



for a living planet®

European challenges...

Local approaches...

Natural solutions...

One Europe - More Nature In the Tisza River Basin



One Europe - More Nature In the Tisza River Basin

The Tisza River Basin is one of the largest in Europe including five countries and forming a direct ecological connection between Central and Eastern Europe's principal Global 200 Ecoregions the Carpathian Mountains and the Lower Danube and Danube Delta.

Through "One Europe - More Nature" project in the Danube-Carpathian region WWF up scales its activities in the along the Tisza river in order to stimulate and promote an integrated river basin management from the highlands to the lowlands of the Carpathians.

These activities focus - geographically speaking - on three locations: one in the high mountain headwaters (the Oas-Gutâi Plateau in Maramures, Romania), one in the middle basin (Ecsed/Ecedea, straddling the border between Romania and Hungary), and one downstream on the main Tisza channel (in Nagykörrü, Hungary).



All the three project areas will demonstrate practical and successful, working examples, elements of WWF's vision for

WWF selected these sites because of their remarkable landscape and biodiversity, and because we believe sustainable development - ecology and economy working hand-in-hand - is possible here. We will demonstrate that land-use changes are possible, which harmonise the current needs of the people, with the need to safeguard natural resources for future generations. Furthermore, we believe that these areas have high potential for acting as a positive demonstration not only for other parts of the Carpathians, but also elsewhere in Europe.

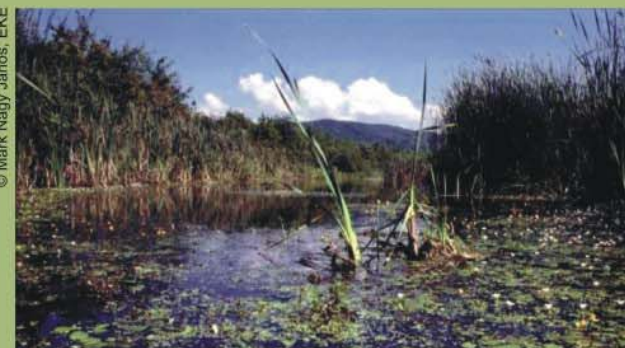
In **Maramures**, the activities will focus on switching to new integrated forms of forest, grassland, and water management to maintain and restore the upland landscape integrity, support sustainable flood management, and at the same time create new income opportunities for local people.

In **Ecedea**, common ecological and economic activities will be developed by the two countries for the large scale cross-border restoration of what was once Central Europe's largest inland marshland complex.

In **Nagykörű**, activities will focus on the habitat restoration by water retention in order to provide the possibilities of floodplain land use practices (introduction of extensive grazing practices, traditional cattle breeds, local varieties etc.).



Uplands in Maramures



Flowering oxbow



Hungarian gray cattle grazing at the Tisza flood plain

the whole Tisza River Basin.

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© Márk Nagy, János, EKE

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Vision for the Oaş-Gutâi Plateau

Living Landscape for Nature

The Oaş-Gutâi Plateau is representative for its influence on the hydrological system of the upper Tisza River Basin, and is also the location of the WWF project in Maramures. A land which is rich in history, heritage, landscapes and biodiversity...

New understanding and modern techniques in the economy and ecology make it possible to conserve, sustainably manage, and even improve the natural resources, while ensuring at the same time the welfare of people depending on them. The Vision for the Oaş-Gutai Plateau foresees and will demonstrate exactly this through the selected practical projects.

This brochure will take you into the Vision regarding the Oaş-Gutai Plateau and Ecedea Marsh presenting the motivation for development. It is also an invitation to groups and individuals to contribute with their expertise, experience and enthusiasm to the implementation of this Vision.

The volcanic origin mountain relief in the Oaş-Gutâi Plateau is the product of mighty geological processes, refined over millennia by water and wind.

and People

Visitors enjoy the breath-taking panoramic views offered by large forests and mountain grasslands, contrasted by open grassy meadows and peat bogs.

The fresh mountain air offers the aroma of wild flowers and healing herbs in forests and grasslands.

