

# Notes from the Workshop “Train the Trainers”

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## Introduction

The two last days of the workshop was concentrated on practical exercises based on some cases on SEA and EIA from Sweden and Finland. The aim of the exercises was to give the attendants an opportunity to get in touch with practical cases and on the base of them discuss different aspects of SEA and EIA. After a presentation of the structure of the two days, the attendants were divided into two group in order to give all group members an opportunity to raise their own questions. The exercises were led by Tord Céwe, Swedish Environmental Protection Board, Inga-Maj Eriksson, Swedish National Road Authority and Tea Törnroos, Finnish Environmental Institute.

Four different types of cases were introduced to the groups:

- SEA for a transport corridor in south western part of Sweden
- SEA for land use planning for Kangasala municipality near Tampere, Finland
- SEA for EU structural funds in Sweden
- EIA for an industrial plant in Sweden.

## **SEA for a transport corridor in the south western part of Sweden and EIA for road projects**

The training sessions concerned SEA for multi-modal transport corridor studies and similar, as well as EIA for road projects.

### **The SEA part**

The following main documents were presented and discussed:

- The main principles in EU DG-TREN's manual for SEA for transport infrastructure plans.
- Transport Corridor Study with SEA: Gothenburg – Jönköping for road and rail infrastructure. (A demonstration of methods, carried out in co-operation with EU DG-TREN) Three copies were left among the participants in the training sessions.
- A flow-chart showing the principle for strategic studies with environmental assessment for a transport corridor in the UK. The first important steps concerned: understanding the situation and agree on common objectives. The integration of land use issues was important.
- A map and table based presentation of potential conflicts with conservation interests, as part of the work with SEA for the Swedish National Road Transport System 1998-2007.
- Analyses were carried out for the Malmö region and also the potentials for a sustainable transport system were assessed as a Government requirement after the decision to construct the Öresund connection (bridge and tunnel) between Sweden and Denmark. The analyses concerned various measures with the aim to reduce air pollution emissions and potential to transfer transports from road to other modes of transport.
- The case of a railway tunnel project in Sweden and the possibilities to consider such severe effects already in SEA, which was not done.

In addition discussions also concerned reasons for transport authorities to be interested in applying SEA and possibilities to

co-operate between different authorities and different disciplines/expertise.

### The EIA part

The following main documents were presented and discussed:

- A flowchart of road planning process and application of EIA at two levels when a new road alignment is to be planned, feasibility study with EIA and detailed design plan with EIA. After that, environmental concerns have to be taken into account when engineering plan/bidding documents are carried out with a monitoring plan for environmental effects.
- EIA for feasibility study of Road E4 north of Uppsala, Sweden. A big project with many conflicting interests. Positive impacts are also important: the release of traffic from existing road which not only concerns residential environment but also ground water resources and water supply. A big issue is the adaptation of the urban road transport system to the national system, which was discussed also as a general topic and the possibilities to facilitate long distant transport without growth of urban traffic which otherwise might cause congestions and delays for the long distant traffic.
- Various ways of visual and geographical presentations were shown and the possibilities to avoid to produce too thick EIA-documents. Two copies of the feasibility study with EIA were left.
- Example of EIA for a small road project in UK.
- Principles for assessment of ecological effects, including base-line studies and mitigation measures such as fauna pas-

sages. Some more information are available from the European network In-fra Eco Network Europe and the related COST action 341 which will publish a joint European handbook concerning transport infrastructure and habitat fragmentation. (Information is available on the Internet ; [www.iene.info](http://www.iene.info))

Important topics for discussions were also:

- the costs of environmental adaptation, and the fact that environmental adaptation need not cost anything if it is done early and may be really expensive if it is done at a very late stage,
- monitoring environmental effects and effects of mitigation measures, the need for monitoring programs to be adapted to what is needed in the particular case and telling how the results should be used.

I got response from the participants on most of the topics. Parts of what I had planned to discuss were never taken up because various questions were put from the participants. My response to these questions seemed to be appreciated.

From the discussions about EIA for road projects my impression was that the Slovak road authorities already have presented the alternative alignments to be studied and considered when the environmental authorities are consulted/contacted. The environmental authorities have then a hard work to tell the road authority that certain routes should not be studied further. There would be much better if the road alignments were drawn up based on, among other things, the environmental base-line description so that environmentally valuable parts of the landscape may be avoided from the beginning and based on consultations of environmental authorities.

The word "interdisciplinary" seemed to be difficult to interpret or maybe a similar term is not used among the participants. It is not clear if experts of various kinds involved in EIA have possibilities to interact or if it is only a co-ordination through a co-ordinator of EIA. The interaction between technical studies and the EIA work is also important, in fact decisive, and I am not sure to what extent that take place in practice in Slovak.

