




## Impacts of trace gaseous emission from fuelwood species on ground level air quality

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### ABSTRACT

Nigeria's energy supply in the form of electricity has been erratic and unreliable in recent time that people now depend on their own power generation in order to meet demands. Thus majority of the populace have to depend on traditional fuelwood for cooking without knowing the impacts of air emissions from it. This study estimated the ground-level concentrations of the air pollutants emitted from the fuelwoods using the American Meteorological Society-Environmental Protection Agency Regulatory Model (AERMOD). The maximum 24 h averaging ground-level concentrations were 6.378–87.319, 1.546–75.164, 0.079–2.759, and 0–0.164  $\mu\text{g}/\text{m}^3$ , respectively for CO, HC, NO, and SO<sub>2</sub>. With this all stakeholders will be properly guided on the usage of fuelwood with minimal negative impact.

### KEYWORDS

Fuelwood; ground-level concentration; emission rate; air quality; AERMOD