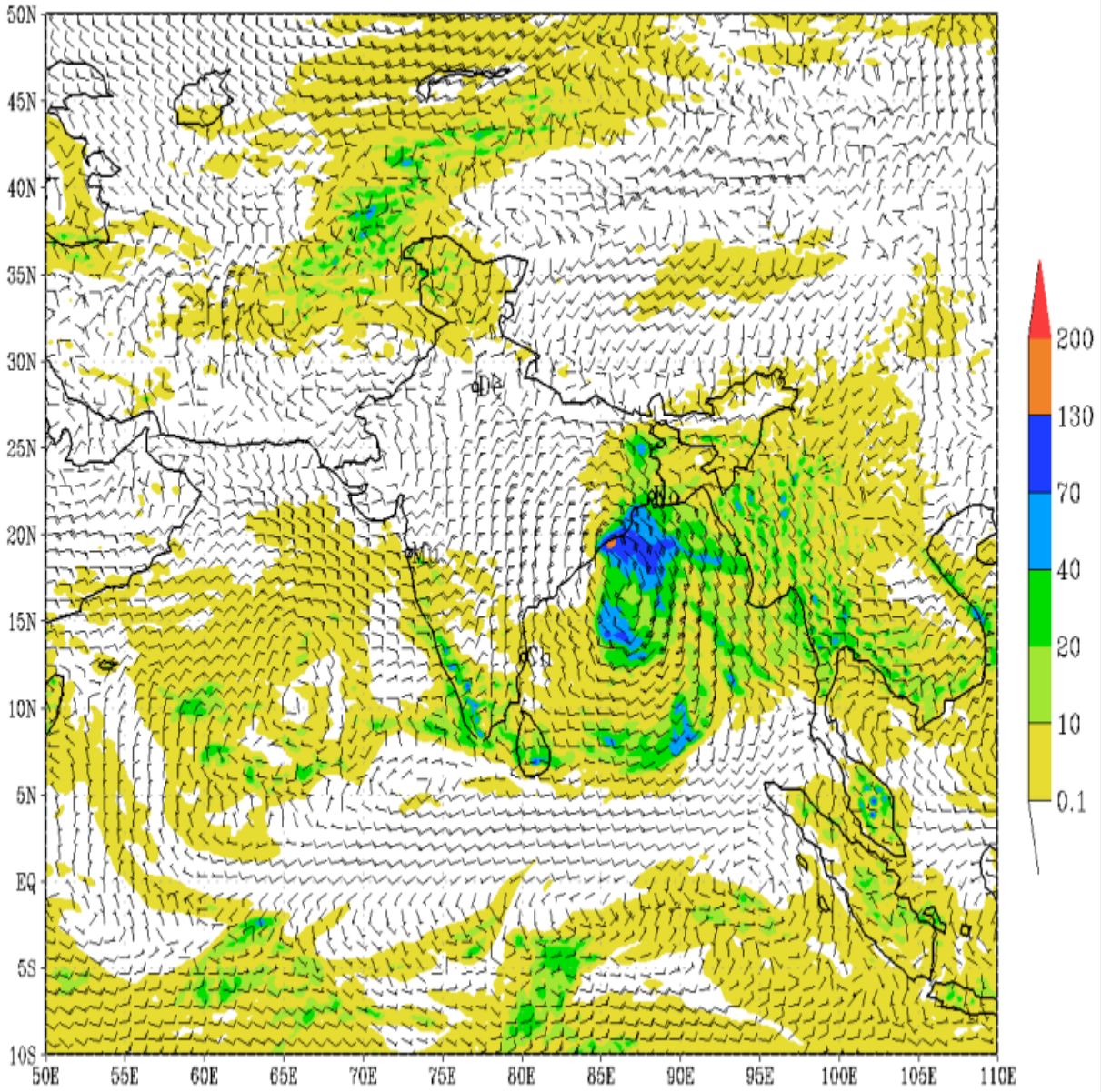
IMD :GFS MODEL(12 Km) 850 hPa WIND (kt) & RAINFALL (mm) FORECAST (168 HR)

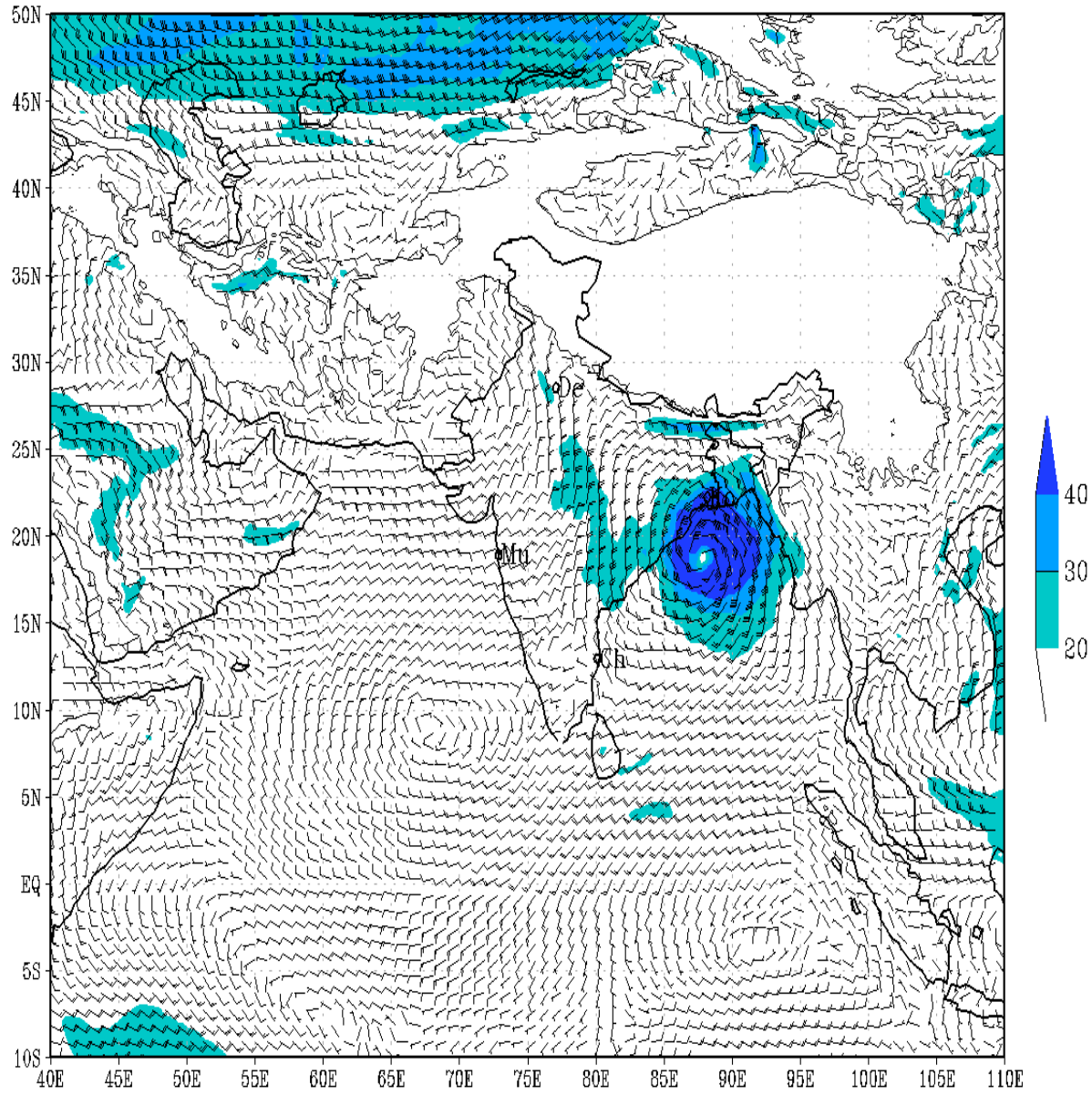
based on 00 UTC of 17-10-2024 valid for 03 UTC of 24-10-2024



