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Environmental protection and the outcomes of environmental impact assessment procedure

Environmental impact assessment, along with *neminem laedere* (no-harm) and precaution principle, has emerged as an essential element of a preventive approach to environmental protection and resilient development, and has accordingly received considerable attention. It provides decision-makers with information as to the possible effects of a proposed activity before the activity takes place, thereby allowing for an informed decision as to whether that activity should be allowed to proceed, whether further measures are required before such authorization is granted, or whether other alternatives are preferable. Besides ecological there are also social impacts affecting people and communities in which they live, resulting from the project. The analysis is made of sources of law, as well as the shortcomings of environmental impact assessment in practice as a one-time exercise. The authors are focusing attention on the disputable practice of steering the screening procedure so as to avoid environmental impact assessment and public participation. Properly conducted environmental impact assessment yields more far-reaching benefits in a decision-making process which implements the holistic approach embedding social impact of a project as well.

Key words: environmental impact assessment, environmental protection, screening, social impact

1. Foreword

The permits for development projects which are likely to have significant effects on the environment should be granted only after an assessment of the likely environmental effects of those projects has been carried out. The assessment should be conducted on the basis of appropriate information supplied by the developer, as supplemented by the authorities and by the public likely to be concerned by the project in question.

Environmental protection standards imply the assessment of projects for minimizing environmental impact of an intervention and achieving maximum preservation of quality of the environment. It provides decision-makers with information as to the possible effects of a proposed activity before the activity takes place, thereby allowing for an informed decision as to whether that activity should be allowed to proceed, whether further measures are required before such authorization is granted, or

whether other alternatives are preferable. However, the practice of environmental impact assessment is not evolving in the same direction of theory.

The paper analyses legal standards of the environmental protection procedure, implementing challenges, improper environmental impact assessment enforcement supported by several case studies, social impact environmental challenges and strategic approach in environmental assessment.

2. Legal standards of the environmental protection procedure

Environmental impact assessment along with no-harm (*neminem laedere*) and precaution constitute legal principles in marine environment protection.

No-harm imperative has the status of international customary law. It has its origin in the early years of environmental law when it grew out of police law that was based on restrictive preconditions of state interventions. The first step was to acknowledge that if the potential effect is disastrous, preventive measures must be taken if the event is uncertain or unlikely. The precautionary principle is a guiding principle that provides helpful criteria to determine the most reasonable course of action in confronting situations of potential risk. It is an open-ended and flexible principle which creates a possibility and an incentive for social learning.

The best practice commands that mitigation should be based on the possibility of a significant impact even though there may not be conclusive evidence that it would occur.

As preventive action is preferable to remedial measures, and environmental damage should be rectified at source, the best mitigation measures involve modifications to project design rather than containment or repair at receptor sites, or compensatory measures such as habitat creation, which should be considered only as the last resort.

United Nations Conference of the Law of the Sea (UNCLOS) with regard to marine pollution identifies certain types of causation processes, including from land-based sources, the air, dumping, vessels, and installations. Addressing the marine environment in general, UNCLOS includes not only transboundary pollution but also causation chains within one national jurisdiction to areas beyond national jurisdiction.¹

The procedure of environmental impact assessment (hereinafter: EIA) is briefly defined by the United Nations Economic Commission for Europe (UNECE) as an assessment of the impacts of a planned activity on the environment². The definition by the International Association for Impact Assessment in 2009 states that it is the process of identifying, predicting, evaluating and mitigating the biophysical, social and other relevant effects of proposed development proposals prior to major decisions being taken and commitments made. It is a process consisting of the preparation of an EIA report by the developer, the carrying out of consultations, the examination by the competent authority of the information presented in the EIA report, the reasoned conclusion by the competent authority about significant effects of the project on the environment, and the integration of the competent authority's reasoned conclusion into any of the decisions.³

¹ United Nations Conference of the Law of the Sea (UNCLOS), 1982, UNTS 1833 f

² Policies and Systems of Environmental Impact Assessment (1991), UNECE, Geneva

³ Therivel, Riki, Wood, Graham (2018) *Methods of Environmental and Social Impact Assessment*, New York, Routledge, ISBN 9781138647671

Therefore, environmental impact assessment procedure should involve a team of experts with profound knowledge of various components, and in many cases also of different aspects of a specific component. At that, close coordination is necessary to avoid duplication of effort and to ensure that important aspects are not omitted, that being particularly important for interlinked components such as soils, geology, air, water and ecology in general, historical and cultural issues, as well as landscape.

The Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (codification) as amended by Directive 2014/52/EU of the European Parliament and the Council of 16 April 2014 in its preamble states that experts involved in the preparation of environmental impact assessment reports should be qualified and competent and that sufficient expertise, in the relevant field of the project concerned, is required for the purpose of its examination by the competent authorities in order to ensure that the information provided by the developer is complete and of a high level of quality. Article 5 of the Directive lays down that in order to ensure the completeness and quality of the environmental impact assessment report the developer shall ensure that the environmental impact assessment report is prepared by competent experts, while the competent authority shall ensure that it has, or has access as necessary to, sufficient expertise to examine the environmental impact assessment.⁴

The characteristics of projects must be considered, with particular regard to: (a) the size and design of the whole project; (b) the cumulation with other existing and/or approved projects; (c) the use of natural resources, in particular land, soil, water and biodiversity; (d) the production of waste; (e) pollution and nuisances; (f) the risk of major accidents having regard in particular to substances or technologies used and/ or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge and (g) the risks to human health (for example due to water contamination or air pollution). The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to: (a) the existing and approved land use; (b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground; (c) the absorption capacity of the natural environment, paying particular attention to the following areas: (i) wetlands, riparian areas, river mouths; (ii) coastal zones and the marine environment; (iii) mountain and forest areas; (iv) nature reserves and parks; (v) areas classified or protected under Member States' national legislation; special protection Natura 2000 areas designated by Member States pursuant to Directive 92/43/EEC and Directive 2009/147/EC; (vi) areas in which the environmental quality standards laid down in Union legislation have already been exceeded; (vii) densely populated areas and (viii) landscapes of historical, cultural or archaeological significance. The potential likely significant effects of projects on the environment must be considered in relation to criteria set out in points 1 and 2 of this Annex, and having regard in particular to the impact of the project on the factors specified in Article 3(1), taking into account: (i) the magnitude and spatial extent of the impact (for example geographical area and size of the affected population likely to be affected); (ii) the nature of the impact; (iii) the transfrontier transboundary nature of the impact; (iv) the magnitude intensity and complexity of the impact; (v) the probability of the impact; (f) the expected onset, duration, frequency and reversibility of the impact; (g) the cumulation of the impact with the

⁴ Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (codification) Text with EEA relevance OJ L 26, 28.1.2012, p. 1–21, Article 5

impact of other existing and/or approved projects; (h) the possibility of effectively reducing the impact.⁵

3. The implementing challenges

Environmental Impact Assessment process that involves screening, scoping, collection of baseline data, consideration of alternatives, impact prediction, mitigation measures and monitoring, drafting of the EIA Report, public participation, final EIA report, review of the EIA report and decision making, as well as communicating of the decision. During and after project implementation it is necessary to carry out environmental monitoring as well as follow-up of the implementation of the environmental management program and compliance with the conditions of environmental approval.⁶

The project plan is screened for the scale of investment, location, and type of development and if the project needs statutory clearance screening is required. It is to determine which projects or development schemes require a full or partial impact assessment study.

Scoping is a step in the EIA process necessary to establish which potential impacts are related to assessing (based on legislative requirements, international conventions, expert knowledge, and public involvement), to compensate adverse effects on biodiversity (including the option of not proceeding with the development, finding alternative designs or sites which avoid the impacts or give compensation for adverse and hazardous impacts), and finally to eliminate terms of reference for the impact assessment. Scoping is to know the project's potential impacts, the zone of impacts, mitigation possibilities, and the need for monitoring.

Collection of baseline data are of utmost importance in the environmental status of the study area under the EIA.

