

GOVERNMENT OF INDIA  
MINISTRY OF AGRICULTURE AND FARMERS WELFARE  
DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE

**LOK SABHA**  
**UNSTARRED QUESTION NO. 1195**  
TO BE ANSWERED ON THE 30<sup>TH</sup> JULY, 2024

**NEGATIVE IMPACT OF CARBON EMISSIONS**

1195. SHRI HANUMAN BENIWAL:

Will the Minister of AGRICULTURE AND FARMERS WELFARE कृषि एवं किसान कल्याण मंत्री be pleased to state:

- (a) whether the Government has conducted any study about the negative impact of carbon emission emitting from the plants of fertilizers and pesticides in the country including Rajasthan, if so, the details thereof;
- (b) whether the Government proposes to utilize the CSR funds of the Companies engaged in manufacturing fertilizers and pesticides for the upliftment of farmers and the development work of agriculture in view of the damages caused in farming due to the carbon emission from these factories so that the commitments of the Paris Agreement related to the agriculture can be ensured; and
- (c) If so, the details of the intention of the Government in this regard?

**ANSWER**

MINISTER OF STATE FOR AGRICULTURE AND FARMERS WELFARE

कृषि एवं किसान कल्याण राज्य मंत्री (SHRI RAMNATH THAKUR)

(a): India is a Party to the United Nations Framework Convention on Climate Change (UNFCCC) and its Paris Agreement. As per its mandatory reporting requirement, India periodically submits the National Communications (NCs) and the Biennial Update Reports (BURs) to the UNFCCC. As per the India's Third National Communication (TNC) submitted to UNFCCC in 2023, greenhouse gas (GHG) emissions from production of fertilizers in the energy sector in 2019 were 4.912 million tonnes of CO<sub>2</sub> equivalent, which is only 0.15% of the total national GHG emissions of 3132.027 million tonnes of CO<sub>2</sub> equivalent. Further, the GHG emissions reported in the Industrial Process and Product Use (IPPU) sector from ammonia production were 6.656 million tonnes of CO<sub>2</sub> equivalent and GHG emissions from nitric acid production were 3.572 million tonnes of CO<sub>2</sub> equivalent in India in 2019. A

substantial share of ammonia and nitric acid is used for production of fertilizers in the country.

Excess and improper use of fertilizers result in emission of greenhouse gases particularly nitrous oxide from agricultural fields. Studies conducted by ICAR indicated that the nitrogen use efficiency of nitrogenous fertilizers varies between 30-50% depending on soil type and crop grown. Remaining nitrogen is lost mainly by way of nitrate leaching (causing nitrate contamination in ground water above the permissible limit of 10 mg NO<sub>3</sub>-N /L), emission of nitrous oxide(N<sub>2</sub>O) through denitrification and ammonia volatilization contributing greenhouse gases in the atmosphere. Combined with other GHG this will result in global warming.

(b) & (c): No Sir.

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