



One Europe, more nature

Screening of 8 'smaller' model projects



A study commissioned by WWF



Stroming, december 2003



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The location of the projects screened.
The map also shows existing (yellow) and future (brown) EU member states.

1 Background

Further to a screening of relevant wwf field projects carried out in the Autumn of 2002, over 60 projects were submitted by wwf National Offices as potential One Europe More Nature Sites. These projects were then evaluated against a list of criteria and eight projects were chosen for further investigation by the One Europe More Nature Team on 25th March 2003.

These promising projects have been selected in order to highlight (use for communications) important lessons and opportunities that can be used to influence CAP reform and provide opportunities for local people to preserve their natural heritage and also livelihoods. It is also hoped that the 'lessons learnt' in these field projects might prove to be applied in the strategies for the two selected large scale field projects under OEMN (Doñana and Tisza).

The next step is to get more in depth knowledge of these eight chosen projects:

- Danube-Carpathian Programme Office: Carpathian Large Carnivore project;
- wwf-Sweden: Väinameri (and Karelia);
- wwf-Netherlands: Gelderse Poort;
- wwf-Greece: Prespa lake;
- wwf-Poland: Biebrza;
- Mediterranean Programme Office: Cork forest landscapes project;
- Danube-Carpathian Programme Office: Bulgarian Danube Islands;
- Danube-Carpathian Programme Office: Morava.

In order to facilitate the screening of these projects a template/questionnaire was designed and sent to contact persons of the projects involved. The aim was that the information produced from the template would be sufficiently complete to allow a final selection of 4 or 5 projects to be supported under the first phase of OEMN. The template should also provide all the information required for interested parties to take-up the models and start thinking how to replicate them and it should also provide clear evidence in what way agriculture, rural development or other ways of land use are key levers for reaching wwf's objectives.

The answers to the questionnaire were obtained during telephone interviews – in some cases extra documentation was sent in which provided additional background.

The level of detail in which information was provided differed between projects. The templates included in the last chapter of this report reflect this. In all but one (Morava) cases, the information was sufficiently complete to get a fair view of the project and the (possible) linkages with One Europe More Nature.

2 Recommendation and summary of results

RECOMMENDATION

Each of the 8 projects screened in some way shows links with the PROBLEMS One Europe More Nature wants to address. Four projects also succeeded to find SOLUTIONS to these problems, which can already be seen working in the field. These four are therefore recommended to be included as smaller demonstration projects for One Europe More Nature:

- 1 Carpathian Large Carnivore
- 2 Väinameri/Karelia
- 3 Gelderse Poort
- 4 Prespa

These projects also fulfil a (large) number of other criteria which were established for OEMN projects. A comparison of the features/achievements of the above projects against these criteria (*see Annex 1, page 102*) follows below.

Carpathian Large Carnivore

- 1 Contributing to WWF's freshwater targets is not the main focus of the project.
- 2 Working field example, activities and results are visible in the field.
- 3 Environmentally sustainable, economically sustainable.
- 4 Not dependent long-term on subsidies. On the contrary, 150 new jobs have been created and on top of this a conservation-development fund was set up which receives money from tourism. These funds are ploughed back to conservation initiatives in the region. A Large Carnivore (education/visitor) Centre is expected to generate additional income for the fund as of 2005.
- 5 Replication is possible and plans to develop twinning projects with other cities are under way.
- 6 Link to Brussels: the project shows how a new economy can be developed in a rural area where subsistence agriculture (grazing) is still a dominant form of land use.
- 7 New economy is present. Although this is based on just one pillar (tourism) this has proven to be sufficiently strong to e.g. prevent a mining project which would have degraded the landscape qualities (and tourism potential) of the region.
- 8 The area can be fairly easily reached.
- 9 A number of partners exist, including private partners (tourism operators from Western Europe). These partners truly act as drivers.
- 10 The area still is agricultural land (subsistence farming) and forest. Tourism has been developed as an economic activity which not replaces these forms of land-use but as an addition.

Vainameri

- 1 Contributing to w w F's freshwater targets is not the main focus of the project.
- 2 Working field example, activities and results are visible in the field.
- 3 Environmentally sustainable in the sense that it secures the existing cultural landscape. Probably not (yet) economically sustainable.
- 4 Not dependent on subsidies. Whether this will remain the case will depend on choices made in future – partners may decide to apply for E U funding after accession in 2004. It also depends on the scale at which the project develops itself – perhaps it should be scaled up in order to ensure self-sufficiency.
- 5 Replication is possible and similar projects exist (Lake Pape, Latvia) or are under development (Karelia, Russia).
- 6 Link to Brussels: the project shows how a new economy, based on production of 'green meat', tourism and handicrafts, can be developed in an area where agriculture collapsed.
- 7 New economy is present, based on production and sales of 'green meat', tourism and productions and sales of handicrafts.
- 8 The area can be fairly easily reached.
- 9 A number of partners exist, including private partners.
- 10 The area was a former grazing area but agriculture collapsed. Through extensive grazing agricultural use has been revitalised and this, combined with tourism and handicrafts production is now a new economic basis for the area.

Gelderse Poort

- 1 Contributes to w w F's freshwater targets.
- 2 Working field example, activities and results are visible in the field.
- 3 Environmentally sustainable, economically sustainable.
- 4 Not dependent long-term on subsidies. On the contrary: new jobs have been created and a visitor centre/wilderness café has been set up with as one of its purposes the ploughing back of part of its revenue to conservation efforts in the region.
- 5 Large scale replication is already implemented.
- 6 Link to Brussels: the project shows how a diverse, new economy can be developed in a former agricultural area.
- 7 New economy is present and broad: tourism, flood control, minerals extraction, production of 'green meat', wilderness café ploughing money back into conservation.
- 8 The area can be easily reached.
- 9 Many partners exist, including a large number of private partners (*see 7*). These partners truly act as drivers.
- 10 The area was agricultural land in the past and a shift has been made towards a new economy (*see 7*). This happened first in the river forelands, the trend is now spreading wider (also behind the dikes).

Prespa

- 1 Contributes to w w F's freshwater targets.
- 2 Working field example, activities and results are visible in the field.
- 3 Environmentally sustainable, economically not yet sustainable.
- 4 Still dependent on subsidies; there seems to be potential to become independent – this should be explored.
- 5 Replicable on regional scale.

- 6 Link to Brussels: the project shows how support from Brussels lead to the growth of an unstable, unsustainable local economy (bean production) and begins to show how this dead-end road could be left.
- 7 First sign of new economy present: tourism.
- 8 The area can be fairly easily reached.
- 9 Many partners exist, mainly governmental and (conservation) ngo's. Private partners still seem to be lacking.
- 10 Part of the area was agricultural land in the past – and still is used for intensive bean monoculture. No complete shift to new economy has been made, but first initiatives develop (tourism). Also changes are initiated towards more sustainable water management. These are conservation driven but as a side effect also benefit e.g. fisheries.

2.1 CARPATHIAN LARGE CARNIVORE

The project is located in Romania, in the South-East Carpathians near the city of Brasov. It covers an area of 200 000 hectares and half a million of people are living in it. Land use is intensive, with forestry, farming and livestock being the most important in terms of surface area covered.



Homepage Carpathian Large Carnivore Project.



The project uses Large Carnivores as ambassadors for conservation and development. It succeeded in making tourism an important economic activity in the project area and created 150 jobs. The importance of these new jobs, which depend on the attractiveness of the area, was successfully used to abandon plans for a noisy and dusty quarry in the area.

An annual growth in tourism of 50-120% has been seen over the past years and is expected to continue. A conservation and development fund has been established which receives contributions from tourism. The goal is that the Large Carnivore Centre – a visitor/educational centre – recently set up, will also generate substantial sums of money for the fund.

The project clearly focuses on the issues One Europe More Nature wants to address and found some innovative solutions which can be seen in the field. These solutions are not dependent on subsidies and are based on the natural qualities of the area in which the project operates. An additional 'quality' is that the area is fairly easy to reach.

2.2 VÄINAMERI / KARELIA

Väinameri is located at the Western coast of Estonia. The project area itself covers 3 000 hectares and is spread over three islands in the Sea of Straits. The total population in this area is approximately 5 000 people. The area has a variety of habitats, marine and terrestrial, and the project focuses on one of these: the meadow systems which for centuries have been used for extensive cattle grazing. As in other parts of Europe this type of agricultural use was on the decline. Changes in the cultural landscape resulted from this as well as deteriorating living conditions for people in the area.



The small scale Väinameri project was started some 10 years ago by WWF-Sweden, in cooperation with and directed by the Arhipelaag Research Centre (a local NGO). Highland cattle were introduced as a breeding stock in order to restore the abandoned and overgrown grasslands. At the same time eco-tourism was developed to attract visitors from Sweden (just 300 km away) and Estonia itself. A handcraft business created 15 new jobs and revenue. Since a few years efforts also focus on restoring the link between consumers, meat production and the quality of the landscape (the 'food chain concept'). This includes the marketing of 'green meat' at supermarkets and restaurants and raising public awareness in Estonia. Nowadays the project has a total stock of approx. 350 animals. The number of local participants grew to 100 individuals and the project created new initiatives and

businesses in the coastal zone. The project's concept received international attention, which resulted in new initiatives, like the Southern Karelia project in the western part of Russia. Estonia is joining the EU in 2004, up till now it is uncertain what this will mean for the Väinameri project.

The project is a suitable example for One Europe More Nature because it succeeded in building a new economy – albeit small scale – which provides new perspective to the people and the landscape in the project region. Solutions can be seen working in the field and the area is fairly easy to reach. A weak point could be that the basis for the new economy is rather small (cattle farming and tourists) – possibly this could be broadened if other habitats of the project region (forests, marshes) are 'drawn' into the project.

2.3 GELDERSE POORT

The project is situated on the German/Dutch border, close to the cities of Emmerich, Arnhem and Nijmegen. This is the place where the Rhine branches out in the River Waal, Lower Rhine and IJssel. The project area covers 10 000 hectares.



RIGHT New economic functions in a former agricultural landscape: clay mining, flood control, tourism and habitat restoration go hand in hand.



Agricultural use in the river forelands in the area began around 1800, when alluvial forests were cut and summerdikes constructed. In 1987 'Plan Ooievaar' signalled that agriculture would not survive in the 'difficult' river forelands. It advocated an active approach in which the retreat of agriculture would be combined with ecological restoration of the river system.

'Living Rivers', launched by w w f -Netherlands in 1992, built on this and also indicated *how* this could take place: with clay extraction and river safety as 20th century conservation allies. The Millingerwaard, a 600 hectare river foreland, was the first pilot where this vision was translated into practice. Active communications helped spread the experiences and results of the project and a sense of excitement and adventure became attached to it. New wilderness areas developed through new partnerships, leading to a revival of social and economic life in the region. Today tourism entrepreneurs, local B&B's, small hotels, the ministries of Traffic&Waters and Agriculture, the Stateforestry, the Province of Gelderland, several brick factories, the clay industry and many others are both contributing to and benefiting from the project's succes.

Clay excavation, an important economic driver, can still be seen at work while at the same time many conservation and development achievements are visible. Since 1992 approx. 50 other projects started along the lines of the first pilot – with or without involvement of w w f .

The project demonstrates how a rural area, in which agriculture loses its dominant economic position, can start a new economy from which people, landscape and biodiversity benefit. Activities leading to this change were funded by w w f and triggered investments from other parties –both private and governmental. The project is not dependent on subsidies.

2.4 PRES PA

The Prespa basin covers parts of Albania, Greece and the Former Yugoslav Republic of Macedonia. It contains the lakes Mikri Prespa (4 850 ha) and Megali Prespa (28 000 ha).



Developments on the shores of Prespa

The Prespa Park is situated on a mountainous plateau at an average altitude of 1 000 meters above sea level and peaks up to 2 334 meters. The area is famed for its natural beauty, high bio-diversity, and outstanding cultural values. It has 26 Byzantine and Metabyzantine monuments dating from the 10th to the 19th century. The typical local architecture and certain cultural particularities (unique fishing methods, domestic animal breeds) are also remarkable.

Until the 1960's, Mikri Prespa was a mesotrophic lake characterized by extensive reed beds, wet meadows and rich wildlife, while Megali Prespa was an oligotrophic deep, crystal-clear lake. From the 1960's until 1986 human interventions in all three countries have adversely affected the hydrological regime of the area and consequently its ecological functions. Irrigation systems were built for agriculture in Greece and FYR of Macedonia, supported by EU funds. In Greece 1 000 ha of wetlands were drained and converted to farmland. In addition the natural connection between the two lakes was replaced by a concrete canal.

The Prespa project started approximately ten years ago, when WWF-Greece set up the international Society for the Protection of Prespa. This received substantial international support, which culminated in 1999 when the Society won the International Ramsar Award for its ability to motivate and persuade the stakeholders to work towards sustainable development. In 2000 the trans-boundary Prespa Park (2 519 km²) was established by the Prime Ministers of Albania, Greece and Former Yugoslav Republic of Macedonia and designated as a 'Gift to the Earth'.

The present policy is to work towards sustainable development. The traditional sectoral economies and the declining population are still cause for concern but visitors and tourists are becoming increasingly important for the three countries and start to function as one of the new future drivers of the region. At the same time agriculture and fisheries have a difficult time coping with globalisation and modern environmental standards.

An integrated vision for the entire Prespa basin – i.e. also including the forest ecosystems in the mountainous parts – seems to be lacking. Yet the project is valuable for OEFN because of the combination of lessons learned (in working with local people; international cooperation with governments and private institutions; combining strategic direction with an opportunistic approach) and the potential – not yet fully used – for the creation of new economies.

2.5 MODEL IMPLEMENTATION OF INTEGRATED RIVER MANAGEMENT ON SMALL NATURAL RIVER BIEBRZA



The model project (blue line) is part of the larger Biebrza project (red line).

The project is located in the Biebrza Valley in North-East Poland, in the lower (South) basin, and lies entirely within the boundaries of the Biebrza National Park. One third of the project area is even owned by the National Park. The total area covered by the model project is 300-400 hectares. These are close to the village of Brzostovo.

The open meadows on which the model project focuses are a result of cattle grazing and mowing during the past centuries. Polish red cattle would graze freely in the fields and at night returned to the stables where they could be milked. Only in a few places the system of

'happy cows' still exists; most of the land has been abandoned and shrubs and forests move in. This negatively affects the existing natural values, especially the numbers of birds living in open areas.

The main conservation challenge the project sees for itself is how to stop plant succession on the abandoned lands. The aim is to stop this succession by stimulating farmers to return to the area by:

- preparing detailed management plans for the meadows of the lower valley, so that these will be managed and controlled in their present state;
- developing a self sustaining system of grazing, by e.g. promoting local dairy products on the national market. The aim is that by stressing the special qualities of the 'happy cow milk' this can compete with other milk on the market. Contact with a producer of milk boxes (as a means for communications) has been established;
- promoting the attractions of the Valley to tourists;
- restoring a healthy herd of Polish red cattle and offer them to farmers (sell, rent of for free – this is still open)

The project also plans to assist in the purchase of land (to be funded by the Polish Ecofund) so that it can be given in ownership to the National Park. The areas concerned are already within NP boundaries. The intention is that the National Park will give the use of the land to local farmers, so that they can manage it in the small scale fashion which is beneficial to e.g. the breeding and migratory birds.

The project clearly focuses on the theme O E M N wants to address. Weak points – for O E M N – are that the solution promoted is dependent on subsidies (O E M N seeks to promote self-sustaining 'new economies') and not yet operational in the field. Also the type of solution aimed for is already well known from other parts in Europe.

2.6 CONSERVATION AND MANAGEMENT OF CORK FOREST LANDSCAPES IN SOUTHERN PORTUGAL

The project is located in the South of Portugal, between the regions Alentejo and Algarve, from the Atlantic coast to the Spanish border. This pilot landscape unit covers 8000 km² and is a result of the 'Southern Portugal Green Belt' project, which developed a Landscape Conservation, Development and Restoration Strategy for the ecoregion's forest ecosystems.

The project aims to restore the traditional sylvo-pastoral land use as an economic driver for the conservation and restoration of the Cork Oak forests in the region. It also aims to support efforts to develop new markets for the products generated by the sylvo-pastoral system.



The current phase of the project ends December 2003 and the emphasis so far seems to have been on the development of plans and strategies. The project also supported a pilot restoration initiative, in which land owners and farmers were stimulated to make adequate use of CAP subsidies as well as the setting up of a multi-purpose socio-economic and environmental tree nursery unit, managed by a women cooperative.

The project clearly focuses on a problem relevant to OEMN. However, it seems that the solution side is not yet (fully) in the implementation phase and full funding is not available. Also it is questionable whether the solutions promoted will be economically sustainable: there is a heavy dependency on the market for cork (wine bottles) and also much is expected from the unique quality – and marketability – of the products coming from the sylvo-pastoral system.

2.7 BULGARIAN DANUBE ISLANDS PROJECT

The Bulgarian Danube Islands Project covers all islands in the Bulgarian Part of the Danube River. There are approx. 75 Bulgarian and 52 Romanian islands in this 480 km stretch of the Danube, which starts some 40 km upstream of the city of Vidin and goes all the way down to Silistra. The islands together have a surface area of 11 000 hectares. With only one exception, the islands have no dikes around them and are not drained. The natural flooding regime therefore still exists on the islands: erosion and sedimentation still occur, occasionally new islands are formed and existing ones change their shape and location.



On most of the islands poplar trees have been planted. The project aims to protect the remaining, natural islands and restore some of the islands which already have been transformed into poplar plantations.

The aim to restore natural processes fits well with OEMN's objectives and could also contribute to the restoration of fisheries and an increase in tourism in the region. However, the project in its current forms seems to be a 'classic' conservation project. Possible links with economic developments exist but it seems they are not pursued. Also the scale of human use of the islands is limited.

The combination of these factors will make it difficult to use this project as a pilot demonstrating how to tackle the large scale (tens of millions of hectares) changes in land use faced by Europe.

2.8 MORAVA

The project is situated in the floodplain of the Morava (March) and Thaya rivers in Slovakia, Austria and the Czech republic. It covers 3000 hectares. In the 1950's and 1960's the Morava was heavily regulated and the course of the river was shortened. Summer dikes and traverses prevented the natural flooding of the floodplain and meadows were destroyed because subsidies were provided for intensification or ploughing of grasslands.

The project aims to reopen the entire Morava/Thaya floodplain to the influence of the river and reconnect the old river beds with the main river course. In addition farmers are encouraged to change arable land (back) into grasslands and forest and 150 farmers participated in this programme. Tourism is promoted as well.



Though the problems in the project region are relevant to O E M N it is difficult to obtain a clear picture of the project's current activities in the field. Many parties are – or have been – involved and although this may be a good thing it also makes it difficult to judge which activities actually are being carried out and with what result. The approach taken seems to focus on conservation (in the past purchase of land, currently Ramsar implementation) and less on rural development and the development of new economies. Partnerships with other conservation organisations exist, partnerships with economic partners (e.g. the gravel industry which is present in the area) seem to be lacking. The presence of Vienna, Bratislava and Brno make the location potentially interesting for visiting journalists, policy makers and politicians, but it is unlikely that the 'O E M N-story' can be told on the basis of activities currently carried out in the field.

3 Templates of the 8 projects screened

- Danube-Carpathian Programme Office
Carpathian Large Carnivore project;
- WWF-Sweden
Väinameri (and Karelia);
- WWF-Netherlands
Gelderse Poort;
- WWF-Greece
Prespa lake;
- WWF-Poland
Biebrza;
- Mediterranean Programme Office
Cork forest landscapes project;
- Danube-Carpathian Programme Office
Bulgarian Danube Islands;
- Danube-Carpathian Programme Office
Morava.

3.1 Carpathian Large Carnivore Project

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www.clcp.ro
www.bcp-wildlife.org
www.wolftrek.org

Important information (partly used in this screening) can also be found on: www.clcp.ro

A PROJECT CONTACT DETAILS

- WWF National Office responsible: WWF Danube-Carpathian Programme, WWF-International
- National contact details (project manager): Christoph Promberger
- Local contact details (project executant): Christoph Promberger

B GEOGRAPHICAL INFORMATION

- LOCATION – *please include a reference if applicable to EAP, and why it is in a region of value to WWF:*

The project is located in Romania, in the South-East Carpathians near the city of Brasov. It covers an area of 200 000 hectares and half a million of people are living in it. Land use is intensive, with forestry, farming and livestock being the most important in terms of surface area covered.

C GENERAL ECOLOGICAL INFORMATION

- GEOGRAPHICAL CHARACTERISTICS

The project area consists of high alpine mountains (up to 2500 m), rolling hills (around 1500 m) and valleys (6-800 m). People are concentrated in the valleys.

- CLIMATE, CLIMATE CHANGE IMPACTS DATA ALREADY WITNESSED, IF AVAILABLE

The area has a moderate continental climate, with hot summers (30 – 35°C) and relatively cold winters (to minus 25°C). In the 1960-70's winters were much colder

and over the past 10 years winters have been less predictable than before. The period of permanent snow cover seems to have decreased and during summer the average temperatures increase. The year 2000 had the driest summer ever. These changes can be seen as the first indications of climate change.

- **HYDROLOGY AND WATER MANAGEMENT**

The hydrology in the project region is relatively intact: streams and rivers (at these altitudes) are not dammed or channelled and water quality is good until a stream/river passes the first city. Immediately after that point pollution occurs, often caused by the (still active) industries from the Ceausescu regime. The Olt and its tributaries are the main river system in the region.

- **SOIL CHARACTERISTICS**

The project region is a limestone area, with fertile valleys (hay meadows) and on the slopes chalk grasslands (with orchids). There is little erosion except where overgrazing by livestock has occurred.

- **FLORA AND FAUNA**

The area is extremely rich in biodiversity (hot spot). In the Piatra Craiului National Park alone 1.100 higher plant species occur. The fauna is almost complete, with only the Bison and Moose missing. Large carnivores are present in considerable numbers: 70-90 Wolves (difficult to see), 120-140 Bears (easy to spot), and 50 Lynx. Avifauna is also rich although vultures have disappeared due to poisoning over the last century.

- **PARTICULAR VALUE TO WWF'S PRIORITIES**

This project fits within WWF's global priorities because it covers both the freshwater and forest biome (60-70% forest cover). The project area is one of the key regions for the WWF Danube-Carpathian Programme and a Global 200 site (number 177). Apart from this many species of European importance reside in the region.

With regard to forest management the aim is to work towards viable, sustainable forestry – eventually fulfilling FSC criteria. In terms of surface area: President Iliescu announced that Romania wants 1 million hectare of its forests to be brought under sustainable management. It has not yet been decided where these 1 million hectares will be located, the project works with a community which will likely get all its forests (>4 000 ha) FSC certified.

Agriculture takes place mainly on a subsistence level: in many cases, it does not generate any money. Livestock grazing is still abundant: the Romanian Carpathians as a whole host 5 million sheep throughout the summer grazing period, the project area supports 100 000 sheep. Since the revolution (1990) these numbers are decreasing.

D LAND-USE INFORMATION

- **HISTORICAL LAND USE**

Historically forestry and livestock keeping were the most important forms of landuse. Also there was a little bit of agriculture.

In the period 1940-1950 the first industries appeared (pulp mills existed already earlier, the first recorded ones in the late 1800's).

From 1960-1970, under Ceausescu, every small city was given its own industry. In the project region this included chemical industry (wall paint, ammunition) pulp mills and furniture factories.

- **CURRENT LAND USES**

After the revolution the industries set up appeared to be not viable; most laid off people which caused high levels of unemployment. This, combined with the privatisation of land since 1990 (people were given back the land which had been nationalised after the second World War) made people return to rural areas. Since these 'resettlers' had no experience in farming and no money to invest (they used and still use horses and plows to cultivate the land), **AGRICULTURE** today remains on the subsistence level. In a sense this is positive for conservation, one benefit being that hardly any pesticides are used.

There is also **MINING**. Somewhat North of the project region rock extraction takes place. There have been plans for a huge granite quarry (including 40 ton trucks and explosions) in the project region. In fact licenses had already been provided, both on the national and regional level. The quarry however could be stopped by the Large Carnivore project because it could be argued that tourism already now secured more jobs than the quarry could ever provide.

FORESTRY is still an important form of land use. It supports, among other things, an pulp mill owned by an Italian company. This company claims to produce Eco-paper but the water used is discharged into the river system without waste water treatment. The company, when it purchased the mill, promised to invest 10 million euro in water treatment but up till now has not lived up to this promise.

