

**ECONOMIC AND ECOLOGICAL EFFICIENCY OF
INTERNATIONAL ROAD FREIGHT**

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In the European Union, heavy-duty vehicles (HDVs) are currently responsible for 27 % of road transport carbon dioxide (CO₂) emissions. Since 1990 these emissions have increased by 25 % and, in the absence of new policies, they are projected to further increase. However, society is also greatly reliant on HDVs; they transport people and goods, connect people and industries, and contribute to Europe's societal and economic development.

The environmental impacts of trucking have received a great deal of attention, particularly in comparison with the impacts of rail. Trucking poses threats to the environment from two major quantifiable sources, air pollution and noise. In addition, the use of trucks contributes to land-use related environmental stresses and to the environmental impacts of accidents.

The table 1 summarises emission factors from a number of sources, developed in two different countries. The data are expressed in grams/tonne-km.

Table 1 – Truck Air Pollution Emission Factors, in grams/tonne-km

	Kürer (Germany)		Schoemaker & Bouman (Netherlands)			
	Local	Long-haul	Trucks	Trucks & Trailers	Truck-tractors & semi-trailers	Road freight overall
CO	1,86	0,25	2,24	0,54	0,34	0,90
CO ₂	255	140	451	109	127	211
HC	1,25	0,32	1,57	0,38	0,34	0,68
NO _x	4,1	3,0	5,65	1,37	2,30	2,97
SO ₂	0,32	0,18	0,43	0,10	0,11	0,20
Particulates	0,30	0,17	0,90	0,22	0,19	0,39