Predicting and establishing negative or positive, reversible or irreversible, and temporary or permanent effects presupposes a good understanding of the project by the assessment agency.

Mitigation measures in the final report of EIA should consist of the actions and steps for preventing, reducing, or bypassing the impacts or else the level of compensation for probable environmental damages or losses. The report also includes an environmental management plan and a non-technical summary for the general public.

After the completion of the EIA report, public and environmental groups living close to the project site should be informed and consulted. In a public hearing, review of the Environmental Impact Statement (EIS) should be done based on the terms of reference (scoping) and public (including authority) participation.

In decision making the key issue is whether to approve the project or not and if affirmative under which conditions bearing in mind the EIA.⁷

⁵Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (codification) Text with EEA relevance OJ L 26, 28.1.2012, p. 1–21, Annex III EIA

⁶ Handbook of Environmental impact Assessment, Arjun Kumar A., Ratki Cambridge Scholars Publishing, 2021, ISBN (10) 1-5275-664-1

⁷ Nilsson, Martin, Dalkmann, Holger, Decision-making and Strategic Environmental Assessment, Journal of Environmental Assessment Policy and Management 3(3), 2001, pp.305-327

The various phases of implementation and execution are monitored to make sure that the unpredicted impacts or failed mitigation measures are identified and addressed timely.

For every project and development scheme, possible alternatives should be identified and environmental attributes compared. Alternatives must cover both project location and process technologies. If other solutions have been checked, a mitigation plan must be drawn up for the selected option and is supplemented with an environment management plan to guide the proponent towards environmental improvements.

4. Main EIA issues

The EIA aims to deliver answers to what will happen as a result of the project, what will be the extent of the changes, do the changes matter, what can be done about them and how can decision-makers be informed of what needs to be done. The main issues are identification, impacts prediction and their evaluation, mitigation, and documentation evaluation.⁸

Identification includes a variety of methods which can be used, such as interactive matrices, checklist, etc., depending on the type of project. Measurements and evaluations of impacts are often done and each is given a score considering magnitude, significance and benefits of the impact (both positive and negative). Socio-economic impacts associated with the environmental impacts are included here as well.

Impact predictions will involve some measure of probability. In this respect, the study team should also indicate the degree of uncertainty, as far as possible. Scientific predictions should be based on each impact and its specific cause and effects. The degree of sophistication of the methods employed should be kept relative to the scope of the EIA. Socio-cultural impacts should be integrated wherever possible because of the importance of “how the community feels or will be affected”.

Evaluation of the predictions are necessary in order to ascertain how significant they are. The judgment of significance may be based on one or more of the following: laws, regulations or accepted standards, consultation with relevant decision-makers, consistency with government policy and acceptance to the local communities and the public.

A range of mitigation measures can be recommended for prevention or reduction of adverse impacts of a project. Those include, among others, design alterations, site changes, pollution controls. waste treatment, monitoring and compensation for damages. Mitigation costs should be quantified in order to inform the decision-making process. These may be presented using techniques such as cost/benefit analyses or simple matrices showing mitigation options and the cost attached to each adverse environmental parameter.

In documentation evaluation, the EIA report must provide the key decision-makers (already identified as part of the process) with the perceived questions as well as the straightforward answers. Successful EIA reports are those which establish the question and answer approach at the start, showing how the research was focused in this direction.

5. Improper environmental impact assessment enforcement

⁸IAIA, Aims and objectives of EIA, <https://www.iaia.org/pdf/UNEP/Manualcontents/top01.pdf>

Listed below are several examples of bad practice and direct violation of the provisions of the Regulation on environmental impact assessment in the Republic of Croatia by none other than competent Ministry of Economy and Sustainable Development in the case of the construction of a marina in Vela Luka, the construction of the highway on Učka and the construction of a ferry port in Mrtvaška on the island of Lošinj.

5.1. Vela Luka case

Vela Luka is situated in western part of the island of Korčula, in its largest bay that is indented as much as 9,2 km into interior of the island, between two narrow peninsulas.

In 2013 the screening procedure undertaken with regard to construction of nautical tourism port with 200 berths capacity concluded in an administrative decision stating that is not necessary to implement neither EIA nor appropriate assessment for the effects on protected areas.

