours. The concerned partners agreed to take these expenses on their own costs, it concerns mainly public bodies, not the partner NGOs.

We confirm that all personnel cost reporting has been examined to fulfill the requirements of the CP Art 21.2 with regard to gross salary documentation. The personnel costs include the required taxes and social charges related to the employment status of the persons and countries. Most of the partners (state institutions and BEF partners) worked with permanent employees; some partners (other private partners and some of the Institutes) with contracted experts for project tasks, and especially for the field work additional experts were contracted on short term basis.

Travel budget was overestimated and spent less due to i) change of action procedures (e.g. less accommodation for field work needed due to sleeping on the navy ship for A.3 action), ii) less mixed teams for A.2 and A4 due to better logistic arrangements and iii) a lot of organised synergies (longer

partner meetings combined with action and/or expert meetings) to avoid unnecessary commuting. Significantly less travel funds have been spent by the three coordinating partners Ben., P1 and P2, as it was not found necessary to accompany the partner organizations in their field work and synergies of the combined meetings saved a lot of travel costs (and reduced carbon foot print).

One shortcoming from the application regarding travel has been modified with the interim report: originally no international travel was foreseen for partners to promote the project actions and results – during the second part of the project a lot of international attention has been recognized and partners went to international conferences as agreed in the approval of the interim report (07.09.2007). The costs for these travels as listed in the expenditure report are backstopped by documentation of evidence of agenda, a presentation or poster of the relevant partner having travelled to the particular event.

Foreign experts from EU 27 countries have participated in a variety of project events – big conferences and small expert meetings. We confirm that these experts are of EU origin (despite one travel from Zurich/CH to Riga (return to Berlin, 17 April 2009) due to location of the expert), that they were needed to give input to the events and that their travel costs are not twice counted also in external assistance position with a potential honorary request.

The travel position contains expenditures from P7, the National Armed Forces of Latvia, for action A.3 bird count by the navy ship “Varonis” (“Raven”) – although it was planned as external assistance in the original project, later it was attributed to the travel position in agreement with the financial officer and by approval of budget change proposals after interim report (07.09.2007) as the ship could not be sub-contracted anymore due to administrative change of the ship ownership (it now belongs to P7). We have attributed the costs to travel position as the ship is taking a route from harbor A to harbor B along the Latvian coast and counts ship hours in its internal recording (costs are justified with share of fuel bills related to ship hours for action implementation).

In the original budget some confusion occurred for car and boat fuel costs – on advice of the external monitoring team we have placed all fuel where a direction from A to B (destination) can be documented under travel and fuel at a site implementing e.g. fishing activities is placed under consumables. Also fuel reimbursed at some partners on monthly basis for small driving is placed under consumables to keep the system of distinguishing “travel” from “commuting”.

We confirm that the travel expenses have been paid by the individual rules of each partner derived from national regulation and are documented correctly. All travel has occurred for implementation of the LIFE project activities only.

External assistance:

The budget position has been impacted by shifting cost items to/from other budget positions, however, at the end it has been spent by 89% of the originally planned figure – no overspending.

The costs for P7 ship (bird counts) have been shifted to travel; while P13 has shifted its boat fuel to external assistance as for renting a larger ship as service contract instead using the institute's own boats and covering only fuel (consumable). Instead of purchasing herring traps (equipment) they have been constructed for the project's needs and placed to external assistance (P13).

Instead of the originally planned 6 large scale international events in the actions A2, A7 and E8 the project has held 12 events (3 in A.2, 7 in A7 and 2 in E8) of partly smaller size and with more specific topics. The event cost did not lead to overspending of the budget and they were needed to fulfill the objectives of the actions, in A 2 in-depth discussions on the habitat classification and in A7 the issues of site designation, legal frame and threat assessments.

