

**GOVERNMENT OF INDIA  
MINISTRY OF EARTH SCIENCES  
LOK SABHA  
UNSTARRED QUESTION NO. 3443  
TO BE ANSWERED ON WEDNESDAY, 23<sup>RD</sup> MARCH, 2022**

**WEATHER FORECAST STATIONS**

3443. DR. SANJAY JAISWAL:

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) the number of weather forecast stations presently functional in the State of Bihar;
- (b) whether the Government plans to increase the number of automated weather stations in the State;
- (c) the details of steps taken by the Government in strengthening the flood forecasting mechanism in the State and the quantum of funds allocated for the same;
- (d) whether the Government proposes to set up one weather forecast station, per district in Bihar, to better equip the State with flood forecasting; and
- (e) if so, the details thereof?

**ANSWER**

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

- (a) Meteorological Centre (MC) **Patna** caters to the needs of weather forecast services, severe weather warning and sectoral services including agromet advisory services for the State of Bihar. There is a Flood Meteorological Office (FMO) at Patna to provide Quantitative precipitation forecast to Central Water Commission for flood forecasting. IMD has an Aeronautical Meteorological Office (AMO) also at Patna for aviation weather forecasting.
- (b) Currently there are no plans to further increase the number of Automatic Weather Stations (AWS) in the State. The details of the existing Automated Weather Stations (AWS) network and Automatic Rainauge (ARG) Network of Bihar is given in the Table below. Their location-wise details are given in **Annexure-I**.

<b>AGRO AWS</b>	<b>AWS</b>	<b>ARG</b>	<b>TOTAL</b>
<b>14</b>	<b>29</b>	<b>28</b>	<b>71</b>

The enhancement of observational network is a continuous process in the Department and while doing so, the requirements of Bihar also will be taken into consideration.

- (c) Flood forecasting is being dealt by Central Water Commission (CWC), Ministry of Water Resources. IMD supports flood warning services of CWC by providing observed and forecasted rainfall. Heavy rainfall events lead to floods over different river basins of the country. CWC is working in close association with IMD and State Governments for timely flood forecast whenever the river water level rises above warning level. In order to meet specific requirements of flood forecasting by CWC, IMD operates Flood Meteorological Offices (FMOs) at fourteen locations viz., Agra, Ahmedabad, Asansol, Bhubaneshwar, Bengaluru, Chennai, Guwahati, Hyderabad, Jalpaiguri, Lucknow, New Delhi, **Patna**, Srinagar and Thiruvananthapuram.

IMD provides Quantitative Precipitation Forecast (QPF) for all river catchments including Damodar river basin areas for their flood forecasting activities. Flood Meteorological Offices (FMO) operated by IMD provide meteorological support including QPF of everyday valid for next five days over different river catchments to the CWC for issuing flood warnings well in advance in respect of 153 river basins. CWC issues flood forecasts 6 hrs. to 30 hrs. in advance using QPF received from FMOs of IMD and in-situ hydrometeorological data.

In order to cater the services of hydro-meteorological events occurring in short duration of time, IMD is issuing Flash Flood Guidance (FFG) by which a diagnostic value within a watershed required to produce flooding at the outlet of the catchment is estimated, to support the flood warning services. Also IMD provides actual rainfall information in different spatial and temporal scale like districts, States & meteorological subdivisions level and daily, weekly & seasonal scale to support flood monitoring. As mentioned before, the Flood forecast support services for Bihar is taken care by FMO Patna.

- (d)-(e) There are **03** numbers of Agromet Field Units (AMFUs) located in State Agricultural Universities and **14** numbers of District Agromet Units (DAMUs) situated at Krishi Vigyan Kendra (KVK) under ICAR network **in Bihar state.**

Details of AMFUs and DAMUs for the State of Bihar are given in **Annexure-II.**

As mentioned earlier, flood forecasting is not the responsibility of IMD. However, the weather monitoring & meteorological information sharing carried out by AMFUs and DAMUs are beneficial to all users including general public.