- **FUTURE TRENDS**

The '**CEAUSESCU INDUSTRIES**' in the cities will continue to go down. This, among other things, will put extra **PRESSURE ON THE FORESTS**: these already have been privatised and the communities will go there for revenue. Most of this 1 million ha will likely be state forest.

The picturesque landscape attracts the building of **SECOND HOUSES** in the region (by people from Bukarest and Brasov). This probably will continue and could in principle help bring prosperity to the region. Up till now this is not the case. Quite the contrary: houses like this often are built in the middle of the mountains, with no water treatment. The owners do not seem to have any interest in the landscape or the conservation of nature.

AGRICULTURE at the moment still survives because it supplies the local markets. After **EU** accession the farmers involved will get a hard time: already huge supermarkets (like Metro) are present in the project area and people start buying there, including tomatoes from the Netherlands. Because of this agriculture can be expected to decrease as an economic activity in the area.

E SOCIO-ECONOMIC INFORMATION

- **HOW IS THE LOCAL ECONOMY STRUCTURED, including a socio-economic profile**

Smaller cities which a few decades ago depended on 1-2 industries are having a difficult time. The small villages, which never had such industries in the first place, up till now remain in poverty. Tourism is beginning to develop, especially close to the larger cities. These larger cities (like Brasov) are generally thriving and also attract some foreign investment. Part of this development is that younger generations are moving from the villages to the cities.

- **VITAL STATISTICS, jobs, employment, type of employment (also if possible very briefly contextualised in broader regional or national situation)**

Apart from the qualitative information provided in the previous section, no additional information is readily available. Zarnesti, a small town of 26 000 inhabitants, forms the core area of the clcp.

- Population density is 143/km²
- 0% population increase
- 94% Romanians, 6% Roma, Hungarians and German minorities
- ca. 5% has higher school education (University or post-highschool education)
- 1990: 16 500 jobs, 2002: 4 900 jobs, current unemployment rate is over 40%.

- **SOURCES OF FUNDING AND INVESTMENT IN THE AREA**

(What is the role of public and private funding)

Brasow get lots of investment but rural areas hardly manage this. In some cases construction of second houses takes place, but even these are often constructed by bigger companies which reside in the urban regions.

The EU does invest in the project region, especially in cases where the town hall is active in getting EU support (e.g. for water supply systems, canalisation and infrastructure). Funding comes through PHARE, RICOP (regional infrastructure) and SAPARD (rural development issues). By and large the effect on the prosperity of the region is neutral: on the one hand there is corruption, on the other hand some of this money is put to good use (e.g. cleaning water).

Applications for EU funding up till now have been done in an isolated, haphazard way. The more forward looking officials are now beginning to coordinate their efforts on a regional scale.

- **WHAT IS THE ECONOMIC VIABILITY OF THE AREA**

The economic prospects for the region are poor. The bigger cities will continue to do relatively well but the people in the smaller cities and in the villages have seen a worsening of their situation over the past 10 years and this trend is likely to continue. Some villages might not survive.

- **HAS THE PROJECT AFFECTED THIS VIABILITY**

The project has successfully demonstrated that people and large carnivores (as a symbol of nature) can live together. It also demonstrated that nature as a source of income (tourism) is extremely interesting and as a result managed to stop the construction of a huge quarry – despite the fact that permits had already been granted.

F THE PROJECT & ITS VALUES

• MAIN PROJECT ACTIVITIES RELATED TO ONE EUROPE MORE NATURE

The project consists of four components:

- **RESEARCH:** both on (1) the conservation field level (radio collaring to investigate behaviour of large carnivores); (2) on the economic level (what is/could be the impact of ecotourism, trophy hunting, livestock damage vs. the cost of guarding livestock) and (3) social issues (human dimension research, attitudes and beliefs)
- **MANAGEMENT AND CONSERVATION:** activities included the testing of electric fencing to protect livestock during the night (result: casualties close to zero). The first fences were paid by WWF, now the National Park provides the funding. Further, the project has established a conservation and development fund which provides grants for all kinds of conservation/development initiatives. The fund receives its money from ecotourism, national and international grants. This part of the project also focused on Brown Bears feeding in garbage containers in Brasov. This resulted in (proposals for) better management of garbage and hunting. This part of the project has not been very successful. A conference with the Council of Europe and the Romanian Government resulted in National management plans being asked for large carnivores.
- **HABITAT CONSERVATION LINKED TO RURAL DEVELOPMENT:** this part of the project focuses on rural development as a tool for conservation. In 1997 the Ecotourism programme was started, focusing on large carnivores and local lifestyles. As a first step 16-18 travel agencies in Western countries were approached and – as a complement – a local search was done for people in the project area who were interested in receiving foreign tourists. As a result guest houses are now in existence, as well as trained guides, a horse riding centre, and a big handicraft centre (providing an income to 80 people). In total 150 jobs were created by this part of the project. This proved an effective argument against the planned quarry (*see earlier*) which could only offer 30 jobs. The jobs are concentrated in/around one small city (Zarnesti). The idea is to spread the approach taken to other areas/cities. The number of visitors is still increasing: in 1997 7 groups visited with a total of 70 people, in 2003 150 groups visited, totalling 1000 visitors. An annual growth of 50-120% has been seen over the past years and is expected to continue.
- **PUBLIC AWARENESS:** this part of the project addresses various levels. (1) a large carnivore education programme was developed for primary schools, with up till now 100 school classes participating; (2) for universities a series of brochures (wildlife series) was developed which provide an integrated view on conservation; (3) in the direction of livestock owners the results of the projects research were shown and an insurance company was contacted to develop an insurance policy for livestock damage; (4) media work has been done on a fairly large scale. The score up to now: 300-400 Western journalists reporting on the project; 30-40 TV productions, including a 45 minute BBC/Discovery item (Living with predators, broadcasted in 60 countries) and a German production (The lord of the Wolves), which has been broadcasted over 20 times over the last 4 years.

- **ARE THERE AND, IF YES WHO ARE THE PROJECT PARTNERS AND STAKEHOLDERS? Which partnerships (including private / commercial sector) exist and have the potential to become drivers/carrying forces of the project in the future.** Partners in the project are (1) the Government: all relevant ministries, including those for Tourism and Environment and from local to national level; (2) the private sector, especially the ecotourism association.

The drivers which can carry the project's intentions forward are ecotourism, forestry and agriculture. The Conservation and Development Fund established is an important tool in this respect: it is partly filled with levy's from tourgroups. Each client pays 75 EURO. Apart from the levy's also the Canadian Embassy has given a grant and other funding programmes from various countries are explored. This involves a mix of private, government and sponsorship relations. The goal is that the Large Carnivore Centre – a visitor/educational centre – recently set up will also generate substantial sums of money for the fund.

Last year (first year of operation) the total sum of grants the fund could distribute amounted to 35 000 euros.

- **WWF'S VISION FOR THE AREA (and how it fits into the actual vision being taken forward by the authorities and other economic actors). Which partnerships (including private / commercial sector) exist and have the potential to become drivers/carrying forces of the project in the future.**

WWF wants this project to become a model showing how conservation (in this case through icons like Large Carnivores) can stimulate sustainable rural development and vice versa. The conservation aim is that not only the large carnivores but also the natural forests and hay meadows in the region survive.

- **OUTLINE OF THE ROOT CAUSES FOR THE SPECIFIC CONSERVATION CHALLENGE (threat or opportunity faced by the area and how the project responds to these root causes)**

The root cause for the conservation problems WWF addresses in the region is the poverty caused by the collapse of the 'Ceausescu – related' industries. People are desperately looking for sources of income and for instance are willing to sell their land at very low prices. All kinds of developments, sustainable or not, are welcomed and grabbed as opportunities to generate short-term revenue.

- **WHAT ARE THE KEY LESSONS TO LEARN FROM THIS PROJECT AREA**

- People and nature (large carnivores) can live together;
- The presence of large carnivores can have a positive economic impact on a region;
- Landscapes have value above production value;
- Private initiative can shape things for the better, after a period suffering from communism.

- **REMAINING THREATS – AND HOW IT IS BEING PLANNED TO ADDRESS THEM**

- Democracy is still unstable, e.g. in many cases local councils change completely with every election and thus possibly local policies. There is a need to strengthen the private/NGO sector to counteract these threats.

- Need to carefully guide tourism development to prevent ‘over-exploitation’ through tourism.
 - Need to further strengthen the local understanding to prevent hotel investments from outsiders.
- **CLEAR IDENTIFICATION OF HOW THE PLANNED (OR NEW) LAND USES ARE:**
 - 1 **environmentally and economically sustainable**
The project is not big enough to solve all problems (ecological or economic) in the project area, and it was never intended to do this. The solutions developed however provide a starting point for the approach to be spread on a wider scale. It is yet unclear in how far tourism, currently the main driver in the project, will provide a new economy which, by its nature and volume, is strong enough to permanently steer developments in the region in the right direction. With the opening of the Large Carnivore Information Centre (2005), this is very likely to be overcome.
 - 2 **not dependent long-term on (project) subsidies etc**
The Conservation and Development Fund set up is an important tool. Initial funds already come in and grants have already been distributed. It is envisaged that the Large Carnivore Centre will bring in extra funding. Apart from this already 150 people have a job in the tourism industry set up by the project.
 - 3 **replicable on a regional scale at least**
(i.e. not site specific; what methodologies are available etc..)
The project is replicable on a regional scale, the approach followed in principle can be adopted elsewhere but should of course be adapted to the economic and social reality of the region involved. The presence of true icons (like large carnivores) to attract tourists is crucial for this specific approach to become a success. A similar approach is already followed in Sweden and there are plans to develop twinning relationships with other cities who want to ‘copy’ the approach. Other villages in the project area already start to use large carnivores and understand the importance of ‘eco’-development.
 - 4 **linked to Brussels: (the example must be able to be used as levers to influence EU policies and practices)**
The project can show how a transition – at least in part – can be made from a largely agricultural economy to an economy based on tourism and natural resources. It also shows that this ‘new economy’ can be set up in such a way that it in principle is self-sufficient in economic terms.
 - **ROLE OF NATURE VALUES**
Natural values are ‘used’ to attract tourists and through this create jobs and revenue. This economic/social importance in turn is used to further protect and develop the natural values of the region (example: stopping the quarry).

G COMMUNICATIONS AND MARKETING

- **COMMUNICATIONS ACTIVITIES ON-GOING, PLANNED**
(mainly European context)
Twinning activities are being set up with other countries/cities who want to follow the approach developed in the Carpathian Large Carnivore project. There is ongoing cooperation with Western journalists; the tourism companies operating in the region also are strong ‘ambassadors’ for the region. There is also a

communications/education programme targeting groups in the project region. See also section F. No specific activities are undertaken in the direction of Brussels but indirectly this has been done through the Large Carnivore Initiative for Europe (www.large-carnivores-lcie.org)

- **COMMUNICATIONS POTENTIAL** *(if more funding was available), mainly for European issues*

The potential of the project area could be better marketed. Currently there are relatively little media activities (e.g. 2-3 journalists per month), but this will increase dramatically once the Large Carnivore Centre is further advanced.

H EXTRA INFORMATION

- **PHOTOS**

There is a large selection of photo's available on the photo gallery of www.clcp.ro

- **BROCHURES**

In total there are some 20 brochures, leaflets and reports. Additional information is available on www.clcp.ro

- **LOGOS ETC.**

There is a logo, see www.clcp.ro

I FINANCIAL INFORMATION

- **PROJECT BUDGET**

The project is in a transition –current WWF activities came to an end in June 2003 and the project will become independent, both financially and staff wise (Romanian staff are sought/trained at the moment). The annual budget has been between 200 000 and 300 000 EURO. Direct project activities are not intended anymore, activities are carried out independently through the Eco-Tourism Association, town halls, county council, ngo's and the Large Carnivore Centre.

The next phase, the Large Carnivore Centre, (coming 2 years) has a total budget of 1,4 million EURO. Two thirds of this is secured, 1/3 is sought from the EU.

- **FUNDING SOURCES**

The main funding source for this project is/was WWF combined with several international foundations and sponsors.

The next phase is paid for by DOEN Foundation (NL), Nando Peretti Foundation (I), GTZ (D), European Nature Trust (UK) (2/3 of the budget) and (hopefully) the EU (1/3 of the budget).

3.2 Väinameri

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Information (partly used in this screening) can also be found in: www.arhipelaag.se/vainameri

A PROJECT CONTACT DETAILS

- WWF National Office responsible: WWF-Sweden
- National contact details (project manager):
Toomas Kokovkin (toomas@hiiumaa.ee), Victoria Lee (vlee@wwf.se).
- Local contact details (project executant): Estonian Fund for Nature (ELF) and Research centre Arhipelaag (NGO), in cooperation with Laanerannik (NGO Vormsi island) and Matsalu nature reserve.

B GEOGRAPHICAL INFORMATION

- LOCATION *(please include a reference if applicable to EAP, and why it is in a region of value to WWF)*
The project area covers approx. 3000 hectares and is situated in the eastern Baltic Sea. It encompasses Vormsi Island, the south-east part of Hiiumaa Island and Matsula bay. Väinameri means 'the sea of straits' (Väin = strait, meri = sea).

C GENERAL ECOLOGICAL INFORMATION

• GEOGRAPHICAL CHARACTERISTICS

The project is situated in a coastal area of the Eastern Sea at the western part of Estonia and can be best described as semi-natural coastal wetlands.

• CLIMATE, CLIMATE CHANGE IMPACTS DATA ALREADY WITNESSED, IF AVAILABLE

The site is located in the Atlantic-continental region of the temperate climatic zone, which is characterised by warm summers and moderately cool winters. In February temperatures average -3,5 to -4,5°C, in July the average temperature is +16,5 to +17°C.

Year round average temperature is +5,2 to +5,8°C. Annual precipitation is approx. 600 mm, the snow cover lasts for 90-100 days. In January and February the sea in Väinameri is usually covered with ice.

No information was received on possible indicators for climate change.

- **HYDROLOGY AND WATER MANAGEMENT**

The hydrological system is largely natural. Human interference (e.g. drainage activities) seems to be lacking, although present (agricultural) use of the area will have some influence on the hydrology (the vegetation associated with grazing and mowing is different from that in a fully natural system).

- **SOIL CHARACTERISTICS**

The project is situated in an area consisting of limestone bedrock which is covered with glacial and marine sediments (primarily clay, loamy clay and shingle). Land surface is sloping, the coastal sea is shallow. There is wave activity but this has no meaningful impact on the coastal formation.

- **FLORA AND FAUNA**

The area is located in the transition zone between temperate pine forests and deciduous forests. Terrestrial habitats include forests (pine, mixed and juniper), swamps, peat bogs and extensive coastal meadows. The Alvar forests (spruce, pine, juniper, or birch forest on limestone plains with thin top soils) are of particular interest. Parts of the area are designated as Ramsar sites. Part of the biodiversity here is closely connected to the historical land-use, especially mowing and grazing which has created the semi-natural meadow communities which are characteristic for the area.

Characteristic species of the seashore halophilous meadows are *Eleocharetum parvulae*, *Triglochin tetarum maritimi*, *Bolboschoenetum maritimi* etc.; alvars are characterized by *Juniperus communis*, *Lonicera xylosteum*, *Rhamnus cathartica*, *Ribes alpinum* etc.; boreonemoral forests have *Pinus sylvestris*, *Betula pendula*, *Alnus glutinosa*, *Alnus incana*, *Picea abies*; broadleaf forest and wooded meadows have species like *Quercus robur*, *Tilia cordata*, *Ulmus glabra* and *Acer platanoides*.

Because the area is located in the East-Atlantic flyway, thousands of waterfowl and waders migrating through the area, nest, rest or moult here. Among them several species included in Annex 1 of the EC Birds directive, such as *Cygnus cygnus* and *Cygnus columbianus* (over 10 000), and *Branta leucopsis* (approx. 60 000). Most of the European population of *Anser erythropus* (approx. 40 individuals) also migrates through the area. Total numbers of *Philomachus pugnax* on migration amount to 8 000, more than 30 *Avosetta avosetta* at one time have been counted. In alluvial meadows four sites with 45 - 50 males of *Gallinago media* are known and over 100 *Crex crex* nest here.

- **PARTICULAR VALUE TO WWF'S PRIORITIES**

The project is part of the Fresh Water TDP and the area belongs to the The Baltic Ecoregion, therefore this is a key area.

D LAND-USE INFORMATION

• HISTORICAL LAND USE

For centuries the area has been used for farming, especially cattle breeding. Forestry and fisheries also occurred; the project focuses on grazing. A special feature of the area is the historical absence of chemicals and fertilizers, which means that soil and water quality are still good.

The biodiversity of the extensive farmland culture was relatively high, with approx. 75 plant species per square meter. The area however lost a lot of farmers in the last decades, especially since 1992. This leads to encroachment of grasslands by shrubs and trees.

• CURRENT LAND USES

The current land use includes agriculture (cattle grazing), fishing, forestry and tourism.

• FUTURE TRENDS

There is a growing interest in nature and landscape management and on a limited scale new employment starts in tourism and sales of local handicrafts.

E SOCIO-ECONOMIC INFORMATION

• HOW IS THE LOCAL ECONOMY STRUCTURED, *including a socio-economic profile*

Some 5 000 people live in the area. Main land uses are extensive agriculture, fishing, forestry, local industries, retail and tourism. Small-scale electronic and plastic industries are under development.

• VITAL STATISTICS: jobs, employment, type of employment *(also if possible very briefly contextualised in broader regional or national situation)*

About one hundred people are directly involved in the Väinameri project. Some of them are part of the project organisation; others are entrepreneurs in agriculture, tourism and handicraft.

It is not possible to provide exact figures on the number of farmers, artisans or tourist entrepreneurs because only very few people earn a 100% income out of just one activity. A rough estimate is given below.

Occupation	Project partners number	Percentage of total in area
Farming	35	50%
Tourism	30	75%
Handicrafts	25	30%

More precise figures could be come available through a socio-economic study carried out with funding from WWF-EARD (Brussels).

- **SOURCES OF FUNDING AND INVESTMENT IN THE AREA**

(What is the role of public and private funding)

The project is funded by the Government of Estonia, SIDA, WWF-Sweden, other NGO's and private money. WWF-Sweden has been active in the region for ten years and intends to gradually phase out its funding, in order to get the project on its own feet. Currently there is no EU money involved, neither is it the intention to become dependent on subsidies in the future. However, the Statement of the Väinameri Conference (2002 in Haapsalu Estonia) states that in 2004, when Estonia joins the EU, a rural development plan will allow the Estonian government to use EU funds.

No information was obtained on investments outside the project.

- **WHAT IS THE ECONOMIC VIABILITY OF THE AREA?**

The situation in Estonia has changed completely after the disappearance of the communist regime in 1992. This created new opportunities for entrepreneurs, but also new unemployment. In addition to the decline of small scale farming, people left the region for jobs in the cities.

- **HAS THE PROJECT AFFECTED THIS VIABILITY**

The project has brought a new economic perspective to the region, not only for agriculture but also for eco-tourism and the production and sales of handicrafts.

F THE PROJECT & ITS VALUES:

- **MAIN PROJECT ACTIVITIES RELATED TO ONE EUROPE MORE NATURE**

The project shows on a small scale how a traditional economy can attract new businesses. This is based on the qualities of the cultural landscape, which attracts tourists and visitors. Production and sales of handicrafts generates income (15 jobs created). Initially the buyers were mainly visitors from Sweden but currently also Estonian citizens are interested.

Another part of the 'new economy' is based on the production and sales of 'green meat' from the Highland cattle. This is marketed as a better quality meat and sold in Estonian supermarkets and restaurants, at higher prices.

The project aims to restore the link between consumers, food production and the quality of landscapes and biodiversity (the 'food chain concept'). This links well with (one of) the goals of OEMN.

- **ARE THERE AND, IF YES WHO ARE THE PROJECT PARTNERS AND**

STAKEHOLDERS? Which partnerships (including private / commercial sector) exist and have the potential to become drivers/carrying forces of the project in the future

The project is an example of successful 'multiplication'. WWF-Sweden started the project with local partners (NGO's but also private partners), and this inspired new initiatives in other areas. An example is the development of the Karelia Project on the eastern border of lake Ladoga in Russia, which aims to work with and benefit from the experiences in Väinameri.

The Väinameri project will be increasingly independent from WWF-Sweden and also aims to remain independent from subsidies. Local entrepreneurs and NGOs will carry the project forward in future.

- **WWF'S VISION FOR THE AREA** *(and how it fits into the actual vision being taken forward by the authorities and other economic actors). Which partnerships (including private / commercial sector) exist and have the potential to become drivers/carrying forces of the project in the future.*

WWF-Sweden aims to restore the semi-natural coastal landscapes on which local people depend, through the promotion of natural resource use which does not depend on agro-industrial techniques. Local partners like ELF and Arhipelaag are stimulated to expand the project and in the coming years take over full responsibility. The government is expected to draw up rural development plans for the coastal area in Estonia, building on the Väinameri experience.

In 2003 the project has reached a state where WWF-Sweden is phasing out and ongoing marketing efforts targeting consumers will be finalized. Local partners themselves should carry the project's activities forward. In this respect it is important that there is perspective for a so called mini-chain of shops. Also there is a promising contact with the Estonian Consumers organisation.

- **OUTLINE OF THE ROOT CAUSES FOR THE SPECIFIC CONSERVATION CHALLENGE** *(threat or opportunity) faced by the area and how the project responds to these root causes.*

Poor economic perspectives during the past decades and the resulting decline of the human population have been identified as the main threats for this area. Big changes in the historical landscape of the coastal area, like growth of forests and shrubs and change or even loss of the biodiversity, could have resulted from this. The project has responded to this through the promotion of forms of natural resource use which provide a new economic perspective and at the same time help maintain the original landscape and the biodiversity associated with it.

- **WHAT ARE THE KEY LESSONS TO LEARN FROM THIS PROJECT AREA**
Small scale rural developments can attract new businesses which are both closely related to the management of the natural resources and lead to new perspective for the local economy. Another lesson is that a capable network of (in this case) farmers, artisans and tourism entrepreneurs has been crucial in securing the sustainability of the project.
- **REMAINING THREATS – AND HOW IT IS BEING PLANNED TO ADDRESS THEM**
No serious remaining threats have been mentioned, except the danger of becoming dependent on subsidies. If this dependency develops it might influence the 'food chain concept' developed, because an influx of subsidies would create artificial income.

- **CLEAR IDENTIFICATION OF HOW THE PLANNED (OR NEW) LAND USES ARE:**

- 1 environmentally and economically sustainable,

The form of land use developed seems to be environmentally sustainable in the sense that it will maintain the biodiversity and scenic qualities of the existing cultural landscape.

Whether the approach chosen is also economically sustainable depends on the scale at which the project will develop itself. Currently it is probably too small-scale to be a lasting commercial success without subsidies.

- 2 not dependent long-term on (project) subsidies etc,

On the one hand the project aims to become independent on subsidies, on the other hand the EU accession could lead to use of EU funding. Much will depend on the choices made by the project partners involved.

- 3 replicable on a regional scale at least (i.e. not site specific; what methodologies are available etc..)

The Southern Karelia project which is currently being developed proves that Väinameri is suitable for replication.

- 4 linked to Brussels: *the example must be able to be used as levers to influence EU policies and practices*

The Väinameri project can show how forms of land use can be developed which (1) generate income for rural communities, (2) are not dependent on subsidies and (3) help maintain the quality of the cultural landscape. The project is well documented and already acts as a reference for policy makers and NGO's in the Baltic region.

- **ROLE OF NATURE VALUES**

The project focuses on the natural values associated with the traditional human (agricultural) use of the area. These values are both the focus of WWF's efforts and the 'advertisement' with which tourists are invited to the area.

G COMMUNICATIONS AND MARKETING

- **COMMUNICATIONS ACTIVITIES ON-GOING, PLANNED**
(mainly European context).

The project is well documented and was presented at several international conferences, e.g. the Green Week at Brussels (2002) and Farming with Nature in Utrecht (NL) (2002).

The Väinameri project also has a website (www.arhipelaag.ee/vainameri) and a number of films exist, including: Coasts need care (2000), Eco-trips (Russia 2000), and Väinameri, coastal nature and people (2002).

- **COMMUNICATIONS POTENTIAL** *(if more funding was available), mainly for European issues*

The Väinameri project certainly has communications potential. A very important aspect of this is that the project can actually be seen working in the field. The problem the project addresses also occurs in other parts of Europe.

H EXTRA INFORMATION

- **PHOTOS**

Photos are available, e.g on the website.