The screening report placed unusually great accent on safety of the port situated in a naturally sheltered bay. It also mentions that weak circulation of seawater, relatively low bay depth and substantial solid waste found at sea bottom led to intense eutrophication and occasional anoxic states, claiming that such a state is reversible by constructing of appropriate sewerage, which statement can hardly be associated with studying the impact of the marina. It also points out that although waters still preserve the status of natural landscape, natural characteristics of entire coast are devastated by the development and that the preservation of posidonia is expected to maximum extent. Possible impacts on air during the use are of local character according to the screening report. There is no mention of the impact of coatings and chemicals.⁹

There is furthermore no mention whatsoever in the screening report of the unique natural curative features present in the narrow bay and the threat thereto posed by new nautical port sited in close vicinity. At minimum, undertaking of the environmental impact assessment procedure should have been decided as a result of the screening process undertaken.¹⁰

According to the Regulation on environmental impact assessment, Annex II List of Interventions, the screening is obligatory for seaport with more than 100 berths capacity.¹¹

5.2. Učka case

The subject is the large construction works in a protected nature park. The decision of the Ministry of Economics and Sustainable Development was that there is no need to carry out an environmental impact assessment for full profile motorway which involves significant modifications of the years-old project design, including the construction of a large service area with facilities as well as new nodes within protected area of 320900m².

It is hardly reasonable to agree that it is not necessary to produce an environmental impact study presenting variant solutions for major construction taking place on the slopes of the coastal area in karst region, a highly sensitive ecosystem, and park forest.

⁹ Elaborat zaštite okoliša luku nautičkog turizma Vela Luka, Korčula (2013.), Interkonzalting d.o.o. Zagreb

¹⁰ Runko Luttenberger, Lidija, Luttenberger, Axel, Environmental impact assessment of nautical ports projects // 19th International Conference on Transport Science ICTS 2020 / Zanne, Marina, Bajec, Patricija, Twrdy, Elen (ur.). Portorož: Fakulteta za pomorstvo in promet, 2020. str. 200-205

¹¹ Uredba o procjeni utjecaja na okoliš, NN 61/14, 03/17, Prilog II Popis zahvata za koje se provodi ocjena o potrebi procjene utjecaja zahvata na okoliš za koje je nadležno Ministarstvo, t.9.11.

The environmental protection study produced for the purpose of screening procedure regarding intervention modifications for the construction of full profile A8 motorway on the Učka tunnel (Kvarner portal) - Matulji section with accompanying facilities dated May 2020 itself emphasizes the need to assess the environmental impact of the intervention. That statement was disregarded.

The Regulation on environmental impact assessment (OG 61/14, 3/17) in its Annex I lists the procedures for which an environmental impact assessment is mandatory, expressly specifying the construction of motorways and the construction of state roads.¹²

The Regulation on Environmental Impact Assessment (OG 61/14, 3/17) in its Annex V lists the criteria for determining the need for environmental impact assessment.¹³ The existence of that Annex has been ignored. Namely, the characteristics and the site of intervention indubitably imply the need to undertake the environmental impact assessment.

The position of the Ministry of Economy and Sustainable Development is that the documents from 2011, i.e. produced before the entry into force of the Regulation on environmental impact assessment (OG 61/14, 3/17) are valid, in spite of project modification.

The area of the intervention is significantly increased by more than four times compared to the 2011 study.

It is also indisputable that the previous 2011 document was drafted before the accession of the Republic of Croatia into the European Union on 01.07.2013, and that since then the *acquis* in this area has been significantly improved in the field of environmental protection.

Therefore, the Ministry of Economy and Sustainable Development disregarded what the applicable law had been at the time of the decision issued and that the evolution of law took place in the meantime. In 2014, the Regulation on assessment of acceptability for the ecological network was enacted. Disputable also is the ground for the Ministry of Economy and Sustainable Development decision that is not necessary to evaluate the acceptability of this procedure on the ecological network, i.e. appropriate assessment.