The entire Plateau is a remarkable place for nature - ecosystems with abundant biodiversity covering a surface of 147,000 ha. The region is one of the few locations remaining in Europe that truly provides sanctuary for rare and endangered animals such as the eagle, the ermine, the European otter, the wolf, the brown bear, the lynx, the wild cat and the Carpathian newt.

The upland grassland mosaic reveals areas covered with herbs and grass, with great bilberry and cranberry bushes interspersed here and there with wetlands and meadows.

The Oas-Gutai Plateau is one of the most representative regions in Romania regarding the formation of meadows and peat bogs. Peat formed here has scientific importance constituting a valuable archive of documentation due to different species and fossils of plants and animals in the area.

The wetlands also have the role of "natural sponges" in the mountain regions and they absorb great quantities of rainwater, release it only slowly, thus reducing the possibilities of harmful floods here and downstream in the Tisza Basin.

Playing a special role in conserving global biodiversity, these wetlands host a series of rare and unusual wetland-dependent flora and fauna: the mysterious glacial relict sundew and waterwheel - carnivorous plants, matt grass, great bilberry, blueberry, cranberries, tufted hairgrass, rush or alpine garden moss.

Half of the Plateau is covered with **natural forests** with high biodiversity: mixed forests of white and green alder, larch, oak, beech, juniper tree and spruce.

In order to protect these natural treasures, fourteen reserves have been established on the Plateau, covering 697.2 ha. WWF believes that the Plateau cannot be conserved through protected areas alone, it must be a living landscape with people whose livelihoods depend on a healthy and flourishing natural system.

© WWF Canon/Roger Leuigen



The lynx finds safe refuge on the plateau

© Pop Emil, EcoLogic



Mountain cranberry

© Pop Emil, EcoLogic




Natural forest mix

© Pop Ioan



"Taul lui Dumitru" peat bog



Oaş-Gutâi Plateau cultural landscape, a living work place an important economic resource

The local history and culture are organically connected to the mountains.

The livelihood of local people highly depends on the Plateau.

Ongoing traditional sources of subsistence:

Timber extraction and processing

The forestry sector is of great importance for the local economy. The extracted timber covers the needs of local people for heating purposes, for house building, for the making of roofs and traditional wooden gates, as well as for income generating activities, such as timber and furniture production.

Considerable potential of wild animals

The region has a rich naturally regenerable resource of bears, wolves, stags, roe deer, boars, rabbits, partridges, and pheasants co-dependent on their forestry habitats.

Harvesting of medicinal plants, mushrooms and wild forest fruits offered with generosity by nature: the attractive acquisition price encourages the local people to systematically harvest, at the same time all these gifts from nature are also collected for their own purposes, being an important resource of food for local people in wintertime.

Mountain animal husbandry and dairy processing

Land restitution to former owners replaces the centralized intensive use of grasslands with more nature friendly practices suitable for their needs and the region's biodiversity. "Bruna de Maramures" and "Țurcana" are indigenous breeds of cattle and sheep preferred by the locals. Hard-working farmers still keep the old traditional calendar for grazing respecting the cycle of nature.

Traditional shepherds prefer the ancestral methods dating back centuries. Every spring, from every village the sheep are gathered into large flocks that go up in the mountains, grazing on natural pastures. They stay in the mountains until the end of the autumn. For the winter time the sheep are brought back to the village where they are fed with hay collected from the grasslands on the Plateau.

Traditional craftwork is part of every day life in this region. Wool from the indigenous breeds of sheep is used for manufacturing specific carpets and traditional winter costumes for local people. Every householder knows how to manufacture most necessary objects themselves. In Maramures wood-carving is learned in early childhood.

Most of the living traditions are based on the sheep life-cycle, and local activities are related to the sheep products. The wool, the milk, the skin and the meat from sheep generate activities with added economic value for villages.



Manufactured winter wears



Boletus edulis king bolete



Indigenous breed "Bruna de Maramures"



Traditional household



Hand carved traditional gate in Maramures

A man wearing a straw hat and a dark jacket is using an axe to split a large log. The log is lying on the ground, and there are other logs nearby. The background shows a wooden fence and some greenery.

