

**GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
LOK SABHA  
UNSTARRED QUESTION NO. 1808  
TO BE ANSWERED ON WEDNESDAY, 30<sup>TH</sup> JULY, 2025**

**IMPLEMENTATION STATUS OF EARLY WARNING SYSTEMS IN ANDHRA  
PRADESH**

1808. SHRI APPALANAIDU KALISETTI:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) the number and details of early warning infrastructure including Cyclone Sirens, Satellite phones, Doppler radars and Automatic Weather Stations installed in Andhra Pradesh's coastal districts, especially Vizianagaram, district-wise;
- (b) the number of registered fishermen receiving IMD/INCOIS alerts via SMS or voice messaging;
- (c) whether any gaps have been identified in alert coverage, language accessibility or mobile connectivity, if so, the details thereof and the reasons therefor;
- (d) the number of mock drills and public awareness campaigns conducted in each coastal district during the last three years in coordination with APSDMA; and
- (e) whether any failures were reported in warning dissemination or evacuation efforts during recent cyclones such as Gulab (2021), Asani (2022) or Michaung (2023) and if so, the details thereof and the reasons therefor?

**ANSWER**

**THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR  
MINISTRY OF SCIENCE AND TECHNOLOGY  
AND EARTH SCIENCES  
(DR. JITENDRA SINGH)**

- (a) The number and details of early warning infrastructure installed in Andhra Pradesh are given in Annexure-1. In the Vizianagaram district, there are 53 AWSs and 38 ARGs installed by the India Meteorological Department/State Government. In addition, there are 2 Doppler Weather Radars (DWRs) located at Visakhapatnam (Visakhapatnam district) and Machilipatnam (Krishna district) that are operational. The DWR Gopalpur also covers it.
- (b) A total of 1,21,751 registered fishermen receive the India Meteorological Department/Indian National Centre for Ocean Information Services (INCOIS) alerts through SMS or voice messaging. INCOIS provides multi-hazard early warning services, including alerts for tsunamis, storm surges, high waves, swell surges, and strong ocean currents during extreme oceanic conditions. INCOIS also provides Marine Fishery Advisory Services to support the livelihoods of coastal fishing communities.
- (c) NCAER conducted an independent survey in 2020. These survey findings show that a much larger proportion of marine fishermen are using weather advisories very frequently, as many as 87.7 percent are using these advisories on a daily basis, as compared to just 15.1 percent before 2015. However, efforts have been made to provide video and audio coverage and press briefings in the local language by MC Amaravati/CWC Visakhapatnam on a daily basis. The warnings are disseminated through the CAP Sachet Portal, emails, and all social media such as WhatsApp, Facebook, Instagram, and X.

- (d) About 25 mock drills on floods, cyclones, and landslides, creating awareness, were conducted in 2024 by the IMD in coordination with the State Government and other stakeholders. In the year 2025 so far, about 17 mock drills were conducted, out of which 10 were on floods, and seven were on cyclones. In addition, during the past three years, two tsunami mock drills were conducted on 4<sup>th</sup> October 2023 and 5<sup>th</sup> November 2024. In the 2024 mock drill, community-level evacuations were successfully carried out in six coastal villages (Mypadu, Krishnapatnam, Bheemulavaripalem, Thupilipalem, Yarada, and Waltair Ward) across three coastal districts (SPSR Nellore, Tirupati, and Visakhapatnam).
- (e) No failures were reported in association with any of the recent cyclones such as Gulab (2021), Asani (2022), or Michaung (2023). The associated losses of human life were also significantly less.

