Air Pollution and Public Health

Challenges, Interventions and Sustainable Solutions

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Carbon Footprint: Sector-Wise Emission Analysis of Urban Youth

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ABSTRACT: Global climate change due to increased atmospheric concentration of Green House Gases (GHG), particularly species of carbon is a serious environmental challenge. Carbon dioxide (CO_2) is the most potent GHG accounting for up to 77% of total GHG emissions. Successful mitigation of climate change needs a drastic and sustained reduction in global atmospheric CO_2 concentration. Carbon footprint of a person, product or process gives an estimate of CO_2 emitted by it. Calculation of individual carbon footprint is the first step towards combating climate change as it leads to identify major contributing practices for which corresponding mitigation strategies can be designed. Sector and stream-wise carbon footprint of 721 undergraduate students of Delhi of age group 18 to 21 was calculated based on a survey-based questionnaire. Average carbon footprint was calculated as 5.13 tons/ annum and was homogenous across streams. Transportation sector was the highest contributor of CO_2 followed by domestic electricity consumption. Statistical analysis indicated that level of awareness regarding the Bureau of energy efficiency (BEE) ratings and the habit of switching off appliances was highly significant amongst the respondents which was not the case in the practice of recycling waste. For any successful mitigation measure, participation of citizens particularly the youth is very important as they are the primary stake holders as well as torch bearers for the future. The study is essentially youth centric, and gives a glimpse into their emission patterns, environmental awareness and sensitivity.

Keywords: Anthropogenic Emissions, Carbon Footprint, Climate Change, Green House Gases (GHG), Sector-wise Analysis, Transportation.

INTRODUCTION

Ruthless anthropogenic activities coupled with increasing population pressure have led to an unprecedented increase in global