TransEcoNet NEWS

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Editorial

Right in time for autumn TransEcoNet is harvesting further project results. Beside the introducing article covering the inventory of ecological networks this issue of TransEcoNet focuses on the history of transboundary landscapes and their regional identities. After the completion of the survey of oral history (see TransEcoNet News, Issue 5) a workshop with local residents was organised in the Hungarian Őrség National Park to discuss landcape changes. Within a student course interrelation between architecture and landscape was investigated in the Neusiedler See/Seewinkel and in the Southern Burgenland in Austria.

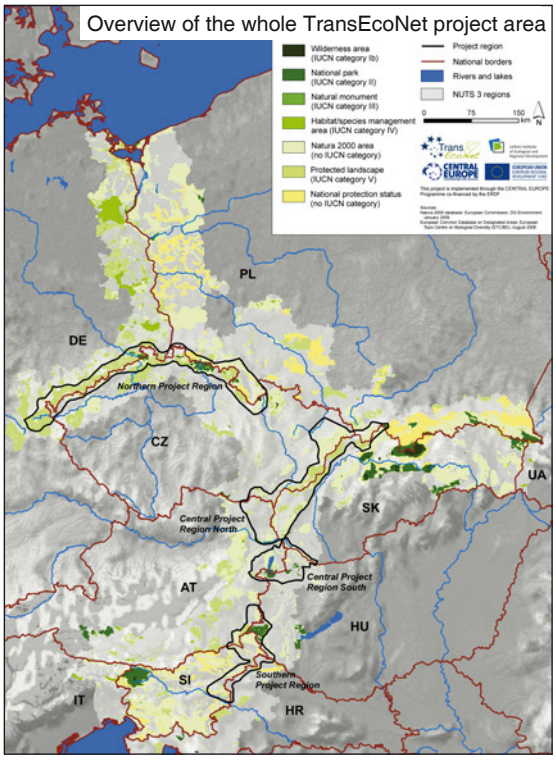
We also spoke to Ondřej Vítek from the Czech Agency of Nature Conservation and Landscape Protection about ecological network initiatives in the Czech Republic. Enjoy reading and hope to see you on one of the transnational events this autumn!

The TransEcoNet Communication Team

In this issue

Comprehensive inventory of ecological networks in Central Europe finished!

One focus of TransEcoNet during the first half of project implementation has been the analysis of existing transboundary ecological networks, their status of biodiversity and the detection of gaps in these networks. The Leibniz Institute of Ecological and Regional Development coordinated these activities which were implemented by nine project partners during the last year. (see also TransEcoNet News, Issue 2)



Inventory of existing networks

The general objective was to gather knowledge of the existing network of protected areas in the whole TransEcoNet project area. The base data used for the inventory are the NUTS III Regions, Corine Landcover 2000 and protected areas (worldwide, EU and national databases including Natura 2000).

To obtain a detailed overview of the already existing network and for detecting potential ecological corridors further analyses were carried out:

First, the *transboundary connectivity of protected areas* in

This project is implemented through the CENTRAL EUROPE Programme co-financed by the ERDF.

all project regions according to their protection status was analysed. Four different match categories were distinguished: corresponding, differing, unilateral and no protection status on both sides of the border. Then, *core areas* were identified. These are areas with IUCN category I and II as well as a spatial join of all adjacent areas with IUCN categories III, IV and Natura 2000 sites above 10 km². In the next step *potential ecological corridors* of wetlands, woodlands, open landscape areas and legally protected areas were identified. Finally, the *connectivity analysis* was done by using the distances between protected areas and by identifying their nearest neighbour according to the core area definition. It provides information about potential ecological corridors which are still not well developed in the selected border areas.

Gaps in ecological networks

The inventory of ecological networks and the identification of potential ecological corridors are the basis for the gap analysis. The methodology is based on an unspecified species approach, the detection of habitat corridors and transnational and national network plans for protected areas.

