

# CONCEPTUAL FOUNDATIONS OF RESOURCE CONSERVATION UNDER MODERN CONDITIONS

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One of the ways to provide the economy with sufficient resources is resource conservation. In developed countries today it is given considerable attention and the latest resource conservation technologies are used not only for the sake of the economic effect, but also for stabilizing the environmental situation in the world. In Ukraine, the State Target Economic Program for Energy Efficiency has been developed and is being implemented, which is an essential aspect of resource conservation [1]. However, the Program is mainly aimed at only preserving fuel and energy resources.

The following Ukrainian and foreign scientists conducted research into the problems of resource conservation: S. Polovnikova, I. Sotnyk, T. Gladyr, O.Gavrysh, O.Kroll, V.Jevons, Yu. Dzyadkevich, M. Bieliaiev, G. Deili, M. Ivanov, N. Verhogliadova, O.Yershova, M. Kundt, R. Balashova, S. Sorrel.

However, despite the large number of scientists' works characterizing the principles, tasks, functions and classification of resource conservation, the definition of this category has not been updated yet, which determines the relevance of the selected research.

Therefore, the main objectives of the article are to synthesize existing approaches and provide an updated definition of this category.

Having explored the current definitions of resource conservation, it is appropriate to conclude that scientists consider this category in two aspects: as efficient use of all types of resources and as saving natural and raw materials resources. Thus, in our opinion, while investigating the economic nature of resource conservation, two approaches should be distinguished: «efficient use of all kinds of resources» (S.Mochernyi, S.Doroguntsov, S.Skokov, etc.) and «saving of material resources» (A.Azriliian, V. Taran, etc.).

So, according to S.Mocherny, resource conservation is «a complex of economic, legal and administrative measures aimed at ensuring the conservation of all types of resources and their efficient use» [2].

S. Doroguntsov, Y. Oliynyk and Yu. Pitiurenko define resource conservation as a progressive direction in using natural resource potential, which provides for the saving of natural resources and the growth of production with the same amount of raw materials, fuel, basic and auxiliary materials [3].

S. Skokov also considers the category of «resource conservation» from the point of view of efficient use of all kinds of resources and provides the following definition: «resource conservation is scientific, industrial, commercial and organizational

activity, aimed at efficient, integrated use and economical consumption of all kinds of resources, proceeding from the existing level of machinery and technology development while reducing the technogenic impact on the environment «[4].

A. Azriliian considers resource conservation in a different way and characterizes it as one of the forms of consumption of production reserves, connected with the maximum economy of material resources in production [5].

V. Taran shares the opinion of A. Azriliian and defines resource conservation as «a systematic process of rationalizing the use of all types of material, raw materials, fuel and energy and other resources in the national economy on the basis of implementation of scientific progress achievements, optimization of economic ties and proportions, strengthening the policy of economy in all sectors and production units «[6].

Other definitions of the category «resource conservation» offered by contemporary scientists are presented in Table 1.

In addition, some scientists single out a separate category of «resource saving», while others believe that resource conservation and resource saving are one and the same thing.

From the point of view of S.Mocherniy, resource saving is a «complex of economic, legal and administrative measures by various economic entities and state, aimed at the comprehensive economy and efficient use of raw materials resources in all spheres of the national economy» [2].

Resource conservation is a complex economic category, which has a large number of classification features. Thus, I. Sotnyk highlights the following types of resource conservation (Table 2) [9, p.37].

S. Mocherniy proposes to consider resource conservation, depending on the resource reproducibility: resource conservation of reproducible resources (labor, information) and non-reproducible ones (minerals) [2].

Resource conservation tasks are as follows:

- qualitative changes in the dynamics of the use of productive resources;
- change in the ratio of the growth rate of the cost of living and substantiated labor;
- achievement of negative incremental resource intensity by a number of resource types;
  - growth of resource saving effect due to the application of new technologies;
  - transformation of environmental protection costs into an important factor of economic growth;
  - active replacement of primary materials and resources by secondary ones, creation of an industry for recycling production and consumption waste [15].

