

3rd IENE meeting, Vladimir, Russia 28 September - 2 October 1997

Report of the meeting

INTRODUCTION

The third meeting of the Infra Eco Network Europe was organised by the Road and Hydraulic Engineering Division of the Dutch Ministry of Transport, Public Works and Water Management, in cooperation with the Moscow State University and the Federal Highway Administration of the Russian Federation. This event has been attended by 18 IENE experts from twelve European countries and more than 30 Russian specialists in road construction and management, environmental protection and research, representing more than 20 national governmental organisations, research institutes, universities and non-governmental organisations covering almost the whole territory of the Russian Federation. The second day of the meeting has been dedicated to exchanging scientific and technical information between the IENE group and the Russian representatives. This was a new item on the agenda of the IENE meetings ever. The meeting took place in the city of Vladimir about 200 km Eastwards from Moscow.

The main subjects tackled during this three days meeting were:

1. introduction of new IENE members;
2. assessing the process of network development on national level;
3. COST Action 341 'Habitat Fragmentation due to Transportation Infrastructure';
4. IENE in the future;
5. study cases presented by the IENE members and the Russian experts;
6. exchange of information and experience with the Russian colleagues.

Reports on network development from Hungary, Netherlands, Sweden and United Kingdom have been presented by the IENE national coordinators. These have been followed by a presentation on the COST 341.

COST Action 341: "Habitat Fragmentation due to Infrastructure" - Stages of development.

Proposed products

by Dan Teodorăscu

One of the goals of the international expert group on habitat fragmentation 'Infra Eco Network Europe' (IENE) is to promote international and multidisciplinary research and monitoring in the field of transportation infrastructure and nature. In this context, a new action in the framework of the COST (Cooperation in the field of Scientific and Technical research) of the European Community has been proposed. The initiator of the proposal is the Road and Hydraulic Engineering Division of the Dutch Ministry of Transportation, Public Works and Water Management.

The proposed products of the new COST Action are: a State of the Art on habitat fragmentation at European level, a European Handbook on Defragmentation and a data-base. One of expected results is to help the EC member states to implement environmental aspects related to the planned Trans European Transport Networks. The Action has been approved by the COST Technical Committee on Transportation in July this year. The partners in this action (COST 341) are: Belgium, Hungary, Finland, the Netherlands, Sweden, Switzerland, the United Kingdom and the Directorate-General VII - Transportation of the European Commission. Estonia and Romania are very likely to participate too.

The Technical sub-committee (TSC) for COST Action 341 entitled: "Habitat Fragmentation due to Transportation Infrastructure" will prepare the final version of the Technical Annex for that new COST Action. The first meeting of the TSC will take place in Brussels, on 26th of November 1997. This Technical Annex will be part of the Memorandum of Understanding (MoU) that the COST countries will be invited to sign on a later stage, when the COST Committee of Senior Officials (CSO) will have given its final approval on the launching of this new Action (planned date: January 1998).

State-of-the-art report

The state of the art report is an overview of the present state of the knowledge and data on European level regarding habitat fragmentation caused by linear transportation infrastructure. This will contain a detailed literature review and consensual information. The goals of the SoA report are:

1. to identify gaps in knowledge,
2. to provide basis for identifying priority needs for research/extension,
3. to serve as a guide for coordination of the research, extension and implementation programs needed to overcome the negative effects of infrastructure on the environment

The following objectives have to be fulfilled:

- to summarize the current scientific and applied literature and to identify pertinent research and implementation projects
- to cover habitat fragmentation caused by infrastructure on European level in general and in each participating country in particular.

The content of the SoA as presented here is a proposal from the initiator. Remarks and comments from the participating countries will be processed and included in the proposal. This is valid for all the deliverables.

Table of Contents of the State of the Art Report

1. Introduction. This contains: the purpose of the SoA, its objectives, how the report has been produced, what were the procedures, motivation, background and approach .
2. Current knowledge base on Habitat fragmentation and infrastructure.
 1. Basic elements of ecology, the effects of infrastructure on nature;

2. Overview conflict points between nature and infrastructure in the participating countries and beyond, which methods have been used to define them, maps of existing and planned infrastructure, maps of the natural heritage;
 3. Current state of solving the problem: overview of mitigation/compensation measures taken,
 4. results/evaluation/effectiveness.
 5. Legislative framework (national and international).
3. On-going research. Trends.
 4. Review of study cases, successfully projects (included those funded by the EC).
 5. Identification of priority needs for research and recommendations.
 6. Directory of institutions and organisations involved and extensive bibliography.