- **DOCUMENTS**

There is a number of documents available, including:

- Väinameri – a coastal plan for Estonia, annual report 2002, by Toomas Kokovkin, project national Coordinator (31 pages)
- Rural development in southern Karelia (Russia), by WWF-Sweden and Baltic Fund for Nature (2003, 10 pages)
- information brochures produced during the project period;
- a poster presentation (4 posters).

In addition to this a book is being prepared on the 'Väinameri story'. This will include the philosophy behind the project, activities, the people and nature of Väinameri, and important lessons learned from the project. It is hoped that this book will be completed by summer 2004.

- **LOGOS ETC.**

There is no logo for the Väinameri project, the partners involved (ELF and Arhipelaag) have their own logo's.

I FINANCIAL INFORMATION

- **PROJECT BUDGET**

During the last three years the budget for Väinameri was as follows: 155 000 EURO (2003); 110 000 EURO (2002); 110 000 EURO (2001).

The Southern Karelian project is still under development and has a proposed budget 97 679 USD, from which 7 380 USD should come from Russian national funds.

- **FUNDING SOURCES**

Main donors for Väinameri are WWF-Sweden and SIDA.
Donors for Karelia are currently being sought.

3.3 Gelderse Poort

INFORMATION PROVIDED BY

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A PROJECT CONTACT DETAILS

- WWF National Office responsible: WWF-Netherlands, Gerhard van den Top (conservation director)
- National contact details (project manager): WWF-Netherlands, Leen de Jong (head freshwater programme)
- Local contact details (project executant): Johan Bekhuis (project leader, Stichting Ark)

B GEOGRAPHICAL INFORMATION

• LOCATION

The project area is situated in the Rhine River Basin, on the Dutch-German border. Some 500 000 people live in and close to the Gelderse Poort area, mainly in the cities of Arnhem, Nijmegen, Cleve and Emmerich. Within an hour's drive approx. 4 million people are living. The journey from Brussels takes roughly 3 hours. Recently the new German airport Niederrhein was opened, one hour's drive from Nijmegen.

C GENERAL ECOLOGICAL INFORMATION

• GEOGRAPHICAL CHARACTERISTICS

The name Gelderse Poort refers to the gate ('Poort') the Rhine cut out in the glacial moraine between the German cities of Cleve (South bank) and Emmerich (North bank). This happened 13 000 years ago. Today this is the location where the Rhine branches out in the Waal River and the Lower Rhine – thus forming the top of the delta of Rhine (and Meuse). This top end is located 100 km from the estuary at the port of Rotterdam. A third branch (IJssel) splits off in a Northerly direction and enters the Wadden Sea through Lake IJsselmeer.

The banks of the Rhine river in the Gelderse Poort cover 10 000 hectares. They are sandy and covered with layers of clay. The river has been endiked since 1300 and was shortened considerably by the cut-off of long meanders. Since 1830 the river course itself is regulated by a regular pattern of stone groins. The Waal River provides free access to the sea and is intensively used for transport.

- **CLIMATE, CLIMATE CHANGE IMPACTS DATA ALREADY WITNESSED, IF AVAILABLE**

NordRhein-Westfalen and the Netherlands have a moderate sea climate with an average temperature of 9 °C. Average annual precipitation is 750 mm; virtually nothing of this falls as snow.

There is fairly strong evidence for climate change: the wettest and hottest years ever recorded concentrate in the last decades. There is growing awareness of the effects of climate change on life in the Dutch lowlands. Sea level rise combined with soil subsidence is already causing difficulties in water management. A higher discharge of the Rhine and Meuse rivers is expected, along with more extremes in rainfall. Climate change and water management are a subject for national debate and WWF uses this as a vehicle to promote approaches which combine river safety and habitat restoration.

- **HYDROLOGY AND WATER MANAGEMENT**

Water management, though being an important part of the Dutch cultural and technical heritage, is in stress. Half of the Netherlands is located below sea level and the old skill to fight against the water resulted in a high-tech water infrastructure with 100 000 km of ditches and over 3 000 km of primary dikes. Expansion and maintenance of this system becomes too expensive. Therefore a national discussion takes place on new strategies for water management – inspired by Living Rivers (WWF-Netherlands 1992), Growing with the Sea (WWF-Netherlands 1996) and Mountains of Water (WWF-Netherlands 2000), and lots of other initiatives undertaken by NGO's and governmental institutes in the past decade.

In the Gelderse Poort these problems manifest themselves as well. Roughly 4 000 hectares of land is still influenced by river dynamics, the other part is protected against flooding with high dikes. These are designed to inundate only once every 1 250 years. The groundwater level in the river valley is generally 1.50 m below the surface, and – behind the dikes – is strictly controlled, mainly for agricultural and urban reasons.

Water quality has improved substantially over the last decades, but intensive agriculture still causes pollution to air, soil and surface and ground water systems.

- **SOIL CHARACTERISTICS**

The Gelderse Poort generally consists of a thick layer (a few meters) of fertile clay that gradually was deposited by the river until the endikement started. Below the clay thick layers (10's of meters) of well draining sand and gravel exist, mainly originating from the rivers, and partly also deposited in glacial times.

- **FLORA AND FAUNA**

Populations of breeding and wintering birds (e.g. Geese) are frequently monitored. This shows that the number of breeding birds is rising, both in quantity and diversity, especially in pilot areas like the Milingerwaard with currently 120 species of breeding birds. A decade ago characteristic wetland species were only present in small pockets: marshes, clay pits and old river courses. Today they have spread out over much larger areas. At the same time birds of grasslands and meadows are declining in numbers.

With regard to mammals: cattle and horse are dedomesticating, and considered part of the wild fauna. In 1994 the Beaver was introduced and after a difficult start the population is now growing rapidly. Deer and Wild boar are absent, but Roe deer is doing very well. Badgers are returning to the river banks.

Black Poplar was on its way to (national) extinction, but made a remarkable comeback on the alluvial parts of the river banks during the past 15 years. Alluvial forests are gaining territory through spontaneous development, but land cover will remain limited to 5-10 % because of flood management measures.

Herbaceous plants are doing well too, the number of species climbed to 320. Among them many red list species. In some habitats the vegetation is changing permanently, due to the influence of natural processes of grazing and river dynamics.

This sometimes conflicts with the static approach of traditional conservation.

- **PARTICULAR VALUE TO WWF'S PRIORITIES**

The Gelderse Poort project is one of the first in which the partner approach developed and proved itself. It started in 1992 when WWF-Netherlands bought a few hectares of land in the area. This was done in order to quick-start the process of implementation of the plan Living Rivers. Today numerous partners are involved and each of these contributes to the conservation and restoration of the freshwater habitats in the area. Clay mining, tour operators, cafés, hotels, the local ferry, are just a few economic activities which both benefit from and contribute to the project. Flood control (Ministry of Traffic and Waters) is another important driver for conservation in the area.

Large parts of the Gelderse poort area are included in the Netherlands Ecological Infrastructure and therefore legally protected. These parts are mainly situated in the dynamic river forelands and recently became Natura 2000 sites.

The project contributes to the following targets of the TDP Fresh water:

- **TARGET 1:** high priority fresh water ecosystems protected and sustainably managed

MILESTONE 1.1 quantity of wetlands protected in Ramsar COP8 in 2002, or June 2004 or Ramsar COP9 in 2005.

MILESTONE 1.2: improved management of at least 10 protected high priority fresh water ecosystems and their catchments Ramsar COP9 in 2005.

- **TARGET 2:** Ecological processes are maintained or restored in at least 50 large catchment areas containing high priority freshwater ecosystems by 2010.

D LAND-USE INFORMATION

• HISTORICAL LAND USE

Most of the recently developed natural areas have been **GRASSLANDS AND ARABLE LANDS** for centuries. The natural alluvial forests, marshes and grasslands disappeared after 1800, when agricultural use of river forelands started. More intensive use was stimulated (as of 1957) by the European Community and the Dutch Government who both supported this financially. This caused a further loss of biodiversity and degradation of the landscape.

The river itself has always been extremely important for **TRANSPORT**. Large scale river regulation started in 1830 when the first islands and secondary side channels were removed, in order to create a deeper bed for navigation.

FISHERIES were an important activity as well. The massive migration of adult salmonides up the river has been a major economic resource until 1910. A few private fishermen are still active in some parts of the river course.

The **BRICK INDUSTRY** is a traditional economic power along the river. Ten years ago the industry's future was in danger because of the lack of new permits. This provided the stimulus to accept a new approach in which clay extraction leads to restoration of natural habitats.

The land protected by the dikes was used for **HOUSING** and **AGRICULTURE**. Large scale land reclamation, with up-scaling and further specialisation of farms (mainly milk production) took place in the seventies and a new round is going on since 1997.

• CURRENT LAND USES

AGRICULTURE still is dominant in the Gelderse Poort with a total coverage of 60 to 70% of the land. However, the influence of the agricultural lobby is declining. The sector has been widely criticised for being unable to produce healthy and safe food. Also it is criticised for its contribution to pollution of air, surface and ground water and soil. In addition the budget needed to support current forms of agriculture is a matter of public debate and concern.

FORESTRY hardly plays a role in the Gelderse Poort. Dutch forestry historically concentrated on the most marginal, sandy parts of the country and is a minor land user covering approx. 8 % of the country. Where forestry takes place it focuses more on production tasks than on the conservation and leisure functions of the forests.

MINING OF CLAY is still present in the area but does not generate conflicts anymore. Since the regional government included the principles of Living Rivers in their minerals supply policy most people in the brick factories are willing to cooperate in the development of the region. **MINING OF SAND** is still a problem, also on the German side of the border. The sand extracting companies are dealing with the same kind of (image) problems the brick industry had in the past. Recently a strategy has been launched which shows new opportunities for these companies. A key element of this is that mining of sand – if done properly – can help solve several problems today's society is coping with: storage of water, development of nature and creating new opportunities for recreation.

- **FUTURE TRENDS**

Over the next decade large parts of the active river bed of the Rhine and Meuse River will be transformed into nature reserves (protected by for example Natura 2000). In the same period these areas must develop in a direction which provides more space for rivers. This will not exclude private initiatives like mining of clay or development of a tourist infrastructure – win/win is possible here.

Also behind the dikes the need for water storage has already been recognised, for instance through the Water Framework Directive.

As a result of the above developments, agriculture will disappear in large parts of the river forelands and nature will take over on a surface area of 4 000 to 5 000 hectares. In the parts behind the dikes the agricultural use will develop itself slowly in a direction which is in line with the European Union's ambitions to move from pillar 1 to pillar 2.

Last but not least, approx. 50 000 houses and some business areas will be newly constructed in the Gelderse Poort in the next 10-20 years. Almost 100 % of this will take place behind the dikes, in order to give the rivers enough space. The associated growth of the population will increase the demand for outdoor activities in well protected natural areas.

E SOCIO-ECONOMIC INFORMATION

- **HOW IS THE LOCAL ECONOMY STRUCTURED, including a socio-economic profile**

The Gelderse Poort has a population of approx. 500 000 people and an additional 3.5 million people live in the direct vicinity, not only in the Netherlands but also in Nordrhein-Westfalen (Germany). A very small minority of these inhabitants earn an income in 'land-use' types of jobs (agriculture, clay extraction, forestry). Most of them have their jobs in the bigger cities.

- **VITAL STATISTICS: jobs, employment, type of employment (also if possible very briefly contextualised in broader regional or national situation)**

The Gelderse Poort is one of the economical regions of the Netherlands with a growing number of industries (Philips), trade and commercial services. The city of Nijmegen is strongly focusing on health and health related employment (related to its University). Agriculture is a minor activity (1-2 % of the working population) and the number of jobs in this sector is decreasing – as in other parts of the Netherlands. Tourism is one of the eight sectors in the Netherlands with substantial growth – also in the Gelderse Poort.

The population is growing, because of urban development and modernisation of the two main cities Nijmegen and Arnhem. The area between Nijmegen and Arnhem is one of the few places in the East of the Netherlands that will have a further urban development (about 50 000 houses in the next twenty years). The unemployment rate is 3 to 4 %, the same as in other regions in the Netherlands.

- **SOURCES OF FUNDING AND INVESTMENT IN THE AREA**

(What is the role of public and private funding)

Several larger companies are investing in the area. Also small scale enterprises (local B&B's, bike renters etc.) start investing money now that the Gelderse Poort becomes widely known as an area 'where the action is'. This generated lots of publicity and interest from governmental and commercial parties.

- **WHAT IS THE ECONOMIC VIABILITY OF THE AREA**

The region is economically sound and will be stronger in commercial services, trade, tourism, shopping, and health.

- **HAS THE PROJECT AFFECTED THIS VIABILITY**

The Gelderse Poort project, and especially the development of the Millingerwaard, has affected the economic viability in a positive way. There is more employment in private recreational and tourism businesses. A nice touch is that especially existing (small) businesses jump to the new opportunities, so that the benefits of the project are spread widely over the area (instead of being concentrated in one big new enterprise). More and more the new economy takes over the role agriculture played in the past.

F THE PROJECT & ITS VALUES

- **MAIN PROJECT ACTIVITIES RELATED TO ONE EUROPE MORE NATURE**

- Experiments with natural grazing combined with dedomestication of cattle and horse (since 1990).
- Education (in the field) for primary schools in the direct vicinity of pilot projects in Arnhem, Beuningen, Duiven, Millingen aan de Rijn, and Nijmegen.
- Pilot projects in which partnerships are explored with clay mining.
- Development of a marketing concept 'Building for Nature' with brick companies and minerals production companies.
- Projects with farmers and landscape unions to develop integrated projects with small scale tourism, marketing of regional produce, and landscape management.
- Fieldproject and research on cyclic management of vegetation and sediment in the river bed.
- Communication (excursions, lectures, seminars, publications, interviews) on a local, regional, national and international level.

- **ARE THERE AND, IF YES WHO ARE THE PROJECT PARTNERS AND**

STAKEHOLDERS? Which partnerships (including private / commercial sector) exist and have the potential to become drivers/carrying forces of the project in the future.

There are several partnerships including the following:

- cooperation with the multinational brick factory Wienerberger in the Building for Nature project;
- cooperation with minerals producing company Delgromij ltd, and the Dutch Royal Union of Brick Factories;
- cooperation with local stakeholders and partners like the Dutch State Forestry and Stichting Ark;
- cooperation with Grontmij Consultancy;
- cooperation with University of Nijmegen focusing on nature development and management of river ecosystems;

- cooperation with Hoogvliet (southern part of Rotterdam) and Public Housing Cooperation Vestia in Rotterdam in the Building for Nature project;
- cooperation with the Union of Sand and Gravel Producers to start up pilots (a recent development).

economic expansion and urban development is used as a driving force for nature and rural development. Almost every party involved feels that the Gelderse Poort is their project.

- **WWF'S VISION FOR THE AREA** *(and how it fits into the actual vision being taken forward by the authorities and other economic actors)*

The number of businesses and service organisations in this urbanising area will grow. This can be used to speed up the positive developments which are already taking place and increasingly the area will have living fresh water ecosystems, both in the flooded area and in the water system behind the dikes. This will create better perspectives for nature, but also for the government (e.g. 'space for rivers') and the business community who needs attractive living conditions to keep their higher level staff.

- **OUTLINE OF THE ROOT CAUSES FOR THE SPECIFIC CONSERVATION CHALLENGE** *(threat or opportunity) faced by the area and how the project responds to these root causes e.g.*

A root cause for the problems in the area was that agriculture was supposed to be the economic basis for the developments in the area whereas in practice this could no longer be true. A gradual decline of living conditions in the area and a decline in natural values resulted from this. Another root cause was that flood control measures used to be purely technical, so that the relation between the river and the surrounding landscape was blocked – literally but also in terms of policy and funding.

A new strategy was developed, in order to use economic and social demands as tools for ecological development. 'Enemies' were turned into partners. For example: bodies responsible for flood control became a partner in the creation of 'space for rivers' which is also beneficial for the restoration of natural values. This in turn attracts tourists, publicity and from there on more and more initiatives link themselves to the process. The CAP in its former function frustrated this process, because it resulted in higher prices for agricultural land – thus blocking the functional changes necessary to start a new development. Since a couple of years farmers are more willing, in all kinds of ways, to cooperate because they notice that EU support for their current activities decreases. During the last year the price of the land has declined with 10-20 %, as a result of declining agricultural subsidies.

- **WHAT ARE THE KEY LESSONS TO LEARN FROM THIS PROJECT AREA**

Key lessons are that:

- field activities on a small scale can influence actions and policies of third parties on a local, regional, national and international scale;
- innovative partnerships can be extremely successful in generating both ecological and economic benefits;

- a ‘larger story’ and a ‘small field project’ are a perfect combination when the field project actually demonstrates what the vision is about. Both derive credibility from the other: the vision no longer is a nice piece of paperwork which never can be implemented, the project no longer is a just a ‘drop on a hot plate’ which has no meaning in the real world;
- active communications is crucial – to link vision to project – to partners – to policy makers – to the public at large.

- **REMAINING THREATS – AND HOW IT IS BEING PLANNED TO ADDRESS THEM:**

One of the frustrations shared by many of the partners in the field is the over regulation by the government. This makes sustainable leadership very complex and expensive, because all kinds of permits and approvals are organised in a sectoral manner. The project tries to address this by giving the lead to private partners and small scale NGO’s as much as possible.

- **CLEAR IDENTIFICATION OF HOW THE PLANNED (OR NEW) LAND USES ARE:**

- 1 **environmentally and economically sustainable,**

Land use, especially in the active floodplain, is based on the ecological processes that occur. This is clear for all partners involved and is even one of the ‘selling points’ of the project. The emphasis on natural processes not only is interesting from a conservation point of view: the areas involved also have economic and social functions, e.g. for water management, mineral supply and recreation.

- 2 **not dependent long-term on (project) subsidies etc,**

The private conservation initiatives are becoming self supporting, in a variety of ways, including the sale of ‘wilderness meat’ or live herds. The economic actors bring their own budgets for the activities they undertake in the project. The same is true for partners like the State Forestry Service and the Ministry of Traffic and Waters.

- 3 **replicable on a regional scale at least (*i.e. not site specific; what methodologies are available etc.*)**

The project has already had a substantial spin off in the river area – since 1992 50 projects have been started along the lines of the Millingerwaard pilot. The project is widely used as a reference (not just for river systems) – in the Netherlands and abroad.

- 4 **linked to Brussels: *the example must be able to be used as levers to influence EU policies and practices***

The project is able to show how the partners cooperate in the field, and how this interferes in a positive way with policymaking at all kinds of levels (like river and water management, flood control, agriculture and rural development, nature conservation, mineral supply, tourism, urban development, education).

- **ROLE OF NATURE VALUES**

One of the unique selling points of the project is that the Gelderse Poort area is one of the few areas where nature can take its course again. Natural processes are the basis – for conservation, economic development and flood control. This is shared by all partners in the project.

G COMMUNICATIONS AND MARKETING

- **COMMUNICATIONS ACTIVITIES ON-GOING, PLANNED**
(*mainly European context*).

The project is easy to reach and 100 000 people visit the Millingerwaard annually. The local partner organisation Ark prefers to explain the project's strategy and activities in the field, rather than in conference rooms – even on a one to one basis. The wilderness-café which was set up 2 years ago is developing itself into a real visitor centre, with sale of local produce, and a meeting centre which is use by all kinds of interests – from the local fanfare to farmers and conservation groups.

A special DVD jukebox (also present in the café) allows visitors to travel through the river landscape and learn how in various areas conservation is taking off. The underlying partnerships are also shown. The software developed can be played on any modern PC.

- **COMMUNICATIONS POTENTIAL** (*if more funding was available*), *mainly for European issues*

The project has a lot of potential for communication. This is not yet targeted at 'Brussels' but this could certainly be done. E.g. there is no international leaflet of the projects history and perspective until now (this could be developed). The DVD jukebox could be expanded with OEMN issues and – projects.

H EXTRA INFORMATION

- **PHOTOS**

A large collection of photo's is available, as well as several films:

- An interactive DVD juke box (Ark 2003).
- VIDEO Living Rivers (WWF-Netherlands 1992).
- FILM (also on video) New Nature (Musch and Tinbergen 1996, commissioned by WWF-Netherlands), mainly about the Millingerwaard and local project leader Johan Bekhuis.
- VIDEO ANIMATION: Dancing Rivers (Ark, Stroming and Rombus ltd), showing 500 years of river dynamics in the Gelderse Poort.
- WEBSITES: www.arknature.nl; www.wwf.nl

- **BROCHURES**

Numerous brochures and maps have been produced, the most recent being a book (in Dutch and German) 'Land of Living Rivers' produced by Stichting Ark and SOVON (2003).

- **LOGOS ETC.**

The project has a logo designed by the province of Gelderland; many partners use their own logos.

- **PROJECT BUDGET**

WWF invested € 0.2 million annually in the Gelderse Poort in the period from 1992 to 2002. This budget allows WWF to act as a catalyst and a practical or intellectual partner for businesses, partner-organisations or governmental bodies

- **FUNDING SOURCES**
WWF-Netherlands

3.4 Prespa

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A PROJECT CONTACT DETAILS

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- Local contact details (project executant): Daphne Mantziou, Society for the Protection of Prespa, Ms Vivi Roumeliotou, Prespa Park coordinator, Society for the Protection of Prespa

B GEOGRAPHICAL INFORMATION

• LOCATION

The area referred to, and known in all three countries, as Prespa comprises the two lakes and their surrounding catchment area. The Prespa basin lies in the borders and covers parts of Albania, Greece and Former Yugoslav Republic of Macedonia. In 1974 the majority of lake Micro Prespa was designated as a Ramsar site by Greece. In 1995 the northern part of Lake MegaliMacro Prespa was designated as a Ramsar site by the FYR of Macedonia. In 1997 the Greek part of the basin was proposed as a Site of Community Importance (Natura 2000 network). In 1999 the Prespa National Park was established in Albania.

In 2000 the trans-boundary Prespa Park (2 519 km²) was established by the Prime Ministers of Albania, Greece and Former Yugoslav Republic of Macedonia and registered as a 'Gift to the Earth'.

C GENERAL ECOLOGICAL INFORMATION

• GEOGRAPHICAL CHARACTERISTICS

The Prespa basin covers a total area of 2 519km² and contains the lakes Micro ('small' - 4 850 ha) Prespa and Macro ('large' - 28 000 ha) Prespa. It is situated in the Balkans, across the borders of Albania, Greece and the FYR of Macedonia. It has no surface outflow, with Micro Prespa flowing into Macro Prespa, which in turn flows into the Ohrid Lake basin via subterranean channels and from there to the Adriatic Sea.

The Prespa park lies on a mountainous plateau at an average altitude of 1000 m above sea level, with peaks up to 2 334 meters.

• CLIMATE, CLIMATE CHANGE IMPACTS DATA ALREADY WITNESSED, IF AVAILABLE

No information was provided on this issue.

• HYDROLOGY AND WATER MANAGEMENT

Until the 1960's, Micro Prespa was a mesotrophic lake characterized by extensive reed beds, wet meadows and rich wildlife, while Macro Prespa was an oligotrophic deep, crystal-clear lake. Since the 1960's, human interventions in all three countries have adversely affected the hydrological regime of the area and consequently its ecological functions.

In the late 1960's, irrigation systems were built for agriculture in Greece and FYR of Macedonia. In Greece, 1 000 ha of wetlands were drained and converted to farmland and the natural connection between the two lakes was replaced with a concrete canal. In 1986, a sluice gate was added to control water flows for irrigation. Also in the mid-1980's, Greece received huge payments under the EU's Integrated Mediterranean Programme. This resulted in an expansion of irrigated agriculture, with major adverse environmental impacts, including over-extraction of water from the lake system, degradation of farmland (due to poor irrigation practices), and a decline in water quality in the ecologically vulnerable Micro Prespa.

In Albania, deforestation and overgrazing have contributed to erosion in the basin, and accelerated sedimentation. The latter occurred as a consequence of linking the Devoll River to Lake Micro Prespa in 1953. This was done in order to channel spring and winter rainfall into the lake so that in summer this could be used for irrigation. In 1976, the water management network was expanded to irrigate the 22 500 ha Devoll and Korca valleys.

The FYR of Macedonia contributes to the increasing pollution load of Macro Prespa through runoff of agricultural chemicals.

Water levels in the lake fluctuate and when levels go up the meadows (632 ha) along the shores of Micro Prespa are inundated. These wet meadows constitute a principal spawning area for fish, especially Carp, which is the most marketable fish in Prespa. Also the abundance of fish makes these meadows a very important feeding ground for many rare species of waterbirds (e.g. Herons, Pygmy Cormorants, Dalmatian and White Pelicans).