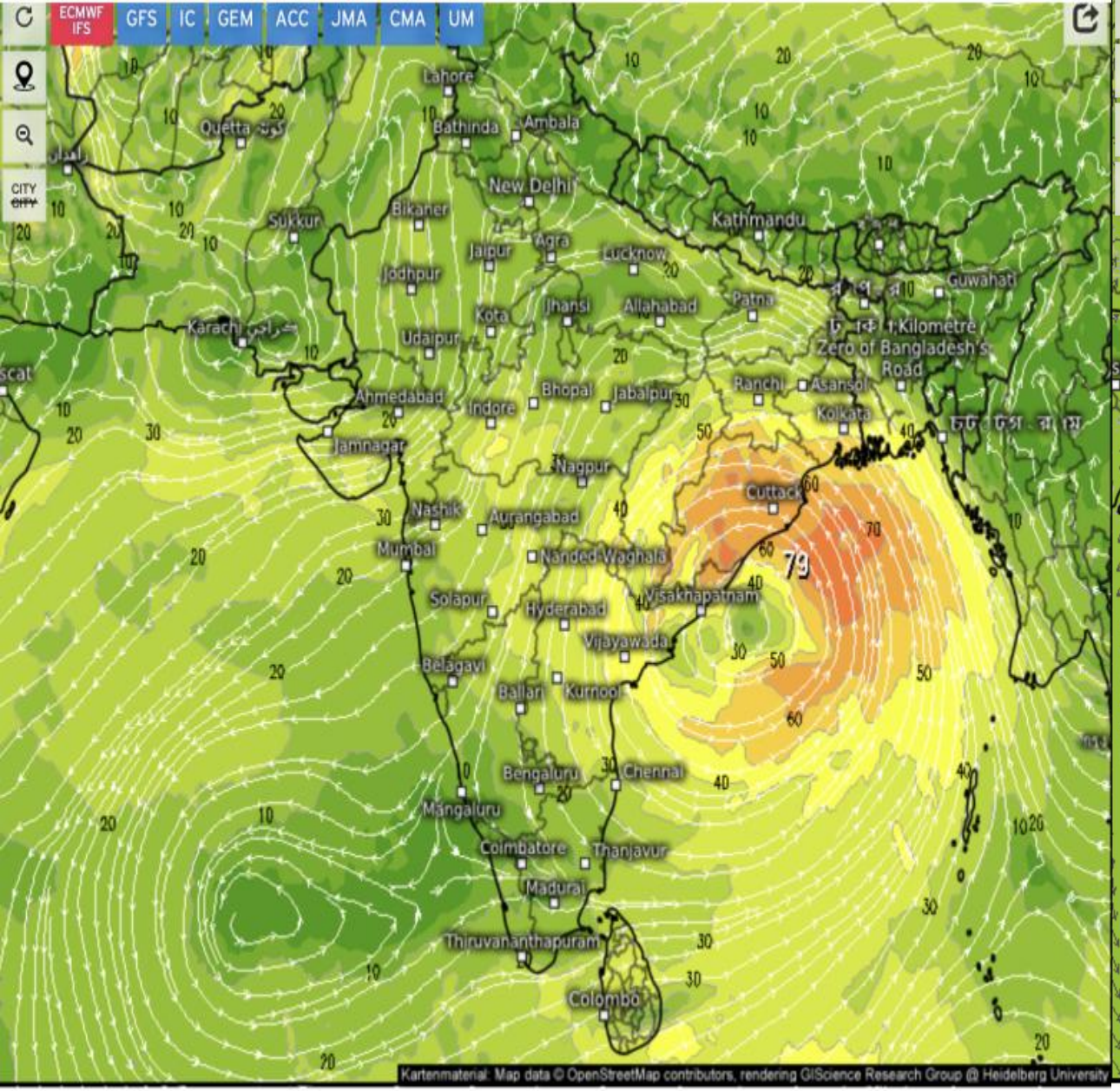

(Background does not depict political boundary)

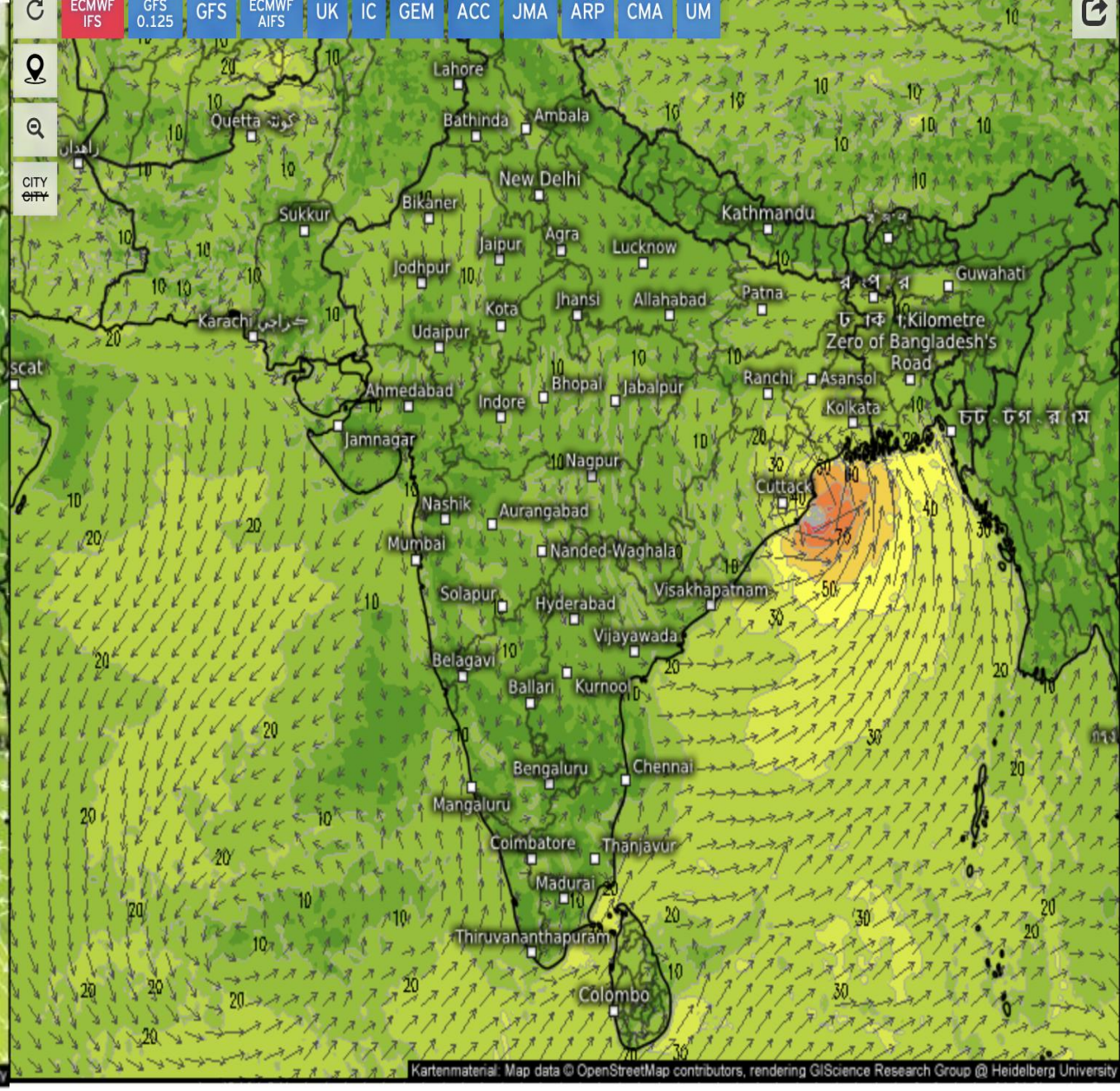
IMD:GFS MODEL(12 Km) 850 hPa WIND (kt) FORECAST (00 HR)

based on 00 UTC of 24-10-2024 valid for 00 UTC of 24-10-2024




(Background does not depict political boundary)




