

## ASSESSMENT OF CARBON MONOXIDE (CO) EMITTED BY EXHAUST GASES FROM MOTOR VEHICLES IN THE CENTER REGION OF CAMEROON

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### ABSTRACT

This work evaluates the contribution of motor vehicles in the emission of carbon monoxide (CO) in Cameroon and particularly in the central region. To achieve this, a sample is first defined (20800 vehicles classified between the categories of passenger cars and light commercial vehicles using petrol and diesel respectively), afterwards data collection is done. Then, a mathematical model is developed, which made it possible to estimate the quantity of CO emitted by the vehicles categories (PETROL VT, DIESEL VT, PETROL LCV, DIESEL LCV) according to EURO anti-pollution standards (1,2,3,4,5a,5b,6b,6c). The passenger and light commercial vehicles belonging to the EURO 1 antipollution standard are the most polluting in the central region. Their emission limit values per kilometer are respectively 3011 and 3043 mg/km. The diesel passenger vehicles of to the EURO 6c anti-pollution standard are the least polluting in CO, its limit value per kilometer is 503 mg/km. The progression slope of CO emitted by different vehicles is greater than 1.2. A Part of CO emitted in the central region of Cameroon comes from the displacement of motors vehicles. The CO amount near to the reference limits per kilometer is that of vehicles belong to the antipollution standard 5a, 5b, 6b and 6c. The public authorities are invited to prohibit the importation of motor vehicles manufactured before 2011.

**Keywords:** Estimation of the quantity of CO, Emission of CO, category of vehicle, reference limits per kilometer, prohibition of importation.