

PROBLEMS ASSOCIATED WITH THE PREPARATION OF STRATEGIC ENVIRONMENTAL IMPACT ASSESSMENT OF PLANS

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Summary: Environmental protection policy is being carried out, among other things, through suitable sectorial plans and programs. In this sense, considering and inclusion of all important environmental aspects in preparing and adopting spatial and urban plans, will significantly contribute to the sustainable development aims. The aim of this paper is to analyze our experience in application of the Law on Strategic Environmental Impact Assessment. We have paid special attention to its drawbacks, observed in preparation of strategic environmental impact assessments. These have mostly been prepared without employing adequate methods and without corresponding input data which would be processed by means of adequate methods. For the purpose of efficient document preparation, 13 typical examples have been analyzed and a series of principles, criteria and solutions for the observed problems is defined on the basis thereof.

Introduction

When legal regulations of countries in transition are complied with directives and laws of the European Union countries, very similar principles are used, that is, very similar formulations of legal acts governing the area of environment protection are adopted. Significant changes in the environmental legislation of the Republic of Serbia occurred in 2004 when 4 new laws were adopted (on Environment Protection, on Integrated Prevention and Control of Environmental Pollution, on Environmental Impact Assessment and on Strategic Environmental Impact Assessment). This has given rise to needs related to the compliance of practice with new legal regulations in this area. In that respect and with an aim to assess possible impacts which plans and programmes may have on the environment, the law stipulates the preparation of strategic environmental impact assessments for some plans in the course of preparing urban and planning documentation. Since the applicable Law on Strategic Environmental Impact Assessment defines methodology framework for the preparation thereof, there is a general conclusion that this legally defined methodology should be used as an initial framework and there is no methodological “recipe” for the preparation of strategic environmental impact assessments. This approach has been accepted not only by the world’s experts dealing with this issue (SADLER and VERHEEM 1996, THERIVEL and PARTIDARIO 1996), but also by domestic experts (STOJANOVIC and SPASIC 2005).

Strategic environmental assessments are made for plans and programmes of varying levels and scopes, for diverse purposes of space and they involve complex system of participants and data. Therefore, it is more useful to develop a set of principles which will be applied within legally defined stages of preparation and deploy proposed problem

solutions which have been noticed in practice so far. Well known methods, which have been used so far more in the world than in our country, as for example, identification methods, expertise, control lists and questionnaires, matrices, multi criteria analysis, SWOT analysis (ZWAENEPOEL 2002), ecological capacity analysis etc. are recommendable in each of corresponding cases for certain stages of strategic assessment which are defined in the Law on Strategic Environmental Impact Assessment.

Materials and methods

Strategic environmental assessments have mostly been prepared without employing adequate methods and without corresponding input data which would be processed by means of methods above. By emphasizing new methods at professional meetings, as well as by publishing papers illustrating practical examples of this problem, the quality of the rendered document would be significantly improved. At the same time, the conclusion is that strategic environmental assessment cannot be written continuously from the beginning to the end, but, it is necessary to re-examine in the whole work set up attitudes, i.e., mathematically speaking, the whole procedure should have iterative character until a solution is obtained which meets high quality requirements. For the purpose of efficient document preparation, 13 typical examples have been analyzed and a series of principles, criteria, premisses and solutions for observed problems is defined on the basis thereof. The chosen examples, which are different by type and scope of plans, were analyzed using the quantitative and qualitative methods. The analysis resulted in a good statistical overview of a range of parameters, including: environmental indicators, used methodology, input data, public participation, project implementation on the public land etc.

Results

Presentation of some basic premisses

Premisse 1

Social aspects of environmental impact assessment of plans are rarely elaborated.

In that respect, the strategic environmental assessments rarely address the following issues: freedom of movement of disabled persons, accessibility of areas for children and old people, health of the population and the like. For the purpose of resolving these issues, it is desirable to apply participation planning which ensures all relevant interventions to be based on needs and observed problems of users, local capacities and lessons learned in previous experiences. Participation process implies that all relevant participants work together in order to develop mutual goal and that they all participate in the decision making process (DISABILITY MONITOR INITIATIVE SOUTH EAST EAST EUROPE 2006).

Premisse 2

Cumulative environmental impact assessment represents significant contribution in the preparation of documents.

The synergy of possible impacts often gives a new picture about the state of the environment and thus, necessary interventions for its protection. In that respect, it is necessary to

provide full cooperation of all relevant experts in the team in order to generate resultants of diversified impacts.

Premisse 3

Lack of measures envisaged in case of a disaster is an important deficiency of relevant documents.

