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ENVIRONMENTAL PROTECTION IN REGIONAL PLANNING

The quality and state of human environment in a given region is closely related to and dependent upon the social and economic activities pursued there. Because of its small surface Hungary has no intact areas that have escaped the direct or indirect impacts of human activities. It must also be borne in mind that the required preservation or improvement of the quality and state of the environment basically depend on the the actual or planned decisions concerning regional development. Therefore the spatial structure, the ways in which an area is utilized and their influence on the environment are integral parts of all regional decisions and require careful planning and control.

1. General interrelations

In Hungary planning and decisions concerning regional development are made in an institutionalized, hierarchic system. The order in which the various plans are elaborated and sanctioned depends on the spatial and professional framework of planning. The plans made before 1980 did not contain independent chapters on the protection of the environment. The integration of environmental protection into the national system of regional planning and decision-making was first declared by the 2nd 1976 Act which ordained the protection of human environment. This Act decrees that:

A/ the requirements of environmental protection must be taken into

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consideration when the objectives of the national economic plans are set; these requirements must be complied with in the course of regional development, location of establishments of any kind, economic and technological planning and its realization.

B/ Observance of the requirements of environmental protection must be enforced when economic regulation and decisions are made or measures are taken by the authorities as well as in setting the conditions of operation.

In this way the Act gave an impulse to and provided a legal basis for scientific endeavours aimed at making environmental protection a decisive and integral part of decisions and plans that regulate and determine the social and economic processes. In order exploration of environmental effects, the methods of their analysis, the assessment of the complex - environmental economic and social - consequences of developments and their forecasting, the elaboration of alternate ways of development and the evaluation of their advantages /disadvantages before decisions are made.

This means at the same time that environmental protection must become a part of regional development plans. These plans give us an insight into how the role of environmental protection has become increasingly important in the national concept and in the plans of regional development elaborated by the county councils (today every county council in Hungary has its own concept for the protection of the environment).

Although these two forms of planning constitute a unity, we shall consider here only the regional plans since they are more important with respect to the problems treated here.

Since the late 1970s researchers, planners have made increasing effort to enforce the environmental approach into the various plans. In order to achieve this it was necessary to define the content, functions, importance, means and objectives as well as the methodology of environment protecting planning as a complex action. It is the scientific findings and practical experiences that have made it possible for the planning of environmental protection to become as important professionally as technical/ technological

planning. Since the early 1980s several government decrees have been issued providing for the observance of requirements related to the protection of the environment in the course of planning and the preparation of decisions. Now that the institutional framework has been established, more attention can be paid to the development of methods in investigation, analysis, assessment and forecasting, to the elaboration of a theoretical basis which would enable the application of scientific findings in practice, planning and the preparation of decisions.

2. Protection of the environment and the system of regional planning

The exploration and forecasting of the changes in the environment has a priority in the social, economic and development plans of the regions. In the application of the scientific methods available, attention should be paid, however, to the ways in which the conclusions, proposals and environmental requirements can be integrated into the hierarchy of the established planning and decision-making system. Regional plans must comply with the general sectoral viewpoints that the various laws in force (on waters, mines, land, etc...) and other regulations prescribe for the different environmental factors. Therefore the conclusions and terminology of the disciplines like evaluation of the environment, planning the protection of the environment, must be "translated" into the language of the authorities which are to use them. Real success can only be expected from methods that are, at the same time, adapted to the requirements of technical/ technological planning. In Hungary the main plan-types concerned with the development of regions and the protection of the environment are the following:

Regional developmental plans

These include plans for the development of the natural and manmade environment in regions that constitute a unity from the viewpoint of certain socio-economic tasks. They are in accordance with the national, sectoral and council plans and are aimed at realizing regional potentials, objectives, meeting socioeconomic needs in the region and implementing the policy of settlement development;

they also coordinate the location and development of inter-settlement infrastructure.

One main task of the regional developmental plans is to explore the natural, technological, ecological and environmental potentials, the possibilities and limits of development in the given region. They also have to coordinate these regional factors with the social requirements forecast in the national or council plans and to determine for a long term: the spatial structure of the settlement network and its institutional system, the viewpoints guiding the development and operation of technical infrastructure systems, the use of land in the region, the tasks of environmental protection, the areas that require more detailed planning. In full knowledge of the main tendencies regional development plans can give proposals for long-term development.

General developmental plans

This type of plan is elaborated for the development of a given settlement or settlement group, its spatial and settlement structure, land use, technical infrastructure and other supplying systems, constructions. Primarily they have to observe the technical - ecological provisions of the regional plans.

In the course of planning the natural, technical/technological, environmental and historic characteristics of the area are to be explored, with regard to the potentials and limits of development. These are to be coordinated with the social and economic needs forecast in the national or council plans for the area.

In the general developmental plans tasks have to be determined for long and very long terms with due regard to the protection of the environment.

Detailed developmental plans

These are elaborated to prepare technical and economic decisions to be made about medium-term investments, in harmony with the general

developmental plans. They contain the regulations and other specifications necessary for the elaboration of the technical plans as well as the proposed order of realization.

