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Dunetskaya D., Romanovskaya D., Ladutska N.  
**Green Logistics**

Belarusian National Technical University  
Minsk, Belarus

The Earth is the only place in the solar system where there is life. But today our planet is in serious danger. Acid rains, global warming, air and water pollution are the most threatening ecological problems. They are result of human's activity. Through our actions we are destroying habitats and endangering the lives of future generations.

Acid rain comes mostly through chemicals released into the environment when fuel is burned. A growing population needs transportation, much of which is fueled by the natural resources that emit greenhouse gases, such as petroleum. Transportation also contributes to a range of other environmental issues, such as the destruction of natural habitats and increase in air pollution.

Current trends of integration and globalization contribute to the active development of companies, but they forget about the environment. Modern logistics must meet the requirements of time and development, as environmentally friendly. A perspective direction in the field of supply chain management can be called green logistics.

Logistics are at the heart of the operation of modern transport systems and implies a degree organization and control over freight movements. It has become one of the most important developments in the transportation industry. Greenness has become a code word for a range of environmental concerns, and is usually considered positively. It is employed to suggest accordance with the environment, and

thus, logistics is something that is accepted as beneficial. When put together the two words suggest an environmentally friendly, efficient transport and distribution system.

The loosely defined term covers several dimensions related to production planning, materials management and physical distribution opening the door to a wide array of potential applications of environmentally friendly strategies along supply chains. This implies that different company could be applying different strategies, all of which being entitled as green logistics. One corporation could be focusing on product packaging while another on alternative fuel vehicles. Both are undertaking green logistics.

The main objectives of green logistics are to coordinate the activities within a supply chain in such a way that profitable needs are met at "least cost" to the environment. It also describes all attempts to measure and minimize the ecological impact of logistics activities. This includes all activities of the forward and reverse flows of products, information and services between the point of origin and the point of consumption. The components of green logistics are Green Procurement (GP), Green Manufacturing, Green Distribution and the concept of Reverse Logistics (RL).

Today, companies face significant obstacles in implementing environmental policies in the field of logistics. This is due to such causes as dependence on fossil fuels, especially in transport; lack of infrastructure; businesses which need to invest; the invisibility of logistics to consumers [1].

The measures that are taken by logistic companies nowadays are application of green transport, green warehousing, green packaging and waste management.

Transportation has a significant influence on the environment. For that reason, green transportation is one of the main components of green logistics. The roads, airports, harbors and rails are often filled up and many landfills are

polluted with dismantled vehicles and parts. Nowadays, it is common that companies prefer to use multimodal transport to deliver the products. In this way, companies are not only decreasing the transportation cost but also reducing CO<sub>2</sub> emission.

There are some European emission standards, which define the acceptable limits for exhaust emissions of new vehicles sold in European Union member countries. The emission standards are defined in a series of European Union directives staging the progressive introduction of increasingly strict standards (Standards). For each vehicle type, different standards apply. European standards with Arabic numerals: Euro 1, Euro 2, Euro 3, Euro 4 Euro 5 and Euro 6. In Europe, those standards are generally updated every four years.

By introducing a systematic program of evaluation and reconditioning of pallets and containers, the contamination is obviously reduced. By using green transport practices, companies protect the environment by reducing pollution and traffic congestion.

Cross-docking has been a trend in warehousing. Through cross-docking, companies can cut their costs and achieve maximum efficiency with careful planning and shared information on sales.

Good warehouse layouts and warehouse management can save on operating costs and reduce environmental costs. Good warehouse layouts include two aspects. One aspect is the construction of warehouses with eco-friendly features such as solar walls, natural lighting, adequate floors, on-site recycling and heat-reducing power plants. The other one is the capacity of the warehouse, which was utilized efficiently through scientific operations: receives inventory professionally and stores it scientifically until it is required by the market.

Forklift is a very practicable way to reduce the impact of warehousing activities on the environment. It is avoiding

reprocessing, errors and waste by improving the equipment's utilization and performance to minimize its process steps and emissions.

The concept of on-site recycling is to promote recycling of materials, products and packaging in the warehouse, even the entire company. In modern business, packaging is an important process of all products before they enter the market.

Dealing with the inadequate packaging issues, innovative packaging technologies and environmental certifications can be introduced. Every day, lots of waste is produced in logistics. Companies employ various waste contractors who provide a wide range of services including the collection and management of residual waste, recycle paper, glass, chemicals and hazardous waste. By taking full advantage of new technologies, it is possible for companies to turn the waste into valuable resources [2].

#### References:

1. Greenness and Logistics [Electronic resource]. – Mode of access: [https://transportgeography.org/?page\\_id=6497](https://transportgeography.org/?page_id=6497). – Date of access: 01.05.2020.
2. Green logistics: definition, challenges and solutions [Electronic resource]. – Mode of access: <https://www.interlakemecalux.com/blog/green-logistics>. - Date of access: 01.05.2020.