5.3. Mrtvaška case

Mrtvaška case involving local marine port is another example of bad practice in avoiding public consultation with the local community before starting the maritime infrastructure development project involving the port connecting the two Islands.

Namely, the existing 12-metre pier is used for mooring smaller boats on the island of Lošinj mainly for the liner and boats arriving from and departing to a nearby Ilovik island. The plan was to upgrade the port with a coastal structure 125 meters long and a pier of 90 in length, including 2 ferry ramps.

The Ministry of Economy and Sustainable Development decided that there is no need for EIA. The mentioned Ministry in its decision only states that during construction pollution of the air may occur because of increased traffic and that the impact of noise is negligible since everything is taking place outside the populated area. As a part of a project of upgrading the port of Mrtvaška, the ship line has

¹² Uredba o procjeni utjecaja na okoliš, NN 61/14, 03/17, Prilog I. Popis zahvata za koje je obvezna procjena utjecaja na okoliš, t.14 i t.15

¹³ Uredba o procjeni utjecaja na okoliš, NN 61/14, 03/17, Prilog V. Kriteriji na temelju kojih se odlučuje o potrebi procjene utjecaja na okoliš

been temporarily relocated. Ilovik island and Mrtvaška are at one nautical mile distance or 10 minutes travelling time only. With the relocation the ship route would last 80 minutes.

Local population stated that living on the island of Ilovik in these circumstances is not viable and it also identified that the problem is in the very concept of the project. Namely, it was foreseen to build pier more than two meters high from mid-level sea waters, which prevents the access to a local liner ship and local boats. The statement of a local community was also that they don't have cars on Ilovik, their vehicles being boats.

After numerous protests by local residents, the construction was halted without any restoration of the original state. This is a result, in authors opinion, of improper screening procedures resulting in the decision that no EIA procedures are necessary, in which the local community would have had an opportunity to take part in public consultation.

6. Highlights to achieve appropriate environmental impact assessment

The assessment of potential environmental impacts is based on the character, magnitude and site of the project, and is aimed at minimizing the environmental impact of an intervention and achieving maximum preservation of quality of the environment. That is achieved by aligning and adapting intended project to receptive capacities of the environment in a particular area. In authors opinion projects must correspond to the demands, complying with governance response measures.

Since in policy making the issues such as sustainable development, biodiversity protection, climate change as well as the risks from accidents and disasters are becoming ever more important, they consequently also constitute important elements in environmental impact assessment procedures, on the basis of which decisions are taken regarding the acceptability of a particular project for the environment.¹⁴

The screening is carried out on the basis of a screening report where the competent authorities are asked to issue opinions on a significance of impact of certain project on a particular component of the environment and significance of load on the environment exerted by a particular project. Screening should cover the case-by-case analysis in line with set criteria and/or criteria prescribed. The request for screening includes: information on the developer, description of the location, description of the characteristics of the project (considered alternatives), description of the likely significant effects of the project on the environment, proposal of environmental protection measures (if considered) as well as list of projects subject to screening informing the public about request, reviewing the opinions of other responsible body and opinions, objections and proposals of the public and public concerned submitted during the information process.

Once the competent body pursuant to opinions received excludes the possibility of significant environmental impact, it issues within the framework of the screening process the administrative decision establishing that it is not necessary to implement the environmental impact assessment procedure.

¹⁴ Handbook on Strategic Environmental Assessment Research Handbooks on Impact Assessment series, Edited by Thomas B. Fischer, Environmental Assessment and Management Research Centre, School of Environmental Sciences, University of Liverpool, UK and Research Unit for Environmental Sciences and Management, Faculty of Natural and Agricultural Sciences, North West University, South Africa and Ainhoa González, School of Geography, University College Dublin and the Earth Institute, Ireland, 2021

Improper environmental impact assessment enforcement in the cases highlighted can thus be seen as a resistance to change of practitioners and challenges created by inevitable complex systems. The case studies disregarded Croatian Regulation on Environmental Impact Assessment and also demonstrate how public consultation can be avoided.