- **FLORA AND FAUNA**

The Prespa Park covers an area large enough to represent all the distinct natural communities of all the above mentioned ecoregions and maintain viable populations of species. This is due to the location of the area in the perimediterranean zone, the very old age of the lakes, the high altitudinal differences within a small area, the existence of a large water-body at the bottom of the drainage basin that creates a favourable microclimate with less extremities within a wider mountainous area, and the existence of two types of quite different geological substrates (limestones and granites).

There is high habitat diversity in the Prespa basin, with a flora of more than 1 500 species.

The freshwater fish fauna includes two endemic taxa, and a total of 11 autochthonous species or subspecies while endangered mammals include brown bear *Ursos arctos*, wolf *Canis lupus*, chamois *Rupicapra rupicapra balcanica* and European otter *Lutra lutra*. In total approximately 40 mammals live in the area. In addition 11 species of amphibians and 22 species of reptiles have been recorded.

The area is especially important for waterbirds, notably the largest breeding colony of Dalmatian pelicans *Pelecanus crispus* (listed by IUCN and BirdLife International as Vulnerable, the species was only recently upgraded from Endangered) in the world, as well as a substantial number of White Pelicans *P. onocrotalus* and Pygmy Cormorants *Phalacrocorax pygmeus*. In the Prespa Park 261 birds species can be observed, of which 164 are regular or irregular breeders.

- **PARTICULAR VALUE TO WWF'S PRIORITIES**

The involvement of WWF with Prespa started approximately ten years ago, when WWF Greece was instrumental in setting up the international Society for the Protection of the Prespa (SPP). This received substantial international support, which culminated in 1999 when the Society won the International Ramsar Award for its ability to motivate and persuade the stakeholders to work towards sustainable development of the area. In 2000 the transboundary Prespa Park (2 519 km²) was established by the Prime Ministers of Albania, Greece and FYR of Macedonia and designated as a 'Gift to the Earth'.

Significant parts of the lakes and adjoining wetlands in the territories of Greece and the FYR of Macedonia are designated as Ramsar sites and the establishment of the first trans-national protected area in the Balkans is very valuable.

The area is related to three Global 200 ecoregions: nr 77 European-mediterranean Montane mixed forests, nr 123 Mediterranean Forests, Woodlands and scrub and nr 180 Balkan rivers, streams and lakes.

Prespa is a rather small area with well defined geographical and natural borders and it coincides with the catchment area, thus making its integrated management feasible. Therefore Prespa has been selected as one of the model projects of the WWF Living Waters Programme, but it also contributes to WWF's endangered species and forest conservation targets.

D LAND-USE INFORMATION

• HISTORICAL LAND USE

An almost 'harmonious coexistence of Man and Nature' was a reality for Prespa until the 1960's. It was based mainly on the extensive exploitation of resources. Diversity in human activities was a result of a subsistence economy and connected to a certain way of life.

In the past, the inhabitants of Prespa had a strong and direct relationship with the wet meadows. Cattle breeders used these areas for cattle grazing and the reeds were cut for animal fodder and building material. Fishermen burnt the reeds in winter with the aim of creating the necessary conditions for the reproduction of fish in the spring. The traditional practices conserved both the features and the natural values of the wet meadows.

Fisheries (at Carp *Cyprinus carpio* and Prespa Bleak *Chalcalburnus belvica*) was an important activity in all three countries, with 13 % of the labour force in Greek Prespa and an average yield of 183 tons in Greek Prespa alone.

• CURRENT LAND USES

In the Greek Prespa region the primary sector, with agriculture, (stock breeding), forestry, fishery, and very little mining is still the largest productive sector in the economy, with eg 83 % of the active labour force in the Greek part. In FYR of Macedonia and Albania this is even more. Fisheries and forestry have declined in the last decades.

Around 9 % of the Greek Prespa is farming land and 2100 ha are cultivated, of which 700-1200 ha is irrigated, mainly for mono-culture of beans. Consequently the local economy is almost exclusively depended upon the bean market. The intensive bean cultivation, which began in 1980, has significantly increased people's income, but also the use of pesticides and fertilisers with the well-known negative effects on the health of the users, consumers and the environment. Any changes in the bean market would directly affect the socio-economic situation of the area – a grim perspective because developments on the bean market are not very promising. Bean production suffers under international competition. Until now this has been remedied with EU incentives allowing an increase in yields through intensive irrigation. The development of agriculture is towards more beans and less grains. The area used for growing of vegetables, fruits and vineyards is not changing.

The mono-culture of beans is had a clear effect on the water system and the environment as a whole. Due to the occupational change of the inhabitants, and the abandonment of stock breeding and fisheries, a large part of the wet meadows has been covered with reed beds resulting not only in the reduction of feeding ground for birds, but also reducing the spawning areas for fish. As a consequence, many rare species of birds (e.g. Glossy Ibis, Spoonbill) have disappeared from Prespa, while the fish population has decreased.

On the Greek side, about 33,5% of the labour force are involved in stock raising, especially sheep and goat breeding. Recently, a revival of cattle breeding has been observed, as a secondary occupation. Additionally approximately 13% of the labour force is involved in fishing, and about 3% works in forestry.

In Albania about 4 000 ha of agricultural area is registered. Half of this is arable land (wheat, fruit trees and vineyards) and half is pastures and meadows. A larger part of the former arable land has been transformed to pastures. The average size of a farm is 1.4 ha; productivity and income are very low. Stock breeding is becoming the most significant activity, and the production of milk and other animal products (also local specialties) is growing.

Fisheries has been decreasing since 1960. An illness in carp caused great declines in the fisheries at 1976 to 1979. Nowadays there are still 35 officially registered fishermen in the Albanian Prespa, but the actual number is higher.

On the Albanian side, most local forests have been used and overexploited for timber and for fuel production. The main tree species in Albanian forests are oak and beech. Between 1988 and 1992 about 270 ha were afforested with alien Pine species.

In the FYR of Macedonia 20% (12 000 ha of the total 61 000 ha) is agricultural land, with mainly fruit cultivation. The agricultural population amount to 3 000 people. This population is declining, 50% of the farmers is older than 55 years. Cattle breeding takes place for the local and regional market, there are some sheep farms for milk and cheese production.

Fisheries has been decreasing since 1960. An illness in carp caused great declines in the fisheries at 1976 to 1979. Nowadays there are still 35 officially registered fishermen in the Albanian Prespa, the actual number is higher.

Forestry is a significant economic activity and the local forests are managed by a private company which employs 75 people. There are no statistical data on fish yield and fisheries, but a decrease in fishing production is noted in the FYR of Macedonia as well.

Mining activities are limited to the FYR of Macedonia where six lime factories for local needs and a quarry of syenite. Other minerals haven't yet been exploited.

The secondary sector in the Greek part of Prespa has unfolded a number of initiatives to elaborate the products and resources of the Prespa area, but this has not become a success thus far. In Albania part of the area there is no industry. In the FYR of Macedonia industrial activity is more widespread (textile, wood, metal, food), with up to 3000 jobs but still faces economic problems.

The tertiary sector occupied 16% of the active labour force in 1993, but is still very small and largely is concentrated in the Greek Part. In 1993 about 90 people were working in tourism in the Greek Prespa and this is growing. Recent figures show a 100% growth (annual income to 1,5 million EURO in 2000). The visitors are mainly younger Greeks.

Also the development in visitor services show an interesting development: one of the SPP information centers attracts 50 000 visitors per year. Both Albania and the FYR of Macedonia give a prominent role to tourist programs in their policy plans.

- **FUTURE TRENDS**

See above under current land use.

E SOCIO-ECONOMIC INFORMATION

- **HOW IS THE LOCAL ECONOMY STRUCTURED, including a socio-economic profile**
Rural depopulation and unemployment have characterized the region, especially in Greece. The population in the Greek Prespa (1 294 residents in 1991) and the FYR of Macedonia Prespa (17 681 residents in 1991) has experienced substantial decrease during the last decades, while in the Albanian Prespa (5 063 residents in 1989) a slight increase has been noted. The demographic data and the factors that influence them are different in the three countries. In the Greek Prespa, the lack of opportunities and social infrastructure has led especially young people to settle in nearby urban centres, resulting in a decrease in birth rates in the area. On the Albanian side, a significant percentage of the active labour force (28% or more) is practically unemployed. In the FYR of Macedonia, the yearly rate of migration is approximately 30%.

Around 5 000 people in the Albanian part of the basin are engaged mainly in subsistence farming, the former collective agricultural system having been abandoned since the collapse of the totalitarian regime. Basic infrastructure has deteriorated and communities are under strong economic pressure to overexploit natural resources.

Around 75% of the population in the Greek sector continue to rely on agriculture – especially mono-cultivation of beans – though increasing tourism offers alternative income generation.

The portion of the basin within the territory of the FYR of Macedonia is the most densely populated. Here, over 17 500 inhabitants live in some 40 settlements, though strong rural-urban migration is resulting in an ageing and declining population. Fruit growing is the major activity, while the manufacturing sector employs about 3 000 people.

- **VITAL STATISTICS: jobs, employment, type of employment (also if possible very briefly contextualised in broader regional or national situation)**
The Greek part of the Prespa is inhabited by 1 300 people dispersed in twelve settlements. Prespa has problems which can be witnessed in isolated rural areas throughout Europe: depopulation and low birth rates, sense of social isolation, low level of farmers' and cattle raisers' professional skills, difficulties in the marketing of local products, inadequate services, impoverishment of biodiversity. The situation is more acute in the FYR of Macedonia this process exists as well, with even higher unemployment rates (up to 28%). This causes substantial migration to overseas.
- **SOURCES OF FUNDING AND INVESTMENT IN THE AREA (What is the role of public and private funding)**
The Strategic Action Plan 2002 is financed by:
 - The Greek Ministry for the Environment,
 - WWF-Greece,

The pilot programme for wetland management was funded by the MAVA Foundation, the World Wide Fund for Nature (WWF) and the General Secretariat of Research and Technology of the Ministry of Development. Current activities are funded through a EU LIFE-Nature project at 60% (40% provided by WWF Greece). The German GTZ funded a series of micro-projects executed by local NGO's and bodies.

The programme 'Support of the institutional transboundary cooperation between Greece, Albania and FYR of Macedonia within the framework of the Prespa Park' that included cooperation of firefighters and the start of common activities for the local municipalities was funded by the Greek Ministry of Foreign Affairs: and the SPP (own resources)

- **WHAT IS THE ECONOMIC VIABILITY OF THE AREA**

The area is very isolated, being spread over three nations, and sparsely populated. The economic viability will be very much related and increasingly dependent on the results of the Prespa Park. One of the positive results is that visitors come to the area in increasing numbers. Another positive issue is the growing belief among the local communities that the current model of development is not sustainable for such an area

- **HAS THE PROJECT AFFECTED THIS VIABILITY**

It is difficult to establish in this as the Prespa Park is still a new initiative. However, the implementation of the Strategic Action Plan and the future of the Prespa Park are expected to improve the life of the local people, by coordinating efforts, developing new initiatives, and improving infrastructure and relations.

F THE PROJECT & ITS VALUES

- **MAIN PROJECT ACTIVITIES RELATED TO ONE EUROPE MORE NATURE**

There are a number of activities in the project which are relevant to One Europe More Nature:

- communication: two visitor centres were opened in the Greek part and operated by private initiatives;
- tourism is developing in all the three countries, and also the cultural heritage of the Prespa basin is increasingly considered as one of the selling points;
- integrated management of wetlands at the lakeside though extensive grazing with water buffalo. Although it is clear that water buffalo are not part of the native fauna and grazing takes place at a limited scale, this is an interesting alternative to the usual practices of mowing or reed cutting;
- hydrological study for the whole Prespa basin is about to begin, in order to investigate whether water production can become a stakeholder in the future;
- farming methods for organic production of beans were developed and a marketing effort was made to sell the beans as traditional local products. Although not successful (a market is available but only limited farmers decided to go organic), this may provide interesting lessons for other places;
- eco-tourism: local people were trained to work as tourist guides. Unfortunately it is unknown how many enterprises are active at this moment;
- education: a Prespa kit was developed since 1993 and was handed out to 25 000 Greek school children until 1998.

- **ARE THERE AND, IF YES WHO ARE THE PROJECT PARTNERS AND STAKEHOLDERS?** *Which partnerships (including private / commercial sector) exist and have the potential to become drivers/carrying forces of the project in the future.* In 1990, WWF was instrumental in the creation of the Society for the Protection of Prespa (SPP). This is an umbrella organization consisting of seven national and three European non-governmental organizations (including WWF). SPP is locally based and works at grass-roots level, undertaking a wide spectrum of initiatives.

Following the Declaration of the Transboundary Prespa Park, a Coordination Committee has been established in order to pursue the objectives of the Prespa Park. The Committee comprises of three representatives from Albania, Greece and the FYR of Macedonia (representing the environment ministries, local authorities and NGO's), and a permanent observer from the 'MedWet' initiative for Mediterranean wetlands (under the umbrella of the Ramsar Convention) The Prespa Park Coordination Committee meets on a regular basis and observers from donor organizations, NGO's and other bodies regularly attend meetings.

A trilateral secretariat, with an NGO member from each country supports the work of the Committee and carries out the practical work of implementation. The seat of the Secretariat is based at the Society for the Protection of Prespa headquarters. Initial financial support for the Secretariat's operation came from the Greek Ministry of Environment, Physical Planning and Public Works.

The Prespa Park has started to attract international donors. For example the PDF-B project is basically funded by UNDP and KfW. Private partners are hardly mentioned in the project documentation.

- **WWF'S VISION FOR THE AREA** *(and how it fits into the actual vision being taken forward by the authorities and other economic actors) Which partnerships (including private / commercial sector) exist and have the potential to become drivers/carrying forces of the project in the future.* WWF's vision for the area is that of the SPP which through its local, on-the-ground activities, successfully won the trust of local communities and secured their support for and involvement in planning for the future of Prespa and sustainable management of its natural resources. This approach made clear that any activities towards integrated conservation and management had to be carried out at the basin level and therefore a collaboration with the neighbouring countries was necessary. Thus the idea for the Prespa Park originated.

The project aims at:

- maintaining and protecting the unique ecological values of the basin;
- preventing and/or reversing the causes of habitat degradation;
- exploring appropriate management methods for the sustainable use of water in the basin;
- providing a model approach that can be applied in other transboundary situations.

The Strategic Action Plan for the organization and operation of Prespa Park, as well as sustainable development of the overall basin, has as its key objectives:

- conservation of the ecological values, functions and biological diversity of the Prespa Park area;
- sustainable management of water in the basin and measures to address past hydrological interventions;
- institutional reform to ensure protection of the entire catchment;
- enhancement of opportunities for the sustainable economic and social development of local communities;
- wise use of natural resources for the benefit of nature, local economies and future generations.

- **OUTLINE OF THE ROOT CAUSES FOR THE SPECIFIC CONSERVATION CHALLENGE** (*threat or opportunity*) *faced by the area and how the project responds to these root causes.*

An important root cause for the conservation problems is the shift from extensive use of natural resources to intensive agriculture. In the Greek part of Prespa this shift was supported with EU funding. The possible collapse of the bean culture could bring another round of problems to the area.

The Prespa Park tries to address the problems by developing a new direction for the development of the region, which makes use of the natural resources rather than destroying them. This again is (partly) funded by the EU. An example: SPP is implementing a project (2002-2006) that is 60% funded by the EU LIFE programme, aimed at improving nesting habitat for Dalmatian Pelican and Pygmy Cormorant. This involves a range of actions, including management of the littoral vegetation, promotion of more ecologically sound water level management, scientific monitoring, and public awareness. It is expected that the project will result in a tripling of the area of wet meadows and have a positive effect on 42 species of European conservation concern. Socio-economic benefits will be derived from enhanced fish spawning habitat and subsequent higher fishery yields.

- **WHAT ARE THE KEY LESSONS TO LEARN FROM THIS PROJECT AREA,**
 - **Changing the perspective of local stakeholders is key**
For example, in Greece, the adverse environmental impacts of EU-subsidized irrigated agriculture raised strong feelings against both the EU and the Greek authorities. However, this proved to be the turning point for government policy towards the protection and sustainable development of Prespa, and stakeholders with apparently differing priorities now share a common vision.
 - **Focus on identifying and pursuing key objectives, but behave opportunistically where appropriate**
Through a combination of strategic direction and opportunistic action (e.g. sensing and seizing the political ‘momentum’), the basin partners were able to secure the designation of the trilateral protected area.
 - **Use drivers other than conservation**
Focus on rural development issues, especially water allocation, and business/ income development opportunities for local people.

- **Recognize that capacity building will probably be needed**
This is especially the case for newer and/or less strong partners. Plan for this accordingly, making sure that capacity-building activities are designed in close consultation with the partner(s) concerned.
 - **Understand the driving forces influencing land management decisions made by owners, occupiers and users.**
 - **Get the technical information and science base right**
This is essential to be able to support beyond reasonable doubt what conservation bodies are advocating at a field and/or policy level. Gather information at the beginning and select strong (or potentially strong) partners who know how to obtain the information required.
- **REMAINING THREATS** – and how it is being planned to address them
See under root causes.
 - **CLEAR IDENTIFICATION OF HOW THE PLANNED (OR NEW) LAND USES ARE:**
 - 1 environmentally and economically sustainable,
This is difficult to assess.
 - 2 not dependent long-term on (project) subsidies etc,
The project uses all kinds of financial instruments – EU and other funds (GEF and PDF-B) – and does not focus on becoming self-supporting.
 - 3 replicable on a regional scale at least (*i.e. not site specific; what methodologies are available etc.*)
A number of lessons learned (*see above*) are applicable to other places.
 - 4 linked to Brussels: *the example must be able to be used as levers to influence EU policies and practices*
The Prespa region has many links to Brussels, both positive and negative. Additionally Prespa can be an example of EU policies influencing third countries (Albania and FYR of Macedonia)
 - **ROLE OF NATURE VALUES**
The developments the project tries to encourage certainly use the natural values in the area as one of the unique features which can generate alternative sources of income (e.g. makes the area attractive to tourists and develop eco-tourism) or strengthen and give a prospect to existing ones.

G COMMUNICATIONS AND MARKETING

- **COMMUNICATIONS ACTIVITIES ON-GOING, PLANNED**
(*mainly European context*).
The Prespa Park has a newsletter (2nd issue expected shortly) and it is about to launch its website.
- **COMMUNICATIONS POTENTIAL** (*if more funding was available*), *mainly for European issues*
The project certainly has communications potential: a unique landscape with a rich culture in which many land-use and socio-economic problems exist. Many of these have been generated by EU involvement, and the EU is now involved in some of the activities trying to address these problems.

H EXTRA INFORMATION

- **PHOTOS**

An extensive collection of photo's exists.

- **BROCHURES**

With funds from various sources, the SPP has produced the following publications:

- leaflets for environmental education 'The wetlands of Florina';
- information for the restoration and maintenance of the traditional buildings in Prespa;
- texts for the Prespa Information Centre;
- a book titled 'Prespa: A story for Man and Nature';
- a book titled 'Fish and Fisheries of Prespa';
- a book titled 'Prespa Barbel'.
- a book on the Pelicans

The first publications (leaflets) were distributed, free of charge, to schools in the County of Florina. The second was offered free of charge, to all inhabitants in the Prespa region who wished to renovate their houses in the traditional style.

- **LOGOS ETC.**

A logo for the Transboundary Prespa Park has been developed and is currently being used in all formal documents, meetings, publications and the website.

I FINANCIAL INFORMATION

- **PROJECT BUDGET**

All governmental and NGO partners have contributed to the encouraging progress to date, whether through direct financial support or through allocation of other resources.

WWF-Greece is the main funder of SPP's activities (covering 53% of the EUR 650 000 average annual costs for the period 2000-2002) and also provides technical support for research and management work undertaken by SPP. WWF-Greece played an active role in the declaration of Prespa Park and is supporting its ongoing development, *inter alia* by participating in and co-funding preparation of the Strategic Action Plan. To date, government aid agencies and international organizations (notably the EU) have covered 40% of SPP's costs, with individuals and companies providing 7%.

- **FUNDING SOURCES**

See above.

Also:

Financing secured from
Mediterranean Partners
EURO

The following refers to completed projects. To this one should add the financial support from SPP and WWF Greece and the administrative support (e.g. funding of the PPCC meetings) from the three governments.

- Development of the Prespa Park SAP:
Greek Ministry of Environment: 140 866 EUROS
WWF Greece: 14 674 EUROS
- Support of the institutional transboundary cooperation between Greece, Albania and FYR of Macedonia within the framework of the Prespa Park
Greek Ministry of Foreign Affairs: 82 459 EUROS
Society for the Protection of Prespa: 29 147 EUROS

Financing secured from
EU/Other partners
EURO

PDF B – Funding for the preparation of a full project 'Integrated ecosystem and resource management in the Prespa Lake'

Approximately 920 000 EUROS

Funding agencies: UNDP/GEF, KfW. Co financed from the governments of the three countries

3.5 Model Implementation of Integrated River Management on small natural river Biebrza

DATA PROVIDED BY
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A PROJECT CONTACT DETAILS

- WWF National Office responsible: WWF-Poland
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- Local contact details (project executant): Malgorzata Znaniacka

B GEOGRAPHICAL INFORMATION

• LOCATION

The model grazing project is located in the lower (South) Biebrza basin, and lies entirely within the boundaries of the Biebrza National Park. One third of the project area is owned by the National Park, the rest of land belongs to private owners. The total area covered by the Model Project is 300-400 hectares, close to the village of Brzostowo.

The model project is part of a larger project 'Model Implementation of Integrated River Basin Management on small natural river Biebrza' (later on referred to as 'Biebrza' Project). This larger project is located in the Biebrza Valley in North-East Poland and covers 100 000 hectares.

The largest part of the Biebrza river valley is protected under Polish law within the boundaries of the biggest Polish national park – Biebrza National Park (BNP). BNP, one of the most valuable wetland areas in Europe, is also a Ramsar site. Due to its almost natural hydrological regime the Biebrza Valley is considered as a reference site for Integrated River Basin Management (IRBM).

Reference to EAP: the project area is part of the Baltic Ecoregion; activities relate to target 5: ecological functioning of coastal zones and freshwater wetlands and free flowing rivers.

C GENERAL ECOLOGICAL INFORMATION

• GEOGRAPHICAL CHARACTERISTICS

The Biebrza wetlands cover almost 100 000 ha of vast plains of wet fen meadows with scattered birches, reed-beds and stands of willow bushes and diverse forests. They are the largest and one of the best-preserved wetland habitats in Europe. To protect the most valuable part of the Biebrza Valley the national park was established (1993) with financial support of the Dutch Government and WWF.

Moving meanders, oxbow lakes and springtime floods are unique features that make the waters of Biebrza a 'living river' which maintains its natural character along its entire length. All this results in a rich plant and animal world.

• CLIMATE, CLIMATE CHANGE IMPACTS DATA ALREADY WITNESSED, IF AVAILABLE

With exception of the mountains, this area has a reputation for being the coldest region in Poland. Its climate can be characterized as a combination of continental and sub-boreal. Long winters and a short vegetation growth period characterize the Biebrza valley. The average year round temperature is one of the coldest occurring in these types of lowlands, with temperatures in February (the coldest month) dropping as low as -5°C . Winters can last up to 117 days, with average maximum temperatures below zero. Snow cover can last up to 140 days in the upper basin with a slightly lower longevity in the Southern basin. During the spring and fall, a range of 57 to 66 frosty days is average. July is the hottest month in the Biebrza valley with temperatures topping out at $17,8^{\circ}\text{C}$. The length of the summer ranges from 77 to 85 days, with daytime temperatures averaging 15°C . Foggy nights and mornings are quite common and can be seen up to 70 days a year and usually twice that in peaty areas of the valley. Where cool air of the surrounding uplands touches the warm waters of Biebrza, this is a quick catalyst for condensation. The uplands have a higher level of precipitation than the actual valley floor, 600 mm to 510 mm respectively. As with every typical lowland valley, winds are commonly strong and have a West to South-westerly direction (*source: Biebrza National Park website*)

An indication for climate change could be that summers over the past years have in some cases been very dry, causing droughts in the entire valley.

• HYDROLOGY AND WATER MANAGEMENT

The area is very well preserved since the marshes were not drained – with the exception of two bigger canals and a few, very local drainage efforts for agriculture. At least one of these will be closed in the near future – with help from WWF who funded the technical studies and strategy development necessary. This will restore the hydrological network in the area.