Sediment modelling at P6 for C2 action – explanation on request of the external monitoring team: A contract for modelling of the sediments of dump sites has been concluded based on public procurement procedures by P6. The chosen service provider was paid in three shares: pre-payment, progress report and final report. Invoice 1006/1-b (5.10.2006) is the **pre-payment**; Invoice 0107/1-b (11.01.2007) is for the **progress report** after having created data sets, sediment transport models and defined indicators/methodology; Invoice 0607/2-b (12.06.2007) – is the payment for the **final report** consisting of models of sediment transport from 10 dumping sites of Latvia for impact analysis in the on project areas: 7LAT; 8LAT; 9LAT; 10LAT; 11LAT. The modelling results were the main tool to evaluate a possible impact of dredging and dumping on marine habitats in project areas and will also

beyond project end be used as basis for permit evaluation for plans and projects in the vicinity of the newly protected areas.

We confirm that all contracts have been concluded based on the procurement rules in the partners' country for their institutional status and are documented correctly. All invoices have the indication of the LIFE project reference number.

Equipment

Referring to the letter of the Commission (07.09.2007) and the improvement of the revised equipment list of the project we would like to confirm that no different equipment has been purchased as indicated there and in the project proposal. The only differences were in final costs due to price developments or specification of technical details, but not in the original and revised plans for the equipment types as such.

With regard to the requested information on the differences between the "habitat mapping suitcases" purchased at P4, P8, P14 and P16 we would like to explain that a habitat mapping suitcase is not a fixed type of article, but a set of instruments needed for mapping of habitats at different geological conditions (e.g. hard bottom or soft bottom) and placed in a "box" that fulfills transportation conditions in aquatic environment. A Habitat mapping suitcase is in fact a portable underwater video recording device, advised to purchase by the Finnish partner based on its research results and uses.

Some of the partners have bought from Finland in the beginning of the project a set of such equipment, tested & improved it during the project. The differences in costs are due to modifications and improvements done. The first modification included portable video recorder as recording device while later versions have a digital hard drive or media player instead. Also some technical improvements were made and some parts were improved and replaced by better ones purchased separately. At later project stage an Estonian supplier provided the equipment for the Russian partner based on the Estonian partner's instructions and new experiences.

In general this suitcase consisted of following major parts:

- durable/water and pressure tight suitcase (PELICASE or similar)
- submersible video camera
- 30m cable
- battery power transformer unit/electric power generator
- digital recording device (hard drive/media player or video recorder)
- in first versions also a 9 inch monitor was included

The requested invoices are attached (see Annex 3, financial report)

For all equipment we would like to confirm that it has been purchased and used by the institutions working in the field of nature conservation also beyond project end. Most of equipment was/is field work instruments or supporting tools, that will be used for nature conservation investigations and monitoring actions further on by the relevant partners. Of course, due to the use at sea its lifetime might be shorter than equipment used at land, but we confirm the use after project end for nature conservation purposes (species monitoring). This stands as well for the alternative fishing equipment that has been produced and tested by the project team and selected fishermen in the target countries – the methods/equipment will continue to be in use for fishing and the equipment as such is having a nature conservation purpose to avoid seal/bird by-catch.

Consumables

Referring to the letter of the Commission (07.09.2007) we would like to confirm that we checked all consumable costs and tried to explain them in details to the extend possible in the expenditure report. Full documentation is available at the beneficiary's office, if additional information is needed.

Explanation for attribution of fuel costs to "consumables": the beneficiary and P4 had their car fuel costs allocated in the position "consumables" due to the fact that they rented project cars for the whole project duration and not for single trips/destinations. Therefore fuel was purchased when the tank requested it, of course, solely for project implementation purposes, and not for each single trip. At the beneficiary, furthermore, a framework contract was concluded with the company Statoil, which was based on monthly invoices for fuel, to ensure correct LIFE project numbers on the invoices. We confirm that for the single travel destinations at both partners travel documentation according to the national rules are available and correctly filled.

P18 used partly the Estonian rule of eligible monthly reimbursement of fuel costs to the employee for using his private car for project travel, which are consisting of many small drives of short distances. Therefore costs for travel reimbursements on a monthly basis are occurring and allocated on position "consumables".

Boat fuel has been classified as consumable, as boat drives did not reflect certain destinations (from A till B), but rather "multi-direction" movements at the sea, e.g. for fishing or soft bottom sampling or commuting at sites. For those partners where boat fuel originally was placed under the position "travel", this has been shifted to consumables in the final report to have a consistent definition of fuel as consumable.