**Scientific Approaches to Defining the Essence of the  
«Resource Conservation» Concept**

№	Definition	Автор, джерело
1	Resource conservation is a purposeful activity for preservation of the production cost at the expense of economy of material and labor resources by reducing losses and waste, introduction of raw material substitutes, non-waste technologies, improvement of technical parameters of products, refining technologies, etc.	V.Konoplytskyi, A. Filina [7, p. 373]
2	Resource conservation is an economic category that is constantly improving , it represents a process of increasing the efficiency of resource use at the enterprises of all types and forms of ownership	R. Balashova [8]
3	Resource conservation is organizational, economic, technical, scientific, practical, informational activity, methods, processes, a complex of organizational and technical measures that accompany all stages of the life cycle of objects and are aimed at ensuring the minimum consumption of matter and energy at these stages per final product unit, based on the existing level of the development of machinery and technology, with the least impact on man and natural systems	I.Sotnyk [9, p.26]
4	Resource conservation is an activity (organizational, economic, technical, scientific, practical, informational), methods, processes, a set of organizational and technical measures that accompany all stages of the life cycle of objects and are aimed at the rational use and economical consumption of resources.	DSTU 3051-95 [10]
5	Resource conservation is a management method that encompasses a set of technical, economic, organizational measures aimed at the efficient use of the resources and satisfaction of the growing needs for them mainly through saving.	M. Ivanov, [11, p.130]
6	Resource conservation is ... an integrated field of research, consisting of a range of economic, engineering, technical, legal and social disciplines that are constantly expanding with a single target setting.	O.Kroll [12, p. 27]
7	Resource conservation is a method of management, in which the efficient use of all resources of the firm is necessarily accompanied by the introduction of resource-saving technologies and effective decision making by management in relation to them.	O. Yershova [13]
8	Resource conservation is a system of measures aimed at the most rational and efficient use of all types of resources, their reduction per unit of useful effect	V. Iphthemichuk [14]

To accomplish the assigned tasks resource conservation should follow the following principles:

- integrity - implementation of resource conservation principles at all links and in all processes of the enterprise;
- system-based approach - introduction of resource conservation taking into account interconnections and interaction between managed and control subsystems;
- sustainability - the resource conservation system should operate on a permanent basis;

- measurement - the efficiency of the system should be determined by a certain set of measurable indicators;
- employee involvement - all staff of the enterprise should be involved in resource conservation management system;
- openness - the system should be guided by the principle «from the inside out», that is, to implement and stimulate resource conservation not only at the enterprise, but also in its immediate external environment;
- dynamism - the ability of the system to adapt and change according to the needs of the enterprise and the environment [16].

The main functions of resource conservation in a market economy are [17]:

- economic forecasting of the quality of the environment, which envisages its assessment under the influence of a specific resource conservation policy;
- development of a strategy of resource conservation activity and detailed programs on environmental protection and efficient use of natural resources in the national economic complex of the country;
- planning resource conservation activities and developing various types of prospective and current plans that involve preparing budgets for resource saving projects, identifying sources of their financing; establishing appropriateness or inappropriateness of environmental quality to the law requirements;
- building the organizational structure of resource conservation management in order to manage the processes of resource conservation development;
- ecological monitoring, which includes environmental monitoring, registration of the availability, quality and consumption of natural and other types of resources by enterprises and organizations;
- control over the implementation of resource conservation processes;
- environmental enlightenment and development of public consciousness, which are necessary for bringing change into the culture of resource consumption.

Resource conservation covers many aspects and consists of different types of activities (Fig. 1).

Thus, having studied present-day definitions and having highlighted the approaches to understanding the category of «resource conservation», we came to the conclusion that the scientists regarding resource conservation as «saving of material resources» actually mean resource conservation. Proponents of the first approach consider resource conservation in a more comprehensive way. Firstly, it is not an economy but a rational and efficient use of resources. Secondly, not only natural and material resources, but also financial, human, informational, intangible and time resources are taken into account.

We believe it is reasonable to consider resource conservation as a set of managerial and production measures aimed at increasing the efficiency and rationality of the enterprise using natural, material, human, informational, intangible and time resources to achieve its goal.

As noted before, within the scope of the enterprise activities one should focus

on the following types of the resources of the enterprise: natural, material, financial, human, informational, intangible, and time ones. [19]. Therefore, let us consider the essence of the conservation of each type of resources.

Table 2

**Classification of the Resource Conservation Types**

Classification feature	Resource Conservation Type
Types of resources to be conserved	material conservation water conservation energy conservation labor- conservation fund conservation
Contents of resource conservation processes	efficient use of resource conservation resource saving (direct and indirect, structural)
Possibility of implementation	potential (theoretical, technically feasible and economically expedient) actual
Scale	global national economic regional sectoral local (at an enterprise level)
Stages of the resource life cycle	resource conservation at the stage of extraction of raw materials resource conservation at the stage of processing of raw materials resource conservation at the stage of resource production resource conservation at the stage of resource consumption resource conservation at the stage of resource transportation resource conservation at the stage of resource storage resource conservation at the stage of resource disposal
Stages of the product life cycle	resource conservation at the design stage of the prototype resource conservation at the stage of manufacturing the prototype and its testing resource conservation at the stage of production of the final product resource conservation at the stage of the product consumption (operation) resource conservation at the stage of product disposal
Amount of funding and results	big resource conservation small resource conservation
Direction of consequences	constructive (eco-constructive) destructive (eco-destructive)

