

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
STARRED QUESTION No. 169
TO BE ANSWERED ON 13.03.2023

Emission due to Household Cooking

*169. SHRI BRIJENDRA SINGH:
SHRI JAGANNATH SARKAR:

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) whether the Government has any study/statistics on the drop of household emission levels due to the increase in consumption of LPG under Pradhan Mantri Ujjwala Yojana (PMUY);
- (b) if so, the details thereof and if not, the reasons therefor;
- (c) whether the Government uses any specific data set for the emission analysis regarding the level of emissions arising from household cooking; and
- (d) if so, the details thereof and if not, the reasons therefor?

ANSWER

MINISTER FOR ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI BHUPENDER YADAV)

(a) to (d): A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARAS (a) TO (d) OF THE LOK SABHA STARRED QUESTION NO. 169 DUE FOR REPLY ON 13.03.2023 REGARDING 'EMISSION DUE TO HOUSEHOLD COOKING' RAISED BY SHRI BRIJENDRA SINGH AND SHRI JAGANNATH SARKAR, HON'BLE MEMBERS OF PARLIAMENT

(a) to (d)

According to the Indian Petroleum and Natural Gas statistics (2020-21) of Ministry of Petroleum and Natural Gas (MoPNG), more than 95 million new connections of domestic LPG were distributed in India under Pradhan Mantri Ujjwala Yojana (PMUY). As per National Statistical Office (NSO) survey report, 2018, 60 % households use LPG and rest still rely on solid fuels.

Following data sets/factors are used for emission analysis for domestic sectors:

It was assumed that a household of five persons uses 10 LPG cylinders per year and non-LPG users consume on average 90 kg of solid fuel per month (as per MoPNG 2016 report) and Particulate Matter_{2.5} (PM_{2.5}) emissions (g/kg) in case of LPG and solid fuel are 0.4 and 3-5.7 respectively (Source: Indian emission factors developed by ARAI-Pune, TERI 2016, GAINS 2016).

Based on emission inventory of States of Indo-Gangetic Plains (Punjab, Haryana, Uttar Pradesh, Bihar, West Bengal, Chandigarh & Delhi) conducted by Central Pollution Control Board, the net emission of the PM_{2.5} from the domestic sector (household cooking) was found to be 437 Gg/year for the base year of 2018, which contributes nearly 19 % of the total emission over the Indo-Gangetic Plains.

Further, the draft National Emission Inventory report indicates that the PM_{2.5} emission intensity followed a declining trend from the period 2006 to 2016 due to significant proportion of population shifted cooking from non-efficient energy sources to efficient fuel following the LPG penetration.