## Wind speed and streamlines, 850hPa (kph)

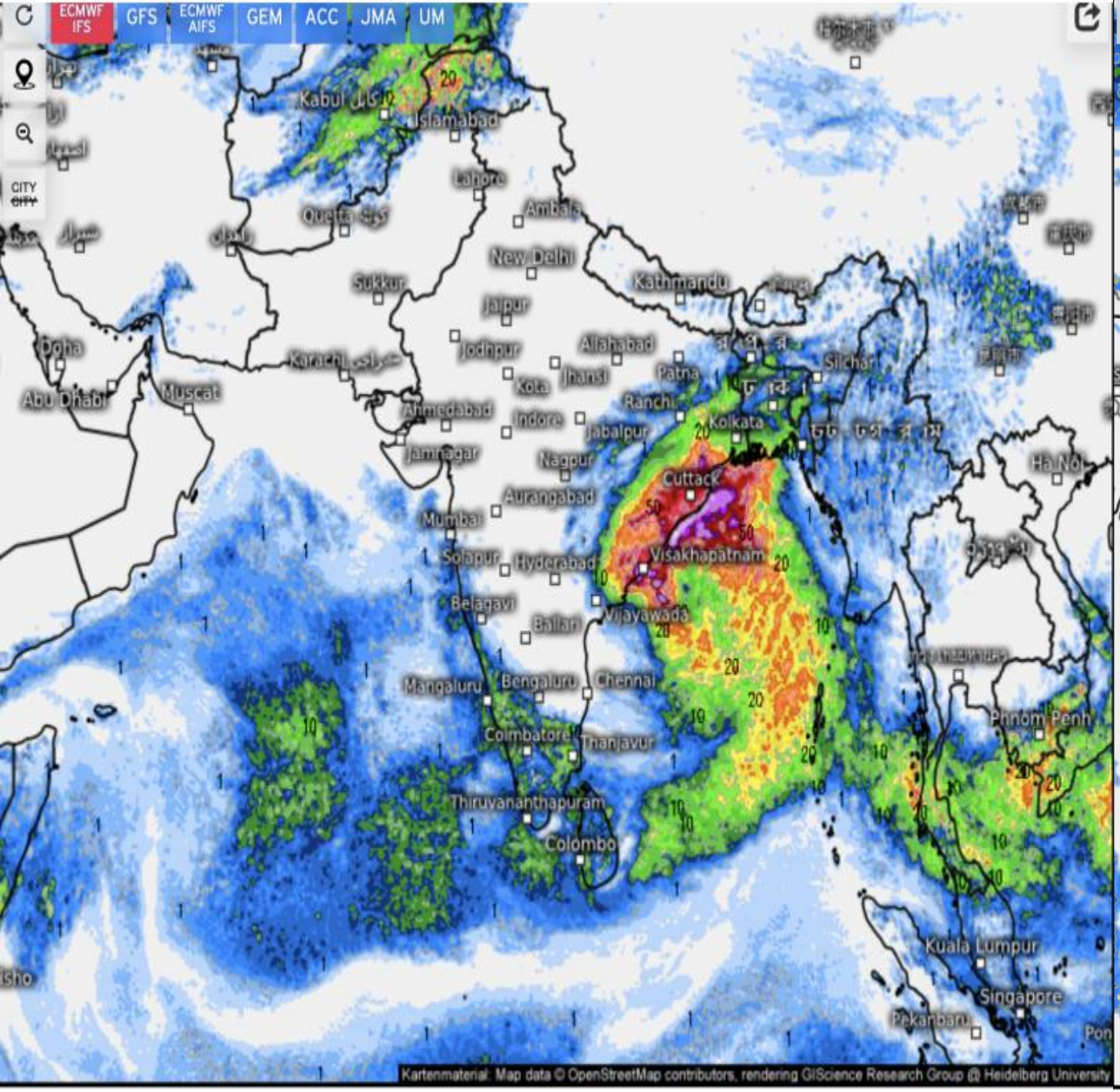
Valid for
Thu 10/24/2024, 11:30am IST

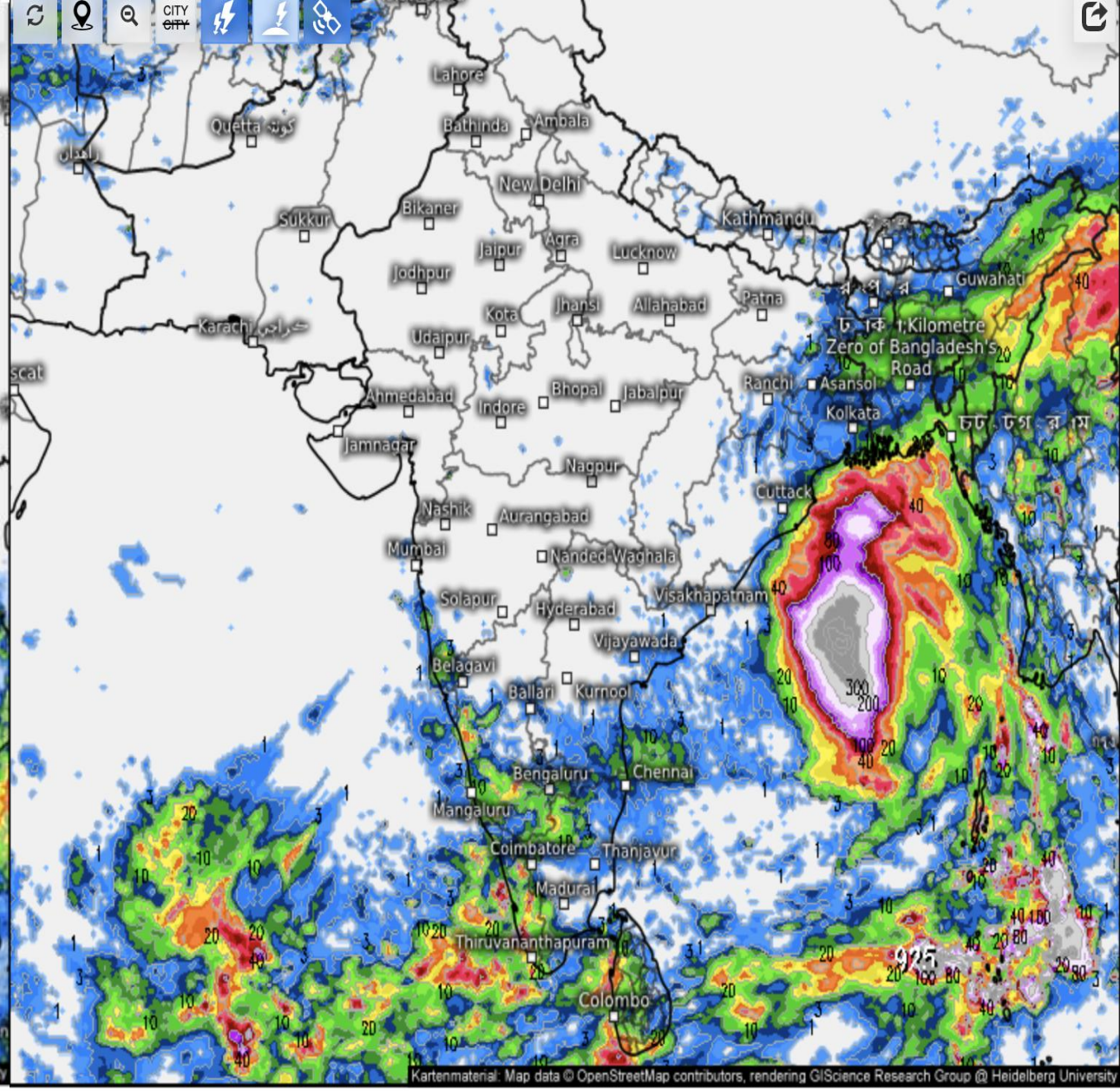
5 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 180 200 220 240 260 280