There are no dikes (only a 1 km stretch in the whole system); the vast floodplains still flood naturally and people and grazing animals still largely follow the course of nature here.

- **SOIL CHARACTERISTICS**

Most of the area consists of living peat soils. In some areas the peat died due to desiccation.

- **FLORA AND FAUNA**

The area is extremely rich in flora and fauna. The model project focuses on the conservation of the bird species, particularly those living in the open meadows. About 270 species of birds were recorded there, 180 of these are breeding birds of the Biebrza Wetlands. Species like Spotted Eagle, White-Winged black tern, Great Snipe, Aquatic Warbler which are extinct or very rare in other parts of Europe, have their refuges in the Biebrza Valley. For Aquatic Warbler, which is globally threatened with extinction due to wetland drainage, the Biebrza National Park with its 2000 breeding pairs, provides the most important refuge in the world.

There are

48 species of mammals in the Biebrza National Park. Special mention should be made of 500 Elks (the largest refuge of this spectacular animal in Poland), 4 Wolf packs, and numerous Beavers and Otters. Seventeen species of amphibians and reptiles occur here. Among them the Fire-Bellied Toad – threatened in Europe but numerous here.

- **PARTICULAR VALUE TO WWF'S PRIORITIES**

This project fits within WWF's global priorities because it focuses on one of the most important freshwater ecosystems in Europe. The Biebrza National Park covers almost 60 000 ha, and is the largest national park in Poland. Due to the uniqueness of the valley, the Biebrza National Park was added to the RAMSAR Convention list as one of the most important wetland sites in the world. It is also an Important Bird Area (IBA) of European importance. The whole Biebrza Valley has been included in the Polish proposition to the Pan-European Network of Protected Areas, Natura 2000 under the EU Bird and Habitat Directives. Numerous species of the Biebrza Wetlands are also protected under the Bern Convention. The Biebrza National Park is a candidate to the European network of the best-managed national parks with outstanding nature value (PAN Parks).

D LAND-USE INFORMATION

- **HISTORICAL LAND USE**

The Biebrza Wetlands became famous mostly because of vast area of open fens. For centuries the richness of this habitat has been shaped by extensive agriculture: cattle and horses grazing in the floodplain and fen mowing – for hay and barn litter – in the peat zone.

The predominant livestock was dairy cattle. The herds started to graze in the valley after the spring floods disappeared. They grazed freely (without fences) during daylight. The cows and horses moved to the pastures every morning and in the evening came back to the farms without human interference. Sometimes they would have to swim through the river in order to reach pastures on the other side. The old Polish race of cattle (Polish red cattle) was especially well adapted to the difficult wetland conditions.

The fen meadows were hand mowed (with scythe) for hay. Some villages were located so far from the valley that farmers going out to mow the meadows had to stay for the night on the wetlands.

The wetland hay (mainly sedges – *Carex* sp.) is a rather low quality fodder. It was used mainly as a litter. The meadows were mown once or twice a year. It was not possible to mow mechanically because the ground of the fens was too sticky. So in the summer the hay was collected in stocks and left on the meadow. Usually they were taken to the farms only in winter when the frozen surface of the wetlands allowed horses or tractors to move in.

Both practices (grazing and mowing) helped to maintain the openness of those meadows by preventing shrub encroachment. The open fen meadows in Biebrza Valley are unique on the European scale because of their high degree of biological diversity, especially as a breeding habitat for waders.

Some parts of the valley were drained to allow the agricultural use of the wetland, but finally this caused overdrainage of the ground and loss of both the ecological value and potential for human use.

The Biebrza river being formally a navigable one is in fact a natural, meandering 'living' river. It has been used by local people for non commercial fishing (local needs).

In some areas of the valley peat was excavated for fuel (local needs).

The forests in the valley represent mainly alder stands (*Carici-elongate Alnetum*) being difficult to get. The trees were cut by local people mostly on the sandy hillocks among the wetlands.

There is no industry in the valley.

- **CURRENT LAND USES**

Currently most of the BPN area is abandoned. After the Second World War, farmers drastically reduced their activities in the Biebrza Valley. Only in a very few places the system of 'happy cows' still exists. The area of shrubs and trees has substantially increased during the last decades and nowadays it covers an area of more than 20 000 ha. Openness and low vegetation are crucial for breeding waders, as well as for migratory birds. Species like Ruff, Black-tailed Godwit and Lapwing disappeared after the invasion of tall sedges. Snipe, Corncrake and Aquatic Warbler strongly declined after shrub encroachment. The authorities of the Biebrza National Park and nature conservation organisations are therefore facing a problem: how to stop and reverse the plant succession on at least part of peatlands. Support and promotion of mowing and grazing became one of the highest priority issues in the Biebrza region. Some strategies for combining biofuel production with mowing fen meadows and removing shrubs are tested now in the region.

The BNP is a very attractive region for eco-tourism. The quality and quantity of local tourism services increases every year. The tourism infrastructure, number of well trained tour guides (approx. 90 persons) and B & B offering farms (approx. 100) improves. For the farmers running a B & B this provides income, mainly

supplementary. Only very few get sufficient income to make a living out of ecotourism.

The strategy for tourism development and marketing for the whole Biebrza Valley was prepared with participation of BNP, local and regional authorities, NGOs and local tour operators. The strategy is more or less implemented despite the lack of a body responsible for it. There is an active Ecotourism Society 'Biebrza for Connoisseurs' in the region, which is leading in many promotional and educational activities. WWF supported many of the activities in the field of eco-tourism development in this region.

Within the Park's boundaries water management is under the leadership of BNP. The project of water regime restoration in the partly drained area of the Biebrza Valley is in the final phase of completing all necessary documentation to start the implementation works in the field. WWF funded all the studies and technical documentation for the project. Outside the national park the leading role (in this case) is played by a local NGO: 'Workshop for Living Architecture'. The preparation phase of the project in the park area is less advanced. WWF is going to provide financial support to the national park in the same manners as it did for WLA. The most important hydrological problem concerns the decreased ground water level resulting in summer droughts and occurrence of sometimes large scale fires on dry peatlands.

Generally about 50% of the BPN area belongs to private owners. A similar percentage concerns the forests. Private stands are managed by the owners but under the control of the park. The state-owned forests are well protected and there are some plans to enlarge the strict protection area (of forest).

Peat excavation has a limited and local scale.

- **FUTURE TRENDS**

The accession process to the EU is of greatest importance, not only from an economical and political point of view but also for the environmental protection and agriculture. Since Poland is the biggest of the accession countries, the problems here are more evident than in any other accession country. For this reason discussions concerning agriculture in Poland (2 million farms) are among the most important issues for the future. While the EU accession process poses threats to Polish natural values, it also opens opportunities to use new tools in nature conservation. The most important of these is the system for establishment of an effective network of protected areas in the form of NATURA 2000 sites. A system of protected areas, combined with introduction of EU agri-environmental schemes opens the possibilities for financing farming activities which are also supporting nature conservation. This mechanism combines social and environmental aspects in that it is designed to create additional sources of income for farmers who are actively conserving nature and hence promotes active nature conservation.

Implementation of EU agri-environmental schemes is one of the solutions to support future management of Biebrza Marshes. Since the Biebrza region became

one of the official model areas for agri-environmental schemes, the development of methods and the preparation of a basis for future subsidies from agri-environmental programs is of highest importance for the management of the Biebrza Marshes.

The experience from the model field project is going to be incorporated into the policies of the Polish Ministry of Environment and the Ministry of Agriculture. In this way it will also be used as a basis for management of wetlands in other places. Stopping undesirable plant succession on the most valuable open fen habitats is the priority of the management plan of the National Park.

The project at Biebrza aims not only to collect experiences that may be useful for agri-environmental schemes. It will also investigate possibilities to develop a sustainable grazing system – anticipating the possible gradual reduction of the overall budget for the EU Common Agricultural Policy in the future. Against the background of this scenario, self-sufficiency of the system should be anticipated in projects where grazing is used for management of wetlands.

With the accession to the EU two things may happen:

- Abandonment of the last remaining patches of agricultural land
- Intensification caused by a few big farmers who can afford to invest in large scale agriculture.

Both things may happen at the same time, and both are a treat to the existing natural values in the open areas. The project will try to stop both things from happening, but it is unsure whether it will succeed because managing the abandoned meadows in the way it was done in former times is costly.

Younger people are still moving to the cities and without this trend being stopped the area will become 'greyer' and villages will become abandoned.

E SOCIO-ECONOMIC INFORMATION

- **HOW IS THE LOCAL ECONOMY STRUCTURED, including a socio-economic profile**
The Podlasie region belongs to the 'Green Lungs of Poland'. Due to the lack of heavy industry there, environmental quality is high. There are 4 national parks here. This is also one of the poorest regions in Poland with the highest unemployment. The same concerns Biebrza Valley: poor economic conditions of local farmers result in high migration rates from the region and abandonment of farms.
There are only a few small villages within the boundaries of Biebrza National Park. These villages own the wetlands in the valley. Both the villages in the park and those in the close vicinity are mostly inhabited by farmers. The general profile of production in the valley is dairy cattle keeping. This is combined with mowing for hay. Currently there is hardly any economic activity in the area. Agriculture is virtually disappeared, in some cases ecotourism is developing.
- **VITAL STATISTICS: jobs, employment, type of employment (also if possible very briefly contextualised in broader regional or national situation)**
The average size of the remaining farms is 13 hectares, most are smaller (7-10 hectares). Most farms have their land distributed over 4-6 patches – 60% of the owners live more than 10-20 km from their land.

There is a high rate of unemployment – higher than in other parts of Poland. However, also in the cities jobs are hard to get, so if only a little bit of perspective can be offered to the younger people they might stay in the smaller villages.

- **SOURCES OF FUNDING AND INVESTMENT IN THE AREA**

(What is the role of public and private funding)

Investments in the area are very limited. Some private persons (farmers) sometimes invest money in their farm or B&B facilities, but bigger companies show no interest in the area. Local authorities and regional funds sometimes are a source of funding. There is no EU money in the area yet, except for a small amount of SAPARD funding for waste water treatment. Local authorities are not well prepared to tap EU sources.

- **WHAT IS THE ECONOMIC VIABILITY OF THE AREA?**

The economic viability of the area will depend on the ability to

- continue the positive developments in ecotourism;
- set up small scale farming again, with the help of agri-environmental funding schemes to fund the transition;
- market farming products (national market) as ‘special quality’ so that over time the system becomes economically self-sufficient.

Even when this can be done successfully, not all farmers currently living in the area will find employment there in the future.

- **HAS THE PROJECT AFFECTED THIS VIABILITY**

Till now WWF has promoted existing B&B services in the Biebrza Valley including those in the model project area. The joint project (with the North-Podlasie Society for Bird Protection) has recently received funds for the activities that will affect the economical viability of the area: restoring the local breed of cattle (Polish red lowland cattle) and the building of a new observation tower to increase the attractiveness of the area for tourism.

F THE PROJECT & ITS VALUES

- **MAIN PROJECT ACTIVITIES RELATED TO ONE EUROPE MORE NATURE**

The project will help farmers by:

- preparing detailed management plans for the meadows of the lower valley, so that these will be managed and controlled in their present state;
- developing a self sustaining system of grazing, by e.g. promoting local dairy products on the national market. The aim is that by stressing the special qualities of the ‘happy cow milk’ this can compete with other milk on the market. Contact with a producer of milk boxes (as a means for communications) has been established;
- promoting the attractions of the valley to tourists;
- restore a healthy herd of Polish red cattle and offer them to farmers (sell, rent, or for free – this is still open).

The project also plans to assist in the purchase of land (to be funded by the Polish Ecofund) so that it can be given in ownership to the National Park. (The area

concerned is already within the NP boundaries but not yet in ownership). The National Park could then in turn give the use of the land to local farmers, so that they can manage it in the small scale fashion which is beneficial to e.g. the breeding and migratory birds.

- **ARE THERE AND, IF YES, WHO ARE THE PROJECT PARTNERS AND STAKEHOLDERS?** *Which partnerships (including private / commercial sector) exist and have the potential to become drivers/carrying forces of the project in the future?*
Partners in the project are (1) the Biebrza National Park (2) local communities (3) local farmers (4) 2 NGO's (Biebrza for Connoisseurs and a bird protection society, (5) Agricultural University in Warsaw. Recently contact has been established with a producer of milk boxes, which is potentially interested in the project.

- **WWF'S VISION FOR THE AREA** *(and how it fits into the actual vision being taken forward by the authorities and other economic actors). Which partnerships (including private/commercial sector) exist and have the potential to become drivers/carrying forces of the project in the future?*
WWF's vision for the area is that there should be enough cattle grazing on the pastures in the Biebrza Valley to keep the openness of the area for breeding and migrating birds. This can only be done if the cattle keeping is economically sustainable. The external support is needed to help local farmers to ensure such sustainability.

- **OUTLINE OF THE ROOT CAUSES FOR THE SPECIFIC CONSERVATION CHALLENGE** *(threat or opportunity) faced by the area and how the project responds to these root causes.*

The root cause for the conservation problem WWF is facing here is the abandonment by farmers of their lands. This existing problem can be continued or worsened after Poland's accession to the EU, when the last remaining farmers are either out-competed by their colleagues from abroad or bought out by the few strongest farmers which will shift to intensive agriculture. Both things may happen simultaneously.

- **WHAT ARE THE KEY LESSONS TO LEARN FROM THIS PROJECT AREA?**
 - Nature protection must be combined with traditional land use. This works well in both directions.
 - Management and conservation of the most important areas may need additional funding because it may be too difficult to sustain itself in economic terms. Certainly in the beginning extra funding will be needed.
 - Plans of National Park authorities must be integrated and communicated with local farmers.

- **REMAINING THREATS – AND HOW IT IS BEING PLANNED TO ADDRESS THEM**

For the model area the threats have been outlined earlier. A special threat is posed by the American Mink, which is present in the area and dangerous for breeding birds. A substantial reduction of its numbers is not allowed by the rules of the National Park. An investigation is planned.

- **CLEAR IDENTIFICATION OF HOW THE PLANNED (OR NEW) LAND USES ARE:**

- 1 environmentally and economically sustainable

The project is environmentally sustainable. It is questionable whether it can be economically sustainable.

- 2 not dependent long-term on (project) subsidies etc

The goal is that the land-use promoted by the project becomes self-sufficient.

As a first step people involved should be shown the connection between grazing, birds, tourists and local dairy products.

- 3 replicable on a regional scale at least (*i.e. not site specific; what methodologies are available etc..*)

The project is replicable on a regional scale, as well as on a country wide scale.

- 4 linked to Brussels: *the example must be able to be used as levers to influence EU policies and practices*

The project could clearly suffer from current EU policies. It could also benefit from EU possibilities to help small scale farming. There experiences could be used to improve the Polish agro-environmental schemes.

- **ROLE OF NATURE VALUES**

Natural values, especially birds, are 'used' to attract tourists and through this create jobs and revenue. This in turn is used to encourage farmers to take up a type of farming which is beneficial to the birds.

G COMMUNICATIONS AND MARKETING

- **COMMUNICATIONS ACTIVITIES ON-GOING, PLANNED**
(*mainly european context*)

Communication is planned to promote and develop the tourism potential of the region by stressing the connection between farming - birds - tourism - milk products. This will be done through the wider media (national/regional), through tourism firms and on the internet.

In the field a bird watching tower will be built as well as an educational path set, with information on the relationship farming - birds.

Another plan is to stimulate local people to open milk bars (small scale, selling cheese and milk) at their farms.

- **COMMUNICATIONS POTENTIAL** (*if more funding was available*), *mainly for European issues.*

No information at the moment.

H EXTRA INFORMATION

- **PHOTOS**

There are photo's available at the wwf-Poland 'Biebrza' project.

- **BROCHURES**

There is no brochure on the project, some general information is available on www.wwf.pl

A report from the international conference 'Grazing as a management tool on peatlands' is available at <http://www.wwf.pl/publikacje/wypas.pdf>

- LOGOS ETC.

There is no logo but this will be developed soon.

I FINANCIAL INFORMATION

- PROJECT BUDGET

Ornithological and botanical monitoring of cattle grazing impact	6 500 EURO (3 years)
International conference 'Grazing as a management tool on peatlands' (rest of the budget covered by University of Wageningen (NL))	1 000 EURO
Inventory of vanishing local breed of Polish red lowland cattle	1 250 EURO
Land purchase for BPN	25 000 EURO
Management plan for Brzostowo pastures (GIS)	17 000 EURO
Restoring of the local herd of Polish lowland cattle	3 000 EURO
Building observation tower	5 000 ZL

- FUNDING SOURCES

The project has three funding sources:

WWF-Netherlands

Polish Eco-Fund

University of Wageningen (NL)

3.6 Conservation and management of Cork forest landscapes in Southern Portugal

DATA PROVIDED BY

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A PROJECT CONTACT DETAILS

- wwf National Office responsible: wwf Mediterranean Programme Office
- National contact details (project manager): Pedro Regato
- Local contact details (project executant): Jorge Reves, ADPM (local partner of wwf)

B GEOGRAPHICAL INFORMATION

• LOCATION

The project 'Conservation and management of cork forest landscapes in Southern Portugal' is located in the South of Portugal, between the regions Alentejo and Algarve (*see maps p. 76*), from the Atlantic coast to the Spanish border. This pilot landscape unit, covering 8000 km², is a result of the 'Southern Portugal Green Belt' project, which developed a Landscape Conservation, Development and Restoration Strategy for the ecoregional forest Ecosystems. The Southern Green Belt project is part of the wwf Ecoregional development process in the Mediterranean Global 200, aiming to develop conservation action plans for representative functional landscapes in the South-western Iberian lowlands, the North-African Atlas Mountains and Coast, and the Dinaric Alps.

Reference to EAP: Cork forests and woodlands constitute the most representative flagship ecosystem of the forest landscapes that characterise the lowlands and medium elevations in the South-western Mediterranean Ecoregion (sw Med), one of the Ecoregions identified as priority by the wwf European Programme. This ecoregion is part of the Mediterranean Global 200 with the highest levels of plant diversity (25 000 species) and endemism (52%) in the world, and a considerable

fauna endemic rate -25% of mammals, 61% of reptiles, 51% amphibians, 14% birds. The South-West Mediterranean is one of the top global biodiversity hotspots in the Mediterranean Global 200 hosting a large number of centres of plant endemics, and threatened rare fauna like Iberian lynx, Iberian Imperial Eagle, Barbary Deer and Barbary Ape.

The project 'Conservation and management of cork forest landscapes in Southern Portugal' is part of a larger sw Med 'Cork conservation programme' addressing protection, management and restoration goals for regaining the multifunctional character and socio-economic beneficial management systems of the Cork Oak forest landscapes while conserving and restoring their unique biodiversity (covering areas in the North Africa, Iberian Peninsula and Italy).

Of the approximate 2.1 million hectares of Cork Oak Forests, 700 000 are found in Portugal. This, combined with the fact that Portugal produces approximately half the cork harvested annually in the world (about 310 000 tons) and that the main processors of cork are within Portugal, makes Portugal the best starting place for a pilot cork forest landscape conservation programme. Moreover, the previous wwf experience in this region, the forest landscape conservation planning already undertaken, the on-going policy and restoration work addressing CAP/SF impacts on cork conservation, and the strong partnerships that wwf has with major actors in this region, make this forest landscape the most advanced for undertaking an integrated protect-manage-restore cork conservation programme with an ecoregional approach.

C GENERAL ECOLOGICAL INFORMATION:

- GEOGRAPHICAL CHARACTERISTICS

The project area includes two adjoining land units: the 'Sudoeste Serrano' mid-mountain range and the large plateau of the low Guadiana basin. The 'Sudoeste Serrano' encompasses the mountainous/hilly area extending from the southern foot-hills of the Serra de Grândola in the Northwest to the southern limits of Serra de Monchique / Espinhaço de Cão in the South and the eastern limits of the Serra do Caldeirão in the Southeast.

The adjoining Guadiana plateau is an extensive agroforestry area crossed by several Guadiana tributaries. This area is of a much drier and degraded character but provides an important network of West-East habitat corridors, which connect the biodiversity core area of the Sudoeste Serrano to the Guadiana basin and adjoining Spanish border.

- CLIMATE, CLIMATE CHANGE IMPACTS DATA ALREADY WITNESSED, IF AVAILABLE

The project area has a sub-humid to humid thermo- and meso-Mediterranean character. The annual average temperature varies from 14 to 16 degrees, and the average temperatures of the coldest month range from a minimal of 3 degrees to a maximal of 16 degrees, with almost no appearance of frost periods. Annual rainfall varies from 400 up to more than 1 000 mm in the westernmost Monchique mountains. Summer drought is quite intense with insignificant rainfall along 3-4 months. The presence of fogs brought by the Atlantic humid winds is very important for the forest systems in the area.

Climate change scenarios show very worrying trends: the enlargement and intensification of the summer drought period, from the typical 3-4 months up to 6 months, and the increase of frequency of catastrophic events, such as very short periods of heavy rainfall (the amount of the annual rainfall can be concentrated in one single day!) and few days or weeks with very high temperatures (more than 40 degrees) and strong winds. This causes a very strong water stress to the natural vegetation, resulting in the sudden dying of forest patches (a process known as 'la seca'). Cork Oak is quite sensitive to the increase of drought because it is quite demanding in terms of rainfall: it needs 600 mm as a minimum and high air humidity.

Water shortage is exacerbated by competition for water consumption related to irrigation and human use, mainly in the coastal part. The very high temperatures and strong winds in summer, together with human negligence and arson problems are causing devastating forest fires, such as the ones happening during 2003 with more than 250 000 hectares burned, including a significant surface of Cork Oak forests.

- **HYDROLOGY AND WATER MANAGEMENT**

Closer to its mouth (100 km) the Guadiana is relatively unspoilt and not regulated, even if the river water flow is quite affected by all the dams upstream. Tidal influence is still noticeable 70 km from the sea. Also the tributaries of the Guadiana are quite important.

Problems concentrate upstream, where Europe's largest dam (Alqueva dam) has been constructed. More moderate dams are spread over small river basins in the region, e.g. the Odemira dam in the South-East, and the foreseen Odelouca dam in the Western part. Pollution is also a problem and agriculture takes a lot of water, especially in the Sado basin in the North-West.

- **SOIL CHARACTERISTICS**

The project area is characterised by metamorphic siliceous dominated geology, where poor and superficial acid soils predominate. The coastal area is dominated by large extensions of deep sandy soils and fossil sand dunes. All this makes the area, globally speaking, not very suitable for intensive agriculture but mainly for agroforestry multifunctional land use systems, where extensive agriculture – mainly fruit trees such as olives, almonds, carobs, and wheat crops – livestock and non-timber forest production predominate. New irrigation fruit crops are becoming important in the coastal sandy soils. There are few areas with limestone soils, which are very important for plant endemics.

- **FLORA AND FAUNA**

Several bio-physical features contribute to the remarkable biodiversity of the area: its position between three bio-geographic regions (Atlantic, Mediterranean and Macaronesian), rugged relief, and rather varied climate, allow the occurrence of unique vegetation assemblages and species. The area shelters the most significant patches of different Cork Oak forest in the Iberian Peninsula – *Quercus suber*, *Q. rotundifolia*, *Q. pyrenaica*, *Q. faginea* and *Q. canariensis*. Also remarkable is the currently large extent of dense sub-arboreal broadleaf thicket dominated by the Strawberry-tree (*Arbutus unedo*), an important habitat for shadow-dwelling rare

plants and also an irreplaceable shelter for sensitive animal species, such as the Iberian Lynx (*Lynx pardinus*).

Altogether the area encompasses the largest continuous extent of Mediterranean-type forest, thicket and scrub in Portugal, in which an extensive list of rare, endemic and endangered species occur. Numerous endemic plants and invertebrates, some endemic vertebrate species and subspecies, relict and peripheral populations, and isolated plants and vertebrates occur in the area.

A few examples of remarkable plants are *Armeria beirana subsp. monchiquensis*, *Euphorbia monchiquensis*, *Drosophyllum lusitanicum*, *Quercus canariensis*, *Rhododendron ponticum subsp. baeticum* and *Senecio lopezii*.