### **SEA for land use planning for Kangasala municipality near Tampere, Finland<sup>1</sup>**

The purpose of the Finnish case presentation was to study an example of a strategic assessment applied to a partial municipal master plan. Land use plans fall under the scope of SEA directive and in Finland the planning hierarchy further emphasizes the need of SEA, as master plans are strategic plans setting consent for projects. Land use planning has had an important role in developing SEA during the past ten years and important legal reforms have supported it in Finland. Studying SEA for land use planning made it possible to analyze a regulated process as the preparatory procedure of land use plans is regulated in detail in the Finnish Land Use and Building Act (132/1999).

The municipality of Kangasala initiated both the land use planning process (development of a partial master plan) and the integrated environmental assessment as pilot process

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<sup>1</sup> The presented case is included in the "Key issues in strategic environmental impact assessments – Finnish experiences", study (2002) by Hildén and Jalonen.

in 1996. The municipality wanted to solve potential conflicts related to 1) housing development (area near municipality center and city of Tampere), 2) upgrading of motorway and 3) environmental concerns (nationally important wetlands proposed to the EU's Natura 2000 network). The grounds for making a partial master plan were directly linked to the foreseen development interests of an environmentally sensitive area.

The plan and assessment were developed by the municipal environmental office (assisted by consultants), and most important decisions were subject to the approval of politically elected environmental board or municipal council. The SEA was integrated into the development of alternative plans and an extensive public participation was arranged in various phases. The environmental considerations were part of the planning effort from the beginning. Further, collaboration between municipality and regional environmental center was emphasized from the start.

The work resulted in distinct alternative plans for the area highlighting future options in a very transparent way. The assessment of impacts (environmental, social, municipal economy, community structure, sources of livelihood, landscape, municipal infrastructure) was carried out by compiling information of advantages and disadvantages of each alternative.

Land use planning is often a lengthy process and that is the case in Kangasala as well. The Kangasala municipal council approved the plan finally in 2000, but it has not entered into force due to an appeal. The approved plan was elaborated from the assessed alternatives, and despite the appeal, the assessment process was considered successful in displaying alternatives and in opening route for conflict resolution.

**The following topics were of special interest in discussions:**

- length of land use planning processes and validity of plans => impacts on quality and feasibility of plans
- the role and qualifications of planners and experts => planning paradigms (from expert driven planning towards participatory planning, advantages and disadvantages)
- the resources available for planning and assessment processes (advantages and disadvantages of using consultants)
- alternatives (when and how should alternatives be presented, how to process them, requirements on documentation)
- participation (the contents and purpose of participation and assessment scheme, how does broad consultation affect planning, who should participate, the role of NGOs)
- the impact of SEA on final decisions (can it really solve conflicts between people and nature in land use planning)
- the links between building permitting and planning (how much lobbying influences the final outcome, special problems related to location guidance of retail stores)
- the means to assess and improve the quality of planning (could SEA be a tool to improve the quality of planning, transparency of planning process)

**Conclusions:**

- land use requirements in Slovakia cover a process that meets the elements of environmental impact assessment, but only a few full-fledged and documented SEA processes have been carried out in land use planning
- the element that should be emphasized is the identification of alternatives (a problem in Finland also, still needs to be

developed and more specific procedural guidelines are required)

- the current land use planning process is required sufficient (potentially some reluctance to undergo a new procedure)
- clear procedural guidelines and SEA methodologies need to be developed
- more pilot activities should be launched and supported (local and regional resources are not sufficient to carry out such efforts)

#### Land use planning procedure in Finland

(according to the Land Use and Building Act)

- starting the planning process
- drawing up a participation and assessment scheme
- possible negotiations on the participation and assessment scheme with the regional environment centre
- publicizing the initiation of the planning process
- negotiations between authorities in the local master and local detailed plans preparing a draft plan and cooperation during the preparation phase
- negotiations between the authorities on the objectives of a regional plan
- preparing a plan proposal
- presenting the plan proposal in public opportunity to express opinion on the plan (objection)
- reasoned responds to objections
- negotiations between authorities on the plan proposal
- approval of the plan
- appeal procedure

#### SEA for EU structural funds in Sweden

The European Union has created economic funds to strengthen different sectors, e.g. regional development, agriculture and fisheries. The aim of the funds is to reduce the

economic differences between regions within the Union.

Each Member State has to propose which regions in their country should become a fund region. When EU after negotiations with the Member State has decided a certain region to become a fund region, a programme for its development has to be elaborated. This is done by a group from the region including different stakeholders, not only affected authorities but also representatives from industry and commerce and NGOs.

The main programme is built up of a number of sub-programmes, each one concentrated on a special problem or sector, may it be education, introduction of IT or tourism. Founded on the programme, developers may ask for economic support for a proposed project.