In these detailed plans the protection of the environment is of particular importance and is strictly coordinated with the plans for technical development.

This general review can do no more than illustrate the fact that these plan types have or may have an important role in the decisions about and coordination of the regional, sectoral development, and changes. The main questions to be answered are the following: in the case of regional development plans: "what - why"; general development plans: "what - where - how"; and in the case of detailed development plans: "what - how".

Plans for the protection of the environment are made indispensable by the contradictions between the actual and planned activities, the natural-environmental characteristics and the load they can /must bear, as well as between the real and desired quality of the environment. Such a planning requires high professional and scientific level and sets further tasks for the researchers.

3. Recognition of environmental changes and effects

Regional planning cannot be efficient without the recognition of environmental effects and changes, the forecast of their consequences and the assessment of their extent. Planning is in fact a series of decisions made at different levels, not a finished process but a course of action. It may help decision-making but also the implementation of decisions. These decisions can concern the social, economic development of a region, new investment or even the analysis of interventions which have harmful effect on the environment. In this context we can say that the assessment and forecast of environmental changes and effects means a very special task, which should include:

- the exploration and analysis (on a local and regional scale) of the environmental effects to be produced by the various proposed) planned interventions, developments;
- the evaluation of the environmental, technical, economic and social disadvantages (advantages to be expected from the given alternatives and their presentation in a form that can be interpreted in terms of planning and decisionmaking, including proposals for avoiding the harmful consequences.

It is also important to note here that such an exploration, analysis of the environmental changes requires the cooperation of several specialists and an interdisciplinary approach. The extent to which these findings are taken into consideration by decision-makers depends on their objectives and on how they can use them in their own information and evaluation system. The preparation, organization, planning and implementation of the various developments each having its own purpose and content is a complex, multiple-stage task in which technical and economic considerations have been and still are predominant. It is only in the last few years that a marked change has been felt, mostly due to the following factors:

- On the one hand, the enforcement of requirements imposed by the protection of the environment as early as in the preparation of the decisions has become a professional and public demand;
- On the other hand, the legal regulation provides for severe sanctions (fines, prohibition of activity, translocation, etc ...) against those who pollute the environment beyond the settled norms. As a consequence, matters of environmental protection entail serious economic considerations in the course of regional planning, where protection or the given norms make an investment more expensive or even forbidden.

For the analysis and evaluation of environmental effects we have various methods at our disposal for the individual environmental factors. Mathematical models can well be used for describing changes induced by human activities, in water supplies under and above the surface, the spread of polluting agents, local and regional sources of air pollution, noise. It is far more difficult to make a

realistic and quantitative forecast for ecological changes, because the universally applicable, well-tested methods are not yet available.

The effects related to the individual activities and environmental factors (natural water supply, air, land, landscape, settlement surroundings, vegetation and wildlife) are easily represented in models on the basis of the real state and planned development. This means that the areas exposed to different effects and loading can be outlined more or less precisely. This allows us to establish which areas are not at all or heavily polluted and loaded (e.g. polluted underground waters, air and high noise level). Such a comparison between the present state and the planned developments, interventions and its representation on maps allows regional planning to:

- forecast in time and quantity of the expectable changes after the investment;
- define the range of necessary changes to be brought about in the course of regional development (new locations translocation, use of different energy resources, etc...)
- consider and discuss the effects expected to be brought about by the planned development, interventions:
- check the changes as they occur and determine the character and causes of the difference between the real and planned changes.

4. Conclusions

In our days the planning of environmental protection with a view to determine and forecast environmental changes has become an integral part of regional planning in Hungary. This is partly due to a professional and public demand for the improvement of the quality of the environment and partly to the technical, economic consequences of environmental protection. We have a good theoretical basis for exploring and analyzing the changes brought about by development and our findings can also be interpreted by decision-makers. At the same time the various organizations and institutions already have

at their disposal all the basic data and information needed for such an exploration and analysis. The effects of human activities can well be calculated in different models for most environmental factors or described in mathematical models. The cause of environmental planning continues to have priority not only in scientific research, but also in practice, preparation of decisions and planning.

While speaking about these achievements, we must emphasize that the models elaborated in cooperation and accepted internationally are still missing. The elaboration of such models is the task of the coming years and requires close scientific cooperation.

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VARSTVO OKOLJA V REGIONALNEM PLANIRANJU

Povzetek

V pričujočem članku avtorji raziskujejo mesto zaščite okolja v regionalnem planiranju glede na predvidevanja. Avtorji iščejo v tem kontekstu funkcijo in mesto znanstvenih analiz vplivov okolja v planiranju in v predvidevanjih. V svojih zaključkih poudarjajo, da je planiranje okolja, naravnano na določanje in predvidevanje sprememb, postalo sestavni del regionalnega planiranja na Madžarskem.

Odkritja mednarodnih raziskav na tem področju omogočajo izdelavo splošno sprejetih modelov, ki izhajajo iz mednarodnega sodelovanja.