GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

RAJYA SABHA
UNSTARRED QUESTION NO. 1317
TO BE ANSWERED ON 14.12.2023

Granular Risk Analysis

1317. SHRI K. R. SURESH REDDY:

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

(a) Whether Government is cognizant of the fact that the country needs more granular risk-analysis that can help target appropriate adaptation action locally while making new infrastructure climate resilient and strengthening early warning systems;
(b) If so, the details of the steps that are proposed to be taken by Government in this regard?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(SHRI ASHWINI KUMAR CHOUBEY)

(a) and (b) The Government of India stands committed to address the global collective action problem of climate change through multilateralism and resolute domestic actions. The studies on various aspects of climate change are conducted by the central Ministries/ Departments, several institutes, and organizations under their own budgetary provisions. Such analysis is mainly sponsored by the Department of Science and Technology, 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 issues/development, etc. Further, many 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 studies.

As a Party to the United Nations Framework Convention on the Climate Change (UNFCCC), periodically submits National Communications and Biennial Update Reports. For the recently submitted (December, 2023) third National Communication (TNC), several studies on 'impact of climate change in India were taken up which are summarized in 'Impacts, Vulnerability and Adaptation' chapter of TNC which covers the impact of climate change in eight sectors – biodiversity and forests; agriculture; water resources; coastal and marine ecosystems; human health; gender; urban and infrastructure; and economic costs, the vulnerabilities in each sector and respective adaptation strategies.

Further, several measures have been taken up, which inter-*alia,* include: -

i. The Department of Science and Technology has prepared report 'Climate Vulnerability Assessment for Adaptation Planning in India using a Common Framework' which identifies the most vulnerable states and districts in India with respect to the current climate and the main drivers of vulnerability based on a set of common indicators and common methodology.
ii. National Remote Sensing Centre (NRSC), Central Water Commission (CWC), India Meteorological Department (IMD), and National Disaster Management Authority (NDMA) have released district wise flood hazard Atlases for certain States and Union Territories.
iii. The Building Materials and Technology Promotion Council has produced the third edition of Vulnerability Atlas of India, which is a collation of hazard scenario of the entire country and presents digitized State/ UT Hazard Maps with respect to earthquakes, floods, cyclones and landslides.
iv. National Remote Sensing Centre (NRSC), Hyderabad has prepared, a comprehensive data set of 28,000 glacial lakes in the Indian Himalayan Region.
v. As per the Intergovernmental Panel on Climate Change (IPCC) protocol, risk and vulnerability assessment was performed by the Indian Council for Agriculture Research for 573 districts of the country.
vi. IMD, Ministry of Earth Sciences (MoES) in collaboration with Indian Council of Agriculture Research (ICAR) and State Agriculture Universities (SAUs) and other institutions are rendering District/Block level Agrometeorological Advisory Services (AAS) for the benefits of farmers in the country under the scheme 'Gramin Krishi Mausam Sewa (GKMS)'. The main emphasis of AAS is to collect and organize climate/weather, soil and crop information, and to amalgamate them with weather forecast to assist farmers to take decisions on day-to-day farm operations, which can further optimize the application of input resources at farm level during deficient rainfall situation and extreme weather events to reduce monetary loss and to maximize crop yield

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