## Wind direction and mean wind speed (kph)

Valid for
Thu 10/24/2024, 05:30pm IST

5 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 180 200 220 240 260 280




## Precipitation, 24h (mm)

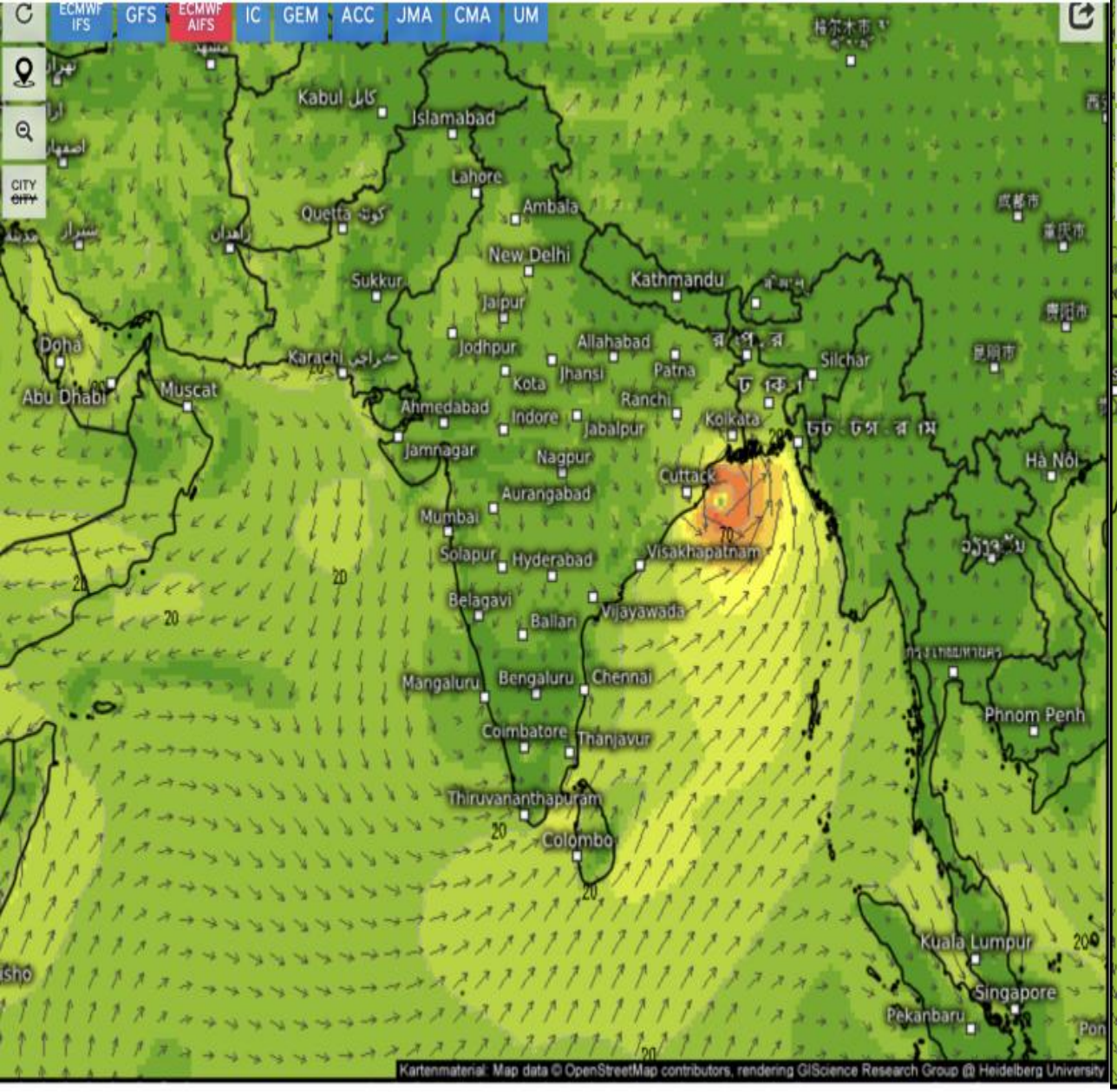
Valid for
Thu 10/24/2024, 11:30pm IST

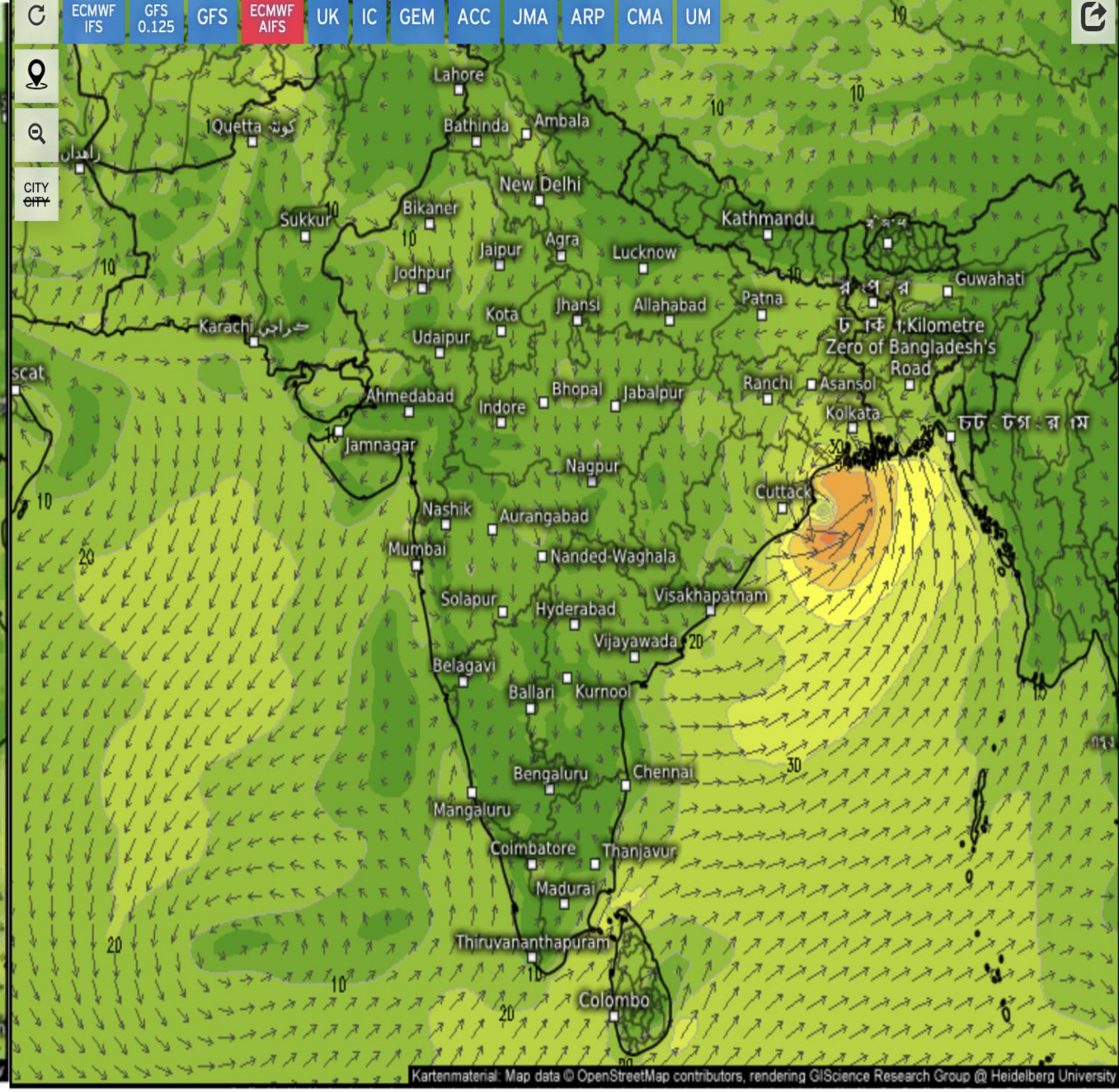
0.1 0.5 1 2 3 5 7 10 15 20 25 30 35 40 45 50 60 70 80 90 100 125 150 200 300