Remarkable animals are the endemic Monchique Salamander *Salamandra salamandra crespoides*, Schreiber's Water Lizard *Lacerta schreiberi*, and the local endemic freshwater fishes *Leuciscus aradensis* and *Leuciscus torgalensis*. On the other side, the area's extent, relative wilderness character and comparatively good preservation make it an important refuge for rare and endangered vertebrates, such as the Iberian Lynx and the Bonelli's Eagle *Hieraetus fasciatus*. The local lynx population, although small (about 20 animals estimated in the early 1990's) and much isolated, is the largest in the country and the only one strictly Portuguese. As for the Bonelli's eagle, the Green Belt population is not only one of the largest in the country (30 out of the 80 pairs known), but also the only one steadily expanding in Europe, where the species is globally declining. The largest Portuguese population of the Short-toed Eagle *Circaetus gallicus* (about 60-70 pairs) also occurs throughout the mountainous area, living on the abundant snakes, namely the common *Malpolon monspessulanus* and *Elaphe scalaris*.

Out of the upland area, the Guadiana River plateau at the eastern part of the Green Belt is a major diversification factor as it introduces, into the Green Belt area, both a totally different and even opposed landscape type as well as a complementary biodiversity pool. The area has a fully Mediterranean character, much drier than the Western uplands. Apart from providing important habitat corridors for such endangered species as the Iberian lynx and an unusual nesting habitat for the Bonelli's eagle, the rather well preserved drainage network is also the home of rare and endangered freshwater fishes, such as *Salaria fluviatilis* and the Guadiana endemic *Anaocypris hispanica*, and of an important population of Eagle Owls *Bubo bubo* and Great Bustard.

The outstanding natural value of the area is the justification for the official proposal to include a large part of the area as Natura 2000 site, and its recognition by WWF as a Mediterranean Forest Hotspot. A recent proposal as Special Protection Area (Bird Directive) for the conservation of the Bonelli's eagle is waiting for official presentation to the EU and an IBA proposal is currently being prepared.

• PARTICULAR VALUE TO WWF'S PRIORITIES

This project fits within WWF's global priorities because:

- The area represents a priority conservation landscape for forest and freshwater biomes within the South-West Mediterranean priority ecoregion for the WWF's European programme.
- The project follows the WWF International Forest Programme integrated protect-manage-restore approach at a landscape level.
- The project addresses the forest TDP defined milestones for Europe, addressing

- PA/Natura 2000, FSC cork certification and community-based sustainable forest management, and FLR.
- The project aims to reverse the negative impacts of policy subsidies related to CAP/SF, linked with the forthcoming European programme CAP campaign.

D LAND-USE INFORMATION

- HISTORICAL LAND USE

The human-shaped mosaic-like Cork Oak landscapes have historically allowed an effective balance between people's livelihoods and biodiversity conservation. The key of success for such human-nature interaction is based on a multifunctional management system, which generates economically competitive income and social benefits based on a wide range of goods and services – fruit tree crops (olives, almonds, carobs) and vineyards, livestock (sheep, goat, black pork) and cattle products, cork, honey, aromatic/medicinal plants, firewood, etc. This management system requires a mosaic landscape of natural forests, woodlands, scrublands, pasture lands, and agriculture land, which provides at the same time the diversity of habitats and ecological needs required by the species.

These forests suffered a widespread conversion into cereal production across the whole mountain range during the first half of the 20th century (the so-called wheat campaign, onset by a decree of the old regime in 1929 in request of a national self-sufficient food supply). Through degradation operated by fire, felling of trees and forest understorey clearance, the original forest was extensively replaced by serial vegetation stages – open woodlands, scrubs and grass communities.

The referred cereal production provoked serious erosion problems and exhausted soils until the late 1950's, with the collapse of the cereal-based socio-economic system and widespread human exodus. The abandoned former farming areas gradually evolved to large extensions of scrub-lands and to the natural recovering of the former vegetation along several decades. Nevertheless, in the western part of the area – Cercal, Mira and Monchique – uncontrolled large-scale plantation of Eucalyptus took place during the 1970's and 1980's. This caused extensive habitat destruction, affecting large areas of abandoned farming and well preserved forest and maquis. Eucalyptus plantations virtually stopped at the end of the last decade due to removal of subsidies, even if their exploitation for paper pulp still involves significant disturbance to wildlife and habitats destruction. At present, EU CAP subsidies for forestry programs are still the main factor affecting native vegetation, with extensive plantation of pines (mostly maritime pines *Pinus pinaster* and secondarily umbrella pines *Pinus pinea*) on scrub-land and soil removal and understorey cleaning in forest land.

There was also some mining in the area: for cyanide (still active) and copper (stopped).

- CURRENT LAND USE

The project area is classified as Region I by the EU. In terms of land use, the area is currently dominated by Cork Oak and Holm Oak sylvopastoral systems 'montados' (a total of 7 981 exploitations), Cork Oak woodlands and strawberry-tree high

maquis, with a multifunctional character, providing agriculture, livestock and a wide range of non-timber forest products, including the cork. Other predominant land uses are relatively extensive areas of pine (Stone Pine and Maritime Pine) and Eucalyptus plantations, uncultivated land (fallow land with different stages of serial vegetation) and non irrigated annual crops and permanent cultures (fruit trees), the last one mainly towards the southern part of the area.

The predominant land use is forested land, occupying 24,4% of the project area. The second most extensive land use is related to pasture land, that occupies 23,5% of the total area: livestock production a growing activity in the area. Agriculture, which in the mid-20th century was the dominant land use in the project area, currently represents 20,4% of the total surface area. Permanent agriculture includes extensive mixed carob, almond, fig, olive, and citrus orchards. A very small part of the total area used for agriculture and forestry activities is made up of subsistence gardening (0,24%) characterised by small-scale family gardens with vegetable crops. There is a large number of organic agriculture producers; this is a growing activity in the area.

The industrial sector, based either on extractive or transformation activities, is very weak in the project area, undeveloped as a consequence of the country's industrial policy to promote the concentration of industry in the urban areas and the Southern part of the country (mainly concentrated on the coast).

Industrial processing is composed essentially of traditional small scale production units. This profile is characterised by a high proportion of businesses of a family and artisan nature.

Extractive industries are practically non-existent, except for the syenite mining in Monchique, that employs over 50 people, and the Somincor-Neves Corvo mine in the municipality of Sta. Barbara de Padrões, which started in 1980 with the aim of prospecting, extracting and marketing copper and tin, primarily owned by the Portuguese state. This business also has an important role in the employment of the local population.

• FUTURE TRENDS

In the next couple of years no big trend of (further) degradation is foreseen. Instead, there are positive chances for restoration, in a direction where the multi-functional character of the traditional sylvo-pastoral system is restored but combined with modern and innovative management techniques so that efficiency increases making it economically competitive and beneficial for local people. If this is successfully done it can stop the flow of younger people to the cities.

Developing ecotourism is also a trend picking up, with an increase of the number of traditional restaurants, restoration of cultural places, local associations weaving carpets, honey and aromatic plant production, the traditional strawberry tree and other more innovative liquor distillation products related to a large variety of native plant species, etc.. Nature-cultural heritage trails for tourists are nowadays in place taking advantage of the Cork and Holm Oak forest landscapes and the Guadiana river values (boat tours), and involving the growing private sector, municipalities and NGOs. Moreover, WWF partners in the area, mainly ADPM, have build the capacity of local institutions and activate a strong collaboration

between the Portuguese and Spanish bordering communities and the Moroccan Atlantic coastal mountains of the Rif region, promoting exchanges to improve the socio-economies linked to the environment in these very similar regions and organising sailing eco-tourism tours following all the sailing part of the Guadiana river from the town of Mértola (70 km inland) all along the Andalusian coast towards the Moroccan seashores. All these cooperation programmes are co-funded by the EU.

In order to be able to generate the positive trend of restoration, the market for cork is a critical success factor. If the EU would prohibit the use of cork for wine bottles this would be a big problem because 80% of the cork produced is used for this purpose. If plastic or metal stoppers are being used next to cork stoppers there is not a problem because the market for wine is still growing. (Cork also has a lot of promise as an insulation material but this market still has to be developed).

Another critical success factor is the ability to market the 'sylvo-pastoral products' as a specialty. Meat, cheese and firewood for charcoal (oak) coming from the region have a unique quality but only if this can be highlighted in the marketing will these be able to compete with 'similar' products from elsewhere.

E SOCIO-ECONOMIC INFORMATION

- **HOW IS THE LOCAL ECONOMY STRUCTURED, including a socio-economic profile**

The area has 200 000 inhabitants (between 8 to 16 inhabitants per km²) and most of the people (52%) are employed in the private companies or administration. 21% is employed in agriculture, mostly as a complement to another source of income. The unemployment rate is 7%.

There are 15 000 farmers, managing 350 000 hectares. The population becomes 'greyer' since younger people move to the cities. There is a low rate of literacy.

- **VITAL STATISTICS: JOBS, EMPLOYMENT, TYPE OF**

See above.

- **SOURCES OF FUNDING AND INVESTMENT IN THE AREA (what is the role of private funding)**

There is some investment in eco tourism at the moment, as well as a number of small enterprises with economic activities linked to environmental and sylvo-pastoral uses.

- **WHAT IS THE ECONOMIC VIABILITY OF THE AREA**

The viability of the area is related to the multifunctionality of the sylvo-pastoral system. If this can be restored and better managed (innovative management leading to cost reduction) and if products (including hunting, fishing, fruits, forest products, ecotourism) can be marketed as unique quality products – then the area can become viable again and will also attract processing industries. All this should be done combined with efforts to change (EU) policies in a direction which is not negatively affecting the region.

- **HAS THE PROJECT AFFECTED THIS VIABILITY**

The project has identified where protected areas should be and which corridors should be restored, so that the network structure of the region – the basis for the silvo-pastoral system – is restored. As a pilot restoration initiative the project supported land owners and farmers to make adequate use of CAP subsidies as well as the setting up of a multi-purpose socio-economic and environmental tree nursery unit, managed by a women cooperative. The nursery produces income, aromatic plants and plants for restoration projects and aims to bring across – in collaboration with a women’s cooperative – how restoration is done. Part of this was the production of guidelines on forest restoration for farmers and park managers. In several places agricultural land has been transformed to forest with CAP support. Through WWF partners lobbying efforts, a number of land owners have changed their plans to plant Eucalyptus with cap subsidy funding and have restored marginal land with Cork Oak in several hundred hectares. The aim is that a number of (additional) restoration projects will be designed in collaboration with the Forestry Project Designers, a consultancy which on behalf of the Government prepares proposals for CAP funding. To this end a Memorandum of Understanding has been signed between WWF, the Forestry Project Designers and the farmers. The first proposal is expected within a few months.

F THE PROJECT & ITS VALUES

- **MAIN PROJECT ACTIVITIES RELATED TO ONE EUROPE MORE NATURE**

The project aims to restore the traditional land use and promote innovative use systems which integrate a wide range of opportunities, which all together secure the economic viability of the area, as well as supports efforts to develop new markets for the products generated by it.

- **ARE THERE AND, IF YES WHO ARE THE PROJECT PARTNERS AND STAKEHOLDERS? *which partnerships (including private / commercial sector) exist and have the potential to become drivers/carrying forces of the project in the future?*** Stakeholders in the project are farmers, environmental and development NGO’s, forest and agriculture associations, land owners, forest managers, municipalities, and research institutes. Together these produced an action plan for the restoration of the Cork Oak ecosystem in the region.

A participatory plan will be drawn up to discuss the action plan with local municipalities, regional agricultural institutions, national water institute, regional agencies involved in implementation of EU programmes, hunting federations, the forest producers association and the Forestry Project Designers.

Recently contacts have been established with AMORIM, the main cork producer in Europe (with presences in a.o. Portugal, Italy, Marocco). A Memorandum of Understanding is currently being negotiated.

Some of the partners of the project also will invest money in it. A 100 000 EURO proposal for LEADER funding will receive matching funds from WWF (10 000 EURO), municipalities and other ngo’s. Another example is an INTERREG project which will receive funding from the Regional Directorate of Algarve.

- **WWF'S VISION FOR THE AREA** (and how it fits into the actual vision being taken forward by the authorities and other economic actors) Which partnerships (including private / commercial sector) exist and have the potential to become drivers/carrying forces of the project in the future.

The Regional Directorate of Algarve and Alentejo adopted the guidelines for Cork Oak Forest restoration as the basis for its own regional forest plan.

- **OUTLINE OF THE ROOT CAUSES FOR THE SPECIFIC CONSERVATION CHALLENGE** (threat or opportunity) faced by the area and how the project responds to these root causes

Root cause is the disruption of the old sylvo-pastoral system. The project tries to restore that and 'relaunch' it in a 21st century (open) market, with the use of modern management and marketing techniques.

- **WHAT ARE THE KEY LESSONS TO LEARN FROM THIS PROJECT AREA**

- It is crucial to ensure participation of local stakeholders
- It is crucial to share the same vision
- Linking biodiversity and sustainable development is important and possible; both will win
- Capacity building is important.

- **REMAINING THREATS – AND HOW IT IS BEING PLANNED TO ADDRESS THEM**

There are still infrastructure threats: roads and dams leading to fragmentation of habitats and water management problems. Another threat is the homogenisation of landscape patterns. Pine plantations (and some Eucalypt) are still subsidized by the EU, causing erosion problems and forest fires.

The project tries to remedy this by policy work aiming to improve the CAP – a study with 'good' practices was produced for supporting advocacy work at a national level and in coordination with the European Policy Office at EC level. The project also tries to make good use of the funding possibilities the current CAP already offers. It also evaluated the spending of EU moneys (CAP and Structural Funds): where did it go to and what was the result. The project also wants to develop partnership processes more locally, to get better types of land use practices.

The threat posed by dams: the project is collaborating with (WWF) people working on the Water Framework Directive and supports local organisations in their campaigns/complaints against dams.

- **CLEAR IDENTIFICATION OF HOW THE PLANNED (OR NEW) LAND USES ARE:**
1 **environmentally and economically sustainable**

The land-use promoted by the project is ecologically sustainable. Whether it is sustainable in economic terms: there are good opportunities, some of them in place and others to be developed. Human capacity to set up economic activities related to sustainable use of nature resources exists in the project area, mainly thanks to the strong capacity building efforts undertaken by WWF and its partners in previous years. The chances to create a 'special' market for the products from the region are probably better closer to the coast, where many

tourists come. Some exchange has already been witnessed: companies bringing in sand/see/sun tourists to the mountains and people from the region bringing their products (cheese, carpets) to the coast.

Partnerships with wine producers from the region and elsewhere, as well as cosmetic companies may have a good potential to strengthen and consolidate market opportunities from the region. This has already been done in relation to traditional wool carpet and cheese production with high success in securing the market of these products and the revenues of local cooperatives developed through WWF/Partners support.

2 **not dependent long-term on (project) subsidies etc**

Subsidies will be needed at least during the build-up/transition phase. Whether after this the project will be independent from subsidies is depending on success to secure funding for the whole SW Portugal Cork programme. Nevertheless, the previous WWF work in the region has already undertaken a number of socio-economic activities resulting in the creation of self-sufficient small enterprises, able to generate income linked to environmental-related actions with no support from WWF or other type of external funding.

3 **replicable on a regional scale at least (i.e. not site specific; what methodologies are available etc..)**

In the South-West Mediterranean ecoregion this sylvi pastoral system is widespread (also in North Africa). The project lessons learnt may be replicated within this ecoregion.

4 **linked to Brussels: the example must be able to be used as levers to influence EU policies and practices**

See under 'remaining threats'.

• **ROLE OF NATURE VALUES**

The Cork Oak is used as a symbol to restore a land use system in a whole region.

G COMMUNICATIONS AND MARKETING

• **COMMUNICATIONS ACTIVITIES ON-GOING, PLANNED**
(mainly European context).

WWF International produced a video on Cork, which was launched Christmas 2002. Aim was to promote Cork as a stopper for wine bottles – target group were the consumers.

A PAN European Conference on forest protection in Europe will be used as a platform to present a case study on the relationship between Cork Oak forests and Lynx.

Press events have been organised, a plan to have a field trip with journalists was scheduled for this summer but had to be cancelled.

• **COMMUNICATIONS POTENTIAL (if more funding was available), mainly for European issues.**

This programme provides excellent opportunities for communications, both in the Northern European countries and in the countries of the South-West Mediterranean. The unique link between biological diversity and the appealing

tradition of wine culture, the positive impact on the livelihood of rural communities, and the strong poverty alleviation component, are all elements that can greatly enhance the wwf brand in the UK and Europe. The programme establishes innovative links between Europe's cultural values, the conservation of traditional landscapes, poverty alleviation, and nature conservation. It also provides the opportunity to develop a communications strategy targeting the wine consumers, and the private sector linked to the wine market in Europe, the world's largest wine-importing zone. In Southern Europe, the programme could target wine-producing companies interested in raising the profile of their products, as well as the cork-producing and manufacturing sector. In order to maintain/create a market for Cork stoppers, public opinion and retailers should be influenced.

A detailed communications strategy for the programme will be shaped during the next stage of the process, drawing on the expertise and capacity of wwf communication teams. Several wwf NOs in Europe (ie Sweden, Italy) have already expressed a strong interest in the link between quality-wine consumption and the conservation of Cork Oak forests, and towards the end of last year wwf International produced a video on the issue, which was successfully broadcast in Europe and North America.

Cork Oak forests are very beautiful landscapes, and the cycle of Cork production offers excellent opportunities for visual communication. Moreover, several attractive wildlife species are linked to Cork Oak forests – including Iberian lynx, Imperial eagle, Barbary deer and Barbary ape. wwf MedPO has a good collection of high-quality pictures, and video footage from previous filming activities in North Africa and Portugal, that will be made available to this programme.

H EXTRA INFORMATION

- PHOTOS

There is a large selection of photo's available.

- BROCHURES

There are no brochures on the project. Publication material (in Portuguese) that does exist is on the previous phases of the project. There is an English document with all the information from the forest landscape conservation planning exercise (available on CD) and a brochure aimed at inviting participation locally.

There will be a publication on forest restoration, including a toolkit.

- LOGOS ETC.

No logo's are available

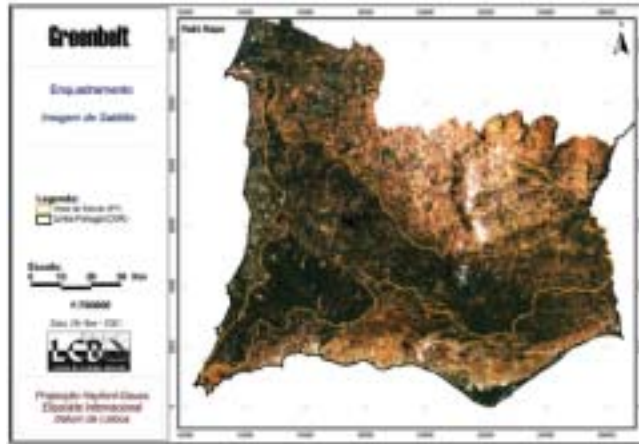
I FINANCIAL INFORMATION

- PROJECT BUDGET

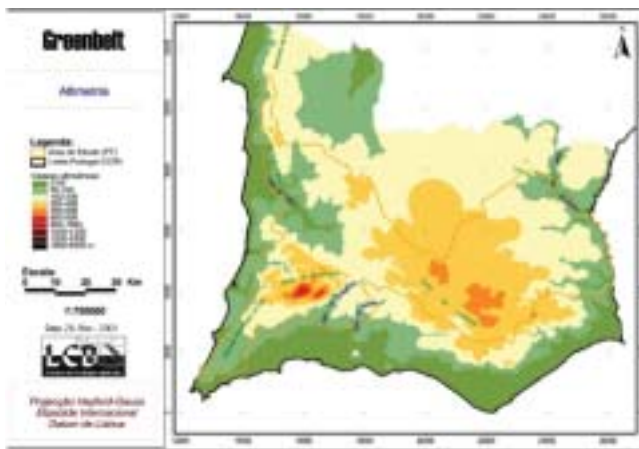
The current phase of the project ends December 2003. It ran for 2 years on an annual budget of 150 000 – 200 000 EURO. The budget for the next phase has to come largely from LEADER. Matching funds have been secured from private donors (50 000 EURO); the total budget (including LEADER funds) will be 100 000 EURO.

- **FUNDING SOURCES**

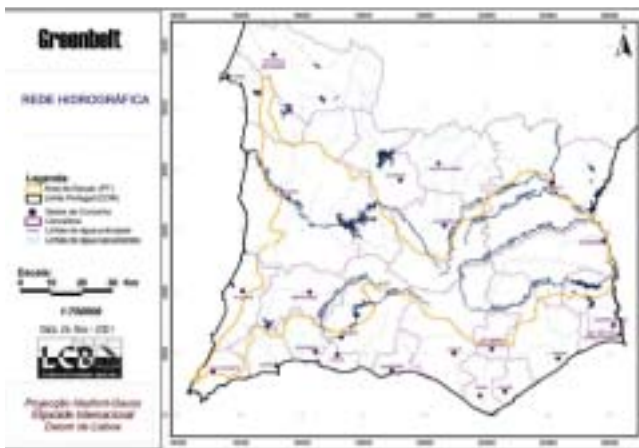
WWF International Forest Unit, AVINA foundation, and a private donor.
Policy work has been sponsored by the MAVA foundation.



Satellite view of Southern Portugal region



Elevation



Hydrography

3.7 Bulgarian Danube Islands Project

DATA PROVIDED BY

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Important information (partly used in this screening) can also be found in:

Action Plan for the Implementation of the Strategy for Protection and Restoration of the Floodplain Forests on the Bulgarian Danube Islands 2003-2007.

A PROJECT CONTACT DETAILS

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B GEOGRAPHICAL INFORMATION

• LOCATION

The Bulgarian Danube Islands Project covers all islands in the Bulgarian Part of the Danube River. There are about 75 Bulgarian and 52 Romanian islands in this stretch of the Danube – please note that the situation with the islands is very flexible – some are disappearing, some unite together building new ones.

The region is important to WWF because it is part of the Danube River Basin, which in turn is not only a freshwater habitat of international importance but also a Global 200 ecoregion.

The Lower Danube Green Corridor (LDGC) initiative (not a project) is an agreement among Bulgaria, Romania, Ukraine and Moldova for the protection and restoration of a total of 900 000 ha of wetland and floodplain habitats along the Lower Danube. The Bulgarian Danube Islands project is a direct contribution to the achievement of Bulgaria's LDGC commitments.

C GENERAL ECOLOGICAL INFORMATION

• GEOGRAPHICAL CHARACTERISTICS

The project focuses on the roughly 75 islands in the main channel of the Bulgarian part of the Danube river. This 480 km long section of the river forms the border between Bulgaria and Romania, starts some 40 km upstream of the city of Vidin and goes all the way down to Silistra. The islands together have a surface area of 11 000 hectares.

• CLIMATE, CLIMATE CHANGE IMPACTS DATA ALREADY WITNESSED, IF AVAILABLE

The Danube region is characterized with a temperate-continental climate, which is the climate of the whole Danube region in Bulgaria. The local climatic impact of the Danube causes decrease in summer heats and winter colds, more often fogs, relatively higher air humidity, etc.. The continental character of the climate is confirmed by the average temperatures of the coldest and hottest months in the year and by the rainfall regime. The average January temperatures vary from -2°C to -3°C , and the average July temperatures are about 23°C . The average annual rainfall amounts are about 550-600 mm, and the snow cover duration is about 3 months.

No data on climate change are readily available. In general river levels are lower than in the 1950's – throughout the year. At some wetland restoration sites in Bulgaria, the peak water levels of the Danube have been found to be 1.50 – 2.00 m lower than at the turn of the last century. This is attributed mainly to the impacts of the Iron Gate dam upstream between Serbia and Romania, which has led to riverbed erosion and incision, as well as to a change of the overall water regime.

• HYDROLOGY AND WATER MANAGEMENT

On both sides of the river, dikes have been built. However, the islands (with the exception of the largest island on the Bulgarian stretch – Belene) have no dikes around them and are not drained. A close to natural flooding regime and the force of the river therefore still is present on the islands. Erosion and sedimentation still occur, occasionally new islands are formed and existing ones change their shape and location. The natural processes on the islands are all the more important, in their own right but also for plant and animal communities depending on them, because these have been paralysed (dikes) on the shores of the river.

Although in general the above is true, on some islands the hydrology has been disturbed by (1) forestry roads blocking internal streams on the islands and (2) dikes around the main internal marshes of islands. This means that also on the islands the last remaining spawning grounds for fish (among them commercially important species like Catfish, Carp, Pike, Pike-perch) are under threat.

- **SOIL CHARACTERISTICS**

The main soil types are alluvial, and also alluvial-grassland and alluvial-marsh soils on all islands. Information on this is included in the Local Forestry Plans.