## Annexure-1

District-wise Early Warning infrastructure installed in the Coastal Districts of Andhra Pradesh is given below:

S.No	Districts	MP CS Build ings	Alert sirens (EWDS) impleme nted	Satellite Phones	DEOC 'S Alert sirens (EWD S)	MEOC'S Alert sirens (EWDS)	Fish landing Centers Alert sirens (EWDS)	Tourist locations
1	Srikakulam	41	34	2	1	15	2	0
2	Vizianagaram	7	7	1	1	2	1	0
3	Visakhapatnam	1		2	1	5	2	4
4	Anakapalli	28	14	-	0	6	0	0
5	Kakinada	9	3	1	1	6	2	1
6	Dr.B.R Amdedkar Konaseema	20	17	-	0	8	0	0
7	West Godavari	12	6	-	0	2	1	1
8	Krishna	17	10	-	1	5	2	1
9	Bapatla	20	11	-	0	7	2	0
10	Prakasam	12	9	1	1	5	2	0
11	SPSR Nellore	44	31	1	1	10	2	1
12	Tirupathi	8	3	1	0	5	0	0
13	Eluru			1	1	0	0	0
14	Alluri Sitharama Raju			2	0	0	0	0
15	East Godavari			-	0	0	0	0
16	NTR			1	0	0	0	0
17	Guntur			3	1	0	0	0
14	SEOC			APSDM A-2 SDRF- 2	1	0	0	0
<b>Total</b>		<b>219</b>	<b>145</b>	<b>16</b>	<b>10</b>	<b>76</b>	<b>16</b>	<b>8</b>

Note: EWDS implemented in 255 locations

**District-wise IMD's AWS, ARG, and AGROAWS is given in the table below:**

<b>District-wise AWS/ARG in Andhra Pradesh</b>				
District	AWS	Agro AWS	AWS Total	ARG
ASR	1		1	2
Anakapalli	2		2	
Kakinada	1		1	2
Konaseema	1		1	1
Srikakulam	3	1	4	4
Visakhapatnam	2		2	5
Vizianagaram	1		1	1
West Godavari	4		4	
East Godavari		1	1	1
Eluru		1	1	4
P Manyam		1	1	2
Bapatla	2		2	3
Guntur	1		1	1
Krishna	2		2	
NTR	1	1	2	3
Prakasam	3	1	4	3
Palnadu				4
SPSR Nellore	2	1	3	2
Anantapur*	2		2	5
Nandyal*	1		1	5
Satya Sai*	1		1	3
Tirupati	4		4	1
YSR Kadapa*	2	1	3	3
Kurnool*		1	1	3
Chittoor*				2
Annamayya*				2
<b>Total</b>	<b>36</b>	<b>9</b>	<b>45</b>	<b>62</b>

\*: Rayalaseema;

As per the above table, there is one AWS in Vizianagaram District and one ARG in Bobbili.

**The AWSs and ARGs installed by the Government of Andhra Pradesh is given below:**

<b>S.NO</b>	<b>DISTRICT</b>	<b>NO OF MANDALS</b>	<b>AWS</b>	<b>ARG</b>	<b>TOTAL (AWS+ARG)</b>
1	Srikakulam	30	53	29	82
2	ParvathipuramManyam	15	30	13	43
3	Alluri Sitharama Raju	22	44	11	55
4	Vizianagaram	27	52	37	89
5	Visakhapatnam	11	14	102	116
6	Anakapalli	24	47	57	104
7	Konaseema	22	26	22	48
8	Kakinada	21	32	45	77
9	East Godavari	19	39	27	66
10	Eluru	27	62	18	80
11	West Godavari	20	30	19	49
12	Krishna	25	45	26	71
13	NTR	20	39	30	69
14	Guntur	18	32	35	67
15	Bapatla	25	48	24	72
16	Palnadu	28	71	49	120
17	Prakasham	38	132	101	233
18	Nellore	38	107	85	192
19	Tirupathi	34	83	47	130
20	Chittoor	31	64	38	102
21	Sri Satya Sai	32	105	69	174
22	Ananthapuram	31	115	100	215
23	Annamayya	30	70	28	98
24	YSR Kadapa	36	97	83	180
25	Nandyala	29	81	49	130
26	Kurnool	26	100	55	155
<b>Grand Total</b>		<b>679</b>	<b>1618</b>	<b>1199</b>	<b>2817</b>

### **Doppler Weather Radars in Andhra Pradesh**

There are three Doppler Weather Radars installed in Andhra Pradesh.

Two Doppler Weather Radars of IMD are located at Visakhapatnam (Dist: Visakhapatnam) and Machilipatnam (Dist: Krishna). One Radar of ISRO is located at SDSC-SHAR, Sriharikota (Dist:Tirupati).

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