Other costs

As requested in the Commission letter (07.09.2007) we would like to explain the modality of telephone cost determination at beneficiary, P1, P2 and P16:

Beneficiary and P2 used have a telephone system with several telephone lines. In the invoice documentation the lines are distinguished (monthly costs by line) and the lines attributed to the colleagues working in the LIFE project (and other lines to colleagues working in other projects).

P1 used the principle of recording the costs of single calls from the phone lines of the employees involved in the LIFE project (no central telephone system, however, we admit that parts of the LIFE project phone talks could not be traced in that way and therefore the position fell short.

P16 used pre-paid mobile phone cards handed out to the relevant project experts for field work and other travel.

The reason having applied the telephone costs for the four coordinating partners BEF Latvia, BEF Estonia, BEF Lithuania and BfN Russia was that these costs are at high level in the target countries and therefore the overhead position aiming at covering general office costs of the organisation would be mostly spent for phone costs.

We confirm that these are indeed telephone costs solely for communication within the LIFE project.

As requested in the Commission letter (07.09.2007) we would like to explain the costs for bank charges and fees: these are mainly the bank guarantee costs consisting of the maintenance of the special account (ca. 110 €) and the proportionally calculated guarantee costs (ca. 1 200€) each month. The slight differences in monthly rates are derived from the currency exchange, as the contract is defined in LVL, but the transfer in Euro from the Euro account using the bank internal currency exchange rate. The bank is deducting the payments from the account; there is no invoice procedure – similar to other bank fees like currency exchanges or account operational costs. The evidence of payment is the bank statement and the basis for it the bank contract. (see attached in Annex 3.7, Financial report). As already explained in the first progress report, the bank guarantee costs and its procedure was determined by the bank, which was setting the conditions for it. At time of project approval Hansabanka (now: Swedbank) was the only bank out of three banks questioned, that was ready to provide the service of the bank guarantee. Hansabanka at that time operated another LIFE project guarantee on a similar procedural basis with the Latvian Fund for Nature, from where the beneficiary also got the recommendation to contact that particular bank.

For the so-called "obligatory car tax" in budget position "other costs" at P4 we confirm that this is the tax due for the rented project cars and not for other cars.

Detailed revisions/changes at partners:

Beneficiary BEF LV

The Beneficiary reduced its total budget by ca. 100,000€ due to lack of own funding as explained in the modification request of 30 April 2009 and distributing these funds to other partners: P1 - 20 000€ shift of printing costs to Estonia, P 4 - 50 000 € for personnel costs due to increase of salaries, P14 - 13 000€ personnel costs due to increased salaries, P17 – 7 000€ for the conference in E.8 (external assistance), and P20 – new partner with 10 000€ budget for the study visit to Germany.

The budget for the printing of the project book, E6, has been shifted from Beneficiary BEF LV to P1 BEF Estonia as the layout work, design and printing took place in Estonia (best price offer) and was lead by the Estonian team. This led to overspending of the external assistance position by P1 and underspending at Ben.

The costs of the legal expert (speaker) from Germany at a seminar on 15 and 16 April 2009 (Beneficiary, 21.04.2009) has been higher than planned (3 000€ vs. 5 700 €) as additionally a background paper was agreed and developed as outcome of the seminar requested by the audience.

The costs for the local external expert for the elaboration of management plans has been increased substantially from 5 000 to 20 000€ as a person was found in Latvia able to make a full scale socio-economic assessment of both sites for which the management plans were developed. This work has significantly contributed to the success of the stakeholder acceptance of the sites in Latvia and at the end to a designation and approval by competent authority by project report submission. This work has been performed the first time at all in Latvia (and Baltic States) and got high attention from stakeholders, socio-economic assessment of nature conservation measures have been unknown before and the perspective of “eco-system services” are very innovative. The additional costs were covered from savings from seminar costs and other items of the budget position and did not harm other action implementation.