- **FLORA AND FAUNA**

From the Action Plan: out of the 300 species of higher plants occurring on the islands, 162 species directly depend on the presence of water. Some of the plants occurring in the islands' forests are included in Annex I to the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention), such as *Salvinia natans*. On Vardim island, there are extremely rare floodplain forests dominated by the so-called 'Vardim oak' (endemic variety of the Common oak *Quercus longipes* Stev.), forming large forest areas of over 200-year-old trees.

The right bank of the Danube is subject to permanent erosion activities. The floodplain forests vegetation of native species contributes to the banks strengthening and helps to mitigate erosion.

About 1 100 animal species occur on the Danube islands. More than 65 fish species occur in the river, in internal channels and island marshes. The lower part of the Danube is the most important Bulgarian habitat for 6 Sturgeon species. After the construction of dykes along the banks and the destruction of most riparian marshes, the internal channels, wetlands and floodplain forests on the islands' banks became the most important habitats of phytophilic and plankton-eating fish species, as well as the only alternative spawning sites of fish species whose life cycle depends on stagnant waters. Floodplain habitats are of crucial importance for the Danube fish populations, which are important food base for fish-eating birds. 11 amphibian and 6 reptile species have been described on the islands. The island forests are the habitats for over 160 bird species, more than 100 of which nest on the islands. These forests support some of the largest colonies of Egrets (*Egretta alba*, *E. garzetta*), Cormorants (*Phalacrocorax phalacrocorax*, *Ph. Pygmeus*) and Spoonbills (*Platalea leucorodia*). The islands are important nesting, resting and wintering sites for globally threatened species such as Dalmatian pelican (*Pelecanus crispus*), Red-breasted goose (*Branta ruficolis*) and Pygmy cormorant (*Phalacrocorax pygmeus*). They are one of the last remaining habitats of the White-tailed eagle (*Haliaeetus albicilla*) in Bulgaria. Of the mammals inhabiting these biotopes, the European river otter (*Lutra lutra*) is included in Annex II to the Bern Convention.

The islands' floodplain forests, channels and marshes are integral part of the Danube migratory corridor, essential for the distribution of many invertebrates and fish, and for many fish-eating bird species during their nesting and seasonal migrations. Without these habitats, migration would be difficult, and for a number of species impossible.

The Danube islands are one of the five most representative sites in Bulgaria for several types of habitats included in Annex I to the Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora:

- 3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation
- 92A0 *Salix alba* and *Populus alba* galleries
- 91E0 Residual alluvial forests (*Alnion glutinoso-incanae*)
- 91F0 Mixed oak-elm-ash forests of great rivers
- 92D0 Thermo-Mediterranean riparian galleries (*Nerio-Tamariceteae*) and south-west Iberian Peninsula riparian galleries (*Securinegion tinctoriae*) (44 814 111 Danubio-Thracian fresh water *Tamarix* stands).

The natural habitats on the islands support threatened plant and animal species of national, European and global importance. About 3000 algal species, subspecies and varieties, and over 200 *Macromycetae* species have been described on the islands. Out of the 300 species of higher plants occurring on the islands, 162 species directly depend on the presence of water. Some of the plants occurring in the islands' forests are included in Annex I to the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention), such as *Salvinia natans*, or in the Red Book of Bulgaria, such as *Leucojum aestivum*, *Euphorbia lucida*, *Potamogeton trichoides*, *Nymphoides peltata* and others.

• PARTICULAR VALUE TO WWF'S PRIORITIES

This project fits within WWF's global priorities because it covers both the freshwater and forest biome. The Action Plan describes the importance of the region as follows: 'The Lower Danube is one of the most valuable freshwater ecoregions in the world. The hydrological dynamics of the river, its continually active erosion and sedimentation activities, combined with periodic flooding of the river terraces of different duration, level and frequency, have determined the formation of the Danube islands, their unique vegetation and rich biological diversity. 14 groups of habitats with 53 main types and combinations have been identified on the Bulgarian Danube Islands, ranking their diversity as high as Bulgaria's largest National Parks. Seven islands and island groups are Important Bird Areas, four of them are important areas for the conservation of European flora and fauna under the European programme CORINE BIOTOPES, and one of the islands is part of a Ramsar site. The Danube islands are one of the five most representative sites in Bulgaria for several types of habitats included in Annex I to the Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora.'

The Lower Danube is a priority WWF Global 200 Freshwater Ecoregion; it includes UNESCO Biosphere Reserves, World Heritage Sites, and a number of Ramsar Sites. The LDGC is a WWF Gift to the Earth. The protection and restoration of the Lower Danube floodplain habitats in the framework of the LDGC is a top priority of the Living Waters Programme in Europe/Middle East. The implementation of the Bulgarian Danube Islands Project delivers directly on the following TDP targets and milestones

THE BULGARIAN DANUBE ISLANDS PROJECT'S CONTRIBUTION TO THE GOALS SET OUT BY THE TDP FRESHWATER

LWP TARGET 1

Conserving Freshwater Ecosystems:

- MILESTONE 1.1. *High Priority Freshwater Ecosystems are Protected*

According to the Danube Islands Action Plan, the total area of protected floodplain habitats on the Bulgarian Danube islands will be doubled in the next five years.

- MILESTONE 1.2. *Improved management of high priority wetland ecosystems and their catchments*

Within the Danube Islands Action Plan, management plans will be developed for at least three priority protected areas on the Bulgarian Danube islands in the next five years. The project will develop and introduce guidelines for good forest management on the Danube islands, including sustainable management of natural and semi-natural floodplain forests, low-impact management of poplar plantations, and restoration of natural habitats.

LWP TARGET 2

Conserving Ecological Processes in the River Basins:

- MILESTONE 2.1 *Sustainable water or river basin management initiatives that promote conservation and restoration of ecological processes of high priority freshwater ecosystems*

The Danube Basin has been selected as a global priority under Milestone 2.1. The Lower Danube Green Corridor is a direct contribution to the implementation of the EU Water Framework Directive, through the integration of wetland values and functions into river basin management. The LDGC experience will input and influence the overall Danube RB Management Plan.

FORESTS FOR LIFE TARGET 3

Forest Landscape Restoration

- MILESTONE 4 *10 forest landscape restoration initiatives underway in the world's threatened, deforested or degraded forest regions*

Threatened and degraded floodplain forests would be restored on the Bulgarian Danube islands and floodplains, with benefits for the overall floodplain landscape and its key ecological functions, including provision of fish breeding and bird nesting habitat, slowed down erosion processes, natural products etc..

D LAND-USE INFORMATION

• HISTORICAL LAND USE

The only forms of land use on the islands in the past were forestry and – on some islands – cattle grazing (cows).

• CURRENT LAND USES

Currently FORESTRY is the most important form of land use and this has an important (negative) impact on the natural vegetation, since it involves the large scale conversion of natural floodplain forests into plantations, mainly Poplar. Currently 53% of the surface area on the islands has an artificial forest cover (stands of Poplar which have been planted by the State since the 1960), 10% is

semi-natural, 19% is natural, and 16% are open areas, including areas covered by the aggressive non-native Indigo plant (*Amorpha fruticosa*).

In some of the forests **CATTLE GRAZING** by local people is allowed – it is prohibited in the protected parts. Direct grazing is possible mainly in the islands which are easily accessible from the coast (7 to 10 islands with a total surface of 800 hectares).

TOURISM/RECREATION concentrates on the beaches of the 7 to 10 islands which can be easily reached from the shore. These islands are intensively used by local people for tourism and recreation: a survey covering tourism on 12 islands scored a total of 38 000 visitors during the weekends in June, July and August¹.

Traditional (non-organized) tourism is the most popular form of tourism since the past and at present. Due to the long-term economic crisis the islands and the adjacent beaches now are used more intensively than in the past by the local people for recreation. Thus this activity is mainly a source for local benefits with relatively small economic value. The tourism infrastructure is very small and consists mainly of hunting chalets, which have a very small capacity and a low quality of services. The basic reasons are lack of investment, location of the islands in a border area, etc.. The islands and the adjacent territories are used for tourism and recreation mainly during the summer time (July- August).

As a whole the natural capacity for tourism and recreation on the islands is strongly underused. For example it is estimated that the sand beach between Pojarevski islands, which is wide and of very high quality for recreation is rarely used due to its location (remote from the basic villages) and lack of suitable infrastructure. At present the rate of visits is 50 person/days, with proper organization this rate can be increased several times.

RIVER FISHERIES is of local importance: in all villages some local fishermen exist and local communities still depend on fish as a source of protein. According to local fishermen, fish catches are better along the island peripheries than along the Danube banks, possibly because of the better preserved floodplain vegetation and internal streams on the islands.

An observation made by the Green Balkans in the Tutrakan region indicates that the islands (mainly the channels between the islands and the coast) are a favorite place for fishing (one should take into account the availability of similar places with similar conditions in the regions of Rousse, Svishtov, Oriahovo, Kozlodui and Vidin).

HUNTING is allowed on the islands and attracts people from Germany, Italy and Bulgaria. Species hunted include Roe Deer and Wild Boar. The management of hunting on the islands is carried out by the National Forestry Board (NFB), and is regulated by the Local Forestry Plans. According to official data from NFB, about 20 Deer and 80 Wild boar are shot on the islands annually (excluding Belene). Trophy specimens are about 15 Deer and 30 Wild boar. The annual income from hunting and hunting services, including trophy shooting, shooting for meat and services to hunting and tourist groups is about 35 000 EURO.

¹ see annex 1: Visitors on the Bulgarian Danube Islands

The potential for intensification of hunting has some limitations, e.g. in some cases it can threaten the natural reproduction of native tree species. Game management is needed since Wild Boar and Deer inflict considerable damage to the islands biodiversity, obstructing the natural regeneration of floodplain forests and destroying the habitats of rare and threatened species.

There is also poaching by local people for subsistence, for which there is little data. The island of Belene has a special status, since a State Prison is located in its Western side, and two-thirds of the island area are managed by the prison for agricultural production. This island is owned by the Ministry of Justice and is excluded from the Bulgarian Danube Islands project.

- **FUTURE TRENDS**

The trends over the last several decades has been a continuous increase of the area of Poplar plantations, at the expense of floodplain forests. If the present local forestry plans would be implemented, in ten years almost all natural floodplain forests on the Bulgarian Danube islands would be converted to Poplar plantations, and many habitats and species would disappear completely. The aim of WWF's work on the Danube Islands is to reduce the impact of intensive Poplar forestry by (1) stopping the further conversion of floodplain forests to Poplar plantations, and reducing the surface area of Poplar plantations through the restoration of the natural vegetation cover where forestry retreats, (2) restoring internal streams on the Danube islands damaged through forestry activities, (3) introducing good forestry practices on the Danube islands, including sustainable management of floodplain forests and low-impact management of Poplar plantations and (4) developing alternative income-generation activities with less damaging environmental impacts on the Danube islands, including tourism and recreation, small scale fishing, and possibly FSC certification of sustainably managed forests. These aims are shared by WWF, local NGO's and the two Bulgarian Ministries involved (Ministry of Environment and Water and the Ministry of Agriculture and Forests), and are officially stated in the National Strategy and Action Plan for the Protection and Restoration of Floodplain Forests on the Bulgarian Danube Islands.

The fact that the Bulgarian authorities have continued to support the Strategy and Action Plan after the elections and change of government, indicates that the Governments' commitment to it is quite strong. It can be expected that on the Bulgarian Danube islands forestry would continue to be a major economic activity in the next decade, but the negative impact of FORESTRY ACTIVITIES WILL DECREASE, with more sustainable activities introduced, further expansion of plantations halted, priority biodiversity habitats restored, and possibly FSC certification obtained. The aim for 2003-2007 is that 275 ha of floodplain and 200 ha of marshes will be restored.

It is expected that the importance of GRAZING WILL REMAIN THE SAME (modest importance for local people).

It is expected that TOURISM/RECREATION WILL GROW, especially if the qualities of the islands are better marketed. The Government is open to an increase of tourism since it provides a profitable alternative to forestry.

FISHERIES have declined dramatically in the Bulgarian Danube since the turn of last century, due mainly to water pollution and the destruction of 90% of Bulgaria's Danube wetlands, which are crucial fish breeding habitats. At present, fish catches do not meet local and national market demands. Restoration and protection of fish breeding habitats would contribute to the improvement of fish populations and thus to fishing. Small scale, sport fishing is expected to continue having a considerable local importance, while commercial fishing is not likely to take off in the next decade.

E SOCIO-ECONOMIC INFORMATION

- HOW IS THE LOCAL ECONOMY STRUCTURED, *including a socio-economic profile*

Since the project covers a 480 km section of the river, the economy and social situation therefore varies greatly.

The Bulgarian Danube islands are located on a territory, which is divided administratively into three planning regions, namely the North West Region (NWR), the North Central Region (NCR) and the North East Region (NER).

Table 1 below presents some regional indicators of the regions of the period 1998 – 2000. The largest planning region in terms of both territory and population is the Northeast Region, which covers a large part of the Black Sea Coast as well.

TABLE 1 TERRITORIAL AND DEMOGRAPHIC INDICATORS BY PLANNING REGIONS, 1998-2000

Planning Region	District	Municipality	Total area	Share of total area	Population		Share of total population		Population density	
	No	No	km2	%	Inhabitants		%		inh/km2	
					1998	2000	1998	2000	1998	2000
Northwest	3	33	10.601,3	9.6	593.546	577.757	7.2	7.1	56.0	54.5
North Central	5	40	17.921,4	16.2	1.237.148	1.213.712	15.0	15.2	69.0	67.6
Northeast	6	49	19.972,4	18.0	1.352.210	1.333.676	16.4	16.3	67.7	66.8
Bulgaria	28	262	110.909.7	100.0	8.230.371	8.149.468	100.0	100.0	74.2	73.4

Source: National Statistics Institute (NSI), 2002

The three regions produced about 36% of the Bulgarian Gross Domestic Product in 1998 and about 33% in 2000. The GDP per capita remained below the national average with quite an unfavorable tendency: while the national average GDP per capita is increasing, the regional GDP per capita is decreasing (See table 2).

TABLE 2 STRUCTURE OF THE REGIONAL GROSS DOMESTIC PRODUCT, 1998-2000

Planning Region	GDP		GDP per capita		Relative share as per economic sector (%)					
	%		,000 BGN		Agriculture		Industry		Services	
	1998	2000	1998	2000	1998	2000	1998	2000	1998	2000
NorthWest	5,9	6,15	2.145	2.435	31,4	19,23	14,6	33,63	53,9	47,14
NorthCentral	14,5	12,73	2.523	2.410	26,5	19,61	25,0	30,29	48,5	50,11
NorthEast	16,0	14,27	2.551	2.469	30,3	26,04	21,9	23,20	47,8	50,76
Bulgaria	100,0	100,0	2.613	2.841	21,1	16,52	28,7	27,24	50,2	56,24

Source: National Statistics Institute (NSI), 2000, 2002

Below follows an outline of some features of every region:

NORTH CENTRAL REGION (NCR)

The main products of the primary sector in the NCR include cereals, vines and perennials. Secondary sector leaders are casting, metal processing, petrol extracting in Pleven district, petrol processing and engineering and equipment manufacturing. The NCR has underdeveloped infrastructure, which negatively affects such sectors as tourism, expected to increase its regional importance under the biodiversity conservation process.

NORTH EAST REGION (NER)

The North East Region has a very important share of the total tourism infrastructure of the country (as shown in Table 3). On the basis of the official statistics of the number of beds in hotels, campings, and in other tourists' sites, it represents 40,9% of the total number of beds for the country. Most of the infrastructure is however concentrated in the Varna and Dobrich districts and especially in the municipalities along the Black Sea coast. Creating suitable infrastructure along the Danube, combined with restoration of natural forests could attract more tourists in future.

TABLE 3 OVERNIGHT STAYS BY PLANNING REGIONS

Planning Region	Nights spent		Arrivals	
	Total	Foreigners	Total	Foreigners
NorthWest	53,531	5,810	35,563	3,342
NorthCentral	365,649	39,984	236,179	60,986
NorthEast	3,109,455	2,399,073	473,287	241,353
Bulgaria	6,971,458	4,323,109	1,844,278	580,262

Source: National Statistics Institute (NSI), 1998

More than one fourth of the **NER** rural population are aged people (60 and more), but this is less than the country average of almost 32%. The active population group (15-59 years) accounts for more than 56% of people living in the rural areas of the region.

NORTH WEST REGION (NWR).

The main five sectors providing employment in the region are: education (11.72%), health care (9.93%), machine building and metal processing (6.29%) and agriculture (6.36%). There are around 11 000 small and medium sized enterprises (**SMEs**), 92% of which are very small enterprises (1-9 employees), and only 1.4% medium sized enterprises (50-99 employees). Agriculture and the processing industry represent 38% of all **SMEs**. The tourist sector (hotels, chalets, catering, etc.) comprises about 6.4% of the **SMEs**. The Danube coastal area is listed among the 'valuable tourism resources' in the Regional Development Plan of the **NWR**.

There are 23 municipalities situated on the Bulgarian stretch of the Danube, 14 of them are classified as Less-developed rural areas according to the Regional Development Act (1999). Less developed rural areas cover municipalities or groups of municipalities with a predominant rural way of life, specialised in farming and forestry, characterised by a low level of economic development, technical infrastructure and workforce qualification, suffering acute social consequences such as rampant unemployment, low income and depopulation.

Imbalances have been developed in the Less Developed Rural Areas due to their economic mono-structure, and underdevelopment of the economic infrastructure. The problems there appear as a result of the concentration of employment in a small number of companies from the industrial sectors (which have weak growth potential), and the connected with that increase of the structural unemployment and worsened growth rates. The average density of companies and firms per 1 000 people, estimated in these areas is twice as low as the average for the country, which is predominantly due to the insufficiently developed physical and institutional infrastructure.

The diversification of the local economies in different economic sectors in the Less Developed Rural Areas is low. The biggest number of **SMEs** is concentrated in the agriculture and forestry – 40% of total; industry – 24%, trade – 23%. All **SMEs** operating in other economic sectors, including tourist accommodation, account for 13% of the total number. The share of agriculture in total Gross Added Value accounts for 51% and shows relatively higher productivity for the **SMEs** operating in this sector. The number of the micro-companies is prevailing, and most of them are family-run businesses. Their productivity rate is low compared to the country average.

Emerging **SMEs** are predominantly of the micro type, and as long as they are closely connected with local markets, meet serious impediments for development and expansion in an economic environment characterized by decreasing incomes of the local population. Furthermore, the economic sectors that used to be the traditional domain for the micro enterprises like trade, repair-works and crafts, are heavily saturated by small firms, and are being entered by medium and big companies. This puts the micro firms at strong competition with the new companies, which can offer better quality of the services and gradually take over the market niches of the micro companies.

However, unemployment in the region is high² and becomes even higher. In more than 10 municipalities it is more than 50% of the economically active population, and it is extremely high in Tzenovo (67,4%), Dimovo, Sitovo, Slivo Pole, Glavinitza and others. It is high in the other municipalities too (above 20%). The exception is Rousse municipality (about 13-15%), which is due to the better opportunities provided by the city.

Agriculture is traditionally one of the main economic activities, due to the good climate conditions as well as the vast plains and fertile soils. The sectoral structure of agriculture is specialized on various crops, based on the potentials of the territory (mainly cereals, vines and vegetables). The share of agriculture in the regional economies decreased significantly from 1998 to 2000 (especially in the North West Region).

On the islands Poplar forestry still is the most important economic activity. This is almost entirely State funded and does not gain a net revenue for the state. Although stopping forestry would not mean an economic loss it would mean a loss of jobs. It has not been possible to obtain concrete figures, but there are indications that Poplar forestry on the Danube islands is profitable for semi-privatised forestry companies, which, based on tenders, obtain contracts to carry out forestry management activities, as well as concessions for the harvesting of Poplar timber. While these companies are in most cases from other parts of the country and do not necessarily contribute to local livelihoods, the profits and jobs for them from Poplar forestry should be taken into account.

- **VITAL STATISTICS: JOBS, EMPLOYMENT, TYPE OF EMPLOYMENT**
(also if possible very briefly contextualised in broader regional or national situation)
See the information provided in the previous section as well as Annex 2.

- **SOURCES OF FUNDING AND INVESTMENT IN THE AREA**
The limited private and foreign funding flowing into the region concentrates in and around the cities. In (mainland) rural areas this hardly occurs.

The entire Northern region is a cross-border region; and the North-Western region is the poorest in Bulgaria, so there are targeted EU programmes investing in its infrastructure and economic development, as well as into environmental projects (in particular ISPA and Phare Cross-Border Cooperation). There are also bilateral initiatives to support business development, such as the Austrian government funded SME support through the Rousse Business Support Center.

The agricultural areas throughout the country are eligible for support under the SAPARD programme. A number of projects have been approved already. Furthermore, there is a targeted National programme for the development of the NorthWest region aiming at agricultural and rural development.

² See Annex 2 Level of registered unemployment per municipality situated on or near the Danube for 1999

On the islands themselves, the GEF/World Bank Wetlands Restoration and Pollution Reduction Project is investing several millions of USD into the restoration of the eastern part of Belene Island and the introduction of sustainable socio-economic activities in the area. There is governmental investment in forestry; and there is limited investment of several companies that provide holiday services such as local boat transport to the islands.

- **WHAT IS THE ECONOMIC VIABILITY OF THE AREA**

The project region's economic viability varies from place to place and heavily depends on the people living in the different parts of it. In some villages people/mayors are very active and new opportunities are grabbed or developed. In others people are passive, waiting for 'someone' to help out. On the whole however, people are willing to develop new forms of income, if they are shown what to do and how to do it.

- **HAS THE PROJECT AFFECTED THIS VIABILITY**

The project itself is intended as a short term intervention which will ultimately lead to other stakeholders – government as well as private sector – jointly securing the required investments for successful conservation and sustainable use of the region.

The project only started in 2001, with the aim to draw up a Strategy for the conservation of the Bulgarian River Islands. As a second phase, in 2003, an Action Plan was drawn up which details the steps necessary to implement the vision. In other words: the project intervened at the strategic level. The implementation (field activities) is now the responsibility of the Bulgarian ngo's and the two Ministries who were involved in setting up the Strategy and Action Plan, with WWF continuing to support the implementation of the project at international, national and local levels.

F THE PROJECT & ITS VALUES

- **MAIN PROJECT ACTIVITIES RELATED TO ONE EUROPE MORE NATURE**

The project started by intervening on the strategic level. It set up cooperation between WWF, Bulgarian NGO's and the Bulgarian Government and resulted in a jointly agreed Strategy for the Danube islands and subsequently an Action Plan for the strategy's implementation.

With respect to the question in how far the project aims/succeeds in steering large scale changes in land use in a direction beneficial to nature, local people and local (new) economies the following can be said:

- the development and endorsement of the Strategy and the Action Plan was just the first step in a long-term partnership for the protection, restoration and the sustainable management of the Bulgarian (as well as Romanian and others up-stream and down-stream) Danube Islands;
- WWF succeeded to set up an effective and resilient cooperation between itself, local NGO's and the Government – the Romanian Government has shown an interest to copy the process;
- the project aims to stimulate a shift from intensive (Poplar) forestry to a mix of sustainable forestry management and tourism development– with local

- fishermen benefiting along the way. Up till now activities concentrated on the forestry part;
- the project conducted an economic analysis of the alternative land-uses on the islands. It identified the major stakeholders and the potential alternative uses. Some initial data was gathered on each alternative use category (fish, firewood, willow branches, grazing/hay making, possibly some herbs, tourism, etc), but since it was a desk study mainly, more work is needed (especially at local level);
 - no people live on the islands and communities living on the river banks only for a small part depend on the use of these islands at the moment – most of the economic activities take place on the ‘mainland’;
 - field activities still have to commence – this is the responsibility of the local NGO’s involved and the Government. WWF will continue to support the implementation of the project in a number of ways at international, national and local levels – communication, fundraising, small scale pilot projects, awareness raising, etc..

- **ARE THERE AND, IF YES WHO ARE THE PROJECT PARTNERS AND STAKEHOLDERS? Which partnerships (including private / commercial sector) exist and have the potential to become drivers/carrying forces of the project in the future.** Partners in the project are (1) the Ministry of Agriculture and Forests, (2) the Ministry of Environment and Water including it’s regional Inspectorates, (3) local Bulgarian NGO’s, (4) local foresters, (5) local municipalities and (6) local fishermen.

Initial discussions/meetings are carried out with private forestry processing companies. There are companies (2-3) which make baskets, garden furniture, etc. from willow branches and others, which show interest in cooperation. However, more efforts need to be put in the development of partnerships with them.

