GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO. 2209
TO BE ANSWERED ON 05.08.2024

Green House Gas Emission

2209. SHRI RAJIV PRATAP RUDY:

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

(a) whether it is a fact that food grains production has increased the Green House Gas emission across the country;
(b) if so, the details thereof;
(c) whether it is a fact that emission per hectare of food grains has gone up in the country; and
(d) if so, the reasons therefor and the steps taken to mitigate it?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI KIRTI VARDHAN SINGH)

(a) to (d) As per the Third National Communication (TNC) report submitted by India to the United Nations Framework Convention on Climate Change (UNFCCC) in 2023, emissions from the agriculture sector in 2019 were 420.97 million tonnes CO_2 equivalent. Despite increase in agricultural production, share of emissions from agriculture sector have progressively decreased in last two decades, from 23% in 2000 to 18% in 2010 to 13.44% of the total greenhouse gas (GHG) emissions in 2019.

Food grains (rice, wheat, pulses and coarse cereals) were grown on 65% of the total harvested area in the country in 2019. GHG emissions from food grains are through methane emissions from rice cultivation and nitrous oxide emissions because of the application of fertilisers on agriculture soils. The methane emissions were only 2% and nitrous oxide emissions covering all crops were only 3% of the total GHG emissions in the country in 2019.

The government is promoting several sustainable agricultural practices which include use of organic fertilizers, biofertilizers, crop diversification, integrating legumes in crop rotations and micro-irrigation for different crops. Use of neem-coated urea across the country for crop cultivation has also resulted in a reduction of nitrous oxide emissions by approximately 5%. Other mitigation practices adopted are alternate methods of rice cultivation such as aerobic rice through micro-irrigation systems, direct seeded rice, system of rice intensification, crop

diversification from paddy to alternate crops like legumes, reducing field burning of agricultural residues and crop residue recycling through vermicomposting, generating biogas etc., application of fertilizers based on soil health card and leaf colour charts, Integrated Farming Systems (IFS) for risk minimization and zero till drill wheat to escape terminal heat stress in traditionally wheat growing areas.

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