## Accumulated Precipitation, 24h (Satellite) (mm)

Thu 10/24/2024, 05:30am IST

0.1 0.5 1 2 3 5 7 10 15 20 25 30 35 40 45 50 60 70 80 90 100 125 150 200 300




**Wind direction and mean wind speed (kph)**

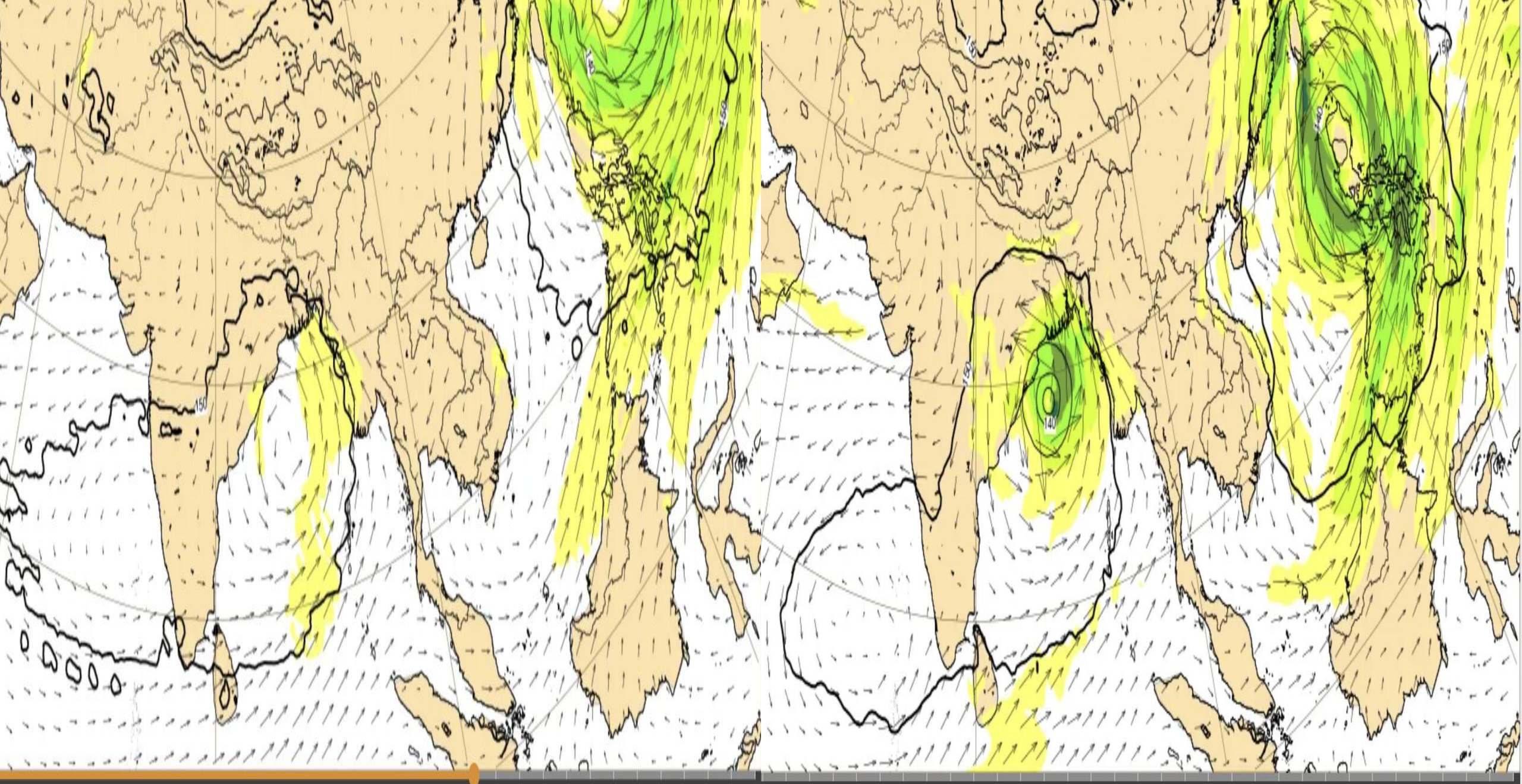
Valid for
Thu 10/24/2024, 05:30pm IST

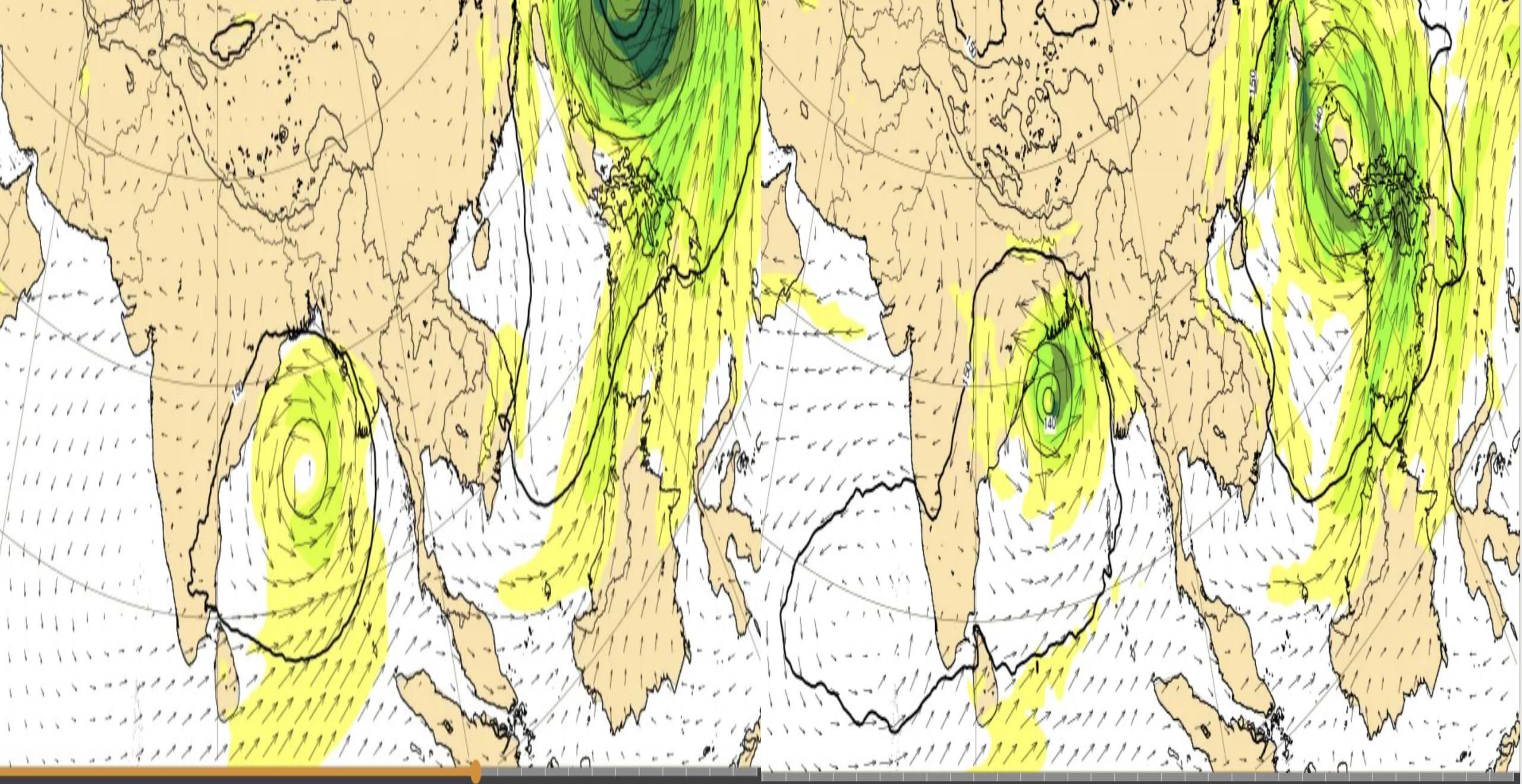
5 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 180 200 220 240 260 280

