

Environmental Impact Assessment within Regional and Municipal Planning

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Abstract

Within regional and municipal planning we are using several levels or types of EIA in the city of Dresden. Some of these types, practical aspects and some experiences of our work will be presented in this contribution.

Firstly I may introduce you to some general conditions for your better understanding of our principles of work. Surely you know about the destruction of the political and economical structures in Eastern Germany since 1989. Until today our not quite simple task is to build up new ones. At the same time people were in great expectation of freedom and high standard of living as soon as possible. Economical difficulties increased in association with the breakdown of the market in Eastern Europe. How to rebuild industrial estates and how to renew the traffic systems? We had to find answers to all these complex questions. Should we only repair the former damages or could we reach a really environmental sound production for the future? The demand for a rapid economic growth is an incredible challenge for the application of new environmental ideas.

I am truly not sure whether you know the city of Dresden or not. So I would like to give you a short introduction. Dresden is situated in a valley shaped by the river Elbe. There live about 500,000 people. Dresden has a great reputation for arts and sciences. Its also well known as a town of high technology industries such as electronics and optics. We restored the power plant and therefore we don't need any atomic power plants actually we haven't got one. Since 1990 there were founded many official agencies in Dresden because it is the capital of Saxony.

Considering nature and environment we there is a large forest area called "Dresdner Heide". The river Elbe and the meadows are situated on both sides of the river. There are a lot of green and free places in the city area too. Further on there is something unusual for a large city: about 50% of the drinking water resources mostly take place within the city itself. The origin is the ground water as well as water from the river Elbe after filtration of course.

keywords : EIA, Regional and Municipal Planning

I . Objectives of the city

I have told you something about the new situation in East-

ern Germany. The future ideas of the city about its own development are very important for the usefulness and success of EIA. We have to build up business and working places, houses

and flats. There are not enough industrial facilities and especially the structure of the traffic system is a problem in Dresden. You can see it outside just in front of this conference place. Other problems exist like in different cities world-wide: e.g. concerning water, energy or waste. We have to preserve historical values and simultaneously we have to renew. We don't want to establish our city as a museum and so we are attempting to find compromises. Last but not least we have to preserve the green character of the city with a high quality of life.

In Dresden are many old industrial sites mostly along the main railway lines which almost abandoned now. Basically we believe these old sites have to be revitalised.

The Environmental Protection Agency was founded in 1991. New tasks ask for modern structures and instruments. Therefore we established five departments:

- Inner Administration
- Urban Ecology
- Environmental Prevention
- Environmental Laws and
- Department of revitalising of old sites.

The objective of the Urban Ecology Departments is having an integrated approach with other departments for EIA problems. In our point of view the city is one unique ecosystem and not divided into different single elements.

II. Levels

At the beginning I mentioned that we established several levels for using the EIA in our city administration (Table 1). The key for environmental city planning is the Plan of Land Using. We began the Plan of Land Using in five selected areas to find out the carrying capacity. We had to prepare the decision of

the use of the considered areas for urban purposes or as natural green areas. At the same time the objectives of regional planning have to take into account by the city. That is the first level for the city of Dresden. Table 1 shows system of levels.

The following level is called Development Planning. We analysed eleven areas for civil engineering and thirteen road planning projects in our town.

After that particular projects like projects of industrial development in the Object Planning level take place. Mostly this level will be reduced to managing technical solutions in a modern manner. The first and second level is also named by the term voluntary EIA. Although we believe it is not really voluntary to have an Environmental Plan of Land Using.

III. Experiences

The EIA act in Germany says the scoping be a rule. We believe that scoping is a very important step within EIA. After a screening procedure the scoping is an appointment there will be lay down scope, further proceeding, public participation and evaluation standards.

Methods and means to analysing the environmental situation under specific project conditions as exactly as possible in connection with scientifically based evaluation standards seem to be of essential importance. Getting exact data and information is often a economical question. We have to restrict those data which we required immediately for the analysis not asking of all data we possibly could get. An environmental information system is a valuable supporting tool for that. We installed INDENTAL as a system carrying out these analyses by ourselves.

Another question is the precision level of data we get and we need. It is not possible and of course not necessary to have

always the highest precision of all data. For instance by carrying out chemical analyses you often can't get concentrations in a precision you will need for some particular objects.

In Germany evaluation standards are discussed in a very different manner and it seems to be a political discussion. We are looking for standards for our point of view at our whole system and not just for the media. Nowadays we often hear the term sustainable development. What does it mean? We have to fill it out with great understanding and important for us too is the period of effects and the affected area:

- is it just a short time effect (for some days or weeks),
- is it a long time effect (for years, hundreds or thousands),
- is it a local effect or is it a global effect?

Much studies answers the question about standards with figures e.g. concentrations. We think that clearly and scientifically based standards do not exist. Input and output data of energy and materials are necessary not only for the industrial development projects but also for city areas to understand city function.

In addition, implementation of good basis information and data is of greatest importance to the EIA within regional and municipal planning. This often means political decision or political statement not scientific ones.

The system of values should be comparable because if there aren't and there won't be any acceptance between possible conflict partners and there also won't be any compromise.

During the last four years we have carried out thirty EIA in Dresden. We gathered experiences in all mentioned levels. For

instance correctness in the Plan of Land Using could reduce the utilization of new areas (Figure 1). The aim is the rational use of existing areas for selected purposes without disturbing the internal climate of the whole town. We have to preserve the green areas and the necessarily free spaces to cleaning the Elbe Valley by the cold air flows entering the city at night. The basis for a green net are the about 140 creeks or little rivers, resp.

Another aspect is the city planning in a polycentral structure with a mixed function. We have got not just only one centre in Dresden like the Altmarkt or the Zwinger. We have got a few other centres in the East, in the South and in the West. We have to preserve those small centres by adjusted building concepts, urban functions and traffic planning. e.g. the rate of district heating in Dresden goes up to 40% in the dwelling houses. This amount should be increased in present future. Further we have goals like utilization of rain water systems (gray water systems).

To reach the objectives above EIA got to be an integrated tool within regional and municipal planning not just an additional one. EIA is not just a task for administration. We are going to build up a rendering service department with our EIA management. I think it is not possible to formalise EIA proceeding in a sophisticated way. Every EIA is new one and a great challenge. But we will use our experiences and the results of our studies for future work. We should have got good documentation's of the results and we should implementing those gains to our environmental information system.