## Air Pollution Emission Balance as A Tool for Optimizing Intermodal Transport of Goods\*

Maciej GLINIAK, Beata CHUDY, Arkadiusz BIESZCZAD and Piotr JASIŃSKI

University of Agriculture in Krakow, Mickiewicza Av. 21, 31-120 Krakow, Poland,

Correspondence should be addressed to: Maciej GLINIAK; maciej.gliniak@urk.edu.pl

\* Presented at the 42<sup>nd</sup> IBIMA International Conference, 22-23 November 2023, Seville, Spain

## Abstract

The aim of the work was to check how the combination of different types of engines in truck tractors and locomotives will affect pollutant emissions per one loading unit in intermodal transport on the route from Nowy Sącz to Kołobrzeg. The scope of the work includes a review of the literature on the impact of transport on the environment and the importance of intermodal transport in the structure of domestic freight transport. Calculations of air pollution emissions were made when using four variants of intermodal transport. The obtained results were compared with the applicable air pollution emission standards in the European Union and proposals for the optimal use of intermodal transport with regard to the environmental criterion were indicated.

Keywords: air pollution, transport, emission, optimalization

**Cite this Article as:** Maciej GLINIAK, Beata CHUDY, Arkadiusz BIESZCZAD and Piotr JASIŃSKI, Vol. 2023 (14) " Air Pollution Emission Balance as A Tool for Optimizing Intermodal Transport of Goods " Communications of International Proceedings, Vol. 2023 (14), Article ID 4234223, https://doi.org/10.5171/2023.4234223