7. Social impact environmental challenges

Besides of ecological there are also social impacts affecting people and communities in which they live as a result projects that involve changes to community values and/or the way the community functions, impacts on communities' quality of life (air quality, noise levels etc.) and the impacts on their culture and history. Such an approach comprehensively conduces to preventing the devastation of environment and biological diversity as well as to sustainable resource use, while strengthening economic, social and territorial cohesion.

An Environmental and Social Impact Assessment (ESIA) should be seen as a process that starts at the conceptual design stage of a project and continues throughout project construction, operation and decommissioning. The purpose of an ESIA is to identify the positive and negative impacts caused by project implementation. This is assessed through an analysis of the effects resulting from interaction between environmental and social components and the various activities of a project and its development, including temporary (for example, during construction) and associated facilities.¹⁵

ESIAs address a project's environmental and social costs and benefits, including an appraisal of the economic implications of the proposed project. The ESIA should consider the project as designed, in addition to potential alternative options (including that of no action).

In addition to the direct effects outlined above, the possible interactions between different environmental components (indirect effects) should also be considered, together with the impacts that could occur in conjunction with other activities taking place in the near vicinity at the same time (cumulative effects).

Directive 2014/52/EU mentions the word social in its preamble, item 9, referring to the final document of the United Nations Conference on Sustainable Development held in Rio de Janeiro on 20-22 June 2012 which recognises the economic and social significance of good land management, including soil, and the need for urgent action to reverse land degradation. Public and private projects should therefore consider and limit their impact on land, particularly as regards land take, and on soil, including as regards organic matter, erosion, compaction and sealing; appropriate land use plans and policies at national, regional and local level are also relevant in this regard. Furthermore, the Directive 2014/52/EU in its Article 3, paragraph 1, states that EIA shall identify, describe and assess in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of a project on population and human health.¹⁶ Pursuant to the requirements laid down in Directive 2014/52/EU, the Regulation on Environmental impact assessment (OG, 2017) lays down an obligation of considering in EIA and screening reports the potential significant impacts on population and health

¹⁵ UNCTAD, World Bank. 2018. Environmental and Social Impact Assessments. Responsible Agricultural Investment (RAI) Knowledge into Action Note, no. 14, World Bank, Washington, DC, <https://openknowledge.worldbank.org/handle/10986/29477>

¹⁶ Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment, OJ L124/1, 25.4.2014

of population. Since in sociological sense the population may imply local community living in the environs of planned undertaking, it is obvious that sociological aspect should be considered.¹⁷

The obligation to incorporate social impacts on local population or wider community is not specifically stipulated in law provisions, but freedom to consider likely impact in the part entailing consideration of impacts on local population is granted. The inclusion of assessment of social impacts into existing SEA and EIA procedures may significantly contribute to sustainable development advocated by EU as well as the Republic of Croatia. Such an approach comprehensively conduces to preventing the devastation of environment and biological diversity as well as to sustainable resource use, while strengthening economic, social and territorial cohesion.¹⁸

8. Strategic approach in environmental assessment

UNECE Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context (Kyiv, 2003) provides for a high level of protection of the environment, including health, by (a) ensuring that environmental, including health, considerations are thoroughly taken into account in the development of plans and programmes; (b) contributing to the consideration of environmental, including health, concerns in the preparation of policies and legislation; (c) establishing clear, transparent and effective procedures for strategic environmental assessment; (d) providing for public participation in strategic environmental assessment; and (e) integrating by these means environmental, including health, concerns into measures and instruments designed to further sustainable development.¹⁹

The strategic environmental assessment (SEA) complements the EIA. The difference between the two is that a SEA is carried out at an earlier stage than an EIA. While an EIA is not carried out until an environmentally relevant project enters the approval process, a SEA is carried out at the planning stage because important decisions relating to the environment often have to be taken in the context of preparatory plans and programmes.²⁰

A SEA must be carried out for each important planning procedure that is of relevance to the environment, for example transport infrastructure planning, energy strategy, marine spatial planning, regional and area development planning, tourism strategy, or planning in the fields of water and waste management, air quality management, noise protection etc. The key element in the SEA is the environmental report, which details and evaluates the anticipated environmental impacts of the plan or programme as well as sensible planning alternatives. Environmental authorities and the public must also be involved. After concluding the process, the competent authority must describe how it took account of the environmental report and the comments and opinions submitted when taking its

