

CO₂ emission inventory of on road vehicles in Selangor state inpeninsular Malaysia

ABSTRACT

The transportation sector has greatly contributed to the socio-economic development with inherent environmental impacts. This study estimated the emission of CO₂ from transportation sector, particularly from the use of passenger cars in Selangor Malaysia. The total CO₂ emission from the region was calculated based on total fuel consumption (Kg) and Emission Factor of CO₂ (gr/kg fuel). Lorries and cars were responsible for the highest CO₂ emission and the emissions rate were directly related to the type and amount of fuel used and emission factor of fuel. High amount of CO₂ emission was due to increase in vehicles on the road thereby increasing pollution on the environment. GIS is one of the most suitable methods to estimate the total CO₂ emission and the split between different vehicle types as it determined by the kilometre covered for each vehicle category.

Keyword: CO₂ emission; Emission factor; Fuel type; Fuel consumption; Transport sector; Vehicle