**Wind direction and mean wind speed (kph)**

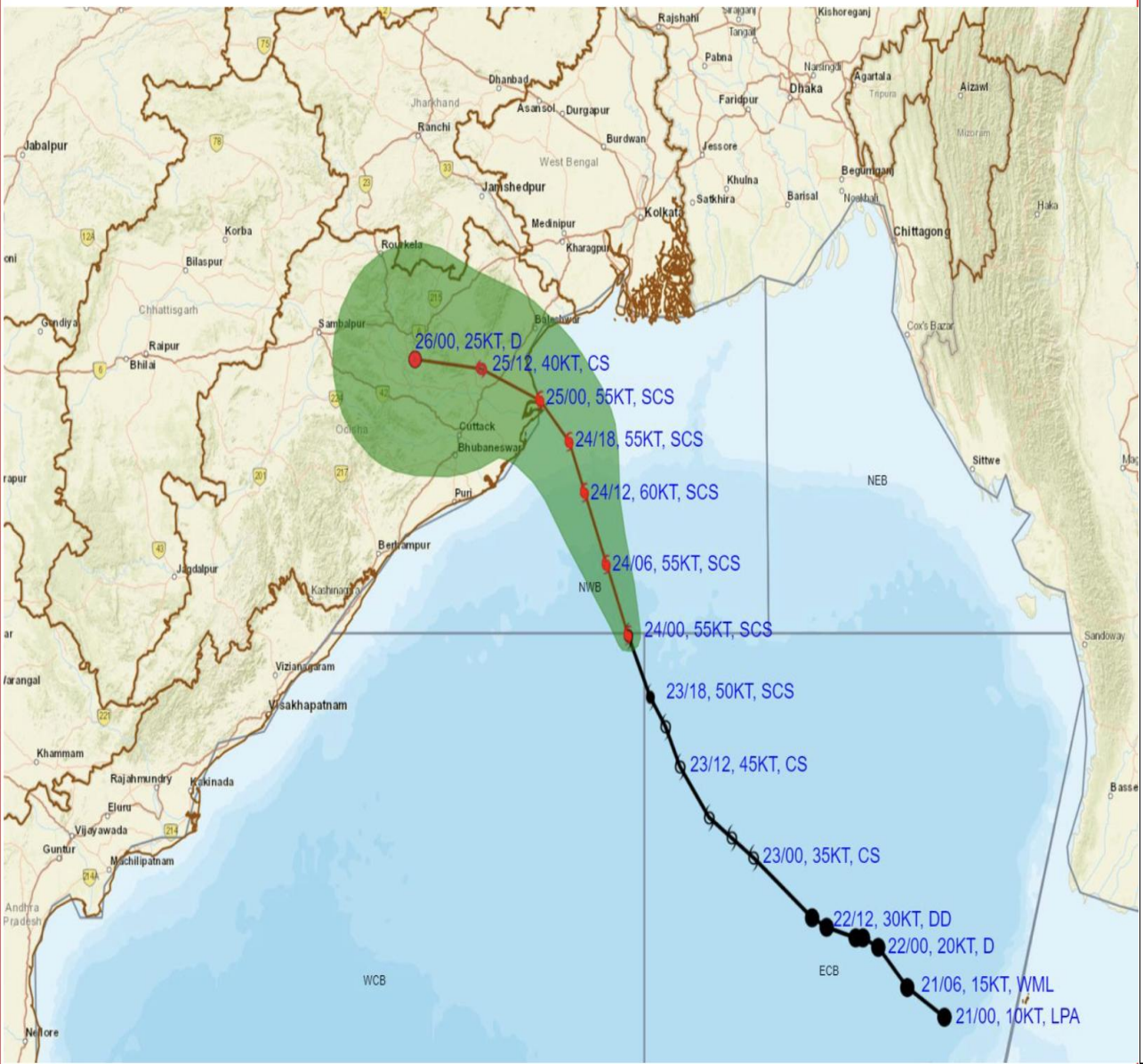
Valid for
Thu 10/24/2024, 05:30pm IST

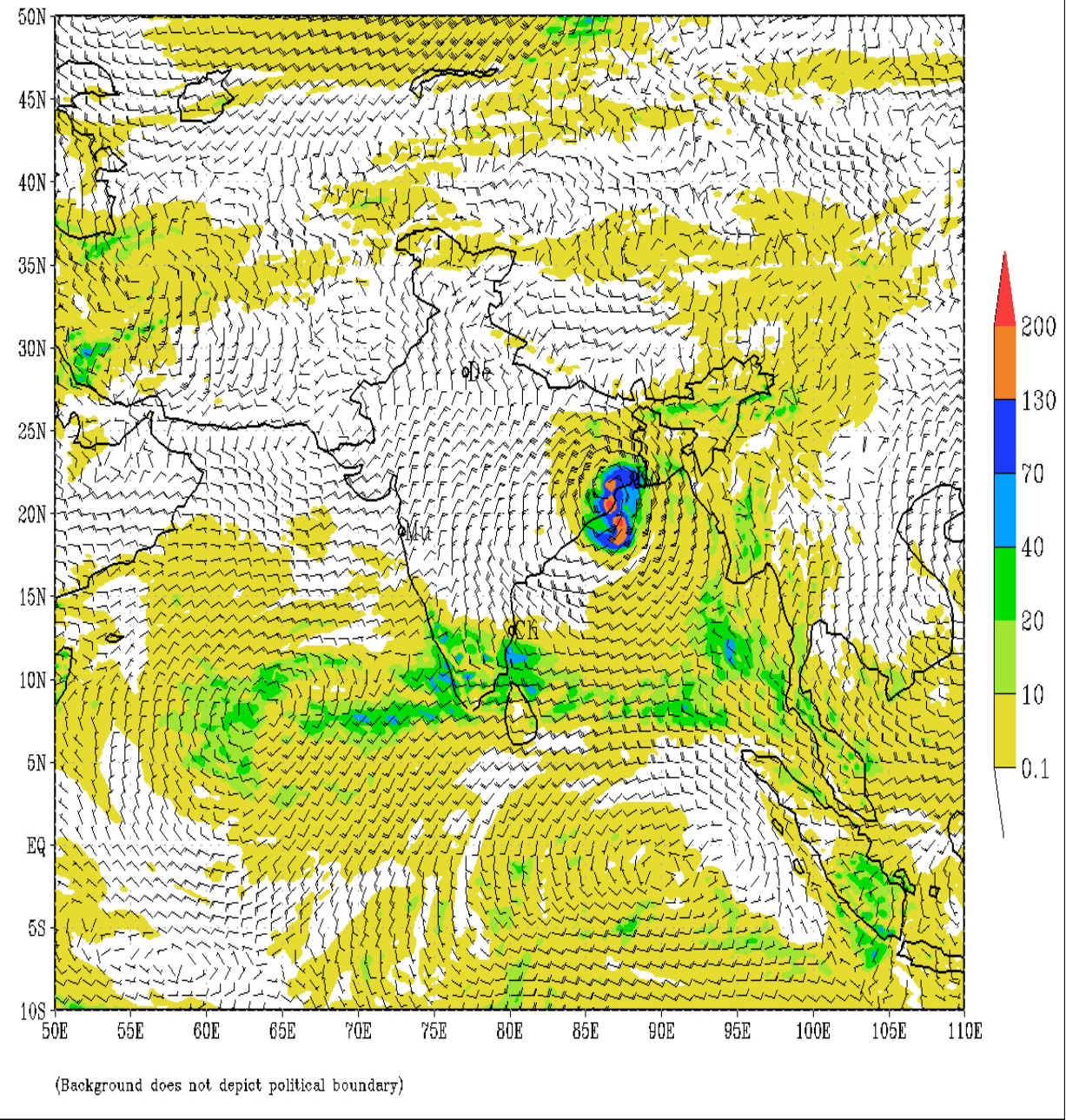