The requested documentation of the pay-slips and contract of the project manager is attached (Annex 3). As already explained with the justification of her salary during project negotiation, she is a German expert, located in Latvia, but paying all her social taxes in Germany and due to that having a higher daily rate than average Baltic project leader.

P1 BEF EE

The budget for the printing of the project book, E6, has been shifted from Beneficiary BEF LV to P1 BEF Estonia as the layout work, design and printing took place in Estonia (best price offer) and was lead by the Estonian team. This led to overspending of the external assistance position by P1 and underspending at Ben.

In 2009 there has been a change in contracting the project accountant – as she is not anymore working in the premises of the partner, her contract moved to external assistance and related travel costs were covered with the sub-contract.

P2 BEF LT

The costs for equipment have been overspent due to a higher technical profile of the printer (multifunctional including copy machine) than originally planned, however, the large amount of stakeholder meetings justify such costs.

P3 EEIC

The positions for Arc info and Map info software licenses (ca. 12,000€) were shifted to equipment as they are above the threshold for being low value good.

P4 EMI

The partner, one of the most important and largest project partner due to its leading role in many actions, has faced already at early project time a significant increase of salaries of its staff (at all Tartu University). Furthermore for action C.2 the planned service contract for modeling of dump sites (14,400€, external assistance) has been shifted to personnel fully, as the partner meanwhile had own personnel which implemented the task and did not need external services.

Due to these facts at the end the partner has overspent its personnel budget by ca. 68 000 €, and total budget by 52 000€, however, without requesting more of the European Commission share, but increasing its own contribution to compensate this problem (modified grant agreement 14.07.2009).

The position “consumables” has been overspent by more than 10% because due to the large amount of field work in several actions the partners needed much more field consumables that estimated. The cost positions remained the same, but amount of each were increased. However, due to underspending of other partners and the obvious need for the consumables these changes were found reasonable.

P5 EOY

The position ‘external assistance’ has been specified as: reduced rent of airplane for fewer hours of aerial bird count and introduction of a new vehicle: rent of ship in deeper waters of Western Saaremaa for ship counts. Total sum for the position remained unchanged.

In 2009 there has been a change in contracting several experts – as they were not anymore working in the premises of the partner respectively in the field work teams day by day, but from their own offices for assessment and analyses for management plan chapters (output related contracts) their contracts moved to external assistance and related travel costs were covered with the sub-contracts.

P6 MIWA

The partner has overspend the external assistance position by 12%, however this does not impact the total position's exhaustion due to under spending of other partners. The reason for the overspending is the increase of VAT in Latvia for the services (airplane rent and modeling contract) and slightly more flight hours for bird counting at good weather conditions.

The explanation for the different costs in a variety of invoices for rent of airplanes for bird counts is the use of two different sizes aircrafts: a one-engine-plane AG-5B (small plane) (110€/hour) and a two-engine-plane PA-34-220T (big plane) (200€/hour). The costs are determined by amount of flight hours plus landing fees for the aircraft.

P7 NAF

Shift of position external assistance (ship rent) fully to "travel" – fuel/oil costs per ship hour of the ship as the vehicle was meanwhile owned by the partner and could not be sub-contracted. The justification of these costs as 'travel' are the records in the ship book about destinations and record of ship hours driven to reach this destination. The proposal to use these records as justification for a shift of budget position to travel costs instead to consumables (to avoid overspending of the consumables budget position) has been made at telephone on 11 May, 2007 by the former Financial office Ms. Aneta Gaida and was incorporated in the request for modification of the budget at interim report – all shifts have been approved by European Commission with the letter received on 7 September 2007.

P8 LIAE

The partner has overspent its personnel budget by more than 20% due to salary increases and additional labor needs for analysis of the samples of A.2 (more samples gathered due to good weather conditions than planned and consequently more laboratory time required).

In case European Commission will find the increase unacceptable these will be the personnel costs which to cut from the budget to reach the 10% margin.

P9 LOB

The partner has slightly overspent personnel, equipment and consumable positions in agreement with the beneficiary, but also increased its own financing accordingly (modified grant agreement 14.07.2009)

P10 LATFRA

No changes/revisions.