The lack of measures in case of disasters in the majority of prepared documentations means direct devastation of the environment in case of an incident. This often causes not only increased works on environmental recovery but also inability to recover and return into the previous state. For the purpose of defining these measures, team work is essential in preparing strategic environmental assessments, as well as consultations with professionals in the areas in which incidents may occur.

Premisse 4

Although all legal obligations have been very often adhered to with respect to the contents of strategic environmental assessments, pertinent areas are not dealt with in an adequate way.

In most cases, the table of contents includes all items stipulated by the law, but they are often routinely treated and identical text can be found in almost all examples elaborated by the same professional organization. Routine treatment of strategic environmental assessments makes them lose their meaning, since valid environmental impact cannot be found in documents prepared through the manner above. This primarily refers to chapters dealing with environmental indicators, assessment of possible impacts with the description of protective measures, guidelines for the preparation of strategic environmental assessments at lower hieratical levels, presentation and evaluation of alternative solutions and methodology used. Nevertheless, the analysis of concrete examples made by the same organization shows that in time certain elements of strategic environmental assessments are evaluated, thus, providing more comprehensive overview of important impacts. An example of above stated is consideration of increasing number of environmental indicators, as well as deploying more methods in analyzing gathered information.

Premisse 5

Preparers rarely change the concept of strategic environmental assessments depending on the type and scope of the plan for which environmental impact is elaborated.

Very often, the same methodology is used in preparing spatial plans and in zoning ordinances, as well as in spatial plans for special purposes (for example, natural reservations) and industrial zones as a direct consequence of routine preparation of these documents. For the purpose of providing high quality solutions, applied methods should be varied with reference to the type and scope of plans. At the same time, it should not be confined only on the use of the present situation qualitative analysis (ENVIRONMENTAL PROTECTION AGENCY IRELAND 2003). Such a way makes the document lose on its value as it does not give concrete information based on which it will be possible to derive consequential conclusions.

Premisse 6

The emphasis should not be laid on the narrow professional field of the preparer of a strategic environmental assessment, but all aspects of environmental impact should be elaborated adequately.

In that respect, team work is very important, experts and professional organizations should be involved in the preparation process. It cannot be expected from a person assigned with the task to have a broad knowledge in all areas characteristic for a given plan, however, the first and a very important step is to recognize and accept this fact and include other colleagues in resolving distinctive issues. This, however, does not imply simple protocolar opinion request from professional organizations and competent public companies, but active joint works in considering and resolving issues by deploying various techniques and methods typical for a given area and/or profession. Frequently, in the course of preparation, some environmental data are delivered by the investor and the preparer itself is not capable of evaluating validity of these pieces of information without assistance of experts (for example, a technologist or a physicist). The task of a person assigned to prepare strategic environmental assessment is not to do something alone, but to evaluate the composition of a project team, coordinate the team's work and finally, put received information into a unique document. Even at the very level of an organization making a document, it is frequently noticeable that there is an imbalance in the coordination of team members, which can be illustrated by the example of a person assigned to prepare strategic environmental assessment receives ready solutions without a possibility to change anything from the person in charge. This excludes any sort of analysis of alternative solutions at the beginning of the process. In order to enable cooperation between all members of the team, the Law stipulates parallel preparation of plans and strategic environmental assessments.

Premisse 7

Strategic environmental assessments usually include and present a small number of input data.

The analysis of chosen examples has shown that only in a limited number of cases, often prepared by professional organizations from the territory of Belgrade, corresponding measurements have been made and/or certain numbers of data obtained by these measurements have been analyzed. It is a well known fact that in many Serbian towns systematic measurements, which could be used as indicators of environmental conditions, have not been made so far. Also, preparing of the majority of strategic environmental assessments does not even involve targeted and/or one-time measurements lasting for one to three days. The analysis often takes into account average parameters from measurement points which are at a distance of as much as up to 50 kilometres from investigated areas. Although one-time measurements by no means present complete picture of environmental conditions since they represent momentary situation in a relevant season at certain atmospheric influences and the like, they are very important because they often provide valid data of, for example, the quality of soil and water. Data gathered in the above manner provide solid grounds for further work. Often, costs are underlined relevant to the collection of necessary data, but this problem can be resolved