But human activities also leave negative

Forests are the most exposed to pressures...

The long transition process to the market economy has accelerated the pressure on forests caused by timber extraction. The lack of alternative sources of income for the forest owners in the poor rural regions leads to over-exploitation, causing serious damage to nature.

The gaps in the legislation and in the monitoring system enable illegal logging and marketing practices on the timber market, affecting both the forests and the economy.

The retention capacity of rain water is diminished...

The uncontrolled timber harvesting and the fluctuation of runoff waters lead to the formation of mountain streams and generates uncontrollable floods.

By starting now, WWF believes it is not

marks on nature ...

Wildlife feels the threats...

Caused by a reduction in shelter and habitat.

The quality of surface waters is affected...

Increased turbidity is registered due to timber extraction practices. The lack of protection measures leads to the erosion of the soil and of the river beds flowing out of the extraction regions.

Wetlands have decreased their surfaces in the last decades ...

Due to the increase of evaporation, the negative hydrological balance resulting from insufficient water retention capacity of the surrounding forests, the replacement of old stands by young forest and the degradation of grasslands followed by erosion.

There is the risk of diminishing the grasslands biodiversity...

Because easily accessible areas nearby the villages are used much more intensively, even overgrazed in many cases, compared to those further away. Some of them have already been abandoned. These practices represent a great threat to the grasslands, since rapid landscape changes could end up in considerable loss of biodiversity.

Future threats...

Romania's future accession to the EU will undoubtedly impact upon the people and the way they use the land. Earlier experiences of EU countries clearly and conclusively show that the Common Agricultural Policy led simultaneously to intensification of pressures in some areas and to land abandonment in others. Both trends are detrimental to the environmental and social fabric of rural life.

too late to push these changes in a more favourable direction for people and nature.

© Pop Emil Ecologic



Secular beech on the ground

© B&C Promberger



Wildlife threatened by loss of shelters

© Georgeta Iuga



Timber extraction

© Pop Ioan



Trout lily

There is still another chance...

WWF believes that this resource must be managed so as to have economic benefits in the present as well as in the future. Human activities for income generation should ensure biodiversity conservation and landscape functioning and not degradation.

WWF's vision for the Plateau is a mixed patchwork of interlinked wetlands, forests, and open grasslands supporting different human activities without undermining each other.

Each habitat is vital to ensure the hydrological functions, the ecological values and the economic opportunities. But it is the combination of these three habitats that makes the Plateau so special, so beautiful, part of Romania's treasure trove.





The Oaş-Gutâi Plateau outstanding landscape and welfare of people

Many activities will not change but new trends and available techniques will be considered: more extensive grazing, sustainable timber extraction and the use of secondary forest products.

New opportunities such as eco-tourism are emerging. Maramureş is one of the most well-known, well-visited regions in Romania, where traditions and genuine culture are part of everyday life. Beautiful landscapes with biodiversity values in the Plateau are undoubtedly an important destination for nature lovers.

Additionally, flood-generating processes will be reduced and the water quality will be improved, and all will benefit from a healthier land and water management.



Manual thresher

© Pop Emil, EcoLogic



Wooden monastery in Bârsana

© Pop Emil, EcoLogic



Visitor groups guided by the patrols of Creasta Cocoşului reserve

© Pop Ioan



lezerul Mare peat formation

© Filip Moisei



Traditional clothing in Maramures



A Closer Look at the Management of...

Forests:

Important changes have been made in recent years but reforms are still needed in order to create a system of forest management, which allows and promotes the use of nature-friendly forestry practices, the extension of private property and a favourable business environment for forest industries.

By increasing the capacity for water retention, the hydrological regime will be stabilised and the flood generation will be much reduced. Special measures adopted in forestry, grazing and agriculture will protect the surface waters and will avoid soil erosion.

Grasslands:

Reintroduction of extensive grazing will lead to the conservation of upland grassland biodiversity to the benefit of the great vegetation in the Plateau.