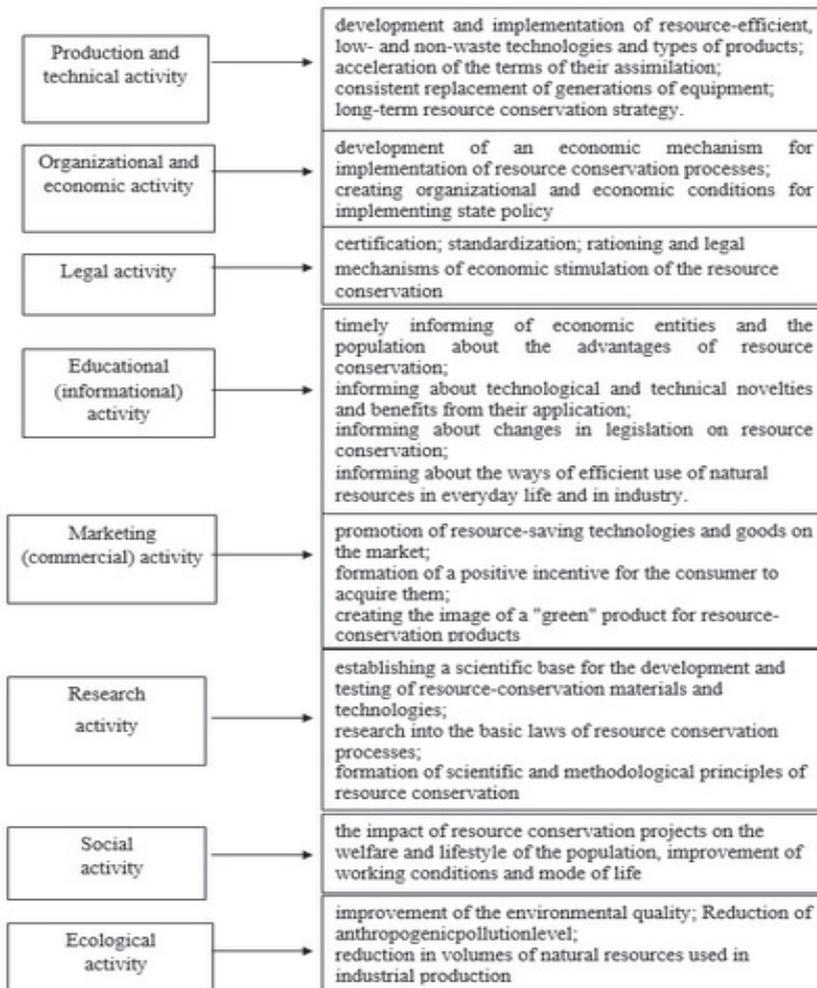


Fig. 1. Components of resource conservation [compiled on the basis of 18]

Conservation of natural resources is activities aimed at the rational conservation of the elements of nature, used by the enterprise in the process of the economic activity as means of production.

Conservation of material resources is managerial, technological, production, and organizational and economic measures aimed at increasing the efficiency of the use of material resources and their rationalization.

Conservation of financial resources is a process of increasing the efficiency of allocation and use of cash or cash equivalents received from the enterprise own or loan sources which are at its disposal.

Conservation of human resources is a comprehensive use of the professional qualities, knowledge, skills and experience of the employees of the enterprise.

Conservation of information resources is a complex of measures aimed at the all-round use of a set of knowledge, ideas, information in any form intended for use in the economic activities of the enterprise.

Conservation of intangible resources is an activity aimed at the development and implementation of effective measures for the use of values that are not material, but necessary to achieve the main purpose of the enterprise activity.

Conservation of time resources is organizational and economic activity to increase the efficiency of using the time fund, which is at the disposal of the enterprise and is used in the process of economic activity.

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## **INSURANCE OF EXPORT CREDITS AS AN INSTRUMENT FOR MINIMIZING FINANCIAL RISKS**

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With the growth of world trade today, exporters are forced to use various methods to increase the competitiveness of their products, including the supply of goods on terms of commercial credit, which is always associated with the risk of non-receipt of payment for the goods delivered. In order to increase reliability in this case, export credits, or insurance receivables, the so-called «insurance delkredere», have become more widely distributed in the world.

We have found that in 2016, biological preparations were exported to Moldova at a rate of \$ 66772 USA. In this case, exports in 2016 increased more than three times. However, for SE «Sumy Biological Factory» issues of export of products to other countries of the world become topical. At the same time, as always, there is a resource risk of a lack of payment for the delivered products, especially when it comes to new markets. Analysis of literary sources showed that any enterprise