

top 10 countries include USA, Brazil, Argentina, India, Canada, China, Paraguay, Pakistan, South Africa, Uruguay.

Global Warming due to HFC-23

2119. PROF. M. V. RAJEEV GOWDA: Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) whether the production of HFC-23, as a consequence of use of HCFC-22 in refrigerator and air conditioners has a serious potential for global warming;
- (b) whether, according to the directives of the National Green Tribunal in December 2015, the Ministry has carried out the study of units that produce HCFC-22;
- (c) whether the Ministry has provided guidelines for storage and elimination of HFC-23; and
- (d) if so, the details thereof and if not, the reasons therefor?

THE MINISTER OF STATE OF THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (SHRI ANIL MADHAV DAVE): (a) Hydrofluorocarbon - 23 (HFC-23) or Trifluoromethane, is a by-product produced during the manufacture of Hydrochlorofluorocarbon - 22 (HCFC - 22), a refrigerant gas. HFC-23 is one of the potent greenhouse gases, having Global Warming Potential of 14,800.

(b) to (d) There are five units which produce HCFC - 22 in India. The government has issued orders on 13th October, 2016, *inter alia* directing the manufacturers of HCFC-22 not to emit/vent HFC - 23 in the atmosphere. The producers of HCFC - 22 are mandated to file their report on production of Ozone Depleting Substances under Ozone Depleting Substances Rules, 2000, and its amendments and to certify the status of HFC - 23 production in each category being incinerated or used as feedstock or used for any other purpose, on annual basis. Concerned State Pollution Control Board (SPCB) is to ensure compliance of the directions while renewing Consent to Operate or through their regular inspection. Additionally, Central Pollution Control Board and concerned Regional Office of the Ministry have the competence to maintain oversight and ensure compliance.

GM crops for cultivation

2120. SHRI K. SOMAPRASAD: Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) the details of genetically modified (GM) crops approved for cultivation in the country, so far;