**AGRO AWS NETWORK**

S. NO.	STATE	DISTRICT	AGRO AWS STATION	LATITUDE	LONGITUDE
1	BIHAR	ARARIA	ARARIA_KVK	26.1183	87.4492
2	BIHAR	AURANGABAD	AURANGABAD_KVK	24.8373	84.2844
3	BIHAR	BANKA	BANKA_KVK	24.8647	86.9166
4	BIHAR	BEGUSARAI	BEGUSARAI_KVK	25.6619	86.0274
5	BIHAR	BHAGALPUR	AGRICULTURE UNIVERSITY_KVK	25.2401	87.0493
6	BIHAR	EAST_CHAMPARAN	EAST CHAMPARAN_KVK	26.5446	84.9424
7	BIHAR	JAMUI	JAMUI_KVK	24.9179	86.2471
8	BIHAR	KATIHAR	KATIHAR_KVK	25.5308	87.5801
9	BIHAR	KHAGARIA	KHAGARIA_KVK	25.5097	86.4997
10	BIHAR	MUZAFFARPUR	SARAIYA_KVK	26.03	85.144
11	BIHAR	NAWADA	NAWADA_KVK	24.8292	85.865
12	BIHAR	PURNEA	PURNEA_KVK	25.9554	87.5372
13	BIHAR	SHEIKPURA	SHEIKPURA_KVK	25.0739	85.851
14	BIHAR	SITAMARHI	SITAMARHI_KVK	26.5435	85.7181

**AWS NETWORK**

S NO.	STATE	DISTRICT	AWS STATION	LATITUDE	LONGITUDE
1	BIHAR	BANKA	BANKA	24.8333	86.9
2	BIHAR	BEGUSARAI	BEGUSARAI	25.65	86.02
3	BIHAR	BHAGALPUR	BHAGALPUR_AMFU	25.23	87.03
4	BIHAR	BHOJPUR	BHOJPUR_AMFU	25.5499	84.6511
5	BIHAR	BUXAR	BUXAR	25.5587	83.9745
6	BIHAR	DARBHANGA	DARBHANGA	26.38	85.73
7	BIHAR	GAYA	MANPUR	24.7989	85.0396
8	BIHAR	GOPALGANJ	SIPAYA	26.58	84.38
9	BIHAR	JAMUI	JAMUI_AMFU	24.9791	86.3045
10	BIHAR	JEHANABAD	GANDHAR	25.22	85.13
11	BIHAR	KAIMUR	BHABUA	25.0481	83.6139
12	BIHAR	KATIHAR	KATIHAR	25.52	87.57
13	BIHAR	MADHEPURA	MADHEPURA	25.92	86.8
14	BIHAR	MADHUBANI	CHANPUR_BASAITHA	26.43	85.819
15	BIHAR	MUNGER	MUNGER	25.37	86.48
16	BIHAR	MUZAFFARPUR	MUZAFFARPUR	26.0321	85.1441
17	BIHAR	MUZAFFARPUR	MUZAFFARPUR_AMFU	26.0974	85.4434
18	BIHAR	NALANDA	HARNAUT	25.3333	85.63
19	BIHAR	NAWADA	NAWADA	24.87	85.53
20	BIHAR	PATNA	PATNA	25.5986	85.09

21	BIHAR	ROHTAS	SASARAM	24.9545	84.0006
22	BIHAR	SAHARSA	AGWANPUR_AMFU	25.91	86.55
23	BIHAR	SAMASTIPUR	PUSA_AMFU	25.98	85.66
24	BIHAR	SHEIKHPURA	ARIARI	25.07	85.8333
25	BIHAR	SHEOHAR	SHEOHAR	26.51	85.28
26	BIHAR	SITAMARHI	PUPARI	26.54	85.72
27	BIHAR	SIWAN	SIWAN	26.21	84.3333
28	BIHAR	VAISHALI	VAISHALI	25.73	85.23
29	BIHAR	WEST_CHAMPARAN	MADHOPUR	26.75	84.68

## ARG NETWORK

S NO.	STATE	DISTRICT	ARG STATION	LATITUDE	LONGITUDE
1	BIHAR	ARARIA	ARARIA	25.07	85.8333
2	BIHAR	ARARIA	FORBISGANJ	26.31	87.24
3	BIHAR	ARWAL	ARWAL	25.24	84.66
4	BIHAR	ARWAL	KURTHA	25.12	84.8
5	BIHAR	BHAGALPUR	KAHALGAON	25.26	87.25
6	BIHAR	DARBHANGA	DARBANGHA_ARG	26.1	85.19
7	BIHAR	DARBHANGA	MANIGACHI	26.34	86.72
8	BIHAR	EAST_CHAMPARAN	MEHASI	26.36	85.06
9	BIHAR	GAYA	KHINJARSARAI	24.96	85.6
10	BIHAR	GOPALGANJ	HATHUA	26.36	84.31
11	BIHAR	LAKHISARAI	BARHIYA	25.28	86.0167
12	BIHAR	LAKHISARAI	LAKSHISARAI	25.185	86.1
13	BIHAR	MADHEPURA	MURLIGANJ	25.88	86.99
14	BIHAR	MADHUBANI	BENIPATTI	26.9	85.85
15	BIHAR	MADHUBANI	JHANJHARPUR	26.32	86.9
16	BIHAR	MUNGER	HAVELI_KHARAGPUR	25.1219	86.5478
17	BIHAR	NALANDA	BIHARSHARRIF	25.2	85.51
18	BIHAR	NAWADA	RAJALI	24.64	85.49
19	BIHAR	PATNA	BAKHTIYARPUR	25.46	85.52
20	BIHAR	SAMASTIPUR	ROSERA	25.98	86.92
21	BIHAR	SAMASTIPUR	SAMASTIPUR	25.68	86.0667
22	BIHAR	SARAN	CHAPRA	25.7878	84.74
23	BIHAR	SITAMARHI	SITAMARHI	26.5378	85.5178
24	BIHAR	SITAMARHI	SONBARSA	26.83	85.81
25	BIHAR	SIWAN	ANDER	26.1	84.2839
26	BIHAR	SIWAN	BHAGWANPURHAT	26.08	84.68
27	BIHAR	SUPAUL	SUPAUL	26.13	86.63
28	BIHAR	WEST_CHAMPARAN	BAGHA	27.1322	84.05