European Handbook on habitat fragmentation due to infrastructure

Objectives

- to present the best indicators to be used when describing fragmentation
- to avoid overlapping research
- to improve planning procedures and implementation of mitigation/compensation measures

One of its immediate application is to give scientific /technical support to the implementation of the trans European transport networks (TENs). The deadline established by the European Commission for preparing the guidelines for the implementation of the TENs is 1999.

Content of the Handbook on fragmentation

1. Introduction
2. Methodology to define and quantify 'fragmentation':
 - ▣ Indicators for 'fragmentation'
 - ▣ Guidelines for the maximum amount of habitat fragmentation allowed (comparable to limit values for pollution)
 - ▣ Priorities in tackling intersections between infrastructure networks and nature
3. Best practice of mitigation and compensation measures:
 - a) for existing infrastructure: roads, railways, waterways;
 - b) for planned infrastructure.
 - Technical description and design specifications/costs;
 - Guidelines for the maintenance of measures;
 - Methods for the evaluation and monitoring of the effectiveness of measures.
4. Habitat Fragmentation and Environmental Impact Assessment and Strategic EIA;
5. Keys for planners to help them with planning procedures;
6. Relevant case studies and developed projects.

The whole day of September 30th has been dedicated to knowledge and experience transfer on habitat defragmentation between experts from Russia and the other European countries. The initiative to organise such an international event in Russia has been greeted by letters from the Mr. V.A. Sadovnichiy, Rector of Moscow State University, Academician A. L. Yanshin, President of Moscow Society of Nature and Mr. O. V. Skvortsov, Secretary of State of the Federal Highways Service of Russia .

In the morning session the IENE experts have presented various study cases and aspects related to environmental concerns in planning and construction of infrastructure. The aim was to make the problem of habitat fragmentation known to the Russian participants. Unfortunately, not all presentations did fit to this aim completely. In the afternoon the Russians experts had the floor. Their presentations covered a far more broader issue than habitat fragmentation alone. Many environmental problems related to construction and use of infrastructure were reviewed. The idea was to create a good climate to bring in habitat fragmentation as a new, but also very important environmental issue. The relation infrastructure -environment has become nowadays a priority research programme at the Biological Faculty of the Moscow State University.

Because the Russians experts, having heard a lot of new information, raised the question how to bring such ideas into practice, the discussions have been continued on Wednesday, 1st of October morning. Proposals have been done on concrete steps that can be taken in Russia:

- the creation of a platform/brainstorm group with ecologists and civil-engineers;
- keep into contact with countries with similar habitats (e.g. Sweden, Finland);
- organising special training courses for planners, civil-engineers and ecologists;
- the creation of a transport department within the Ministry of Ecology;
- defining concept of ecology;
- realisation of concrete projects;
- collecting all data on effects of roads;
- writing chapter about protecting nature in reports with standards and regulations;
- writing a handbook with measures;
- evaluation of environmental effects of roads under construction and planned roads;
- trying to get funds from PHARE for regional action projects on traffic safety and environment;
- exchange of information between Russia and the western countries;
- rising public awareness;
- monitoring environmental effects of existing roads;
- organising excursions for involved people (decision makers, planners, designers etc.);
- building small funds.

Papers presented during the 3rd IENE meeting:

'Habitat fragmentation and infrastructure: the situation in Flanders', by Dick van Straaten & Johan Peymen,
Institute of Nature Conservation, Brussels, Belgium.

'INCERTRANS - Concerns regarding the environment; measures and procedures to limit habitat fragmentation in the field of Romania's transports', by Razvan Novaseliv, Incertrans - Transport Research Institute, Bucharest, Romania.

'Effects of Road Infrastructure on Nature', by Penelope Angold, University of Birmingham, United Kingdom.

'Methods for taking the impacts of transport infrastructure on biodiversity into account - two case studies', by Helen Byron, Imperial College, United Kingdom.

'Decision making by Main Roads in the Netherlands', by Hans Bekker, Ministry of Transport, Public Works and Water Management, the Netherlands.

'Prediction of the effect of disturbance on breeding birds', by Annette Piepers, Ministry of Transport, Public Works and Water Management, the Netherlands.

'Formation of "the microbiological space" in the Road Zone; Are the problems of microbiological risk?', by O.E. Marfenina and A.B. Kulko, Moscow State University, Russia.

'Modelling fragmentation; The Badger model', by Hans Bekker, Ministry of Transport, Public Works and Water Management, the Netherlands.

'Ecological impacts, mitigation and compensation measures in the evaluation of projects alternatives for the high speed railway Milan-Bologna', by Marco Pompilio, Snamprogetti, Milan, Italy.