Sustainable conservation of the biodiversity will contribute to the maintenance of the landscape functions of grasslands: retention and filtration of water, prevention of soil erosion, economic development assuring incomes and employment and support to the cultural settings and local infrastructure.

Water:

The maintenance of a healthy hydrological network and where necessary the restoration of representative upland wetlands, inter-connected with their feeder streams provide a relevant example of the complex absorption and water retention functions.

This "sponge" effect allows the ecological purification of waters and also assures cleaner water for grazing, for forests and even for the downstream localities for drinking water and for agriculture purposes.

Tourism:

Rural tourism has successfully started in the region, local farmers provide accommodation and traditional cuisine, as well as an introduction to local traditions that tourists enjoy.

Eco-tourism services can be added to these offers: guided trips to beautiful landscapes, to the living laboratories represented by peat bogs, watching the wild life (bird-watching, photography, identification and following of wild animals tracks) and environmentally friendly transport - by cart, horse or bicycle.



Guided trips in the Gutai Mountains

© Pop Emil, EcoLogic



Pristine streams from the mountains

© Pop Emil, EcoLogic



Grazing horses on the upland

© Pop Emil, EcoLogic



Unchanged weaving techniques possible tourist attraction

© Pop Emil, EcoLogic



Guesthouse with traditional hand carving



...and of the sustainable

Hunting

The wild animal population of the Plateau is a considerable natural resource. We have to make sure that the management of this resource which is of not just national but also international significance - is oriented towards wild fauna biodiversity conservation and towards maintaining an ecological balance when hunting is practiced as a sport.

Timber extraction

The export of forest products is one of the fundamental economic activities in the Maramures county. In order to achieve sustainable forest and water management, certification of state-owned forests will be promoted, while the private owners will be better informed and encouraged to join the certification system. Currently, there is an increasing external market demand for timber from certified sources.

use of natural resources

Harvesting of medicinal plants, of wild forest fruits and of mushrooms

Can be considered income generating activities making sure that they are carried out so that not to affect the ecosystem. The collectors' processing capacity can be developed through training courses in order to obtain added-value ecological (labelled) products that would promote the specificity of the Plateau.

Animal breeding

Indigenous animal breeding on the natural grasslands of the Plateau can assure high-quality natural products from animals that will be delivered to the already existing agro-tourism networks in the region, thus harmonising food production with nature and landscape protection. The wool transformed by the experienced weavers in specific carpets and rugs prepared with natural colour paints will tell the story of the living traditions from the Land of Maramures. Additionally, indigenous large herbivorous horses, cattle or deer species - living in wild herds could be re-introduced on the abandoned grasslands with poor accessibility and managed carefully to prevent over-population. The use of methods, which avoid that the animals associate humans with danger, will make them more visible for tourists.

Fishing

Leisure/sport fishing is practiced in running and still waters in the mountain area, but it is not considered an economic activity.

Specific legal regulations, annual prohibition of fishing, identification, arrangement and protection of natural areas for reproduction and other measures are required to ensure sustainable exploitation and biodiversity conservation. Demand from abroad for high-quality recreational fishing sites in beautiful and remote landscapes is high.



© Kis Ferenc, WWF Hungary
Medicinal plants processing, using ancestral and natural techniques



© Pop Ileana
Wild blueberries, a favorite of the local harvesters



© Kis Ferenc, WWF Hungary
Grazing buffaloes



© Albiou Ion
Fishing, in the mountain area

Former Ecedea Marsh first cross-border rehabilitation

The Carei Plain, former Ecedea Marsh

Drained in just 4 years at the end of the 19th century, artificially divided by the border between Hungary and Romania, this huge former wetland was once an important piece in the hydrological functioning of the Tisza River Basin system. Despite the development of the monocultural agricultural landscape, there are still remains of the former marsh that make natural starting points in the restoration process. Here there is an excellent opportunity to start the first ever cross-border wetland restoration: a natural link between the two countries and a powerful symbol of an expanding European Union.



in Romania

The Ecedea Marsh - a shelter for nature...

