



Why it is necessary to pay attention to greenhouse gas emissions produced by transport in the context of the environmental aspects of sustainable mobility?

Jan Chocholáč

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UNIVERSIDADE
DA MAIA



UNIVERSITY OF
PATRAS



Europa-Universität
Flensburg



UNIVERSITY
OF PARDUBICE



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BIOGENIC ORIGIN

For CO₂ emissions, it is necessary to distinguish between fossil and biogenic origin. CO₂ emissions are mainly of biogenic origin and are related to the life history of soil micro-organisms and plants. The respiration of organisms and the decomposition of organic matter cause an increase in CO₂ emissions, which are subsequently exchanged between soil and vegetation. Carbon dioxide is a normal part of the earth's atmosphere, but the problem lies in its rapid increase in the atmosphere during recent years, which is thought to be the main cause of global warming.

Reference

KALOGEMIS, 2023. Calculator of logistics emissions. *KALOGEMIS*. Available at: <https://kalogemis.upce.cz/india/instructions.php> (Accessed: 24 January 2023).

EMISSIONS

A term from the latin "emittere". These are air pollutants that have a maximum concentration at their source. Emissions may be of fossil or biogenic origin.

Reference

KALOGEMIS, 2023. Calculator of logistics emissions. *KALOGEMIS*. Available at: <https://kalogemis.upce.cz/india/instructions.php> (Accessed: 24 January 2023).

EMISSION FACTOR

The emission factor is used to calculate the quantity of emissions. The emission factor is the average specific production emission typical for a certain group of sources. Emission factors are indirectly used for the calculation of air pollution charges.

Reference

KALOGEMIS, 2023. Calculator of logistics emissions. *KALOGEMIS*. Available at: <https://kalogemis.upce.cz/india/instructions.php> (Accessed: 24 January 2023).

FOSSIL ORIGIN

CO₂ emissions are also generated by the combustion of fossil fuels (coal, oil and natural gas). They are generated together with H₂O, CO, NO_x, SO₂, fuel residues and dust particles. The amount of CO₂ in the atmosphere has thus been significantly affected by man in recent years.

Reference

KALOGEMIS, 2023. Calculator of logistics emissions. *KALOGEMIS*. Available at: <https://kalogemis.upce.cz/india/instructions.php> (Accessed: 24 January 2023).

TANK-TO-WHEEL APPROACH

Energy consumption and production of emissions related to the operation of the transport mean. The indicator does not cover the next phases of the fuel or vehicle life cycle.

Reference

KALOGEMIS, 2023. Calculator of logistics emissions. *KALOGEMIS*. Available at: <https://kalogemis.upce.cz/india/instructions.php> (Accessed: 24 January 2023).

WELL-TO-TANK APPROACH

Energy consumption and the production of emissions related to the production of energy or fuels, the indicator covering all activities from the extraction of raw materials, through the production of energy or fuels, to their supply to the relevant means of transport through the distribution network. The indicator does not include the operation phase of the transport mean.

Reference

KALOGEMIS, 2023. Calculator of logistics emissions. *KALOGEMIS*. Available at: <https://kalogemis.upce.cz/india/instructions.php> (Accessed: 24 January 2023).



WELL-TO-WHEEL APPROACH

An approach based on monitoring energy consumption and the production of related emissions, covering the whole process from the actual production of electricity or fuels, through their supply to the relevant means of transport through the distribution network, to consumption related to the operation of the means of transport. This approach is based on the sum of Well-to-Tank and Tank-to-Wheel values.

Reference

KALOGEMIS, 2023. Calculator of logistics emissions. *KALOGEMIS*. Available at: <https://kalogemis.upce.cz/india/instructions.php> (Accessed: 24 January 2023).