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## **IMPROVING THE METHOD OF CALCULATING THE ECOLOGICAL FOOTPRINT GENERATED BY ROAD TRAFFIC - CASE STUDY**

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### **Abstract**

Sustainable development brings in advance a new set of values that will guide the future model of economic and social progress, values that focus on human and his current and future needs, on the natural environment - protecting and preserving it, as well as on mitigating the current deterioration of ecosystems. The present paper aims at improving a calculation method for measuring the ecological footprint generated by road traffic, through modifying the concept of integrating variables, increasing the method's precision and the possibility of applying it both in heavily urbanized and poorly developed areas. In this respect, a case study was carried out in Petroșani, where the proposed calculation method was applied, measuring the impact of road transport in relation to green spaces. For this purpose, data on transport infrastructure, road traffic, climate regime as well as the population Petroșani were collected. Based on the study, the ecological footprint generated by Petroșani road traffic exerts a high pressure on ecosystems against other activities carried out by inhabitants. Upgrading main and secondary arteries, streamlining traffic and restricting circulation in residential areas are some of the practices recommended.

**Key words:** carbon emissions, ecological footprint, land, road transport, sustainability

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