

GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

**LOK SABHA**  
**UNSTARRED QUESTION NO. 565**  
TO BE ANSWERED ON 24.07.2023

**Methane Emissions**

565. SHRI JAGANNATH SARKAR:  
SHRI BRIJENDRA SINGH:  
SHRIMATI SUNITA DUGGAL:  
SHRI RITESH PANDEY:

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

- (a) Whether the Government has taken any initiative to monitor and control methane emissions in key sectors such as agriculture, energy and waste management;
- (b) if so, the details thereof and if not, the reasons therefor;
- (c) whether the Government has set any target or roadmap to mitigate the increasing methane emissions by the end of 2030;
- (d) if so, the details thereof and if not, the reasons therefor;
- (e) whether any scientific methods have been adopted to reduce methane emissions ensuring minimal impact on the agricultural economy; and
- (f) if so, the details thereof and if not, the reasons therefor?

**ANSWER**

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE  
(SHRI ASHWINI KUMAR CHOUBEY)

- (a) &(b) India is a Party to the United Nations Framework Convention on Climate Change (UNFCCC), and its Kyoto Protocol (KP), and the Paris Agreement (PA). As a Party to the UNFCCC, India periodically submits its National Communications (NCs) and Biennial Update Reports (BURs) to the UNFCCC which includes national Greenhouse Gas (GHG) inventory containing information on methane emissions. As per India's third Biennial Update Report, India's methane emissions in 2016 (excluding LULUCF) were 409 million tone CO<sub>2</sub>e of which, 73.96% was from Agriculture sector, 14.46% from Waste sector, 10.62% from Energy sector and 0.96% was from Industrial Processes and Product Use sector.

(c) to (f) Under the Paris Agreement, India has submitted its Nationally Determined Contribution (NDC), which does not bind it to any sector specific mitigation obligation or action. The goal is to reduce overall emission intensity of its GDP and improve energy efficiency of its economy over time and at the same time protecting the vulnerable sectors of economy and segments of our society. However, India remains steadfast in its commitment in framing and implementing its actions to combat climate change. The ongoing measures to reduce methane emissions are as follows:

- i. The National Mission on Sustainable Agriculture (NMSA), implemented by Ministry of Agriculture and Farmers Welfare, involves climate resilient practices including methane reduction practices in rice cultivation. These practices contribute to substantial reduction of methane emissions.
- ii. The Indian Council of Agricultural Research (ICAR) under National Innovations in Climate Resilient Agriculture (NICRA) project has developed several technologies with mitigation potential for methane from rice viz. (a) System for Rice Intensification – The technique has potential to enhance rice yield from 36-49% with about 22-35% less water than conventional transplanted rice; (b) Direct Seeded Rice – The system reduces methane emissions as it does not involve raising nurseries, puddling and transplanting. Unlike transplanted paddy cultivation, standing water is not maintained in this system; and (c) Crop Diversification Programme – Methane emissions is avoided due to diversion of paddy to alternate crops like pulses, oilseeds, maize, cotton and agro forestry.
- iii. Capacity building programmes are conducted through Krishi Vigyan Kendras across the country for creating awareness on climate resilient practices.
- iv. The Department of Animal Husbandry and Dairying (DAHD) is implementing National Livestock Mission, which inter alia, includes Breed Improvement and Balanced Rationing. Feeding livestock with superior quality balanced ration is helping to reduce methane emissions from the livestock.
- v. Government of India promotes green fodder production, silage making, chaff cutting, and total mixed ration under National Livestock Mission with a view to reduce methane emissions from livestock.
- vi. Through initiatives like ‘The Gobar (Galvanizing Organic Bio-Agro Resources) –Dhan’ scheme and New National Biogas and Organic Manure Programme, cattle waste utilisation is being incentivised, in addition to production of clean energy invillages. The Gobardhan scheme, inter alia, supports biodegradable waste recovery and conversion of waste into resources and reduction of methane emissions.

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