The requested documentation of the salary of the accountant Ms. Patrejeva is attached (Annex 3, financial report). We confirm that her annual salary indeed was the sum as indicated – many organizations in Latvia (and Baltic States) have raised salaries substantially in 2006 - 2008. In these years Latvia has faced uncontrolled price level developments in the economic boom, which has lead to the current crisis. Currently the salaries, especially at state institutions are dropping down again. We confirm that all supporting documents are available at the beneficiary and sum is authentic.

P11 VFS

Due to complexity of film scenarios the personnel costs have been increased by 50%, however, a solution was found in shifting a large amount of these costs to the position "external assistance" to avoid overspending of total project personnel costs. The involved persons were mostly artists performing a part of the video making, like musicians, script writers and cartoonists, who are working based on so-called "authorship agreements", which are a kind of sub-contract as a deliverable is produced and the persons do not work in the office of the partner. The quality of the video clips, as acknowledged also by European Commission (letter 21.12.2009) justify the higher production costs, as they were caused by intensive dialogue with all partners to find the really good film option – and was found.

P12 SOPA

No changes/revisions

P13 EKOI

The partner has not spent 10% of its original budget (direct costs) due to overestimation of these costs, but implemented all actions with its personnel (100% spent).

As already explained in the interim report, the herring traps were not purchased (equipment) but built (external assistance), the ship fuel (consumable) was shifted into ship rent for a small ship (external assistance), and therefore external assistance was overspent, while the other positions underspent.

Between P15 and P13 some changes of arrangements regarding the ship for A.3 bird counts in Lithuania took place: for most of investigations a smaller ship was rented externally by P13, but the ship of P15 used for open sea visits in 2009 which then has led to overspending of the travel position at P15, while underspending at P13.

P14 CORPI

The partner has significantly (60%) overspent personnel position due to the shift from ship rent to paying the crew of the ship as personnel, furthermore due to increasing salaries as well as increasing work load: some habitats (like newly found moraine ridges) were very patchy and the partner had to increase spatial resolution of surveys and use additional methods depending on intermediate results. This technique required much more personal costs, as one hour in the sea afterwards results in one or more days work in the lab and for video analysis. The overspending was compensated by an underspending of other budget positions, but at the end the partner has overspent its total budget by 12 000€, which is compensated by an increase of its own funding (modified grant agreement 14.07.2009).

P15 CMR

Between P15 and P13 some changes of arrangements regarding the ship for A.3 bird counts in Lithuania took place: for most of investigations a smaller ship was rented externally by P13, but the ship of P15 used for open sea visits in 2009 which then has led to overspending of the travel position. Furthermore 1,500€ were additionally allocated (from beneficiary's position "other costs") for external assistance of involving a laboratory for analysis of some samples of pollutants, which could not be handled in the partner's own lab. These costs were not foreseen but necessary to reach the objective of action C.4 in Lithuania.

The overspending of the total budget is compensated by the underspending of P13 in exchange and did not lead to negative impacts at the total expenditure report.

P16 BfN RU

No changes/revisions.

P17 BirdLife

The seminar service costs (external assistance) of E.8 action (7,000€) has been shifted from beneficiary to P17, as the partner has allocated its co-funding mostly for this position (no change in budget position, only re-allocation of approved costs to a different partner).

P18 ESNCC

P18 has not spent a significant part of its prognosed budget – 77 000€, which is 30% of the planned total budget and occurs at the two positions 'travel' and 'external assistance' while personnel, equipment and consumables were exhausted.

The three main reasons were:

1. Change of technology from satellite to GSM based seal tagging and recording and with it the ceasing of the rental costs of the satellite channel (1500€ instead planned 18 000€)
2. Fatal ice cover during the project years which made it impossible to implement the ringed seal counts by airplane (no ice, no seals, no aircraft rent of 10 000€) – as solution the seals were also tagged with the GSM tags and good information about their abundance was reached in this way.
3. Overestimation of necessary travel costs and furthermore not much personal work of P18 experts in Latvian and Lithuanian waters - the harbor porpoise detectors were placed and supervised to their location by local experts and consequently the travel costs for these expeditions and planned rent of ships were ceased at P18.

