GOVERNMENT OF INDIA
MINISTRY OF HOME AFFAIRS

LOK SABHA
UNSTARRED QUESTION NO. 1966

TO BE ANSWERED ON THE 11TH MARCH, 2025/ PHALGUNA 20, 1946 (SAKA)

INNOVATIVE METHODS TO SAVE PEOPLE FROM DISASTERS

1966. SHRI ANIL YESHWANT DESAI:

Will the Minister of HOME AFFAIRS be pleased to state:

(a) whether the Government has adopted various innovative methods to save people from various disasters whether natural or man-made, if so, the details thereof;

(b) the position or rank of our country in dealing with such calamities in comparison to other countries; and

(c) whether there is any new/better method used in other advanced countries in this regard, if so the details thereof ?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF HOME AFFAIRS
(SHRI NITYANAND RAI)

(a) to (c): The Central Government has adopted a holistic approach to disaster risk reduction to address whole range of issues in the entire disaster management cycle, ranging from preparedness, response, capacity building, recovery & reconstruction and mitigation by use of innovative methods, technology and international cooperation. During the last decade, India has made significant progress in disaster risk reduction.

Major innovative methods adopted by Central Government are as under:-

i. **National Disaster Management Authority (NDMA) has developed the first National Disaster Management Plan (NDMP) in 2016. The plan was revised in 2019 and is aligned with the ten-point agenda. The revised NDMP brings together all the sectors, ministries and departments at Central and State level as well as district level functionaries and defines their respective roles and responsibilities in disaster risk reduction.**

ii. **NDMA has issued thirty-eight (38) guidelines for management of hazard specific disaster on various thematic and cross-cutting issues.**

iii. **NDMA has developed a web-based Dynamic Composite Risk Atlas and Decision Support System (Web-DCRA & DSS tool) for cyclone risk mitigation and response planning. The tool has been successfully used in recent cyclones, such as Biparjoy and Michaung.**

iv. **Flood Hazard Atlas have been developed by National Remote Sensing Centre (NRSC) for flood prone states of West Bengal,**

Andhra Pradesh, Bihar, Odisha, Assam and Uttar Pradesh and for comparatively less flood affected states such as Jammu & Kashmir, Tamil Nadu, Kerala, Gujarat, Arunachal Pradesh, Karnataka and Maharashtra.

v. NRSC has prepared a comprehensive data set of 28,000 glacial lakes in the Indian Himalayan Region.

vi. Building Material & Technology Promotion Council (BMTPC) has developed a digital atlas that captures the vulnerability of various parts of the country to different hazards. All States and UTs have been sensitised to use this information in project preparation.

vii. India Meteorological Department (IMD) issues regular and precise weather forecasts & warning bulletins including for cyclones to all the affected/ likely affected States/ UTs.

viii. IMD uses a suite of quality observations from Satellites, Radars and Conventional & Automatic Weather Stations for monitoring of cyclones developing over the Bay of Bengal and Arabian Sea. It includes INSAT 3D, 3DR and SCATSAT satellites, Doppler Weather Radars (DWRs) along the coast and coastal Automated Weather

Stations (AWS), High wind speed recorders, Automatic Rain Gauges (ARGs), Meteorological buoys and ships.

ix. A number of other new mobile Applications such as Damini, Mausam, Meghdoot etc. have been developed for timely dissemination of early warnings and alerts to the common people / farmers.

x. Under the National Cyclone Risk Mitigation Project (NCRMP), Early Warning Systems have been installed in the Coastal States, which have proved to be of great help in alert dissemination to the coastal community during recent cyclones.

xi. 'Common Alerting Protocol (CAP) based Integrated Alert System' has been implemented for dissemination of geo targeted early warnings/alerts related to disasters to the citizens of India for all 36 States/UTs using various disseminating medium like SMS, TV, Radio, Costal Sirens, Cell broadcast, Internet (RSS feed & Browser Notification), Satellite Receiver of GAGAN & NavIC etc., through integration of all alerting agencies, [India Meteorological Department (IMD), Central Water Commission (CWC), Indian National Centre for Ocean Information Services (INCOIS), Defence

Geo-informatics Research Establishment (DGRE), Geological Survey of India (GSI) and Forest Survey of India (FSI)].

xii. In CAP system, the alerts related to various disasters are generated by Alert Generating Agencies like IMD, CWC, INCOIS, DGRE & FSI and moderated by SDMAs of concern States/UTs. The alerts are sent to geo targeted areas in regional languages. More than 4500 crore alert messages have been disseminated till date. There is a web-based dashboard and a mobile application SACHET to disaster managers for approving/editing alerts and choosing media for dissemination. The system has been used successfully in recent disasters.

xiii. In order to implement the vision of Prime Minister for 'Single Distress Number for all emergencies across the country' the Project "Extension of ERSS" with existing single number "112", has been implemented, to cater for emergency call related to disasters.

xiv. Indian Universities and Institutions Network (IUINDRR-NIDM) has been established, under the aegis of National Institute of Disaster Management (NIDM), to highlight the role of education, research

and training in disaster resilience and to develop model curricula for DRR with its integration at various levels. The IUINDRR provides a platform for interface between academia and policy. It also provides a platform for collaborative development of knowledge products on disaster risk reduction. So far, more than 330 Universities and Institutes have joined the network.

xv. National Disaster Response Force (NDRF) with 16 battalions and 28 Regional Response Centres are well equipped and trained to respond to various disasters.

xvi. Mock exercises and community awareness programmes are regularly conducted by NDMA and NDRF to create awareness among people.

xvii. At global level, India is playing a leadership role in Disaster Risk Reduction (DRR).

xviii. The Coalition for Disaster Resilient Infrastructure (CDRI), was launched by Hon'ble Prime Minister at the United Nations Climate Action Summit, in New York On 23rd September, 2019. So far, 42 countries and 7 other organizations have endorsed its charter and

joined as Members. CDRI is presently supporting 13 Small Island Developing Countries in making their infrastructure systems disaster resilient. In addition, CDRI is working on integrating disaster resilience in specific development sectors such as Power and Telecommunications.

xix. During India's Presidency of G20, a Working Group on disaster risk reduction was established in which five priority areas of disaster risk reduction were identified.

xx. Government has advanced regional cooperation on disaster risk management through active engagement under multiple regional organizations, such as Shanghai Cooperation Organization (SCO), Bay of Bengal Initiative for Multi-Sectoral Technical & Economic Cooperation (BIMSTEC) and Indian Ocean Rim Association (IORA). With these organizations, India has conducted joint exercises as well as facilitated sharing of good practices in disaster management.

xxi. India is considered by UNDRR as one of the five countries in the world to predict risk to coastal areas, height of waves that can hit them and even pinpoint vulnerable buildings in 'real time' through the Indian Tsunami Early Warning Centre (ITEWC) to provide early warnings to the entire Indian Ocean region.

xxii. The Government has been providing Humanitarian Assistance and Disaster Relief Support to disaster hit countries. Under the spirit of 'Vasudhaiva Kutumbakam', Government of India had extended immediate help to Turkiye and Syria, hit by massive earthquake in February, 2023, by dispatching NDRF and medical teams along with relief materials.

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