

**METHODOLOGY FOR ASSESSING THE REGULATORY IMPACT ON THE
DEVELOPMENT OF ECO-INDUSTRIAL PARKS IN UKRAINE**

The methodological basis in assessing the regulatory impact on the development of eco-industrial parks (EIP) in Ukraine is also based on such methods as:

statistical method – to highlight an array of criteria for assessing the regulatory impact on the development of eco-industrial parks in Ukraine, as well as the costs and benefits of EIP functioning in Ukraine;

expert analysis – to carry out an expert survey on the importance of implementing the International Framework Regulations on Eco-Industrial Parks in Ukraine and the criteria for regulatory impact on the development of EIP;

grouping – to determine groups of assessment criteria and indicators of the development of EIP in Ukraine, which will correspond to the directions of the International Framework Regulations on Eco-Industrial Parks [1];

graphic approach – to illustrate the results obtained and the possibility of their visual assessment and comparison.

At the first stage of the study, it was proposed to use the methodological basis of the Saaty method. In order to assess the regulatory impact on the development of eco-industrial parks in Ukraine and further measurements of the possible benefits, costs and consequences of the development of EIP to achieve the goals of sustainable and inclusive development [2]. The basis of the Saaty method is the implementation of an intuitive-logical analysis of the problem, or rather an assessment of the regulatory impact on the eco-industrial parks in Ukraine, with a quantitative and qualitative assessment of judgments and a formalized study of the results of a survey of experts [3].

The application of the Saaty method allows to obtain from experts the necessary information, which was not enough for making decisions regarding regulatory changes in the direction of EIP development. The practice of using this method shows that statistical models, in combination with expert judgment, obtained in the process of applying the Saaty method, give better results than accurate, complex calculations based on non-aggregated and average indicators. This is due to the fact that this method allows the experts, involved in the survey, to focus not only on assessing the objective consequences of the introduction and operation of one or another criterion of regulatory changes, but also on what will be the interpretation of a certain phenomenon, event, process, problem, etc. An expert, in contrast to purely mathematical and statistical modelling methods, can take into account the impact of regulatory changes on social development, considering them as creative changes. To obtain predictive values for the development of EIP under the influence of regulatory changes, the opinion of experts, determined using the Saaty method, should be taken into account in order to obtain objective arguments and take into account the ambiguity of regulatory measures in relation to economic entities.

To assess the regulatory impact on the development of EIP in Ukraine, a priority justification of the criteria and indicators was carried out in accordance with the assessment, as well as their grouping in accordance with the directions of the International Framework Regulations on Eco-Industrial Parks [1,4]. The primary definition of criteria and indicators was based on the observance of the following principles:

- systematic approach – since the group of criteria for the development of EIP in Ukraine is presented in the form of a system of criteria for the economic, environmental and social aspects of the development of EIP. In accordance with the systematic approach, each subsystem can act as a separate system, and the interaction of individual subsystems gives a synergistic effect for the development of EIP at the level of the regional and national economy as a whole;

- objectivity concept – the criteria for the development of EIP should characterize precisely the peculiarities of the regulatory influence on the functioning of the EIP in Ukraine, make it possible

to quantitatively and qualitatively analyse the development of the EIP in Ukraine, demonstrate the dynamics of sustainable development as a result of the introduction of regulatory changes in the direction of the EIP development in Ukraine;

- consistency principle – the criteria and indicators should be logically related to each other, comprehensively characterize their subgroup and the development of the EIP as a whole, but not be duplicated.

References:

1. International framework regulations on eco-industrial parks available at: <https://geipp-ukraine.org/wp-content/uploads/2021/08/Mizhnarodni-ramkovi-polozhennia-pro-EIP.pdf>
2. A Practitioner's Handbook for Eco-Industrial Parks implementing the international EIP Framework. available at: <https://openknowledge.worldbank.org/bitstream/handle/10986/30458/A%20Practitioners%20Handbook%20for%20Eco-Industrial-Parks..pdf?sequence=8&isAllowed=y>
3. Tulchynska, S., Shevchuk, N., Kleshchov, A., Kryshchop, I., Zaburmekha, Ye. (2021). The Role of Higher Education Institutions in the Development of EcoIndustrial Parks in Terms of Sustainable Development. *IJCSNS International Journal of Computer Science and Network Security*, Vol. 21 No. 10 pp. 317-323. <https://doi.org/10.22937/IJCSNS.2021.21.10.45>
4. Nataliia Shevchuk, Svitlana Tulchynska, Liudmyla Severyn-Mrachkovska, Olena Pidlisna, Iryna Kryshchop (2021) Conceptual Principles of the Transformation of Industrial Parks into Eco-Industrial Ones in the Conditions of Sustainable Development. *IJCSNS International Journal of Computer Science and Network Security*, Vol. 21 No. 12 pp. 349-355, <https://doi.org/10.22937/IJCSNS.2021.21.12.49>