Identification of possible gap types

Existing and potential ecological corridors were combined in order to obtain information about the number of corridors that complement each other. The TransEcoNet gap analysis neglects habitat corridors within the existing network of protected areas, because it is assumed that these areas are already well protected, managed and monitored to conserve biodiversity.

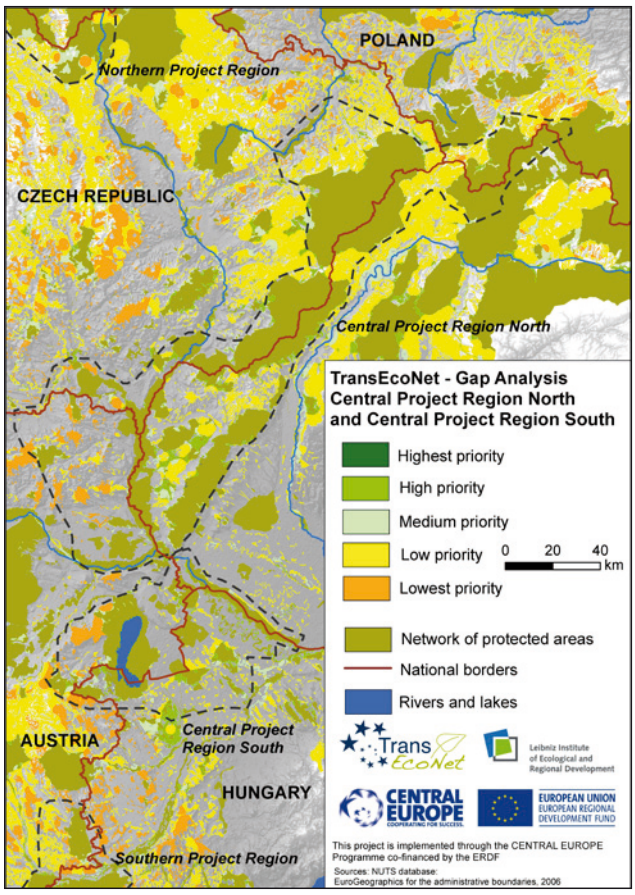
Gap priorities

Data about existing and potential ecological corridors were combined with gap types according to CORINE land cover codes „very close to natural“ and „semi-natural“ and with data about the occurrence of threatened species on the IUCN Red List, i.e. mammals, birds, reptiles and amphibians. Detected gaps were prioritised in five classes from “very low priority” to “very high priority”. The higher the priority of a gap, the more ecological corridors were detected and the more endangered species occur within this area.

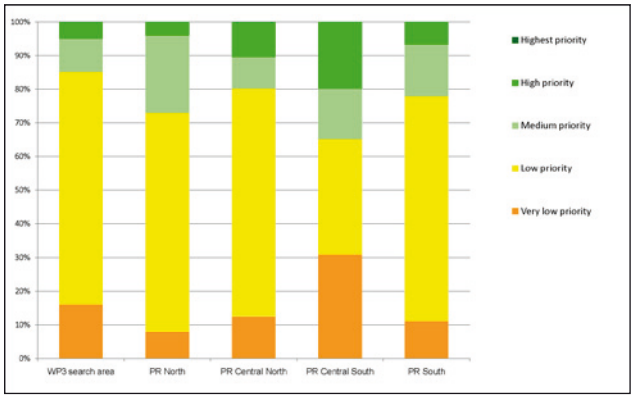
Results of the gap analysis

Most of the detected gaps are covered by woodland. Many gaps are situated near or between already protected areas. An accumulation of transboundary gaps can be found, for example, in the Czech-Polish border area north of the Jizera Mountains, in the Czech-Polish-Slovakian border triangle of the Beskides and in the Austrian-Hungarian border area north of Őrség National Park.

