

## THE ROLE OF "GREEN" LOGISTICS IN ENSURING SUSTAINABLE DEVELOPMENT OF THE ECONOMY

*Shevchuk O. V., Kuzmenko A. V., Poberezhna Z.M.  
National Aviation University*

**Abstract.** *The problems associated with the negative impact on the environment of vehicles in the logistics process are considered. The use of vehicles when organizing the delivery of goods leads to the emission of harmful substances such as carbon oxides, nitrogen oxides, hydrocarbons, soot, sulfur dioxide, etc. At the same time, emphasis is placed on what benefits the enterprise receives from the introduction of "green" logistics and how it ensures stable development of both logistics enterprises and the economy as a whole.*

Stable and integrated development of all economic sectors and infrastructure features ensure efficient and sustainable economic development, thus being one of the stimulating factors of economic growth. Logistics is one of the most promising areas of regional economic development from a practical and theoretical point of view. One of the main elements of ensuring sustainable economic development, and, accordingly, the successful functioning of any logistics system, is minimizing the environmental impact on the environment [1]. Thus, the transition from outdated types of logistics services management to more integrative ones, one of which is the introduction of the principles of "green" logistics. The concept of "green" logistics is a set of measures to reduce the environmental impact on the environment through the use of energy and resource flows, as well as through the provision and development of effective innovative production and processing. It is the study of the role and development of green logistics in modern conditions that is becoming increasingly relevant.

Companies that adhere to the principles of green logistics should not only pursue the goal of generating income, but also be aware of the environmental responsibility they bear to society and their country. It is necessary that these principles become a kind of mission, and that every employee of the enterprise accepts and supports this direction of its development. Of course, the local application of this concept at an enterprise will not lead to significant results, so close cooperation between the state, society and business is required.

The main principles of green logistics include:

- rational use of natural resources;

- full and rational use of enterprise resources;
- maximum use of production waste, containers and packaging as secondary raw materials or their environmentally friendly disposal;
- Implementation of innovative technologies to reduce environmental impact on the environment;
- Increasing environmental awareness and responsibility of the staff;
- economically sound and environmentally safe transportation and storage of material resources;
- minimal use of raw materials and packaging not subject to and packaging that cannot be recycled or safely disposed of.

The importance of green logistics as a tool for maintaining environmental safety is constantly growing, as it has become a socially useful and profitable symbiosis of ecology and economy within the framework of corporate environmental management policies.

Implementation of green logistics does not bring immediate benefits, but it provides logistics companies with significant advantages over their competitors.

Today, many logistics companies around the world are beginning to apply green logistics methods in their operations, and the potential gained will allow them to play a key role in achieving sustainable economic development in the near future. The principle of green logistics is also applicable to emerging markets, despite the fact that they are currently facing particular development challenges that slow down the adoption of green technologies. Nevertheless, the potential of these countries is great, so it is important to adapt modern technologies applicable to logistics for their further development.

At the same time, it is possible to use a wide range of different technical, technological and organizational methods and means of greening the logistics process. The approaches that best meet the objectives and principles of green logistics and environmental safety are: GMRP (Green Material Requirement Planning), LP (Lean Production), DfE (Design for Environment) and TQEM (Total Quality Environment Management) [2].

To ensure the sustainable development of logistics enterprises in the market and ensure their high level of competitiveness, as well as minimize costs, the direct implementation and active use of green logistics principles in the future can lead to the following results

- optimization and rationalization of the use of all available resources of the enterprise, including: the use of recyclable packaging and its recycling;
- overall improvement of the environmental situation in the country as a result of reducing (minimizing) damage to the environment - optimization

of the location of logistics service facilities, taking into account the location of alternative energy sources;

- regulation of business activities within the framework of eco-principles on the basis of the relevant regulatory framework;

- raising the level of environmental awareness among business entities, both households and producers.

Significant advantages of green logistics include modernization of the vehicle fleet towards environmentally friendly transport, modernization of warehouses, forecasting of deliveries, and rational routing. Reducing emissions of harmful substances from trucks is currently one of the top priorities for many businesses around the world. They are trying to create competitive advantages by engaging customers in environmental programs. In this context, green logistics, which includes environmental and social factors, is directly related to the production and distribution of goods on the market.

### **Conclusion**

Thus, green logistics is an integral part of both environmental protection and cost minimization. The deteriorating environmental situation in the country reduces economic growth and slows down its sustainable development. Therefore, in today's environment, companies need to implement the principles and methods of green logistics as an integral part of their effective functioning.

### **References**

1. *Seroka-Stolka O. The development of green logistics for implementation sustainable development strategy in companies. Procedia-Social and Behavioral Sciences. 2014. №141. C. 302-309.*
2. *Kumar Anil. Green Logistics for sustainable development: an analytical review. IOSRD International Journal of Business. 2015. №1.1. C. 7-13.*