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“Trans-European Wildlife Networks”

**Report for the period from
May 2009 to October 2010**

to Deutsche Bundesstiftung Umwelt

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Trans-European Wildlife Networks – Final Report

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1 Introduction

From July 2008 to October 2010, EuroNatur in cooperation with the University of Freiburg and the Frankfurt Zoological Society (ZGF) jointly implemented the “Trans-European Wildlife Networks” (TEWN) Project with partner organisations from Poland, Croatia, Slovakia, Romania and Bulgaria. The project was financially supported by the Deutsche Bundesstiftung Umwelt. Originally, the project was to end in December 2009, but was prolonged to October 2010.

In the intermediate report handed in to DBU in April 2009, the main activities implemented in each work package from July 2008 to April 2009 were summarized. In the following report, the activities implemented from May 2009 to October 2010 are described. Main focus during that time was put on the following activities:

- Closing conferences in Bulgaria and Romania and
- Finalizing TEWN manual

In addition to the works originally foreseen in the project proposal, two further activities were implemented, namely:

- Study tour for Romanian stakeholders to Croatia, July 12th – 15th, 2010
- Participation in the IENE (Infra-Eco Network Europe) International Conference on Ecology and Transportation, September 27th – October 1st, 2010 in Velence, Hungary.

Both activities can be considered part of work package 2.4 - Implementation of communication structures on national and European level

2 Activities implemented from May 2009 to October 2010

In the following chapter, the activities implemented from May 2009 to October 2010 are described, referring to the work packages listed in the proposal handed in to DBU in February 2008.

2.1 International expert network

To establish an international expert network is an initial step for transboundary information exchange and consolidated work towards large-scale habitat networks. In the first reporting period, five such meetings took place. From May 2009 to October 2010, two further meetings took place.

TEWN Partner Meeting in Sofia, Bulgaria, November 22nd, 2009

At the partner meeting held in Sofia, Bulgaria, all TEWN partners were present apart from University Freiburg and Frankfurt Zoological Society which were excused due to other urgent obligations.

The meeting mainly served to prepare the TEWN conferences in Sofia, Bulgaria, and Bucharest, Romania, which were planned for the following day (23rd), 25th in Bucharest respectively. For further details on the conferences, please refer to 2.4.

Other topics discussed were the continuation of the TEWN project after finalising project with DBU support as well as the TEWN Manual (please refer to 2.3). In this meeting, also the participation of the TEWN project team in the IENE conference in September 2010 to present the results of the TEWN project was discussed for the first time (please refer to subchapter “IENE conference” in 2.4 below).

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TEWN Partner Meeting in Velence, Hungary, September 30th, 2010

The second partner meeting within the reporting period was held in the frame of the IENE conference which took place from September 27th to October 1st, 2010 in Velence, Hungary. During the meeting, different options on how to continue with the TEWN network in the future as well as possible next steps were discussed. One option which was discussed was to continue with concrete projects to mitigate the negative impact of planned transport infrastructure on national level (e.g. in Romania, where a highway is planned to be constructed through bear habitat). At the same time, all TEWN partners expressed their wish to continue with the exchange of experiences from the different projects as it was possible during the implementation of the TEWN project. Due to lack of funding for regular partner meetings, different other options to enable such an exchange on regular basis were discussed and will be followed up.

The meeting was also used to prepare the TEWN session which was to take place on October 1st (see also subchapter “IENE conference” in 2.4 below).

2.2 Documentation of the methodological approaches and results

Within the first reporting period, the technical document “Permeability of Roads – Guidelines for Construction” which had been prepared by representatives from several institutions, among them also Dr. Djuro Huber from the Biological department, Veterinary Faculty, University of Zagreb, had been translated into English. Within this reporting period, the text was further edited and given a proper layout. For easy distribution, 500 CDs with the guidelines were produced. Parts of the CDs were distributed during the conferences in Bulgaria and Romania (see below).

The experiences gained in Poland were gathered in a book called “Zwierzeta a drogi” which was published for the first time in 2004. In 2006, a revised edition was published which was translated into English. The book “Animals and Roads” was published in 2009; the translation was enabled also with the support of DBU within the TEWN Project.

→ Copies of the CD as well as a copy of the book “Animals and Roads” are delivered with the report.

2.3 Production of a manual to promote measures to maintain and improve habitat connectivity in Bulgaria and Romania

Already during the first partner meeting in August 2008 (held in Bialowieza, Poland), it was agreed between all partners that the manual should not only address the situation in Bulgaria and Romania, but that it should be a manual for the maintenance of Transeuropean Wildlife Networks in general, covering all important aspects. Based on this, the publication “TEWN Manual – Recommendations for the reduction of habitat fragmentation caused by transport infrastructure development” was produced.

