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## METHODS OF ASSESSING THE MANAGEMENT EFFICIENCY OF THE AGRICULTURAL ENTERPRISE RESOURCE-SAVING DEVELOPMENT

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**Annotation.** *At the present stage of economic development, the paradigm of resource-saving and resource-saving development has been significantly transformed. The article summarizes and improves the existing approaches to assessing the effectiveness of resource-conservation management and resource-saving development of agro-food enterprises. The study has revealed that modern methods of assessing the agro-food enterprises resource-saving activity and management policy development do not take into account the importance and intensity of the different factors impact on the integrated resource efficiency indicator. The author suggests applying the method of assessing the weight coefficient of the selected factors influences on the indicators of resource-saving development, taking into account different ranks of the intensity of their influence power.*

**Keywords:** *development of the enterprise, resource-saving development, management efficiency, efficiency assessment, agro-food enterprises.*

**Formulation of the research problem and its scientific and practical tasks significance.** The multifaceted nature of resource-saving policy and the variety of the factors that determine the effectiveness of the resource-saving project implementation at the enterprise call for new innovative approaches to business management, in general. The current challenges to economic development require and stimulate changes in the resource-saving and resource-saving management paradigm development. In addition to changes in the principles and methods of resource management, changes concern the methods of assessing the resource management effectiveness of the enterprise, including a variety of factors that affect the process of resource management and resource-saving development of enterprises. The abovementioned issues determine the topicality and relevance of this research.

**Analysis of the latest research into the problem, which substantiate the approaches to its solution.** Modern literature in the field of economics and management provides numerous scientific works elucidating the management system assessment features regarding the resource-conservation and resource-saving development of the enterprise. Such Ukrainian and foreign scientists as Melnychuk L., Petrushka T., Sotnyk I., Aleksandrovska Yu., Markina I., I. V. Minyailenko I., Vasyuta V., Oliferchuk S., Dzyadykevych Yu., Carragher V., O'Regan B., Peters M., Moles R. and many others

devoted their works to the study of this issue. Although a considerable amount of studies has been devoted to the evaluation of the management system of resource-conservation and resource-saving development, currently, there is no consensus on the method of calculating the level of this indicator efficiency. A systemic approach to resource-saving development of agro-food enterprises involves the formation of economic, social, and environmental relations based on the marginal utility of production resources. The analysis of the literature sources has revealed that the existing methods of assessing resource-saving development of agro-food enterprises have some shortcomings, manifested in the lack of ability to assess the importance of every indicator used. In this regard, there is a need to develop a comprehensive methodology for assessing the effectiveness of resource-conservation and resource-saving development of agro-food enterprises, which allows assessing in the dynamics the degree of accounting a marginal indicator of the production resources utility.

The main objectives of the article are to generalize and improve existing approaches to assessing the effectiveness of resource management and resource-saving development of the enterprise.

**Statement regarding the basic material of the research and the justification of the results obtained.** Prominent Ukrainian and foreign scientists have elucidated the issues of enterprise resource-saving management in their works. However, despite the fundamental research projects in both theoretical and practical aspects, little research has been undertaken to study the issues related to assessing the effectiveness of the resource management system of the enterprise [1].

The methodology of a comprehensive assessment of the resource management system effectiveness in the context of the regulatory system of indicators comprises the following stages:

1) substantiation of the optimal (reference) ratio of the economic indicators growth rates that characterize various aspects of resource-saving management. This stage is of fundamental importance. If you do not first determine the correct reference intensity ratio of the indicators of the resource-saving management system of the enterprise, further practical use of the method becomes quite problematic. It is essential to note that the reference ratio of socio-economic indicators is not set in advance but depends on the stage of the company's life cycle in terms of the existing goals, strategic development priorities, and other factors;

2) calculation of the actual rate of changes in socio-economic indicators that characterize various aspects of the resource management system in a certain period. This method of calculation uses the official statistics data related to the agro-food sector of the economy. In this case, the methodology should involve indices of agro-food production and fixed capital investment;

3) adjustment of the actual growth rates of the indicators, included in the methodology of the comprehensive assessment of resource-saving efficiency, to the growth rates of the higher level indicators of the agro-food enterprises;

4) assessment of correlation rank of the actual distribution of the indicators' growth

efficiency of the agro-food enterprise should contain not only quantitative characteristics but also take into account qualitative indicators.

### References:

1. Yu. P. Aleksandrovskaya. Complex assessment of resource saving efficiency at a machine-building enterprise. *Bulletin of the University of Technology*. 2013, v.16, v.1, p.265-273.
2. O.V. Lopushynska. Scientific and methodological approaches to assessing the effectiveness of resource conservation and resource-saving development of the enterprise. *Proceedings of the V International scientific-practical conference «Scientific developments, advanced technologies, innovations»*. Nemoros s.r.o.Prague, 2019. pp. 76-83
3. N. V. Melnychuk. Estimation of efficiency of resource saving at the level enterprises. *Visnyk National University of Water Management and Nature Management*, 2011. № 4. Access mode: [http://www.nbu.gov.ua/Portal//Chem\\_Biol/Vnuvvgp/ekon/2011\\_4/Vek5627.pdf](http://www.nbu.gov.ua/Portal//Chem_Biol/Vnuvvgp/ekon/2011_4/Vek5627.pdf)
4. I. A. Markina, A. V. Sharkova. Assessment Methodology for Resource-Efficient Development of Organizations in the Context of the Green Economy. *Journal of Applied Economic Sciences*. 2014. №30. pp. 687-688
5. T. O. Petrushka. Evaluation of the efficiency of resource provision of production and economic activities of industrial enterprises. *Scientific Bulletin of the National Forestry University of Ukraine: a collection of scientific and technical works*. Lviv: RVV NLTU of Ukraine. 2011. Vip. 21.2. pp. 269-276.
6. I. M. Sotnyk. Ecological and economic mechanisms of resource saving motivation. Sumy: GDP "Dream" Ltd., 2008. 230 p.
7. I. V. Minyailenko, V.B. Vasyuta. Resource intensity as the main criterion of resource saving at the enterprise. *Economy and Society*. №9. 2017. pp. 512-516
8. Carragher V., O'Regan B., Peters M. and Moles R. Novel resource saving interventions: the case of modelling and storytelling. *Local Environment*, 23 (5). 2018. pp. 518-535. ISSN 1354 - 839. Doi: <https://doi.org/10.1080/13549839.2018.1434493>