Optimizing Road Transportation Network Considering the Durability Factors

Authors: Yapegue Bayogo, Ahmadou Halassi Dicko, Brahima Songore

Abstract : In developing countries, the road transportation system occupies an important place because of its flexibility and the low prices of infrastructure and rolling stock. While road transport is necessary for economic development, the movement of people and their goods, it is urgent to use transportation systems that minimize carbon emissions in order to ensure sustainable development. One of the main objectives of OEDC and the Word Bank is to ensure sustainable economic' development. This paper aims to develop a road transport network taking into account environmental impacts. The methodology adopted consists of formulating a model optimizing the flow of goods and then collecting information relating to the transport of products. Our model was tested with data on product transport in CMDT areas in the Republic of Mali. The results of our study indicate that emissions from the transport sector can be significantly reduced by minimizing the traffic volume. According to our study, optimizing the transportation network, we benefit from a significant amount of tons of CO₂.

Keywords: road transport, transport sustainability, pollution, flexibility, optimized network

Conference Title: ICTTE 2022: International Conference on Traffic and Transportation Engineering

Conference Location : Istanbul, Türkiye **Conference Dates :** July 28-29, 2022