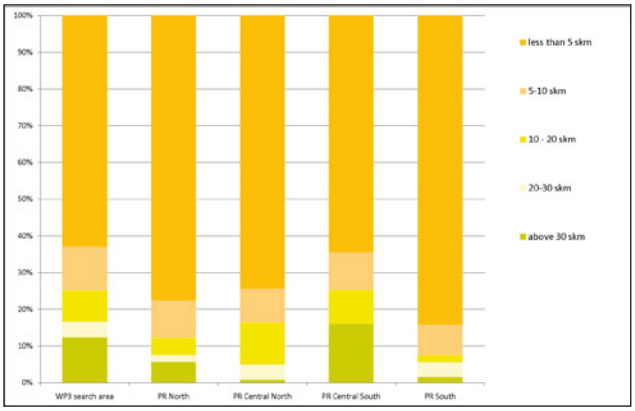
Results of the gap analysis in the border areas between Austria, Czech Republic, Hungary and Slovakia (TransEcoNet Central Project Regions North and South)



Distribution of gap priorities in the whole TransEcoNet project space and in each project region



Distribution of gap sizes in the whole TransEcoNet project space and in each project region



Management strategies

Finally, recommendations for managing ecological networks in Central Europe were developed. Some of them are, for example:

- Consideration of ecological networks in spatial planning and better consultation between nature protection and spatial planning issues
- Forests conversion to natural woodlands regarding to their location
- Green bridges/wildlife crossings and underpasses for small animals
- Creation of fish passes and other fish migration aids
- Preservation, maintenance and replanting of landscape structures such as hedges, tree rows, small woodlands etc.
- Open landscape preservation with animals
- Promotion of organic farming, extensive agriculture and the reduction of chemical substances in agriculture

Transboundary cooperation initiatives

A further scope of activities in TransEcoNet has been the analysis of existing initiatives covering ecological networks. There is a number of European and national policy documents which have an influence on management of ecological networks. These are, for example, the Directives of the European Council concerning the conservation of flora and fauna or the Pan-European Biological and Landscape Diversity Strategy (PEBLDS, 1995). But ecological network concepts are integrated differently into national policies in Central Europe. In some countries they are part of other regulations, e.g. in the German Federal Spatial Planning Act (1999), or they are merely non-binding policy documents like the Hungarian National Biodiversity Strategy (2004). In the Czech Republic ecological networks are considered in the Territorial System of Ecological Stability (see also interview with Ondřej Vítek on page 4).

In Central and Southeast Europe four important transnational cooperation institutions can be found. These are the Alpine Convention (1991) followed by the Carpathian Convention in 2003. The Dinaric Arc Initiative was established in 2005. The European Green Belt Initiative, coordinated by the IUCN since 2004, tries to preserve the semi-natural landscape of the former "Iron Curtain" by implementing projects in the field of transboundary nature protection and regional development. These institutions build the main interfaces of a range of activities within nature protection and biodiversity conservation according to their bioregion. Many transboundary ecological network initiatives are launched by NGOs and by research institutions. Public agencies, national and regional governments, municipalities, and private consultants are the main actors. Protected area administrations are only participating in few initiatives. Main funding sources of those initiatives are provided by the EU INTERREG- and LIFE-Programmes.

The formation of "umbrella" initiatives for certain macro regions providing organizational basis for ecological network initiatives is becoming visible. They try to develop long-term concepts for their regions, often developing or implementing practical projects. These initiatives can be regarded as an important step towards a coherent establishment of ecological networks in such regions, as they are binding various actors towards the achievement of common goals. However, for the future it is necessary to better coordinate and integrate European, national and regional concepts and activities with each other.

Transboundary cooperation initiatives related to the main bioregions in Central and Southeast Europe

The challenge is to provide adequate information about transnational ecological networks to the public

Ondřej Vítek is the leader of the Department of Special Nature Conservation of the Czech Agency for Nature Conservation and Landscape Protection responsible for the management of special protected areas in the Czech Republic. He also fulfils secretary tasks of the Board of specialists for tourism and sports dealing with threats of tourism on nature conservation. Ondřej is also an a member of the TransEcoNet Advisory Board.