## AMFUs in Bihar state

S. No.	District of location	Parent Organization	Postal Address
1	Bhagalpur	Bihar Agricultural University, Sabour	Bihar Agricultural College, Department of Agronomy, Sabour, Dist- Bhagalpur, Bihar India- 813210
2	Saharsa	Bihar Agricultural University, Sabour	Regional Research Station, Agwanpur, Saharsa, Bihar-852201
3	Samastipur	Dr. Rajendra Prasad Central Agricultural University, Pusa	Agrometeorology Division, Center for Advance Studies on Climate Change, Dr. Rajendra Prasad Central Agricultural University Pusa, Samastipur, Bihar- 848125

## DAMUs established in Bihar state

S. No.	District	Parent Organization	Postal Address
1	Araria	Bihar Agricultural University, Sabour	Programme Coordinator Krishi Vigyan Kendra Bihar Agricultural University Araria - 854312, Bihar
2	Aurangabad	Bihar Agricultural University, Sabour	Programme Coordinator Krishi Vigyan Kendra Bihar Agricultural University Siris (Agricultural Farm) Aurangabad -824112, Bihar
3	Banka	Bihar Agricultural University, Sabour	Programme Coordinator Krishi Vigyan Kendra Bihar Agricultural University Vijay Nagar - 813102, Banka, Bihar
4	Begusarai	Dr. Rajendra Prasad Central Agricultural University, Pusa	Programme Coordinator Krishi Vigyan Kendra Rajendra Agricultural University Khodawanpur - 848202, Begusarai, Bihar
5	East Champaran	Dr. Rajendra Prasad Central Agricultural University, Pusa	Programme Coordinator Krishi Vigyan Kendra PipraKothi, East Champaran -845401, Bihar
6	Gaya	Bihar Agricultural University, Sabour	Programme Coordinator Krishi Vigyan Kendra Manpur, Distt: Gaya-823003, Bihar

7	Jamui	KhadigramShramaBharati, Khadi Gram	Programme Coordinator KrishiVigyan Kendra ShramaBharati, Khadigram-811313 Distt- Jamui, Bihar
8	Katihar	Bihar Agricultural University, Sabour	Programme Coordinator KrishiVigyan Kendra, P.O.-Tingachhia-854105 Distt. Katihar, Bihar
9	Khagaria	Bihar Agricultural University, Sabour	Programme Coordinator KrishiVigyan Kendra, Permanadpur, P.O. Koshi College Khagaria-851204, Bihar
10	Muzaffarpur	Dr. Rajendra Prasad Central Agricultural University, Pusa	Programme Coordinator KrishiVigyan Kendra Rajendra Agricultural University At+P.O.Saraya - 843126 Distt- Muzaffarpur, Bihar
11	Nawada	Nawada Gram NirmanMandal, Sarvodaya Ashram, SokhodeoraNawada	Programme Coordinator Senior Scientist & Head KrishiVigyan Kendra Gram NirmanMandal Sarvodya Ashram Sokhodeora, Nawada - 805106, Bihar
12	Purnea	Bihar Agricultural University, Sabour	Programme Coordinator KrishiVigyan Kendra Bihar Agricultural University Jalalgarh, Distt: Purnea-854327,Bihar
13	Sheikhpura	Bihar Agricultural University, Sabour	Programme Coordinator KrishiVigyan Kendra Bihar Agricultural University Ariari, Sheikhpura – 811105, Bihar
14	Sitamarhi	SamtaSeva Kendra	Programme Coordinator Krishi Vigyan Kendra Sitamarhi, Vill+ P.O. BalhaMadhusudan Via.-Janakpur Road, Pupri, Distt- Sitamarhi - 843320, Bihar

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