The fund directives do not mention SEA, but are demanding an assessment of environment impact. In Sweden we have been pragmatic, saying we are doing the assessment along the SEA principles. EU has presented "A Handbook on Environmental Assessment of Regional Development Plans and EU Structural Funds Programmes" in August 1998. This handbook is a good one but too complicated to be followed when there are tight time-limits. Thus a short Swedish version was elaborated and will be the base for our discussion.

In the Swedish version some principles for SEA for structural funds were laid down. The SEA work is divided into five steps. The necessity for those responsible for SEA to start the co-operation with the economic and social planners already from the beginning of the planning work has been underlined.

As a basis for our discussion the Stredný Zemplin region was chosen. This region is

described as "an endangered region" in "State of the environment report for SR 1998" The report says that there are problems with for example water and soil pollution and with waste treatment.

To get a picture of the situation in the region a SWOT analysis was made. SWOT is an abbreviation for Strengths, Weaknesses, Opportunities and Threats. After this analysis the topics for the sub-programmes are decided. In the following work a number of measures for development are proposed. The draft of each sub-programme are discussed and in this phase it is very important that the environmental assessment work is effective. In both groups on the workshop a few sub-programmes were proposed, all of the including some proposals for measures.

The problem is how to make an environmental assessment when there are only rather non-concrete programme texts. Here the environmental objectives should be used as references. The SEA worker has to list the relevant environmental objectives for the actual region and out from them assess the proposed development. If for example there has been proposed to start an ecological wine producing instead of the traditional one, these two ways can be seen as two alternatives. These alternatives then should be assessed with for example the environmental objective concerning water quality as a reference.

## **EIA for an industrial plant in Sweden**

Kanthal Ltd is an industrial plant founded in the 1920ties. It is located to a small town in the middle of Sweden. The town lies along a river of national interest for outdoor life and recreational fishing but of no importance for shipping. The river flows to the Lake

Mälär, which stands for water supply for almost 2 million persons. The river is heavily polluted. Among other pollutants there are metals from several industries and mines. The last twenty years, however, the water quality has been improved through an intense work of authorities and industries in order to fulfil the environmental objective on water quality laid down by the County Administrative Board.

Kanthal Ltd produces metallic and ceramic material used in heating elements mainly for household appliances and industrial furnaces. The company asked in the year 2000 for a permission to raise the production by 25 % to 19,000 tonnes casting and out of this produce different products.

The EIA work followed the normal procedure in Sweden with an early contact to the County Administrative Board and the municipality. The EIA was completed a number of times after discussions with affected authorities – e.g. Swedish Environmental Protection Board and the Fishery Board – and the public.

The decision maker in this case was the Environmental Court. In a broad review all relevant material were sent to the stakeholders and a public hearing was held by the court. The Court gave in the year 2001 a permission to the enlargement. The decision contains 15 different conditions containing rules for emissions etc and also 3 preliminary conditions demanding the company to within two years present to the Court the results of a few new studies and proposals to final conditions.

**The first preliminary condition** concerned water pollution. In the application for enlargement of the industry the company asked for a permission to raise the amount of metal emission to the water. The EIA was

demanded by affected authorities to show how big such a new emission would be compared to the emissions from the Kanthal company of today, other industries and mines located up-streams and the leakage of metal from the sediments due to earlier emissions. The EIA showed that the raise in emission asked for was rather small compared to the total emission. The Environmental Court however did not want to break the positive revitalisation of the river. The Court in this question safeguarded the natural resources underlining the objective on water quality. Thus the Court demanded the company to – within two years – present to the Court measures to reduce the water emissions of metals.

**The second preliminary condition** concerned the oil used as a lubricant when rolling the casting to bands and threads. The oil contained a few percent of chloroparaffin, a compound known as persistent in the environment and also carcinogenic. The Swedish Government has had as a goal that this compound should not be used after the year 2000. The company has tried to find other oils to substitute the one containing chloroparaffin but failed. A change of oil today would decrease the rolling effectiveness by almost 20 %. In its decision the Court – referring to the principle of substitution – forced the company to continue its effort to find an oil free from chloroparaffin and within two years present the result of the investigation to the Court together with proposals on permanent conditions.

**The third preliminary condition** concerned the waste from the industry. A great amount of waste comes from the industrial processes. The main part consists of metal hydroxide sludge. This sludge is deposited quite close to the river shore line. The ground where the deposit is located consists of a layer of clay, 5 to 15 m thick. The geo-

technical material in the EIA did not convince the Court that there were no risk for the deposit to slide out into the river when tonnes of additional sludge were deposited there. The Court – referring to the precautionary principle – in its decision forced the company to improve the geo-technical material in the EIA and propose safety measures to prevent sliding, all within two years.

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