5 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 180 200 220 240 260 280

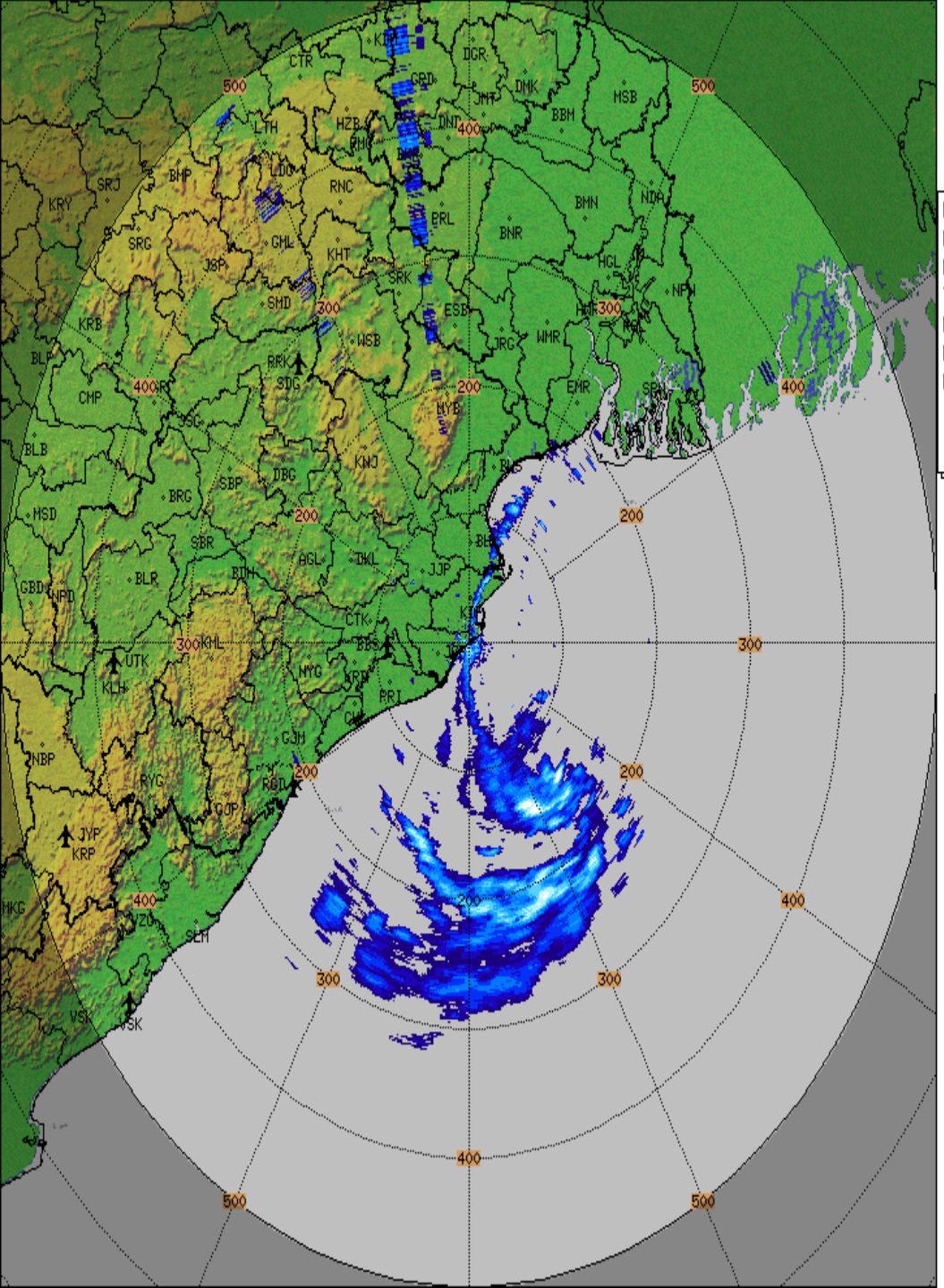

150
150
150
140
150
Thu 24 Oct 2024 00 UTC (T+168)
Thu 24 Oct 2024 00 UTC (T+0)