It is envisaged that the two Ministries and the local NGO’s will become the drivers of the project in the future. However, funding for this still has to be sought – an application for funds has been sent to the EU. Some of the Local Forestry Units (Rousse) have shown interest in the implementation of small scale restoration activities using their own budget (without external funding) seeing the benefits of it for overcoming the erosion problems on the islands.

- **WWF’S VISION FOR THE AREA (and how it fits into the actual vision being taken forward by the authorities and other economic actors)**
The project was set up by WWF with the specific aim to conserve and restore the natural values on the Bulgarian Danube Islands. This goal has been internalised through the partnership with the Government and local NGO’s. Since the Government owns the islands and also funds/manages the forestry activities on them, the coalition formed is in principle able to deal (content wise and funding wise) with the forestry aspect of the project.

There is a structural reform going on within the Bulgarian Government. One of its aims is that the forestry sector becomes independent. This is a long term process but if it succeeds the forestry part of the project would, from that moment on, be a private sector investment instead of a government investment. This is also one of the drivers for the Local Forestry Units to search for new activities /alternatives to

intensive Poplar plantations/ in the conservation field, tourism development, alternative uses of the islands' nature resources, etc..

Since this is a new field for them, somewhat different from what they traditionally do, small scale pilot project are highly appreciated and valued; partnerships for this are sought.

- **OUTLINE OF THE ROOT CAUSES FOR THE SPECIFIC CONSERVATION CHALLENGE** (*threat or opportunity*) *faced by the area and how the project responds to these root causes.*

The root causes for biodiversity loss on the island are linked to the decades-long policy for targeted conversion of floodplain forests to Poplar plantations.

Beyond accession, EU agricultural and forestry policies could affect the islands' management. The direct reason for WWF to start the project was a 'classical' conservation concern: intensive forestry threatening the natural values of the islands. This is well reflected in the title of the Strategy and Action Plan developed: 'Strategy for the Protection and Restoration of Floodplain Forests on the Bulgarian Danube Islands'

There a number of potential developments, which (can) impact on the project area (although the project does not currently address them):

- There are plans to deepen the Lower Danube to allow larger ships to travel – this can impact on the river dynamics and the islands. WWF is aiming to stop and modify these plans.
 - When Bulgaria joins the EU it is expected that funding will become available to support agriculture. If this indeed happens it could provide the financial means to revitalize the drainage and irrigation of agricultural fields along the river and the salinisation problems which accompanied them in the past. Because of a lack of funding these fields on the mainland are currently not drained/irrigated.
 - To a large degree, the achieved government commitments have been based on political will and understanding of the environmental importance of the Lower Danube islands. There is a risk that with the restructuring of the forestry sector, private sector interests might prevail over sustainable use concerns, and the commitments made by previous structures might be abandoned by the new management. It is of prime importance to start practical implementation work as soon as possible, in order to demonstrate and involve especially the local forestry units, and introduce sustainable practices.
- **WHAT ARE THE KEY LESSONS TO LEARN FROM THIS PROJECT AREA**
 - How to set up a cooperation between WWF, local NGO's and a Government which results in a joint conservation and development strategy and subsequently an action plan for its implementation.
 - Developing a conservation partnership starting with a demonstration project (small pilot forests restoration), proceeding to lobbying and technical assistance for new policy formulation, through to assistance for implementation fund-raising, and handing over implementation responsibility to the government.
 - Integrating wetlands conservation and restoration, sustainable forestry practices and local socio economic benefits in an ecologically valuable and vulnerable ecological region.

- Depending on the project implementation success: practical experience from sustainable forestry in the conditions of the Lower Danube, as well as from alternative income generating activities.
- Transboundary cooperation in sustainable forestry – Romania and Bulgaria are intensifying their cooperation, and Romania is willing to develop a mirror strategy for its Danube floodplain forests, both on the islands and in the floodplain itself.

- **REMAINING THREATS – AND HOW IT IS BEING PLANNED TO ADDRESS THEM**

There is a concern that some of the areas with high conservation value may remain outside the scope of the restoration activities, so losses may remain undetected. Another problem is that not enough attention is currently given to the importance of semi natural forests.

- **CLEAR IDENTIFICATION OF HOW THE PLANNED (OR NEW) LAND USES ARE:**

- 1 **environmentally and economically sustainable**

The project aims to achieve economic viability in the long run, i.e. once restoration has been implemented, the islands land use should provide some income to the key stakeholders without additional subsidies. To this end, the project will look into increasing the productivity from the remaining Poplar plantations through better practices (instead of increasing their area!), ensuring some income from sustainably managed floodplain forests (e.g. providing a market advantage through FSC certification), as well as small scale local benefits from nature tourism, recreation opportunities for local residents, improved local fisheries, and other possible activities. A preliminary assessment of some land use options has been carried out in the framework of the projects, and needs to be further developed and put into practice in the implementation phase.

- 2 **not dependent long-term on (project) subsidies etc**

The project itself is intended as a short term intervention which will ultimately lead to other stakeholders – government as well as private sector – jointly securing the required investments for successful conservation and sustainable use of the region. The project is aiming to establish a land use scheme on the islands that would be economically viable, i.e. it would not require government subsidies to continue. On the contrary, the present land use of the islands is in some cases economically unviable, and depends on budgetary funding (some Poplar plantations are more costly than the timber harvested from them).

- 3 **replicable on a regional scale at least (i.e. not site specific; what methodologies are available etc..)**

Replicable on a regional scale is the type of coalition formed and the approach that lead to a Strategy and Action Plan. Transboundary cooperation has already been initiated between Bulgaria and Romania, and Romania is willing to develop a mirror Floodplain Forests Strategy, covering much larger areas including in the Danube plain.

- 4 **linked to Brussels: the example must be able to be used as levers to influence EU policies and practices**

The project itself represents one of the few examples of how to ‘integrate’ forestry with wetlands with socio-economic development and water management.

This project could play a role as a unique example of integrated policy implementation of forestry (including probable Natura 2000 designation), wetlands (WFD and Ramsar), sustainable socio-economic development (possibly SAPARD and Less Favoured Areas relevance) and water management (WFD) at the local scale, but also magnified up as a key component of the Lower Danube Green Corridor (1 million hectares).

WWF could use the project to demonstrate how to actually go about integrating these sectors at policy and field level.

- **ROLE OF NATURE VALUES**

Natural values are 'used'

- to stimulate a transition to environmentally sustainable forestry;
- to attract tourists (including hunters);
- to provide for, or improve, the small scale use of natural resources by local communities, in particular fish, firewood, willow branches, possibly some herbs.

The project has not so far explicitly planned how to use the role of natural values as a basis for new economies, although in general terms this is certainly the underlying approach.

But even though this has not been formally planned, the potential for integrating forestry with nature conservation-based tourism and recreation, the small scale use of natural resources by local communities, linked in to appropriate water management, is so large here that future actions urgently need to start moving in this direction, with communications as one of the first required steps in this process.

G COMMUNICATIONS AND MARKETING

- **COMMUNICATIONS ACTIVITIES ON-GOING, PLANNED**

(mainly European context).

There is a massive need for communicating the LDGC and the Floodplain Forests Strategy within Bulgaria (both at national and local level) as a way of increasing awareness, acceptance of the ideas and plans, and also as a way of bringing in new stakeholders (private investors interested in eco-tourism initiatives, etc.) who can help place the region on a firmer socio-economic basis, using the natural resources in an ecologically compatible way.

- **COMMUNICATIONS POTENTIAL** *(if more funding was available), mainly for European issues.*

The project represents one of the few examples of how to 'integrate' forestry with wetlands with socio-economic development and water management.

The governmental policy change toward sustainable forestry in an ecologically valuable and vulnerable ecoregion is potentially something to be communicated widely in a regional (Lower Danube, Danube Basin) and European context.

More efforts need to be put in the promotion of the tourism potential of the project area as well.

H EXTRA INFORMATION• **PHOTOS**

A photo CD is available with 100 pictures of the lower Danube (not specifically this project), including Poplar plantations, floodplain forests, and wildlife species. Additional 3 000 high quality professional photographs (by Anton Vorauer) of the Lower Danube, stakeholders and partners are available (not in electronic form).

• **BROCHURES**

There are publications in English and in Bulgarian:

- Strategy for the Protection and Restoration of Floodplain Forests on the Bulgarian Danube Islands (in colour)
- Action Plan for the Protection and Restoration of Floodplain Forests on the Bulgarian Danube Islands (in colour)
- Fact sheet (outdated) of the Bulgarian Danube Islands Project (in colour)

• **LOGOS ETC.**

There is no logo for this project. This is not considered a weakness for the project, on the contrary: the fact that several logo's are used in combination (w w F, Ministries involved etc.) reflects nicely the type of cooperation at work here.

I FINANCIAL INFORMATION• **PROJECT BUDGET**

The Bulgarian Danube Islands Project has been financed by w w F /World Bank Alliance, to a total of 90 000 CHF.

In 2003, the project received additional 30 000 CHF from the w w F Forests for Life Programme, for the training of 30 Bulgarian foresters in floodplain forests protection, restoration and management at the w w F -Germany Auen Institut.

The 5 year Action Plan (2003-2007) generated by the project has a total budget of 1 345 330 EURO. A project proposal has been prepared for Phare Cross-Border Cooperation in 2004 to cover these expenses, as well as mirror activities in Romania.

• **FUNDING SOURCES**

See above

Annex 1

VISITORS ON THE BULGARIAN DANUBE ISLANDS				
Island	Form of recreation	Visitors per day (weekends)	Days of visits per year	Total person/ days per year
Chaika (near Aydemir)	Organized	120	12	1440
	Individual	40		480
Radetzki and Tutrakan	Week days	40	60	2400
	weekends	300	24	7200
Bezimen (v. Nova Cherna)	weekends	20	24	480
Beach between Pojarevski islands				50
Luliaka (near Russe)	individual	200	60	12000
Paletz (v. Dragish Voevoda)	Individual	20	60	1200
Baikal	individual	50	150	4500
Hair sand (near v. Zagraden)	Individual (only by boats)	10	60	600
Kerkeneza (in fornt of v. Slivata)	Individual (only by boats)	20	60	1200
Dolni Tzibur	Individual (only by boats)	20	60	1200
Skomia (in front of v. Archar)	Individual (only by boats)	20	60	1200
Kutovo	Individual	20	90	1800
Others *	Organised and individual	150	15	2250
Camping	Individual	6-8	12	84
Chalets**	Individual	n.a.	n.a.	
Total				38000

* Includes the International water trip with kayak boats. There are about 150 participants spending on the Bulgarian part of the river 15 days. During the trip they spend part of their day time on the hair sands on the islands.

** It includes the following chalets located on the islands: Magaritzza (Belene), ownership of Belene municipality with capacity of 10 beds, sitting room for 20 persons and the chalet on Persina ownership of the prison. Capacity of 8 beds.

Source: Green Balkans, 2002

Annex 2

LEVEL OF REGISTERED UNEMPLOYMENT PER MUNICIPALITY SITUATED ON OR NEAR THE DANUBE FOR 1999							
Municipality	Situated on the Danube	LDA ⁱ	average unemployment rate %/ in respective municipality	Municipality	Situated on the Danube	LDA ⁱ	average unemployment rate %/ in respective municipality
VIDIN	X		18,93	Medkovets		X	28,97
Belogradchik		X	24,99	Chiprovtsi			23,03
Boinitsa		X	19,82	Yakimovo		X	31,88
Bregovo	X	X	35,38	PLEVEN			12,15
Gramada		X	25,83	Svishtov	X		
Dimovo	X	X	43,76	Belene	X		13,63
Kula		X	21,73	Guliantsi	X	X	23,81
Makresh			19,21	D.Mitropolia	X		19,57
Novo Selo	X	X	24,72	Dolni Dabnik			24,36
Rujintsi		X	41,88	Pelovo			37,02
Chuprene			20,10	Levski			15,79
VRATZA			16,05	Nikopol	X		20,08
Borovan		X	32,65	Pordim			16,45
Biala Slatina		X	27,20	Cherven Briag			24,55
Kneja		X	30,69	ROUSSE	X		11,18
Kozlodui	X		16,77	Borovo	X	X	27,43
Krivodol		X	25,95	Biala			19,85
Mezdra			15,17	Vetovo			38,06
Mizia	X	X	25,98	Dve Mogili		X	27,57
Oriahovo	X	X	26,99	Ivanovo	X		16,23
Roman			24,84	Slivo Pole	X	X	30,16
Hairedin		X	30,96	Tzenovo	X	X	27,93
MONTANA			18,15	SILISTRA	X		14,89
Berkovitsa			18,71	Alfatar		X	27,99
Boichinovtsi		X	27,29	Glavinitsa	X	X	26,59
Brusartsi		X	30,28	Dulovo			14,65
Valchi Drum	X	X	30,96	Kainardja		X	46,87
Varshets		X	25,63	Sitovo	X	X	26,41
Georgi-Damianovo			13,70	Tutrakan	X	X	21,02
Lom	X	X	25,59				

Source NSI 1999

3.8 Morava

DATA PROVIDED BY

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A PROJECT CONTACT DETAILS

- **WWF Office responsible:** WWF International; Danube-Carpathian Programme Office
- **National contact details (project manager):** Dr David Tickner, DCP O Fresh water project leader
- **Local contact details (project executant):** a consortium of (1) Daphne, Institute for Applied Ecology, in Slovakia (2) Distelverein (Gerhard Neuhauser) in Austria and (3) Veronica in the Czech Republic.

B GEOGRAPHICAL INFORMATION

• **LOCATION**

The area is situated in the floodplain of Morava and Thaya rivers in Slovakia, Austria and Czech Republic.

C GENERAL ECOLOGICAL INFORMATION

• **GEOGRAPHICAL CHARACTERISTICS**

The Morava is a middle-sized lowland river on the Western boundary of the Pannonian steppe. The river is a tributary to the Danube.

• **CLIMATE, CLIMATE CHANGE IMPACTS DATA ALREADY WITNESSED, IF AVAILABLE**

The region has a continental climate with cold winters, hot summers and low precipitation.

No data were provided on possible signs of climate change.

- **HYDROLOGY AND WATER MANAGEMENT**

In the 1950's and 1960's the Morava river was heavily regulated, and the course of the river was shortened. In former times the river flooded the 5 km wide floodplain in late winter and early spring, but in recent times summer dikes and traverses prevent the natural flooding dynamics into the river fore lands. This resulted in sedimentation and the lack of erosion in all adjacent river courses.

- **SOIL CHARACTERISTICS**

No data provided

- **FLORA AND FAUNA**

A few highlights: Beaver and Otter are present in the area. White-tailed Eagle is making attempts to breed, and in the meadows the Corncrake is a threatened, irregular breeding bird. Alluvial forests cover a substantial part of the area, with soft wood and hard wood forests, and there are grasslands, marshes, old river beds and oxbows, and – naturally – the present river course. More information on the biodiversity of the area is available in the Analysis of 12 WWF river restoration projects (Zöckler 2000).

- **PARTICULAR VALUE TO WWF'S PRIORITIES**

The Morava-Thaya floodplain is a wetland area, or in fact a river basin. Within the area large parts are covered with forests.

The river restoration project carried out is a plan to reopen the entire Morava Thaya floodplain to the influence of the river and to reconnect the old river beds with the main river course over a stretch of almost 70 km. The project area covers some 3000 hectares in total, with 1160 hectares on the Austrian side. Of the total area, 860 ha is covered with hardwood and softwood floodplain forests; 160 ha are grassland habitats.

D LAND-USE INFORMATION

- **HISTORICAL LAND USE**

The development of agriculture caused substantial damage to the natural environment since 1940. Large subsidies for intensification or ploughing of grasslands destroyed meadows throughout Slovakia's mountain and lowland areas.

- **CURRENT LAND USES**

Agriculture is a small but important part of the economic use of the floodplain. There is a financial programme to stimulate and enable farmers to change arable land into grassland and forests. Already 150 farmers have successfully sought support from these funds.

Fishing and hunting are permitted, including the hunting of waterfowl. One of the effects of the present form of hunting is overgrazing by deer (now 12 animals on 100 hectares). This negatively affects the natural regeneration of the forests.

Forestry is another form of land-use: half of the annual re-growth is harvested every year.

The gravel industry is considered to be a major threat at the Slovakian border, with a plan for excavation of roughly 800 hectares.

Tourism is an important activity, with 50 000 visitors recorded in 1997 and 1998. This is also the result of collaboration with a local mayor, who has been supportive in organising an annual 'Storchenfest' (Stork's party) in order to raise awareness among the local inhabitants.

- **FUTURE TRENDS**

The area as a whole is under rapid economical and social development. The international cooperation aiming at the restoration of natural and cultural values seems to suffer under this economic pressure.

A negative trend are 'the contradictory investments of EU Funds which could significantly damage the natural and cultural value of the Morava Dyje Floodplains'. (WWF Technical progress report on Morava Thaya project, juli/december 2002)

E SOCIO-ECONOMIC INFORMATION

- **HOW IS THE LOCAL ECONOMY STRUCTURED, including a socio-economic profile**

The local economy mainly consists of agriculture, forestry and tourism. In some parts countryside housing is gaining interest, especially in the proximity of Vienna, Brno and Bratislava.

- **VITAL STATISTICS: JOBS, EMPLOYMENT, TYPE OF EMPLOYMENT (also if possible very briefly contextualised in broader regional or national situation)**

No information was provided on this issue.

- **SOURCES OF FUNDING AND INVESTMENT IN THE AREA (What is the role of public and private funding)**

No information was provided on this issue.

- **WHAT IS THE ECONOMIC VIABILITY OF THE AREA**

No information was provided on this issue.

- **HAS THE PROJECT AFFECTED THIS VIABILITY**

A total of 14 national and transboundary conservation, restoration and economic development projects, strategies and initiatives have been prepared and implemented in the region. Examples:

- the TRIALOG concept, a large sustainable development strategy for the Morava Dyje region;
- the GEF Slovakia, with restoration of oxbow lakes, development strategies for floodplain forests and strategies for economic development;
- EU Life projects regarding management of wetlands and forests;
- a project for development of sustainable tourism and raising public awareness.

No information was provided on the question in how far these initiatives affected the economic viability of the project region.

F THE PROJECT & ITS VALUES

- main project activities related to one europe more nature
After 1990 the Administration of Protected Landscape Zahorie, managing the Morava river floodplains, pushed for restoration of meadows on former arable fields; the aim was to decrease pollution and increase biodiversity. This resulted in restoration of 140 hectares of meadows in Slovakia and 40 ha in Austria since 1997. In addition 4 oxbow lakes were reopened at the Slovakian Austrian border.

In 1994 a trilateral cooperation in the Morava-Dyje region was initiated by wwf-Austria within the framework of the Green Danube project. The objective is to work on protection of nature and sustainable regional development in the border area of the two rivers. A common strategy for nature conservation and sustainable use in the region was agreed. One of the results is that the border area is under Ramsar site protection since August 2001. Because of this the jury of the Ramsar Wetland Conservation Award, awarded one of the three global awards for 2002 to the trilateral consortium of ngo's.

Current activities still for a large part concentrate on implementation of the Ramsar Convention. In line with this a trilateral agreement was drawn up, to share one vision on the common principles of management of the area. This was signed by the three governments in May 2003. Activities are also underway to get the area designated as a potential Natura 2000 site.

Possible links between current activities and OEMN include:

- the river restoration project, although this seems to follow a sector by sector approach;
 - a programme to stimulate farmers to change the land use into a more sustainable direction (agri-environment).
- ARE THERE AND, IF YES WHO ARE THE PROJECT PARTNERS AND STAKEHOLDERS? *Which partnerships (including private / commercial sector) exist and have the potential to become drivers/carrying forces of the project in the future*
There is an excellent cooperation between four NGO's, with Daphne as overall project leader – wwf's role is a catalytic one. Other stakeholders are private land owners, municipalities and the governments. Slovakia chairs the Ramsar site project.
 - WWF'S VISION FOR THE AREA *(and how it fits into the actual vision being taken forward by the authorities and other economic actors) which partnerships (including private / commercial sector) exist and have the potential to become drivers/carrying forces of the project in the future.*
No information was provided on this issue.
 - OUTLINE OF THE ROOT CAUSES FOR THE SPECIFIC CONSERVATION CHALLENGE *(threat or opportunity) faced by the area and how the project responds to these root causes*
No information was provided on this issue.

- **WHAT ARE THE KEY LESSONS TO LEARN FROM THIS PROJECT AREA**

No information was provided on this issue

- **REMAINING THREATS – AND HOW IT IS BEING PLANNED TO ADDRESS THEM**

Threats included the following:

- a plan to build the Danube-Odra-Labe channel in the Morava region, a canal between the Danube, Odra and Elbe rivers (the DOL canal);
- construction of bridges at Marchegg-Devinska Nova Ves and Hohenau-Moravsky Sv.Jan;
- port development at Devinska Nova Vesbuild;
- the construction of two bridges at Hohenau-Moravski-Jan and at Marchegg.

No specific information was received on how the project aims to address these threats.

- **CLEAR IDENTIFICATION OF HOW THE PLANNED (OR NEW) LAND USES ARE:**

- 1 environmentally and economically sustainable,
- 2 not dependent long-term on (project) subsidies etc,
- 3 replicable on a regional scale at least (*i.e. not site specific; what methodologies are available etc..*)
- 4 linked to Brussels: *the example must be able to be used as levers to influence EU policies and practices*

No information provided on these issues.

- **ROLE OF NATURE VALUES**

No information provided on this issue.

G COMMUNICATIONS AND MARKETING

- **COMMUNICATIONS ACTIVITIES ON-GOING, PLANNED (*mainly European context*).**

Documentation received suggests that because of the international character of the project, there is quite substantial international communication, also outside the three countries involved. No specific data were provided.

- **COMMUNICATIONS POTENTIAL (*if more funding was available*), mainly for *European issues***

This could be the case: the project is situated in the backyards of Vienna, Bratislava and Brno, so in principle the city's interests in conserving and restoring the river ecosystem could be highlighted.

H EXTRA INFORMATION

- **PHOTOS**

- **BROCHURES**

- **LOGOS ETC.**

No information provided on this.

I FINANCIAL INFORMATION

- **PROJECT BUDGET**

- **FUNDING SOURCES**

No information was provided on this.

Annex 1

IDENTIFICATION OF FIELD EXAMPLES FOR ONE EUROPE MORE NATURE

One Europe More Nature is a WWF Initiative aiming to identify, create and communicate practical examples of alternative land-use drivers (mechanisms) which can significantly contribute to the reform of the CAP and other tools and thereby enhance WWF's conservation impact across Europe. These examples will be used to inspire novel land-use, social and economic approaches that could apply to tens of millions of hectares across Europe.

As a first step the Initiative requests experts within the WWF network which existing projects they feel can be used as the practical examples referred to above. To help the selection process, the following set of criteria has been developed. In order to qualify at least the following preconditions must be met:

- the example must contribute to WWF's FRESHWATER TARGETS in Europe (a consequence of the fact that the One Europe More Nature Initiative is led by the European Freshwater Campaign)
- the example must be a working FIELD example (so, policy or communication projects do not qualify for this particular purpose).

In addition to fulfilling the above preconditions, One Europe More Nature examples should show forms of land-use

- 1 which are environmentally and economically sustainable
- 2 which are not dependent long-term on (project)subsidies
- 3 which are not dependent long-term on product subsidies
- 4 which are replicable on a regional scale at least (i.e. not site specific)
- 5 which are linked to Brussels: the example must be fit to influence EU policies and practices
- 6 where a 'new economy' is happening or can happen
- 7 in areas or projects which are accessible and marketable
- 8 where partnerships exist/are drivers, especially where private sectors are involved
- 9 in areas where there has been a clear evolution of/from agricultural or forest land-use (i.e.: the area must have been under agricultural or forestry use in the past; current use can still be agriculture or forestry but it can also be something else – see list of examples below)

With respect to point 9, the following types of 'evolution' can be interesting:

- agriculture/forestry to watersheds
- agriculture to forestry
- forestry to agriculture
- agriculture/forestry to (eco)tourism
- agriculture/forestry to species utilisation/conservation (LCI-LHI)
- agriculture/forestry to food-processing and marketing
- agriculture/forestry to life quality (health/care, housing)
- agriculture/forestry to fuel production/energy/carbon sequestration
- agriculture/forestry to nature development/conservation
- agriculture/forestry to cultural heritage
- agriculture/forestry to sport
- agriculture/forestry to urbanisation
- agriculture/forestry to aquaculture