Despite the significant less spending of the budget for direct costs, the action was implemented to a satisfactory result and the partner contributed to all other actions with its experience and knowledge. The reduced budget spending has been recovered by low cost solutions and the objectives of the action have not been endangered.

P19 Metsahallitus

The partner has contributed less to the project than planned and therefore not spent the allocated personnel and travel budget. However, the lesser input has not lead to a decrease of results or quality of work at the Baltic partners.

P20 BfN DE

The partner was newly introduced at interim report and has got a budget of 3 283€ personnel costs (preparation of the study visit), 5 756€ travel costs (for travel of the study group in Germany, speakers travel) and 1 812 € external assistance (speakers honorary, seminar services). In total 10 851€ have been allocated to this partner (re-allocated from beneficiary, P1 and P2).

The VAT costs for partner 20, BFN DE, are noted as ineligible and changed correspondingly in final report. The efforts to get VAT certificate would be too high for the German partner, therefore we agreed on taking off the VAT from eligible costs.

Report

Heidrun Fammler, project manager

8. ANNEXES

(Annexes given in italic font have been already attached to the indicated progress/interim reports)

Annex 1: Correspondence with EC and competent authorities of Baltic States

- 1.1. Questions from European Commission
- 1.2. Grant agreement modification confirmations on 14 February, 2007 and 14 July 2009
- 1.3. Letters from competent authorities on project results
 - 1.3.1. Letter from Latvian Ministry of the Environment
 - 1.3.2. Letter from Estonian Ministry of the Environment
 - 1.3.3. Letter from Estonian Environmental Board
 - 1.3.4. Letter from Lithuanian Ministry of the Environment

Annex 2: List of species and habitats investigated and project area map

- 2.1. List of species and habitats investigated
- 2.2. Map of project activities vis-à-vis existing marine Natura 2000 sites

Annex 3: Project implementation schedule

Annex 4: Partners list with addresses

- 4.1. Legal entity changes after project end

Annex 5: Detailed information on A Actions

5.1.: Final report on action A1 – Raising capacity of project staff

- 5.1.1. *Report from training on aerial survey techniques; see 1st Progress report: Annex 2; A1*
- 5.1.2. *Report from training course on methodology of habitat mapping; see 1st Progress report: Annex 2: A1*
- 5.1.3. *Report from meeting/training: Methodological meeting and practical training course on bird counting from ships; see 1st Progress report: Annex 2: A1*
- 5.1.4. *Report from: Study Visit to Germany: Site selection for marine Natura 2000 areas: fulfilling the requirements of the birds directive and the habitats directive; see 1st Progress report: Annex 2: A1*
- 5.1.5. *Report from study visit "Coastal protected areas in the Eastern part of the Gulf of Finland", Russia; see 3rd Progress report: Annex 2.1.1*
- 5.1.6. *Report on "Russian partner capacity building"*

5.2. Final report on action A2 - Benthic habitat inventory

- 5.2.1. *1st and 2nd workshop "Baltic LIFE Marine Habitat Seminar"; see 1st Progress report: Annex 2: A2*
- 5.2.2. *Workshop on "Methodology of underwater video analysis for habitat mapping"; see Interim report: Annex 5.1.2*
- 5.2.3. *Guidelines for analysis of video materials; see Interim report: Annex 5.1.2*
- 5.2.4. *Report from workshop on "Features and interpretation of Natura 2000 marine habitats in the Baltic countries"; see 3rd Progress report: Annex 2.1.2.*
- 5.2.5. *Report from expert meeting on Benthos inventory; see 3rd Progress report: Annex 2.1.2.*

5.3. Final report on action A3 – Waterbird inventory

- 5.3.1. *Estonian and Latvian ornithologist meeting on project site EST/LAT 09 Irbe Strait; see Interim report: Annex 5.1.2.*
- 5.3.2. *Intermediate evaluation meeting on waterbird; see Interim report: Annex 5.1.3*

