GOVERNMENT OF INDIA MINISTRY OF EARTH SCIENCES

RAJYA SABHA

UNSTARRED QUESTION No. 2102

ANSWERED ON 04/08/2022

CYCLONE WARNING CENTRES

2102. SHRI M. MOHAMED ABDULLA:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether Government has set up Cyclone Warning Centres in the coastal States of the country;
- (b) if so, the details thereof, State-wise and the States likely to be benefitted from these Centres;
- (c) the amount allocated and spent in the last five years in this regard; and
- (d) the details of schemes and projects by Government implemented or being implemented in the State of Tamil Nadu?

ANSWER THE MINISTER OF STATE (INDEPENDENT CHARGE) OF MINSTRY OF SCIENCE AND TECHNOLOGY AND EARTH SCIENCES (DR. JITENDRA SINGH)

(a-b) Yes Sir. All the 9 coastal states (viz., Gujarat, Maharashtra, Goa, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Odisha and West Bengal) and the Union Territories along the coasts (viz., Dadara & Nagar Haveli, Daman, Diu, Mahe, Yanam and Puducherry) and the Island Territories (Lakshadweep & Andaman and Nicobar Islands) are covered by well established Cyclone early warning systems in place. This is achieved through the Area Cyclone Warning Centres/Cyclone warning Centers in the east & west coasts and the Cyclone Warning Division centrally located at IMD Head Quarters, New Delhi. Details are given below.

There are three Area Cyclone Warning Centres (ACWCs) located at Chennai, Mumbai and Kolkata and four Cyclone Warning Centres (CWCs) at Thiruvananthapuram, Visakhapatnam, Ahmedabad and Bhubaneswar. Area of responsibility of these ACWCs and CWCs are shown in the Table below.

Centre	Coastal area*	Maritime State/UT	
	State: West Bengal	State: West Bengal	
ACWC Kolkata	UT: Andaman & Nicobar	UT: Andaman & Nicobar	
	Islands	Islands	
ACWC Chennai	State: Tamil Nadu UT: Puducherry	State: Tamil Nadu UT: Puducherry	
ACWC Mumbai	State: Maharashtra & Goa	State: Maharashtra & Goa	

CWC Thiruvananthapuram	State: Kerala & Karnataka UT: Lakshadweep	State: Kerala & Karnataka UT: Lakshadweep, Mahe	
CWC Ahmedabad	State: Gujarat UT: Dadra-Nagar Haveli- Daman-Diu	State: Gujarat UT: Dadra-Nagar Haveli- Daman-Diu	
CWC Visakhapatnam	State: Andhra Pradesh	State: Andhra Pradesh, Yanam	
CWC Bhubaneshwar	shwar State: Odisha State: Odisha		

^{*}Coastal strip of responsibility extends upto 75 km from the coast line.

(c) To upgrade the forecasting capabilities throughout the country including Cyclone forecasting, various programs are being implemented in IMD under the umbrella scheme "Atmosphere & Climate Research-Modelling Observing Systems & Services (ACROSS)" of the MoES namely, Atmospheric Observation Network, Upgradation of Forecast System, Weather & Climate Services and Commissioning of Polarimetric Doppler Weather Radars. The year-wise cumulative budget allocation and expenditure for all 4 subschemes of IMD under ACROSS since FY 2017-18 are given below:

(Rs. in Crores)

Year	Budget Estimates	Revised Estimates	Actual Expenditure
2017-18	188.75	149.15	134.09
2018-19	186.46	185.89	175.94
2019-20	207.17	224.73	206.04
2020-21	249.22	155.20	150.33
2021-22	255.40	193.68	183.73

(d) IMD, in collaboration with Indian Council of Agriculture Research (ICAR) and State Agriculture Universities (SAUs) and other institutions is 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 the existing AAS system 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.

District Agromet Units (DAMUs) have been established at Krishi Vigyan Kendras (KVKs) in collaboration with ICAR to implement block level Agromet Advisory Services (AAS). In the State of Tamil Nadu there are 10 DAMUs established in KVKs.