Do strategies and concepts for a national ecological network exist in the Czech Republic? If yes, what are the main goals of those concepts?

In the Czech Republic we have different types of ecological networks. The most effective one is the network of specially protected areas – from national parks to natural monuments. General goal is to protect areas with a high natural value. The protection category depends on the total area size, the subject of conservation and the type of management.

Another type is the Territorial System of Ecological Stability (TSES). So-called biocentres interconnected by biocorridors are the basic elements of this network type. Additional interaction elements are interconnected with biocentres and biocorridors and ensure a favourable influence on the surrounding landscape. In fact, biocentres and interaction elements are the physically existing parts of the network, but many of the biocorridors are of "proposed" status, established only in maps for land use management so far. Also other types of territorial protection - like outstanding landscape elements, nature parks, monumental trees and caves - could be considered as elements of a national ecological network.

How do you assess the current status of transboundary cooperation in nature protection between the Czech Republic and its neighbouring countries?

Very good cooperation can be found in most of the transboundary protected areas. All four Czech national parks share their borders with national parks on the other side. Nature is protected by a range of cross-border projects. On national level it is much more difficult to collaborate due to different instruments and missing requirements for transboundary cooperation within national law. An exception is the collaboration between the Czech and Saxon Ministries of Environment where information and experience are exchanged half-yearly. Establishing similar working groups with other neighbouring countries would be a next step for transnational nature conservation. Some larger transboundary projects like TransEcoNet occur, but they are still rare. It would be more effective to solve some of the current problems of nature conservation EU-wide, but totally different approaches of the member states do not favour such solutions.

What are your wishes and expectations concerning the long-term impact of TransEcoNet in the involved Czech project regions?

That people will get into contact with people from other countries working on similar issues and that they will look at their region from a Central European perspective. People will learn new working methods, will get access to new data and will share transnational experiences with their colleagues who are not directly involved in the project. Some actual and concrete needs of transnational biodiversity conservation will be addressed to the national authorities and motivate stakeholders to get into contact with actors from neighbouring countries.

Which results of TransEcoNet do you regard as most important?

In my point of view, the most important is the collection of GIS data on ecological networks and its transboundary harmonisation and interconnection. The gap analysis within ecological networks would then give some interesting results.

In your opinion, which topics have to be covered more in detail in the remaining project duration?

One important topic of TransEcoNet would be to provide the general public adequate information about transnational ecological networks.

Landscape perception – memory and future

First local workshop organised in the Őrség National Park in Hungary

As reported in the previous issue of TransEcoNet News a range of interviews were conducted in the transboundary project regions on people's perception of landscape changes.

In spring 2010 the Institute of Environmental and Earth Sciences of the University of West Hungary made interviews with contemporary witnesses in the Hungarian national parks Fertö-Hanság and Őrség. Based on the interview findings the first local workshop was organized on 22 July 2010 in Őriszentpéter, the central village of Őrség National Park in the west of Hungary on the border with Austria and Slovenia. Many of the interview partners, mostly local residents older than 40 years, took part in the workshop as well as mayors of different settlements in Őrség and representatives of the Őrség National Park.

In the beginning of the event the participants were informed about the results of the interviews reflecting the present state of the landscape in Őrség, its unique characteristics as well as its former state and changes until now. Comparisons of the landscapes on the Hungarian and Austrian side of the border were highlighted. The presentation was followed by a plenum discussion considering the current problems of landscape conservation in the Őrség area and how to solve them.

Subsequently working in small groups the participants discussed the following questions:

1. Which future landscape do you wish in Őrség and what would you contribute to reach this?
2. Which possibilities do you see to harmonize farming and nature conservation activities?
3. How can we improve the communication between regional stakeholders within nature protection, forestry, agriculture, regional planning for reaching a common concept of landscape conservation?

Landscape of Örség National Park

The workshop further sharpened people's awareness and perception of the landscape and which problems have to be solved regarding landscape conservation today and in the future. The meeting was the first "landscape forum" in the area of Őrség and brought together local residents who have a great interest in a sustainable landscape development in future. It was a good starting point for a long-term collaboration aiming at a sustainable development of the landscape in this Central European border area.