5.4. Final report on action A4 - Marine mammal inventory

5.5. Final report on action A5 - Fish community inventory

- 5.5.1. *Methodological meeting, see 1st Progress report: Annex 2: A5*

5.6. Final report on action A6 – Elaboration of National GIS Database / Digital Maps

- 5.6.1. *1st and 2nd expert meeting on actions A6 and A7, see 1st Progress report: Annex 2: A6/A7*
- 5.6.2. *Common database structure, see 1st Progress report: Annex 2: A6/A7*
- 5.6.3. *CD and content list of GIS maps produced by project*

5.7. Final report on action A7 – Development of management plan concept for MPAs, elaboration of management plans and individual protection proposals

- 5.7.1. *Workshop "Concept development for management plans of marine protected areas", see 1st Progress report: Annex 2: A6/A7*
- 5.7.2. *Concept of management plan development, see 1st Progress report: Annex 2: A6/A7*
- 5.7.3. *Workshop "Stakeholders interests and involvement in management planning and management of marine protected areas"; see Interim report: Annex 5.1.7*
- 5.7.4. *The system for evaluation of the species and habitats of conservation interest; see Interim report: Annex 5.1.7*
- 5.7.5. *Report from meeting on "EIA for off-shore wind parks - potentials for conflicts with Natura 2000 designation"; see 3rd Progress report: Annex 2.1.7.*

- 5.7.6. Report from workshop on “Planning offshore windfarms in line with Natura 2000 requirements: legal frame, impacts, investigation standards and procedures”; see 3rd Progress report: Annex 2.1.7.
- 5.7.7. Report from expert meeting on “Habitat and species assessment methodology”
- 5.7.8. Report from expert meeting on “Cross-border aspects of management plan development for MPAs”
- 5.7.9. Report and background paper from seminar “Which kind of legal frame we need?”
- 5.7.10. Management plans of Latvia, Lithuania and Estonia
 - Summaries of management plans in English
 - Management plans in national languages (CD)
- 5.7.11. Assessment of social-economic impacts of conservation measures of two marine protected areas in Latvia (*English summary and full text in Latvian language*)
- 5.7.12. Maps of designated marine protected areas in Latvia
- 5.7.13. Map of new SPA designation proposal in Lithuania
- 5.7.14. Protocol of Lithuanian MoE on decision on designation of new SPA
- 5.7.15. Map on modifications of Curonian Spit pSCI boundaries in Lithuania

Annex 6: Detailed information on C Actions

6.1. Final report on action C1 – Assessing and reducing impact of fishery by-catch on species of community interest

6.1.1. Methodology; see 3rd Progress report: Annex 2.2.1.

6.2. Final report on action C2 – Assessment of possible impact of constructions and dumping of dredged material on habitats of community importance

6.2.1. Methodology; see 3rd Progress report: Annex 2.2.2.

6.3. Final report on action C3 – Assessment of the impact of disturbances on waterbird and seal species of community interest

6.2.1. Methodology; see 3rd Progress report: Annex 2.2.3.

6.4. Final report on actions C4 – Assessment of the impact of transboundary and local pollution on habitats and species of community importance

6.4.1. Methodology; see 3rd Progress report: Annex 2.2.4.

Annex 7: Detailed information on D Actions

7.1. Final report on action D1 – Use of by-catch safe finishing gear in pilot project areas

Annex 8: Detailed information on E Actions

8.1. Distribution list of all publications within the E Actions

8.2. Production and distribution of information flyer for stakeholders, E1

8.2.1. Project information flyer (4 languages); see 1st Progress report: Annex 5: E1

8.2.2. Fishermen leaflet (3 languages); see Interim report: Annex 5.3

8.3. Development and maintenance of the project website “The Baltic Sea Portal”, E2

8.3.1. Screen shots from web page www.balticseaportal.net; see 1st Progress report: Annex 5, E2; Interim report: Annex 5.3;

8.3.2. Screen shots from web page interactive-educational part of the portal for youth; 3rd Progress report: Annex 2.3.1.

