

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
STARRED QUESTION NO. 174
TO BE ANSWERED ON 19.12.2022

Study on Impact of Climate Change

*174. DR. MANOJ RAJORIA:
SHRI BALAK NATH:

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

- (a) whether the Government has conducted any study on the adverse effects of climate change in the country;
- (b) if so, the details thereof along with the outcome of the said study;
- (c) whether the Government has given permission to other countries for conducting the said study with mutual consent, keeping in mind the spirit of Vasudhaiva Kutumbakam;
- (d) if so, the details thereof; and
- (e) the details of the remedial steps taken by the Government for combating the adverse effects of the climate change in the country?

ANSWER

MINISTER FOR ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI BHUPENDER YADAV)

(a) to (e) A statement is laid on the table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) OF LOK SABHA STARRED QUESTION NO. 174 DUE FOR REPLY ON 19.12.2022 RAISED BY DR. MANOJ RAJORIA AND SHRI BALAK NATH:

- (a) to (d) Climate change is a cross-cutting issue spanning various Ministries/ Departments and institutions under them. Studies on adverse impacts of climate change is mainly sponsored by the Department of Science and Technology (DST), Ministry of Earth Sciences (MoES), Ministry of Environment, Forest and Climate Change (MoEFCC), Indian Space Research Organisation (ISRO), Ministry of Agriculture and Farmers Welfare, and Council of Scientific and Industrial Research. Sectoral aspects of climate change are also studied by different Ministries/Departments concerning sectors like agriculture, water resources, human health, power, renewable energy, transport, urban, etc. Further, a large number of universities and government research institutions such as the Indian Institute of Technologies (IITs), Indian Institute of Science (IISc), Central and State Universities and their departments also carry out climate change related research.

As part of the Second National Communication, the MoEFCC conducted studies on impact of climate change in India which are summarized in the 'Vulnerability Assessment and Adaptation' chapter. Climate change scenarios were analysed using high-resolution regional climate model. Simulations for 2020s, 2050s and 2080s indicate an all-round warming for Indian subcontinent. Impact of climate change and climate variability on the water resources are likely to affect irrigated agriculture, installed power capacity, environmental flows in the dry season and wet season. The impact of climate change on forests in India was assessed based on the changes in area under different forest types, shifts in boundary of forest types and Net Primary Productivity. Climate change will be an additional stress, as forests in India are subjected to insect outbreaks, livestock grazing, forest fires and other anthropogenic pressures. These studies were conducted by Indian Institutions only.

Further, DST is implementing two national missions namely National Mission for Sustaining the Himalayan Ecosystem and National Mission on Strategic Knowledge for Climate Change. Under the missions, a number of R&D projects have been supported in climate change studies across India to assess the impact of climate change on coastal vulnerability, health, agriculture and water.

- (e) The Government of India stands committed to combating climate change through its several programmes and schemes including the National Action Plan on Climate Change (NAPCC) which comprises missions in specific areas of solar energy, energy efficiency, water, sustainable agriculture, health, Himalayan ecosystem, sustainable habitat, green India, and strategic knowledge for climate change. The NAPCC provides an overarching framework for all climate actions. Thirty-four States /Union Territories (UTs) have prepared their State Action Plan on Climate Change (SAPCC) in line with NAPCC taking into account the State specific issues relating to climate change. India has also proactively taken a lead in promoting international collaborations through International Solar Alliance and Coalition for Disaster Resilient Infrastructure and has undertaken various activities through these arrangements. Further, to support adaptation measures in States / UTs in areas that are particularly vulnerable to the adverse impacts of climate change, Government is implementing the National Adaptation Fund for Climate Change (NAFCC). Under NAFCC, 30 projects in 27 States/UTs have been sanctioned for adaptation in agriculture, water, forestry, etc.