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Local residents of the Őrség area took part in the workshop to review the landscape changes of their home region in the west of Hungary (left). Prof. Dr. Éva Konkoly-Gyuró is presenting the outputs of the group works considering current problems of landscape conservation in the Őrség area (right).

Transational integrated management of water resources in agriculture

The EU.WATER project deals with the problem of water consumption and water contamination caused by intensive agriculture in selected rural communities in South East Europe.

Within the project methodologies towards an integrated management of water resources in rural areas are developed. Through a joint strategy and its downscaling within each project partner's governance framework EU.WATER moves towards

- the application of the EU Water and Nitrate Directives across the countries of South East Europe,
- the development of adaptive learning practices and innovative solutions supporting the transition of local agriculture towards innovative and environmental-friendly measures and
- incentives for farmers to adopt eco-prescriptive practices.

The partner consortium is led by the Italian Province of Ferrara and consists of national ministries, regional and local authorities and research institutions from in EU and non-EU countries. Pilot projects will be implemented in respective rural areas in these countries. The EU.WATER project is implemented through the SOUTH EAST EUROPE Transnational Cooperation Programme.

For further information:
www.eu-water.eu


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The Tisza river basin: important waterway and valuable water reservoir of the Hungarian Great Plain

Adaptive management for protected areas regarding climate change

The overall objective of the HABIT-CHANGE project is to evaluate, enhance and adapt existing management and conservation strategies in protected sites to pro-actively respond on likely influences of climate change as a threat to habitat integrity and diversity. Furthermore, a monitoring concept is being developed to detect changes caused either by human activity or climate change effects. This will be a very valuable information and tool especially for the protected area administrations.

The acronym HABIT-CHANGE stands for "Adaptive Management of Climate-induced Changes of Habitat Diversity in Protected Areas". That considers not only the expected habitat changes caused by climate change but also the necessary adaptation of our own habits in close connection to this. Investigation areas of the project cover protected areas from all over Central and Eastern Europe with a focus on wetlands, forests, grasslands and alpine areas.

The partnership includes site management agencies, nature conservation authorities, partners from the private sector and scientific institutions researching ecological issues and climate change. This complementary mix of implementing and scientific organisations allows a successful transfer from science towards practicable implementation. HABIT-CHANGE is implemented by the CENTRAL EUROPE Programme and is managed by the Leibniz Institute of Ecological and Regional Development in Dresden, also a TransEcoNet project partner.

For further information:
www.habit-change.eu

The partner consortium of the HABIT-CHANGE project

Reflecting regional identities - Landcape and architecture

Students of the TU Vienna investigated interrelations between "natural" and built landscape

The inventory of landscape heritage plays an important role in understanding local situations of ecological connectivity. Thus, students of the Institute for History of Architecture and Arts, Building Archaeology and Restoration of the TU Vienna investigated interrelations between the built landscape and natural environment in Austrian focal areas of TransEcoNet.

Architecture as part of cultural landscape

Each building and each settlement influences the shape and the appearance of a landscape. At the same time the built environment is shaped by its surrounding "natural" landscape. Within traditional vernacular architecture the influence of the landscape is easily understandable. In former times the materials used for construction came from surrounding nature. The location of settlements and buildings was influenced by topography and climate. Today, global compatible construction technologies and methods reduce the influence of landscape features on regional architecture. Within a student course the interrelations between architecture and landscape were investigated and used for awareness raising and re-identification of the local population.

Several video clips were compiled, mirroring the influence of the landscape on architecture in the National Park Neusiedler See-Seewinkel and in the Nature Park Raab-Őrség-Goričko. Architectural features based on natural influences were inquired and their functionality and importance for the contemporary architecture were discussed. The video clips were complemented by a comprehensive literature review providing background information and results of the research.