The great variety of wildlife in the former wetland was assured not only by the large surface over 30.000 ha but also by the variety of habitats: large peat bogs, deep puddles, shallow waters, reed thickets, shrubs, forests, wetlands and streams.

Even if strongly affected by human activities the flora and fauna still maintain species of European interest that should certainly be protected. Almost 100 wetland plant species and 80 species of wetland-dependent vertebrates can be the starting point in the restoration of the wetland biodiversity. Groups of plants dominated by common rush, lesser duckweed, cat tail, or fine leaved water dropwort and animal species like European bitterling, great bittern, great white egret, pygmy cormorant, spoonbill, white-tailed eagle, northern harrier, peregrine falcon, kingfisher, lesser-grey shrike can be found here.

The Ecedea Marsh - a place of cultural intersection, an active work environment and an important economic resource.

Communities in the wetland surroundings are formed of different ethnic groups, such as Romanian, Hungarian, Swab, and Gypsy people who led their lives around the wetland and knew how to use its renewable resources in a wise manner. These communities are looking now for alternatives to subsidised agriculture, and future changes to European agricultural policies and EU accession makes this search for alternatives rather urgent.



Investigating the water quality

© Káa Ferenc, WWF Hungary



Issoria lathonia, Queen of Spain Fritillary

© Sandor Altia, SOR



King fisher

© Sandor Altia, SOR



Rana temporaria Mating common frogs

© Sandor Altia, SOR



Marsh marigold

© Káa Ferenc, WWF Hungary



Sustainable management and

There is still another chance: Sustainable management and use of natural resources...

Nearby communities are committed to finding alternatives and restoration - and subsequent sustainable management - of the wetland is one such option. The process has begun, assisted partly by WWF.

Two pilot locations were chosen on both sides of the border, the Csicsós marsh (in Hungary) and the Bechec marsh (in Romania), where local communities decided to start the restoration of the area.

Human activities leave negative marks, too ...

After the wetland draining at the end of the 19th century, the agricultural land was initially productive but rapidly became degraded by wind and rain and by poor agricultural management. Today, most land is either strongly eroded or with high salinity characterised by low productivity and low or zero income generation potential.

The disappearance of the huge quantity of water led to changes in the micro-climate of the region, reduced humidity of air and soil, the number of freezing days increased, and in some cases the lack of water became a serious problem.

There is already an economic interest for the raw materials that could be provided by the marsh, or surrounding areas, as was the case in former times. Twig or organic hemp are products which are needed on the markets, and there are more products that could become of economic interest. Other services such as habitat for fish, provision of a buffer against floods, micro-climate regulation and others are also important arguments for restoration of the marsh to its former glory.

© Kis Ferenc, WWF Hungary



Degraded water course

© Kis Ferenc, WWF Hungary



Basket weaving

use of natural resources...

However the ecological restoration is neither the final stage nor the final goal of the rehabilitation process. It is of course necessary that local communities benefit economically from these wetlands. They can also be used as leisure places for fishing and bird-watching or to obtain raw materials such as reed, cat tail or twig. In time they can serve as educational or tourist attractions for a wider experience. We aim to assist communities and entrepreneurs to acknowledge and develop the wetland as an income generating resource in order to ensure its large-scale restoration and sustainable use.

© Haraszty László, WWF Hungary



Grazing cows on the flooded pasture

This **Vision** is a source of **Ideas**, an **Initiative** for co-operation...