by inclusion of costs in the overall price specified for rendering strategic environmental assessments to be borne by the investor. The placement of seven automatic stations for monitoring the quality of ambient air in Vojvodina can be emphasized as an excellent example of global cooperation between the Provincial Secretariat for Environment Protection and Sustainable Growth and the European Environment Information and Observation Network. Data obtained from automatic stations will be primarily used for the assessment of the exposure of the population and health impact evaluation, then as the basis for strategic planning and work of inspection services, as well as for predicting and estimating trends in air quality assessments. The network is comprised of seven stations which are equipped with the state of the art devices, analyzers for measuring basic and specific air pollutant concentrations (sulphur dioxide, nitrogen dioxide, carbon monoxide, benzene, toluene, ethyl benzene and xylenes, ozone and PM10), as well as with sensors for measuring meteorological parameters (wind direction and speed, air temperature and humidity, atmospheric pressure and solar radiation intensity). Configuration of each station is designed in such a way to monitor pollution which is characteristic for the site at which it is located and two stations are placed within protected natural resources zones and they serve as referent, i.e., base stations (PROVINCIAL SECRETARIAT FOR ENVIRONMENTAL PROTECTION AND SUSTAINABLE GROWTH 2008).

Premisse 8

Not only insufficient number, but also inadequate indicators are chosen very often.

As a consequence of scarce collected data, there is a choice of inadequate number and type of environmental indicators (BELL and MORSE 1999). Thus, for example, human health, as one of the most important environmental parameters, is very rarely taken into account within strategic environmental assessments. However, it can be concluded that this practice has changed in time, and by deploying new methodologies in the preparation of strategic environmental assessments, many adequate indicators are introduced (UNITED NATIONS 2001).

Premisse 9

Plans with different hierarchical levels, i.e., strategic environmental assessments thereof, are often prepared identically.

This statement is always accompanied by the question whether in situations when the preparation of municipal spatial plans coincides with the preparation of towns' master plans, strategic environmental assessment should be made for each of the plans separately or one strategic environmental assessment could refer to both plans. The concrete answer to this question has not yet been given. With reference to this question, two approaches can be distinguished. The first approach assumes that strategic environmental assessments, particularly those of a higher rank, should not overly elaborate impacts of concrete companies which present environmental hazards with their activities. The other approach is that irrespective of their level strategic environmental assessments should collect as many data as possible about potential environmental hazards. After the analysis of selected examples, it can be concluded that strategic environmental assessments containing detailed analyses of every potential environmental hazard are much clearer

and more valuable as they specify the real purpose of these documents. They show actual picture at the terrain and fully justify objectives of strategic environmental assessments which have been set in advance. Concrete data are available in these documents and there are no many circumlocutions or opportunities left for wrong assessments.

Premisse 10

Public participation is not implemented adequately in most cases.

Public participation can be accomplished through various interest groups, such as local population, professional public, business sectors, non-governmental organizations and administrative authorities (HEALY 1997). Based on the analysis of selected examples, it can be concluded that in the majority of cases there were no or less than five remarks within public inspection of strategic environmental assessments. Most often, the reason for that is local population's failure to get informed, and/or insufficient knowledge of citizens about possibilities to lodge complaints during public inspection. This situation is characteristic not only when strategic environmental assessments are concerned, but also in the procedures of public inspection of planning documentation. Resolving this problem is possible in cooperation with neighbourhood communities which could raise awareness and interest for relevant topics of their citizens by means of written notifications. These concrete written notifications should, in addition to basic data about public investigation, provide explanations of citizens' rights in a broadly understandable language, which will even contribute to their education. This type of communication is not impossible since citizens get informed about many other events in this way. Business sectors are frequently informed about the procedure of public investigation and most often their complaints involve denial of information gathered by the elaborator in relation to harmful effects of facilities owned by them. In order to interpret these complaints, professional organizations can provide important assistance and their arbitration can generate answers to submitted complaints.

Premisse 11

Project implementation on the public land is often uncertain.

Taking into considerations the fact that the majority of positive interventions which are anticipated in strategic environmental assessments refer to public surfaces, a very small portion of practical realization of these projects imposes an important problem. A typical example of this problem concerns protective belts along various infrastructural corridors. The resolution of this problem is possible by putting a condition to implement protective corridors together with infrastructural directions. Unfortunately, this problem in Serbia has been made banal by means of traffic route's rank decrease through various documents, for example, in case of a highway in order to enable the construction of commercial and residential buildings along its way instead of a protective belt. Thus, we have a paradox and instead of the protective belt, we arrange commercial and residential buildings and breach basic principles of sustainable growth.

Premisse 12

Irrespective of the cross border impact analysis, when strategic environmental assessments are made, legal provision defining spatial scope of a plan is often interpreted in a strictly legalistic way.

