

Smokeless Stove without the Harm

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Abstract: *Traditional biomass stoves used in rural and low-income communities contribute significantly to indoor air pollution, leading to severe health issues and environmental degradation. This study focuses on the design, development, and performance evaluation of a smokeless stove aimed at reducing harmful emissions while maintaining fuel efficiency. The stove utilizes improved combustion techniques and optimized airflow design to ensure more complete fuel burning, thereby minimizing smoke generation. Experimental results demonstrate a significant reduction in particulate matter and carbon monoxide emissions compared to conventional stoves. Additionally, the smokeless stove offers better thermal efficiency and fuel savings, making it a sustainable and cost-effective alternative for clean cooking. This research contributes to the ongoing efforts in promoting cleaner energy solutions and improving public health in developing regions*

Keywords: air pollution