The manual is designed to raise awareness among decision makers in policy and administration, planners, engineers, nature conservationists as well as the broad public about the problems of “animals and roads”. At the same time, it provides information about main aspects concerning mitigation measures which hopefully help to minimize the impact of transportation networks (both current and planned) on the natural environment.

Chapter 1 shortly provides general background information about large carnivore ecology and describes the impact of transport infrastructure on wildlife, while Chapter 2 provides practical knowledge on mitigation measures. Firstly, some general guidelines for the planning of wildlife crossing structures are listed, i.e. assessment methods, methods of control and

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factors for the adequate frequency of crossing structures. Secondly, the different types of crossing structures are described in detail, differentiating between standard traffic route constructions and special constructions to allow animals to cross roads. Thirdly, the various monitoring methods used to check the permeability of crossing structures are outlined - from cheap and simple methods up to more complex and more expensive approaches.

In Chapter 3, different approaches for assessing the need for mitigation measures as well as the practical implementation of mitigation measures from different countries are described. The examples from Croatia, Slovakia, Poland, Bulgaria and Romania use different methods and are therefore incommensurable. Nevertheless, the chapter provides an overview on different approaches addressing the same topic and is also meant to point out the various aspects which have to be considered when dealing with landscape fragmentation and mitigation measures.

Finally, Chapter 4 presents case studies for Romania and Bulgaria and suggests methods to assess the impact of planned transport infrastructure on natural habitats for brown bears. The case studies were elaborated within the frame of the Trans-European Wildlife Networks (TEWN) project, jointly implemented by partners from Germany, Poland, Croatia, Slovakia, Bulgaria and Romania from 2008 to 2010. The case studies for Romania and Bulgaria take into consideration the different circumstances in both countries. This concerns mainly the different state of knowledge about landscape fragmentation and mitigation measures. Another important aspect related to the elaboration of the case studies was the availability, respectively lack, of data sets necessary for analysis. Especially in Romania, it was difficult to obtain reliable or even any data sets of species distribution as well as of existing and planned infrastructure.

All authors involved in the production of the manual hope that with this manual a theoretic basis for better planning of infrastructure and mitigation measures can be provided, to contribute to a sound discussion about the establishment of ecological networks as well as to their establishment, but also to inspire new ideas and research projects in this field.

The manual was promoted and distributed and could also be ordered during the IENE conference (see below). Additionally, copies were sent to the TEWN Partners in Croatia, Poland, Bulgaria, Slovakia and Romania to hand them to relevant stakeholder. In Bulgaria, a half day workshop was organised to present the manual to representatives from the Ministry of Environment and the Ministry of Transport.

Also, several magazines reacted on the press release which was sent out for the publication of the manual and reported about the manual in their magazines.

The TEWN manual was also handed over to representatives of the Biodiversity and Natura 2000 units of the EU Commission in Brussels. The responsible national desk officers in the Natura 2000 unit were contacted and the most important results of our project were presented. During the discussions with the respective people, it was agreed on a further exchange of information concerning important developments regarding the further planning and construction of motorways in Bulgaria and Romania.

In total, 250 copies of the manual were distributed; additionally, several times, interested persons were provided with the manual in digital format (pdf version).

Due to the limited financial resources, it was not possible to print more than 250 copies of the manual. As there is a great interest in the publication though, it might be produced on CD in order to enable further distribution.

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→ Copies of the Manual are delivered with the report. Copies of articles reporting about the publication of the TEWN Manual are added as attachment.

2.4 Implementation of communication structures on national and European level

To achieve public attention as well as political awareness for the conservation issues and to boost the position of conservationists in the different countries are important goals of the project. During the reporting period, main focus was put on raising awareness among stakeholders in Bulgaria and Romania. For that reason, two conferences were organised to which representatives from nature conservation and infrastructure planning were invited and presented best practise examples from Croatia and Poland as well as the achievements in Bulgaria, respectively Romania so far. The main idea of the conference was to bring together stakeholders from “concurring” sides and to create a platform for exchange.

TEWN Conference in Sofia, Bulgaria, November 23rd, 2010

The first conference was organised in Sofia in the premises of the German Embassy. About 50 representatives from nature conservation and transport infrastructure planning participated in the conference.

