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# THE STRUCTURE OF MECHANISM RATIONAL USED RESOURCES OF ENVIRONMENT IN THE AUTOMOTIVE COMPLEX: ON THE EXAMPLE OF ONE OF THE SUBJECTS OF MANAGEMENT

**Abstract.** The article proposes to consider the created structure of an integrated management mechanism (governance entities) by rational resource use in the motor transport complex, which is based on the activities of four ministries and subjects subordinate to them. Functional obligations, relationships and control functions are defined.

**Keywords:** mechanism of management, motor transport complex, concept, resource use, rational resource use in the motor transport complex.

### СТРУКТУРА МЕХАНІЗМУ ДЕРЖАВНОГО УПРАВЛІННЯ РАЦІОНАЛЬНИМ РЕСУРСОКОРИСТУВАННЯМ

#### В АВТОТРАНСПОРТНОМУ КОМПЛЕКСІ: НА ПРИКЛАДІ ОДНОГО ІЗ СУБ'ЄКТІВ УПРАВЛІННЯ

Анотація. У статті розглядається створена структура комплексного механізму управління (суб'єктів управління) регіональним ресурсокористуванням в автотранспортному комплексі України, що засновується на діяльності чотирьох міністерств та суб'єктів, підпорядкованих їм. Визначаються функціональні зобов'язання вищих та нижчих суб'єктів управління, взаємозв'язки та функції з контролю.

**Ключові слова:** механізм управління, автотранспортний комплекс, концепція, ресурсокористування, раціональне ресурсокористування в автотранспортному комплексі.

# СТРУКТУРА МЕХАНИЗМА ГОСУДАРСТВЕННОГО УПРАВЛЕНИЯ РАЦИОНАЛЬНЫМ РЕСУРСОПОЛЬЗОВАНИЕМ В АВТОТРАНСПОРТНОМ КОМПЛЕКСЕ: НА ПРИМЕРЕ ОДНОГО ИЗ СУБЪЕКТОВ УПРАВЛЕНИЯ

Аннотация. В статье предлагается к рассмотрению созданная структура комплексного механизма управления (субъектов управления) рациональным ресурсопользованием в автотранспортном комплексе Украины, которая основывается на деятельности четырех министерств и подчиненных им субъектов. Определены функциональные обязательства высших и низших субъектов управления, взаимосвязи и функции по контролю.

**Ключевые слова:** механизм управления, автотранспортный комплекс, концепция, ресурсопользование, рациональное ресурсопользование в автотранспортном комплексе.

Statement of a problem. The developed concept of rational resource use management that was earlier put forward in authors works determines the availability of efficient structure, that is absent in required state. In order to fulfill these problems it is possible to improve present structures or create new ones under the established management goals. The current aims lie in improving of existing structure determination of goals for every management subject and establishment of correlation based on existing structures. This problem should be developed in the aspect of existing theories of state management and its hierarchy. At this stage it is necessary to consider the agent of management and its set of descriptions.

Analysis of the recent research and publications. The main scientific achievements in the development of problems of improving the structural potential of government are set forth in the works of T. E. Kaganovskaya [1], S. N. Seregina [2], A. A. Pashko [3], A. Yu. Obolensky [4] — scientists of the national scientific school, as well as in the works of foreign authors [5, 6]. The main lack of existing scientific groundworks is that the research was done fragmentary. The authors analyzed problems of structural support management, however the established management goals for these subjects do not correspond the previously proposed goals of management in Ukraine. In conclusion, due to objective differences in subjects of scientific research and its results it is supposed to develop additional complex study of the problem in the aspect of motor transport management.

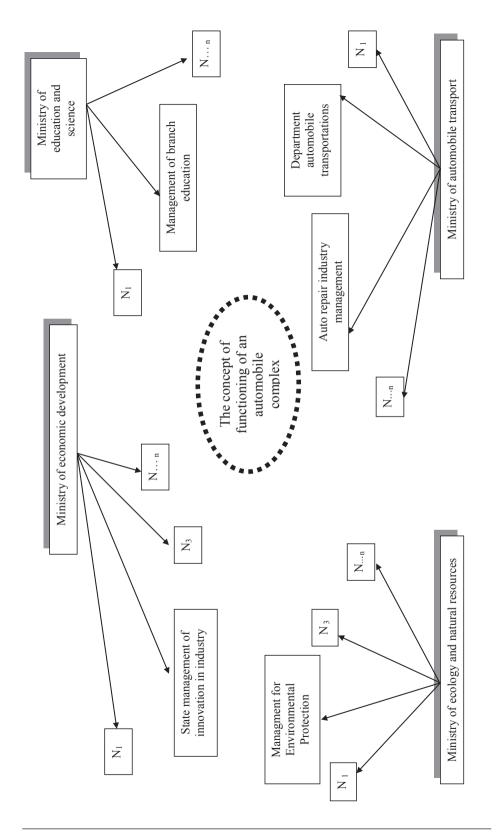
The main purpose of the article lies in developing regular structure that is called to fulfill existing targets of management in order to make a transfer to rational use of resources inside the motor transport complex. To establish the main functional competence by the example of one of the subject, to discover relations with the other subjects and single out control functions.