¹⁷ Runko Luttenberger, Lidija, Matić, Jadranka, Mihelić, Draga, Environmental and social impact assessment regarding tourism in Croatia // Reflections on the Mediterranean / Albera, Dionigi , Cvrtila, Vlatko , Rudan, Pavao , Šakić, Vlado , Ursinus, Michael (ur.).Zagreb: Institute of Social Sciences Ivo Pilar , VERN' Group , Croatian Academy of Sciences and Arts, Scientific Council of Anthropological Research (HAZU) , Euro-Mediterranean Academic Network (EMAN), 2019. str. 265-274

¹⁸ Runko-Luttenberger, Lidija, Matić, Jadranka, Mihelić, Draga, Environmental and Social Impact Assessment in Coastal Zone // 8th IMSC 2019 Book of Proceedings / Ivošević, Š. , Vidan, P. (ur.). Kotor: Faculty of Maritime Studies in Kotor, University of Montenegro, 2019. str. 59-69

¹⁹Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context (Kyiv, 2003), United Nations Publication, ISBN: 978-92-1-117132-7

²⁰IAIA (International Association for ImpactAssessment), 2002.Strategic Environmental Assessment: Performance Criteria, Special Publication Series 1, http://www.iaia.org/Members/Publications/Special_Pubs/sp1.pdf

decision, and why a specific plan has been chosen after weighing it up against other assessed alternatives.

The Croatian Law on Environmental Protection states that the strategic environmental assessment is a process that assesses probable more significant environmental impacts that may arise from the implementation of the plan or program. Strategic assessment creates the basis for promoting sustainable development by integrating the conditions for environmental protection into plans and programs of a particular area. This enables relevant decisions on the acceptance of the plan and program to be made recognizing possible significant impacts that the plan and program could have on the environment through its implementation, and the project promoters are provided with frameworks of action and the possibility of including essential elements of environmental protection in decision-making.²¹

9. Conclusion

Coastal areas are subject of the ever-growing number and intensity of use of such precious space. A number of anomalies exist in regulating and particularly implementing its use and in assessing environmental impacts of various projects. Projects must be contemplated as a function of the quality of life, well-being of local community, and the preservation of natural and cultural heritage.

Environmental impact analysis is of utmost importance and the reason for developing the system that ensures permanent research and monitoring in order to preserve the environment and ecosystems. Environmental impact assessment of a project is the procedure that identifies, describes and assesses, at an early stage of a project, possible significant environmental impact, meaning the impact on soil, water, sea, air, forest, climate, human beings, flora and fauna, natural values, landscape, material assets, cultural heritage, while considering their mutual interactions. When carried out appropriately, it contributes to a high level of environmental and human health protection.

More effective involvement of experts and scientists in the procedure of examining the projects based on environmental reports is recommended.

On the occasion of evaluating the need to carry out the environmental impact assessment based on the screening report, the authors propose the involvement of a larger number of competent authorities and also developers of approved and existing projects as well as introducing the criteria for determining thereof. In such a way the criteria on the basis of which decisions on the significance of negative impacts on the environment and of acceptability of a project at particular site are taken would be utilized more soundly.

In authors opinion, the environmental impact assessment exercise is often conducted late in planning, often long after project proponents have become attached to a particular design concept. The authors are condemning disputable practice of steering the screening procedure so as to avoid environmental impact assessment and thus also the participation of the public, especially local community as well as general absence of follow-up to check on whether mitigation measures were implemented. Strategic environmental assessment accompanying the adoption of respective plan and strategies procedures should be an obligatory ex-ante prerequisite for enacting any laws related to the use of sea and coast. It is necessary to incorporate in the screening and EIA procedures the ESIA principles such as preserving nature, community style of life and population health, thus granting its resilience and quality of living.

²¹ Zakon o zaštiti okoliša, NN 80/13, 153/13, 78/15, 12/18, 118/18