The conference was opened by the current German Ambassador in Bulgaria, Mr. Matthias Martin Höpfner. In the following, Ms. Nelly Papazova, former desk officer in the Natura 2000 unit of DG Environment of the European Commission gave a presentation on Natura 2000 and transport projects. Further presentations on the situation in Croatia and Poland were held by the TEWN partners from Poland, Dr. Sabina Nowak, and Croatia, Prof. Dr. Djuro Huber. The good cooperation between nature conservation and the Croatian Motorway Company was presented by Bojan Vivoda on behalf of the Croatian Motorway Company. The current state of affairs in Bulgaria was presented by Diana Zlatanova from Balkani Wildlife Society. Further presentations were given by the National Road Agency, The Ministry of Environment and Water as well as the Ministry of Transport. Another case study (Struma Highway) was presented by a representative from the Green Party.

After the presentations, a long discussion started about the current situation in Bulgaria concerning nature conservation and infrastructure planning, ending in the conclusion that nature conservation and infrastructure planning need to cooperate to achieve mutual benefit.

Based on that, the conference in Bulgaria can be judged as very successful, as it was possible to create the platform for a constructive dialogue, resulting in better cooperation between “concurring” parties.

TEWN Conference in Bucharest, Romania, November 23rd, 2010

The second conference, similar to the first one held in Bulgaria, was organised two days later in the Rin Grand Hotel in Bucharest. Again, approximately 50 persons participated. In this case, also the German Embassy was present and gave a short speech after the general welcome and also the European Commission had sent the responsible national desk officer in the Natura 2000 unit of DG Environment. Mr. Ctibor Kucman gave a similar presentation to the one that Ms. Nelly Papazova had given before. Apart from the presentations from Croatia and Poland held in Bulgaria before, several Romanian representatives of nature conservation gave presentations on the impacts of roads on large carnivores, birds and bats. The current situation in Romania was presented by Csaba Domokos, member of the Romanian TEWN partner Milvus.

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Contrary to Bulgaria, no constructive discussion between stakeholders from nature conservation and transport infrastructure planning evolved after the presentations. Rather, one group blamed the other for either not obeying any nature conservation laws or to hinder any kind of development. Nevertheless, the conference can be seen as success, as for the first time ever, representatives from nature conservation and transport infrastructure planning participated in one and the same meeting. This clearly indicates that the topic of mitigation measures is an issue in Romania and that both parties understand that they have to cooperate in the long run to achieve results. Consequently, the conference in Bucharest can be considered to be a first step towards cooperation.

Based on the experiences from the conference in Bucharest, the idea was developed to organise a study tour for representatives from nature conservation and transport infrastructure planning to Croatia.

→ *The programmes of both conferences as well as the TEWN declaration as it was prepared for the conference are enclosed to the report.*

Stakeholder Study Tour to Croatia, July 12th – 15th, 2010

Based on the fact that during the conference in Bucharest, no common ground was found between nature conservationists and transport infrastructure planning, a study tour to Croatia was organised in order to present the best practise approach taken there, but also to create a platform for discussion away from their daily obligations. The group was composed of representatives from the Ministry of Environment, the National Environmental Protection Agency (NEPA), one national environmental guard as well as two representatives from the National Highway and Road Company. Additionally, the group was joined by Csaba Domokos from the TEWN partner organisation from Romania, Milvus and Gabriel Schwaderer from EuroNatur. Prof. Dr. Djuro Huber and Dr. Josip Kusak guided the tour as national TEWN partners dealing with mitigation measures for large carnivores since about 15 years. On the second day, a staff member of the Croatian Motorway Company Rijeka, Zagreb joined the group in order to present the cooperation between nature conservation and transport infrastructure planning from that point of view.

During the study tour, the participants visited several green bridges in Croatia to get an impression on how mitigation measures are implemented practically in the field. On the last day in the afternoon, a small workshop took place during which the participants discussed what they had seen in the field in relation to the current situation in Romania.

The most relevant conclusions from the afternoon workshop were the following:

1. The TEWN project team will approach the Ministers for Environment and for Transport in Romania in order to get their support and approval of the TEWN guidelines how to reduce the negative impact of motorways on the habitat connectivity especially for large mammals.
2. NEPA will invite as soon as possible all relevant stakeholders to a meeting regarding a review of the Environmental Impact Assessment for the Lugoj-Deva motorway section.
3. NEPA will invite all relevant stakeholders to a meeting regarding a review of the Environmental Impact Assessment for the Sibiu-Pitesti motorway section.
4. The National Road Company and the Milvus Group will exchange data and their views on the planned motorway from Tirgu Mures to Iasi in order to reduce the negative impact of the motorway on the habitat connectivity.

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5. The Croatian team (Huber and Kusak) and EuroNatur as well as other TEWN partners are willing to help by consulting and other means in mitigating the negative impacts of motorway construction in Romania on habitat connectivity.