As a consequence, in some of the examples, serious environmental hazards are not taken into account, although, they are in close proximity of an area for which this document has been prepared. An example for that is the exclusion of the pharmaceutical factory Galenika from the strategic environmental assessment made for illegally constructed residential settlement in its close neighbourhood. Thus, in the same document, we talk about cross border impacts on the one hand and neglect environmental hazards which are very close to the processed area on the other hand.

Premisse 13

The control of the situation at the terrain carried out by the Inspection represents the weakest link in the overall procedure of spatial planning.

Fines which should be paid by polluters are very often insufficiently non-encouraging and legal proceedings against polluters are in many cases ruled in favour of polluters by their experienced legal representatives. This is the reason why we have got a lot of problems nowadays such as wild dumps, inadequate control of equipment built in large manufacturing complexes and lack of control in the use of pesticides. In line with these, according to the Law on Environment Protection, crucial changes in the plant's operations are assessed by competent authorities which occurs in practice very rarely as the term 'crucial' changes is very vague. The same Law stipulates the obligation of owners of existing plants which potentially jeopardize the environment to obtain corresponding integrated permits until 2015. In the next six years, the same companies will considerably endanger the environment and this will in turn aggravate its recovery to a large extent. Even in cases when the plan anticipates the plant's demolition or reconstruction, integrated permits will not be obtained if the investor does not instigate the procedure. The fact that a single integrated permit has not been issued so far both at the territory of Vojvodina and at the territory of the whole country indicates that the implementation of elements from strategic environmental assessment proceeds very slowly. Transitional provisions of the Law on Integrated Prevention and Control of Environmental Pollution stipulate that the Government of the Republic of Serbia will enact the Programme for Compliance of Certain Economic Branches with this Law, which has not been done so far. Therefore, there are no corresponding applications for issuing permits for existing plants. Undoubtedly, all legal measures will affect the environment but their effects will be substantially delayed mostly due to the complexity of procedures associated with obtaining necessary documentation and the lack of dialog among services in charge of their enforcement.

Premisse 14

There are no systemic solutions for environmental problems.

Due to the obvious lack of systemic solutions, serious environmental problems occur and they cannot be resolved simply by means of a corresponding strategic environmental

assessment. This is, for example, in case of disposal and treatment of toxic wastes which have not been resolved in our country yet. An example concerning the construction of illegal buildings under the existing and planned long distance power lines is very important since some of the town municipality's decisions prevent their legalization whereas actual impact of these infrastructural directions on the population living there has not been assessed anywhere. This problem can hardly be resolved by means of strategic environmental assessment as initiatives and actions are required at all levels starting from the Government (VRBASKI and KRNETIN 2009).

Conclusions

The adoption of four systemic environmental laws has made a significant step forward in this area. However, during the enforcement of these laws, numerous problems and un-certainties have arisen and they entail systemic resolution as well. The key for successful tackling of this task assumes common work of all entities, private, legal and professional. This will involve not only the procedure of making strategic environmental assessments, but also overall work on environmental protection, from the national strategy through the supervising inspections after integrated permits have been issued. Since the whole process of environment protection is very complex, and the large portion of natural potentials has already been exhausted, we should not wait for someone else to resolve this problem but, based on lessons learned so far, we should work on environment protection even more efficiently.

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A STRATÉGIAI KÖRNYEZETI VIZSGÁLATOK KÉSZÍTÉSÉVEL ÖSSZEFÜGGŐ
PROBLÉMÁK SZERBIÁBAN

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A környezetvédelmi politika kidolgozására részben a megfelelő területi tervek és programok alapján került sor. Ebben az értelemben, miután a területi és várostervezés előkészítésénél és alkalmazásánál figyelembe vették és belefoglalták az összes fontos környezeti szempontot, így ezek jelentős mértékben hozzájárulnak a fenntartható fejlődés céljainak eléréséhez. Tanulmányunk célja, hogy elemezze a Stratégiai Környezeti Vizsgálatok jogszabályának alkalmazása során szerzett tapasztalatainkat. Külön figyelmet fordítottunk a Stratégiai Környezeti Vizsgálatok készítése során megfigyelt hátrányokra vonatkozóan. Ezek előké-szítése többnyire megfelelő módszerek és bemeneti adatok alkalmazása nélkül készült, mely utóbbi adatok feldolgozásához lett volna szükség a megfelelő módszerekre. A megfelelő dokumentáció előkészítése céljából 13 tipikus példa került elemzésre, alapelvek sora, kritériumai és a megfigyelt problémára vonatkozó megoldások meghatározására kerítettünk sort.