The statement of basic materials. Realization of developed management solutions [7] is accomplished with the help of control structure that consists of four departments. As L. Lynn points out [6], the effectiveness of the system of public administration itself depends on a wide range of its qualities. One of the components of effective management is the formation of an efficient administrative structure, which is a function of the management system [1; 2]. Picture 1 shows the structural components of harmonious exploitation in the automobile complex in Ukraine. Among the list of main management subjects we can single out the Ministry of Economic Development, the Ministry of Ecology and Natural Resources, the Ministry of Motor transport and the Ministry of Education. Among the other management subjects that are subordinated to every ministry we offer to create additional. For the Ministry of Natural resources it is possible to create the Department of environment preservation, for the Ministry of Motor transport — the Department of motor car repair service and the Department of motor car transportation, for the Ministry of education — the Department of sectoral education.

Functional engagements, interrelations and control functions can be analyzed by the example of the National department of innovative industry development. The strategic goal of this department lies in providing steady development of different industry fields, ensuring steady innovative development and development of automobile industry. Finally, the innovative activity should consist of the complex of transformations that will promote the discovery of new development vectors of different industry fields. This national management subject is called to introduce methods of harmonious exploitation and innovative methods of manufacture and service offering, to form ecological thinking of consumers. It means that the national management of innovative work has a mission of economy integration into environment with the goal of harmonious exploitation, whereas nowadays we can observe irrational use of natural resources inside the economic industry.

Let us have a look at the main management problems:

1. Elaboration, control and amendment of automobile industry development in the aspect of chosen concept (establishment of perspective development trends in motor car field under the modern conditions):



The structure of the complex mechanism of management in AC

- 1.1. Designing and elaboration of technical documentation to new automobile transport production that use alternative types of energy.
- 1.2. Organization of research and service activity in improving automobile transport that is already in use.
- 1.3. Designing and elaboration of technical documentation for production of motor cars with increased term date.
- 1.4. Designing automobile technology with perspective construction.
- 1.5. Designing and elaboration of technical documentation for producing motor car transport with increased indexes of maintainability that will allow to implement the permanent resource of the components and prolong the life-cycle of motor car transport.
- 1.6. The variety widening of components that serve to recovery repair.
- 1.7. Total widening of components variety (spare parts) for motor cars that are produced by the national manufacturers on the basis of development and improving of manufacturing machinery and processes.
- 1.8. Development of methods of ecological risks predictions in case of inappropriate resource exploitation strategy during working.
- 1.9. Establishment of goods and services of social importance with the purpose of harmonious exploitation of natural resources

2. Probability valuation of secondary resource formation within the production and its rational use. 3. Participating in development of laws and regulations of automobile transport functioning with regard to rational use of resources.

4. Assessment of taxes by executive authority in automobile complex.

5. Creation of innovative infomedia inside the automobile complex:

- 5.1. Information support rendering to academies about the lust industry achievements and perspective development tendencies with the purpose of hier-qualified training of specialists in the field.
- 5.2. Coordination of collaboration between production, educational institutions, research institution in order to identify priority areas for research and advanced development and to strengthen the competitiveness of producers.

7. Organization, development and maintenance of interbranch and interdepartmental relations, provision of integrated information support to other subjects of management within the chosen concept.