Based on the experiences gained during the study tour, an on site assessment of the Lugoj – Deva motorway section in Romania is planned for February 2011. The assessment will be implemented by Romanian experts supported by the Croatian team led by Prof. Huber. Milvus is planning to conduct an onsite assessment for the motorway section Tirgu Mures – Iasi, most probably supported by EuroNatur.

2010 IENE (Infra Eco Network Europe) International Conference on Ecology and Transportation: Improving connections in a changing world September 27th – October 1st, 2010

During the partner meeting in Sofia in November 2009, it was decided to participate in the IENE International conference to present the TEWN project and its most important outcomes. It was organized that the TEWN project would be presented in a session of its own which took place on October 1st from 10:00 h to 11:30 h. During the session, in which approximately 40 people participated, first, a short introduction to the TEWN project was given, followed by presentations on the works done concerning mitigation of negative impact of transport infrastructure on large carnivores in Poland, Croatia and Bulgaria, before and during the TEWN project. The case study from Romania was presented by EuroNatur as unfortunately no representative from either the Romanian TEWN partner organisation Milvus nor from the University of Freiburg was able to attend the conference due to other obligations. Shortly before the conference, the TEWN Manual had been finalized and printed and could therefore be promoted during the session.

In general, the session received a very positive feedback; all manuals available to give away at the conference were distributed (approximately 20 copies). Additionally, a list for ordering the manual was displayed. In total, around 40 people ordered a manual and were provided with two copies later on, asking them to forward the second copy to interested colleagues in order to multiply the information given in the manual.

→ *The presentations given during the IENE conference are collected in pdf format on the CD which is added to the report. Additionally, copies of the abstracts of the presentations as well as a short paper from the IENE Conference booklets “Programmes and Book of Abstracts” as well as “Collection of Short Papers” are enclosed.*

3 Conclusion

In general, the project can be evaluated as very successful. Despite several difficulties encountered during the implementation of the project, it was possible to finalize all work packages and to achieve the desired results.

Main difficulties were encountered concerning the availability as well as reliability of data sets, e.g. it has been rather difficult to obtain reliable information on the routes of the planned motorways. In Bulgaria the data is existent, but the responsible institution (API) was not ready to hand over the existing shape files. In Romania the different institutions as NEPA and the national road company gave contradicting information. At a certain point we had to decide what we assess as most realistic. One of the key challenges for further evaluation where mitigation measures have to be implemented is to obtain reliable and precise data on the exact routes of the motorway and express roads.

The case study for Romania which is published in the TEWN Manual was elaborated based on the above mentioned difficulties. On one hand, the lack of reliable data and data availability caused difficulties, on the other hand it fostered the development of a new approach for the elaboration of a species distribution model (SDM) under sparseness of data (for further details please refer to Chapter 4.2.2 in the TEWN Manual).

Ideas for further activities which were not foreseen in the beginning such as the study tour for Romanian stakeholders and the participation in the IENE conference evolved during the implementation of the project and were implemented additionally.

Consequently, the existing knowledge on the impacts of landscape fragmentation and possible mitigation measures gathered over several years in Poland, Croatia and Slovakia could be transferred to Romania and Bulgaria. National experts were supported in their works for landscape connectivity and new capacity in this field was built.

But not only on expert level knowledge was transferred. During the conferences in Bulgaria and Romania in November 2009, approximately 50 representatives from the respective ministries and other governmental institutions as well as non-governmental institutions participated each. In Bulgaria, the conference significantly contributed to improve the dialogue between stakeholders from nature conservation and the transport infrastructure planning. During the conference, both sides agreed on future cooperation, e.g. in terms of data exchange and the elaboration of EIA.

Also in Romania the conference can be considered as successful as for the first time ever, representatives from transport infrastructure planning were willing to participate in such an event. Despite the fact that no constructive dialogue between both parties evolved, a first discussion was initiated. During the study tour to Croatia, this dialogue was further deepened.

Key result of the project is the "TEWN Manual" giving recommendations for the reduction of habitat fragmentation caused by transport infrastructure development. The manual gathers available expert knowledge on landscape fragmentation and respective mitigation measures. Approximately 250 copies of the manual were distributed among representatives from the above mentioned sectors.

Additional attention for the project as well as the results, but also the topic in general, was raised at the IENE International Conference within a 1.5 hr session on the project.

Based on the success of the project, separate project activities in Poland, Croatia, Bulgaria and Romania will be implemented in the following. As the expert network has proven to be very valuable, regular exchange will be maintained.