Reed-thatched roofs are part of the traditional architecture in TransEcoNet project regions, like here in Heiligenbrunn in Southern Burgenland near the Austrian-Hungarian border

Chimneys with openings across the wind are elements of regional architecture in the Neusiedler See-Seewinkel area

Scattered to the wind

The students defined natural features that are important for the region. One example is the topic "wind" in the National Park Region Neusiedler See-Seewinkel. A range of features were detected regarding the local importance of wind, for example, the layout of settlements: The main streets follow the direction of the wind so that the long stretched houses are standing across the airstream. Further, wind parks were recently established on the border of the national park. They significantly change the shape of the landscape and build the base for controversial discussions. Marinas and huts were built within the reed belt serving as infrastructure for touristic purposes related to wind like sailing, wind and kite surfing. These constructions change the shoreline of the lake in certain areas. Other built features are wind mills which, in former times, have been used to grind grain and nowadays are touristic sights. Wind related construction details are, for example, the chimneys with openings across the wind to ensure the extracting of fumes and crow-stepped gables to prevent the damage of roof shingles.

Reed as building material

Interviews were carried out with people who are maintaining their traditionally thatched roofs, craftsmen who are still working with the material as well as house owners and designers who use reed for modern architecture. This adaption of vernacular techniques was also investigated in the transformation of traditional architecture. Here, the students examined why people choose to live in the Seewinkel or in the Nature Park Raab-Őrség-Goricko and how they transform former farmhouses into modern homes or ateliers.

Students are talking to Mr. Haubenwallner who takes care of the village museum in Mönchhof in the National Park Region Neusiedler See-Seewinkel.

Local archives and village museums store much information about nature related techniques and about „natural“ landscape and the built environment. During the conversations with local residents the students involved become aware how certain aspects of the built environment are influenced by the surrounding landscape. The video cllips will be distributed to the cooperating municipalities, archives and museums and will be shown and discussed in public.

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Europe's natural heritage under threat!

The Morava-Dyje floodplains are one of the most significant river landscapes and biodiversity hot spots in Central Europe. Austria, the Czech Republic and Slovakia are sharing 60.000 hectares of wetlands which provide habitats for more than 500 threatened fauna and flora species.

Today the floodplains are massively under threat. In only five years this common natural heritage which is also part of the European Green Belt could be destroyed completely: River regulations are drying up the floodplains. Also the road network is becoming more and more dense, supported by the planned highway S8 leading to fragmentation of the landscape. Furthermore, there are plans, which should convert the lively Morava river to a waterway for river boats. Industrial areas, business centres and a planned harbour in the Slovak Malacky could destroy the valuable floodplains. The disappearance of the foodplains would mean that 3 Mio. inhabitants loose a decisive reservoir of drinking water and are exposed to a massive risk of flooding. Besides, Austria would loose a meaningful recreation area.

Currently, a transboundary protected area management is lacking, which would maitain the unique natural area in the long term and at the same time provides a sustainable development perspective for the border triangle of Austria, the Czech Republic and Slovakia. Nature protection organisations are currently discussing the establishment of a national park or biosphere reserve.

More information: www.die-au.at ; www.wwf.at

Upcoming events in autumn 2010

6-9 October: Forum Alpinum, Munich/Germany [more]
14-16 October: CIPRA Annual Event „Changing Alps - peripheral regions between waste land and hope“, Semmering/Austria [more]
18-19 October: LIVING LANDSCAPE: The European Landscape Convention in research perspective, Florence/Italy [more]
25-27 October: Euregia - Local and Regional Development in Europe, Leipzig/Germany [more]
17 November: Think Tank Workshop on ecological networks in/to the Alps, Bozen/Italy [more]
23-24 November: CENTRAL EUROPE Annual Event, Prague/Czech Republic [more]
25-26 November: International Symposium on Advanced Methods of Monitoring Reed Habitats in Europe, Illmitz/Austria
2-3 December: TransEcoNet Transnational Project Meeting, Murska Sobota/Slovenia [more]

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