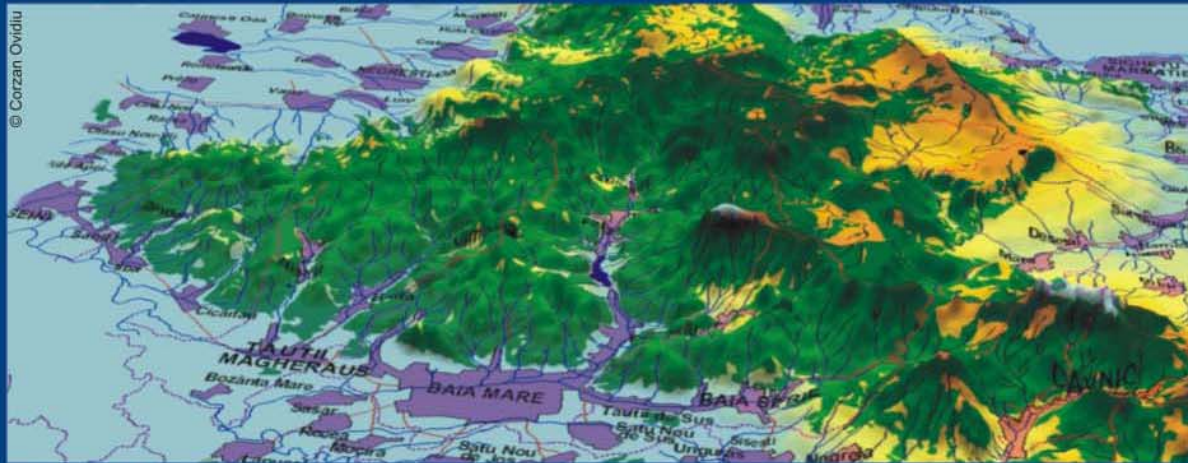
The ideas could be integrated in the local development plans and they could stimulate other organisations and initiatives to co-operate with WWF for implementation of the Vision

We are aware that realising this Vision requires years of hard work from all stakeholders. It is the responsibility of all of us, and at the same time we are also the main beneficiaries: we will have clean water, protection from floods, a healthy place to live and we will benefit from economic opportunities.



The **practical projects** selected to be implemented in the region will illustrate the functioning of the ideas as part of the Vision. By these examples, others can be inspired to take the Vision forward. Professional communication of the experience and lessons learned will generate enthusiasm and knowledge amongst the Romanian audience.

We are committed to finding new partnerships, encouraging new ways of investing, and developing new ways to make the project sites, indeed the whole Tisza River Basin a better place for living, work and recreation.



The Oaş-Gutâi Plateau 3D digital version

Join us!

Become our partner! - to build the support network - to hit our targets, to make the vision a reality.



A landscape of great potential



A place for tourism, a challenge for adventure



Wildlife conservation



A place for research

© Pop, Emil - Ecologic

© Pop, Emil - Ecologic

© BBC - Promberger

© Pop, Emil



One Europe - More Nature

is a pan-European initiative
of WWF whose goal is:

To catalyse farmers, consumers, forest owners/managers, businesses and policy-makers to re-create functioning/living river basins so that new ways of farming - making a living - ensure biodiversity and ecological functioning in Europe's changing landscapes.

We invite anyone to come forward with business and development style proposals!

Who can contribute?

- Municipalities/mayors
- Local administration
- Businesses and entrepreneurs
- Local communities and civil society, Relevant authorities and agencies



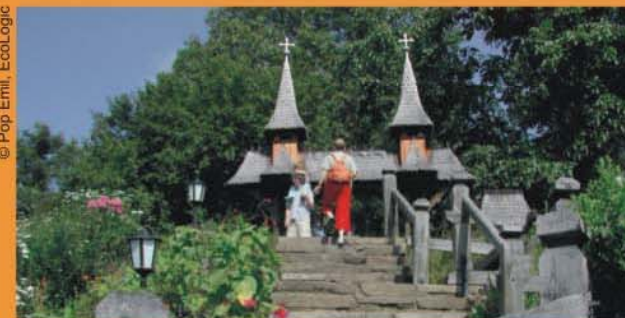
Participatory planning with local communities

© Pop Emilii, EcoLogic



Planning with local government

© Pop Emilii, EcoLogic



Promoting rural tourism

© Pop Emilii, EcoLogic



Working with local businesses for nature friendly practices

© Pop Emilii, EcoLogic



Promoting cultural heritage

© Damian Norbert

WWF is the world's largest and most experienced independent conservation organization. It has 4.7 million supporters and a global network active in 96 countries.

WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by

- Conserving the world's biological diversity
- Ensuring that the use of renewable resources is sustainable
- Promoting the reduction of pollution and wasteful consumption

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