

GOVERNMENT OF INDIA  
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 369**  
TO BE ANSWERED ON 28.11.2024

**Assessment on the impact of global warming**

369. SHRI BIRENDRA PRASAD BAISHYA:

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

- (a) whether Government has made assessment on the impact of global warming in the country as being forecasted by various experts and world bodies including the United Nations;
- (b) if so, the details thereof and the response of Government thereto;
- (c) the strategy being finalized for combating the ill effect of the climate change; and
- (d) the reasons for delay in responding to the challenge?

**ANSWER**

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE  
(SHRI KIRTI VARDHAN SINGH)

- (a) to (d) Climate change is a cross-cutting issue spanning various Ministries/ Departments and institutions under them. Studies related to the impacts of climate change are carried out 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 related to 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.

Third National Communication (TNC) includes a separate chapter on 'Impacts, Vulnerability and Adaptation'. During the preparation of TNC, several research studies were undertaken in various sectors such as biodiversity and forests, agriculture, water resources, coastal and marine ecosystems, urban ecosystem and infrastructure, gender, economic cost of impacts, and human health by Research Organisations/ Institutions.

Government has taken number of steps to reduce the vulnerability and mitigate the impacts of the climate change. The Government of India is implementing the National Action Plan on Climate Change (NAPCC), which comprises missions in specific areas. Six out of nine missions under NAPCC focus on adaptation in water, habitat, agriculture, the

Himalayan ecosystem, human health, and strategic knowledge of climate change. Further, thirty-four States and Union Territories have prepared their respective State Action Plans on Climate Change (SAPCCs). The SAPCCs are designed to be context specific, and inter-alia, provide adaptation strategies considering each State's different ecological, social, and economic conditions. Under the National Adaptation Fund on Climate Change, projects worth Rs. 847.48 crore have been sanctioned in 27 States/ Union Territories.

Government has been pursuing a two-pronged policy approach by mainstreaming adaptation into its developmental planning through a qualitative shift in its growth trajectory and by drawing adaptation benefits from the ongoing schemes. Various Ministries of the Government of India have been consistently developing and implementing relevant climate adaptation programmes to protect the natural environment and to reduce social and economic vulnerabilities and build adaptive capacities to withstand both current and future climate change impacts.

India's Initial Adaptation Communication submitted to UNFCCC in December 2023 indicates that the total adaptation relevant expenditure for the year 2021-22 was 5.6 per cent of the Gross Domestic Product (GDP), growing from a share of 3.7 per cent in 2015-16, which shows that the Government has been making consistent efforts to integrate climate resilience and adaptation into development plans and spending a significant amount of resources for adaptation, despite the competing demands especially from the social sector for resources.

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