

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;

(b) the names and details of members of Genetic Engineering Approval Committee(GEAC);

(c) the details of permits issued for the commercial cultivation of the hybrid GM mustard; and

(d) whether any study has been conducted by Government about the debttrap due to the failure of Bt. cotton?

THE MINISTER OF STATE OF THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (SHRI ANIL MADHAV DAVE): (a) So far only genetically engineered insect resistant cotton has been approved for cultivation in India.

(b) The details of the composition of GEAC are given in the Statement (*See below*).

(c) No permit for commercial cultivation of hybrid GM mustard has been given.

(d) No Sir.

Statement

Details of the composition of GEAC

Composition of GEAC

1.	Dr. Amita Prasad, Additional Secretary, Ministry of Environment, Forest & Climate Change, Jor Bagh Road, Aliganj, New Delhi.	Chairperson
2.	Prof. (Dr). K. Veluthambi, Professor (retd.) & Head, School of Biotechnology, Madurai Kamraj University, Madurai	Co-Chairman
3.	Shri. Gyanesh Bharti, Joint Secretary Ministry of Environment, Forest & Climate Change, Jor Bagh Road, Aliganj, New Delhi.	Vice Chairman
4.	Prof. C.R. Babu Centre for Environmental Management of Degraded Ecosystems, School of Environmental Studies, University of Delhi, Delhi	Member
5.	Dr. B. Sesikeran, Former Director, National Institute of Nutrition, Hyderabad	Member
6.	Dr. S.S. Banga Plant Breeder, Punjab Agriculture University, Ludhiana	Member
7.	Shri K K. Sinha Industrial Advisor, Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, New Delhi.	Member

8.	Dr. S. K. Apte, Director, Bio-Medical Group, BARC, Mumbai.	Member
9.	Dr. S. R. Rao Advisor, Department of Biotechnology, C.G.O. Complex, New Delhi	Member
10.	Dr. J.S. Sandhu, DDG (Crop Science), Indian Council of Agricultural Research, Krishi Bhawan, New Delhi.	Member
11.	Dr. Atanu Purkayastha, Joint Secretary (Seeds) Department of Agriculture & Cooperation Ministry of Agriculture, Krishi Bhawan, New Delhi.	Member
12.	Member, Ministry of Health & Family Welfare, New Delhi	Member
13.	Dr. Vijay Kumar, Scientist G Head, Division of Basic Medical Sciences, Indian Council of Medical Research (ICMR) Ministry of Health and Family Welfare Ramalingaswami Bhavan, Ansari Nagar, New Delhi	Member
14.	Dr. Ramesh Sonti Chief Scientist, CSIR, Centre for cellular & Molecular Biology (CSI-CCMB) Uppal Road, Hyderabad.	Member
15.	Dr. Susheel Kumar, Directorate of Plant Protection, Quarantine & Storage NH IV, Faridabad-121001. New Delhi	Member
16.	Mrs. Swati Srivastava, Assistant Drugs Controller, (India) Central Drugs Standard Control Organizations, FDA Bhawan, Kotla Road, New Delhi-110002.	Member
17.	Dr. Vijendra Mishra Associate Professor, National Institute of Food Technology, Entrepreneurship of Management (NIFTEM) Kundli, Sonapat, Haryana	Member
18.	Dr. V V Ramamurthy Former Professor, Entomology Division, IARI, New Delhi Centre for Ecological Sciences, Indian Institute of Science, Bangalore	Member
19.	Prof. O. P. Govila Former Prof, of Genetics, Indian Agricultural Research Institute. "MANAS", House No. BU-58, Pitampura, Delhi.	Member
20.	Dr. Renee M Borges Professor, Centre for Ecological Sciences, Indian Institute of Science, Bangalore	Member

21.	Prof. B.P Srinivasan Director, Delhi Institute of Pharmaceutical Science and Research, Pushp Vihar, Sector 3 New Delhi	Member
22.	Dr. Luther Rangreji Senior Legal Officer Ministry of External Affairs, Legal and Treaties Division Jawaharlal Nehru Bhawan, Janpath New Delhi	Member
23.	Dr. Meenakshi Singh Scientist F Food Safety and Standards Authority of India (FSSAI), FDA Bhawan, Next to Rashtriya Bal Bhawan, Kotla Road, New Delhi	Member
24.	Ms. Madhumita Biswas Director Ministry of Environment, Forest & Climate Change, Jor Bagh Road, Aliganj, New Delhi.	Member Secretary
25.	Dr. P.M. Bhargava Former Director CCMB, Hyderabad	Special Invite

Planting of new trees

2121. SHRI B.K. HARIPRASAD: Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) the details of total number of new trees planted during the last year including places;
- (b) the details of agency and organizations involved in it and the average cost incurred on each tree during the last year; and
- (c) the details of criteria for choosing the agency or organization for the care/maintenance after plantation?

THE MINISTER OF STATE OF THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE (SHRI ANIL MADHAV DAVE): (a) Afforestation/Tree plantation achievements in the country under Twenty Point Programme (TPP) are compiled in the Ministry of Statistics and Programme Implementation (MoSPI). As reported by MoSPI, 9738.43 lakhs seedlings have been planted during the year 2015-16. The details of State/UT wise achievements are given in the Statement-I (*See* below). Data relating to places of plantation are not maintained in the Ministry.

(b) and (c) Afforestation activities are taken up cross sectorally by various departments, NGOs, Civil Society, Corporates etc. under various Centrally Sponsored Schemes and also under different State Plan/Non Plan Schemes including Externally Aided Projects. The Ministry of Environment, Forests & Climate Change has two major Centrally Sponsored Schemes (CSSs), namely National Afforestation Programme (NAP) Scheme