8. Formation of the budget of the center.

9. Formation of ecological thinking among the population of the country (ecological ideology).

Among the list of the above listed functions lets separately consider the content of the two. The first, aimed to develop methods for forecasting the emergence of environmental risks in the event of a discrepancy between the real policy of resource use of the declared concept. The implementation of this task is entrusted to two subjects of state management — the State Administration of Innovative Activities in Industry and the Management of the Automotive Repair Industry. The second function is the introduction of environmental ideology (the formation of environmental thinking in the country's population), the implementation of which is solely entrusted to the State Administration for Innovation in Industry. In addition to the first - the development of modern methods for forecasting the emergence of environmental risks, where the absence of a clear functional distribution is due to the fact that the first entity is responsible for the formation of strategic vectors for the development of the industry, while the second entity is authorized to solve specific (sectoral) tasks. In turn, the use of known methods of assessing (predicting) the occurrence of environmental risks of problems is not possible, because they essentially allow us to state the existence (an objective manifestation) of an environmental riskproblem. However, the very existence of the resource problem does not cause doubts today, whereas there is a great scientific necessity in the definition (mathematical calculation) of the depth of unused natural and energy resources (resource utilization indicator) over the entire life cycle of the vehicle at the time of the decision to withdraw (recycling) of the vehicle from service. There is no assessment criterion or measure (today it is a measure of uncertainty) should reflect the sum of the total amount of material resources and the amount of energy resources spent on producing one unit of automobile transport in relation to the actual mileage of the vehicle, which should be defined as an indicator of rational resource use (RESMILE). In the future, it is necessary to set the numerical

value of the RESMILE to three categories of depth of resource use — effective, permissible and unacceptable (emergency). The last indicator will show the irrational use of resources built into the vehicle, which is due to poor quality management complex.

The essence of ecological ideology, the second of the functions, is the acquisition by the population of the necessary awareness of the careful attitude to the environment today and in the future. It is proposed to mobilize the population (car owners) of the country to participate in the creation of a quality living environment by filling the information vacuum with reliable data on environmental problems in the environment associated with the functioning of the motor transport complex and the operation of vehicles (not only in the matter of atmospheric air pollution with exhaust gases). The effective application of this lever depends on the understanding of the following problems by the subject of management:

a) low activity of the population in the issue of education in the quality of the environment in general;

6) absence of any fundamental knowledge and general information about the crisis situation in the environment and inside the functioning of the motor transport complex, and hence the recognition of the existence of a systemic environmental crisis.

To solve these problems, it is necessary to analyze the factors that caused their appearance. First, over the past 20 years with the active participation of automakers, a steadily mistaken understanding has been formed among car owners that the restoration of parts is an economically unreasonable exercise

for the car owner himself. As a result, the overwhelming majority of consumers neglect the restoration of spare parts and consider spare parts that have been restored as second-rate. That is, mistaken understanding of car owners on the quality of the restored spare parts and expediency of carrying out was formed under the influence of two subjects – automotive companies and the state. With the participation of the first one, the information space was distorted with respect to the restoration of vehicle spare parts and assemblies. The second entity (the state) did not provide systematic work to prevent the creation of an inauthentic information space. Thus, the main task of this lever is to improve thinking and motivate car owners to realize the existing environmental problem with natural resources. According to the author of the article, the most effective measure to achieve this goal is to explain the personal benefits that each car owner will receive if he faithfully complies with the proposed changes. Responsibility for this function is assigned to dealers, and the essence of this proposal is to inform car owners about the possibility of restoring individual aggregates or parts of vehicles. Pay attention to the receipt of two types of benefits:

a) Technical — application of parts with improved resource and quality indicators;

 $\beta$ ) economic – a reduction in the cost of maintenance and repair of a motor vehicle, with the use of restored spare parts.

It is also proposed for all components (units, mechanisms, parts and components) to be marked on the territory of Ukraine in order to inform the car owners about the expected service life (the service term after which the component may fail) and the subsequent possibility of applying RR to this component. Separately it is useful to mark the components of the vehicle that are beyond repair (RR) and record this information in the service book. Let us establish a list of control functions for the State Administration of Innovation:

- control of all subjects and objects of economic activities in the motor transport complex for the implementation of the developed concept;
- control over the implementation of rules and regulations in the manufacture of new vehicles using alternative types of energy;
- control over the implementation of research and development work carried out in the motor transport complex, through the management of subordinate entities (research and development institutes);
- control over the targeted expenditure of the budget funds of the center by controlled entities;
- control of dealers and companies importing spare parts to Ukraine and marking on components.

When the functional obligations are fulfilled by the State Center for Innovative Activity in Industry, interdepartmental relationships between Ministry of ecology and natural resources, Ministry of automobile transport, Ministry of education and science will be set.

In addition, to ensure the conduct of research and development in the motor transport complex, it is proposed to create an appropriate control facility, namely a research institute. This entity will be directly subordinate to the State Center of Innovation Industry, on the basis of which relevant scientific research will be conducted in the automotive sectors.

Conclusions. The necessity of structural changes, which is shown in the article, is caused by a number of changes in the management of the motor complex, namely the proposed mechanism for the management of environmental management in the automobile complex. The proposed changes have the form of improvements and are aimed to develop the structure of the four higher governance entities. Among target tasks of main agency there is its fundamental role that occupies the management mechanism. A further area of research is the development of targeted management functions for the three other management bodies and their subdivisions, which constitute the structural basis of the management mechanism.

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