8.3.3. Screen shots from web page - interactive-educational part of the portal for youth

8.3.4. Letter on website hosting

8.4. Production of film/DVD material “Sea the Sea”, E3

8.4.1. Concept on film clips, see 1st Progress report: Annex 5: E3

8.4.2. Video clips in five languages (DVD)

8.5. Work with media, E4

8.5.1. List of the project appearance in media and copies of published articles during time period 01.08.05 - 01.06.08; see 3rd Progress report: Annex 3

8.5.2. List of the project appearance in media and copies of published articles during time period 01.06.08 - 31.01.10

8.5.3. List of the international conferences

8.5.4. List of the scientific articles and theses

8.6. Production of information boards at strategic places accessible for the public, E5

8.6.1. Concept of info-stands, E5; 3rd Progress report: Annex 2.3.1.

8.6.2. Map of information board locations

8.6.3. Printouts of the information board content

8.6.4. Photos of the information boards in Latvia, Estonia and Lithuania

8.7. Production of book “See the Sea”, E6

8.7.1. Book “Sea the Baltic Sea. Unique assets we share” in five languages

8.8. Organisation of public events in Estonia, Latvia and Lithuania, E7

8.8.1. List of the public events held in Estonia, Latvia and Lithuania

8.8.2. Photos from the public events

8.9. Organization of international experience exchange on preliminary project results, E8

8.9.1. Report from the conference "Bird conservation in the marine environment: Identification, designation and protection of marine protected areas for birds in the Baltic Sea and beyond"; see 3rd Progress report: Annex 2.3.2.

8.9.2. Report from the round table discussion "Experience exchange on possible legal implications at future Marine Natura 2000 sites in the Baltic States and evaluation of findings from the site inventories 2005-2008"; see 3rd Progress report: Annex 2.3.3.

8.10. Production and dissemination of Laymen's report, E9

8.10.1. Layman's report in four languages

8.11. Final project presentation, E10

8.11.1. Report from the meeting in Latvia

8.11.2. Report from the meeting in Estonia

8.11.3. Report from the meeting in Lithuania

8.11.4. Agenda, participant list and report from the seminar "Protecting the marine eco-system – Lessons learned from project activities in Estonian, Latvian and Lithuanian marine waters"

8.11.5. Final evaluation of LIFE project

Annex 9: Detailed information on F Actions

9.1. Project steering group, monitoring of project progress, F1

9.1.1. Report from 1st Steering group meeting; see 1st Progress report: Annex 6: F1

9.1.2. Report from 2nd Steering group meeting; see Interim report: Annex 5.4

9.1.3. Report from 3rd Steering group meeting; see 3rd Progress report: Annex 2.4.1.

9.1.4. Report from 4th Steering group meeting

9.2. Overall project management and administration, F2

9.2.1. Beneficiary's contracts with partners (copies of contracts without annexes); see Interim report: Annex 5.4

9.2.2. Full versions of beneficiary's contracts with project partners, see in electronic format of INTERIM report – CD; see Interim report: Annex 5.4

9.2.3. Summary of Partnership agreement documentation

9.2.4. Copies of the amendments to the partnership agreements

9.3. Establishment and meetings of the project management board, F3

9.3.1. 1st and 2nd Project partner's meetings; see 1st Progress report: Annex 6: F3

9.3.2. 3rd and 4th Project partner's meetings; see Interim report: Annex 5.4

9.3.3. 5th and 6th Project partner's meetings; see 3rd Progress report: Annex 2.4.2.

9.3.4. Report from 7th Project partner's meeting

9.4. Country Co-ordination, F4

9.4.1. Country coordination meetings, in EE(3), LV(3) and LT(3); see 1st Progress report: Annex 6: F4

9.4.2. Country coordination meetings in EE(2), LV(2); see Interim report: Annex 5.4

9.4.3. Reports from country coordination meetings in EE (3), LV (2), LT (4); see 3rd Progress report: Annex 2.4.3.

9.4.4. Reports from country coordination meetings in EE (4), LV (5), LT (7)

9.5. Project monitoring (effects of measures), F5

9.5.1. Report on project monitoring

9.6. Independent audit, F6

9.6.1 Audit certificate according CP

9.7. Elaboration of After- LIFE conservation plan, F7

9.7.1 After-LIFE Conservation Plan