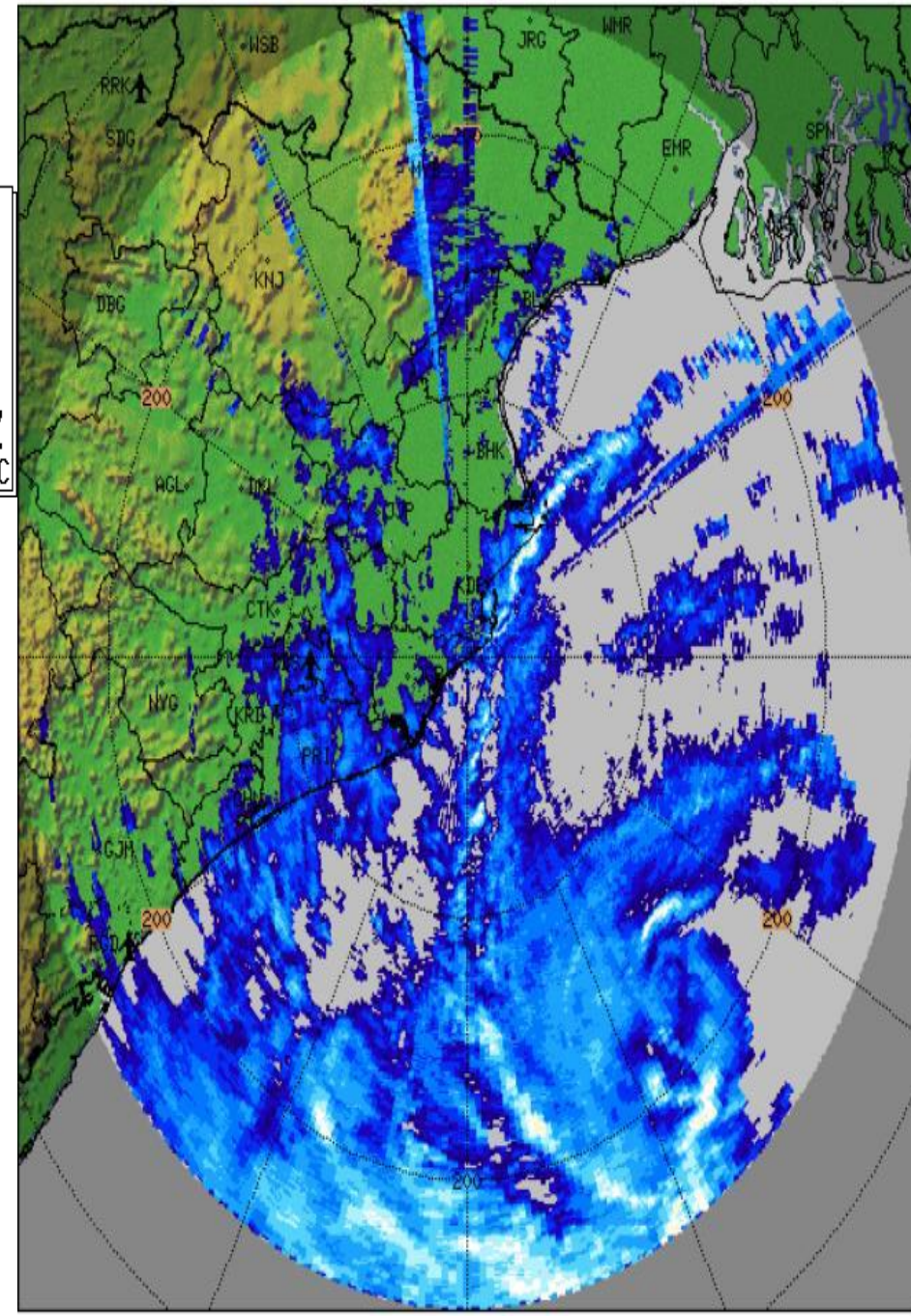

150
150
140
150
Thu 24 Oct 2024 00 UTC (T+168)
Thu 24 Oct 2024 00 UTC (T+0)

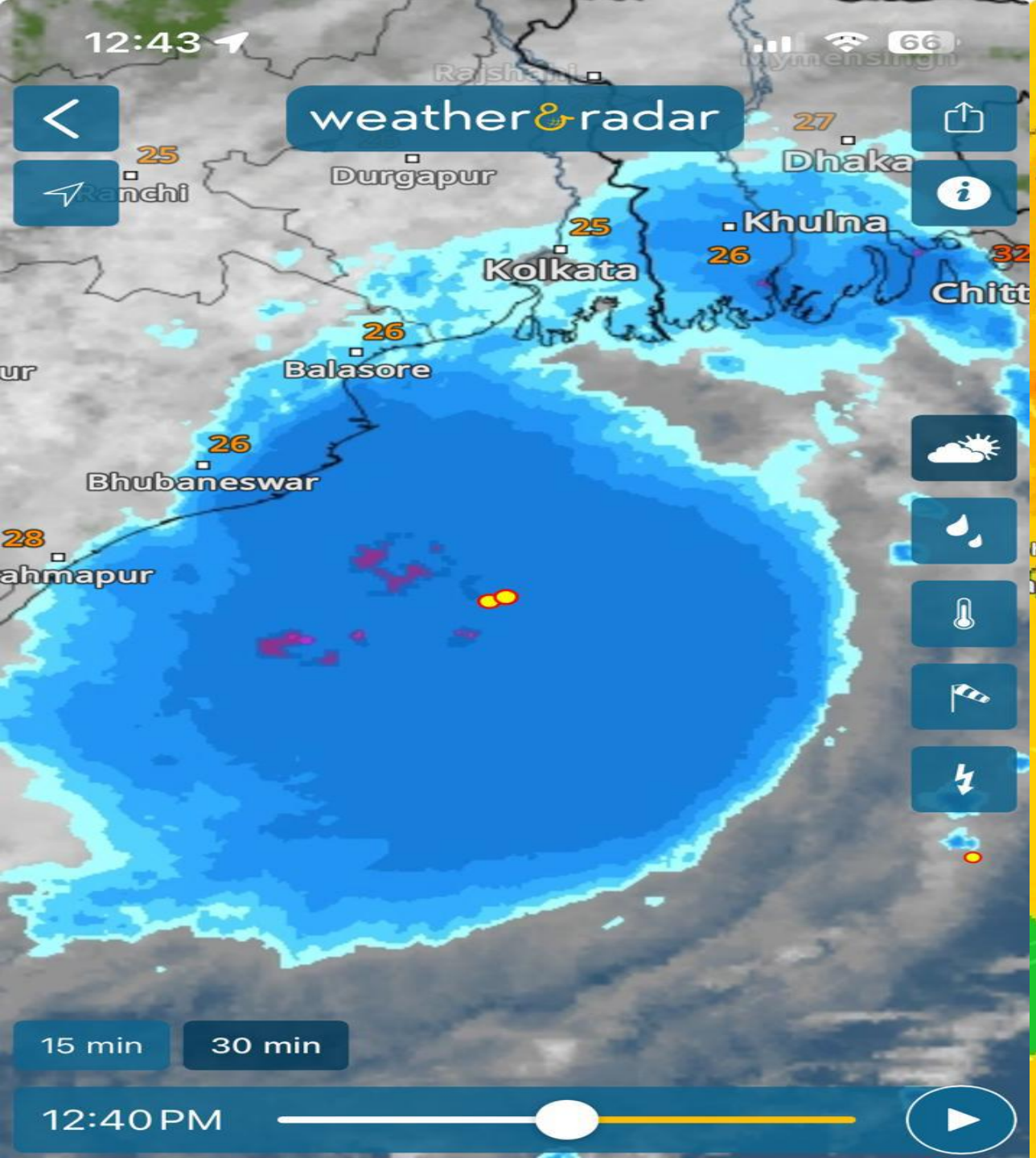
# OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINITY OF CYCLONIC STORM 'DANA' OVER NORTHWEST AND ADJOINING CENTRAL BAY OF BENGAL BASED ON 0000 UTC (0530 Hrs. IST) OF 24th OCTOBER 2024

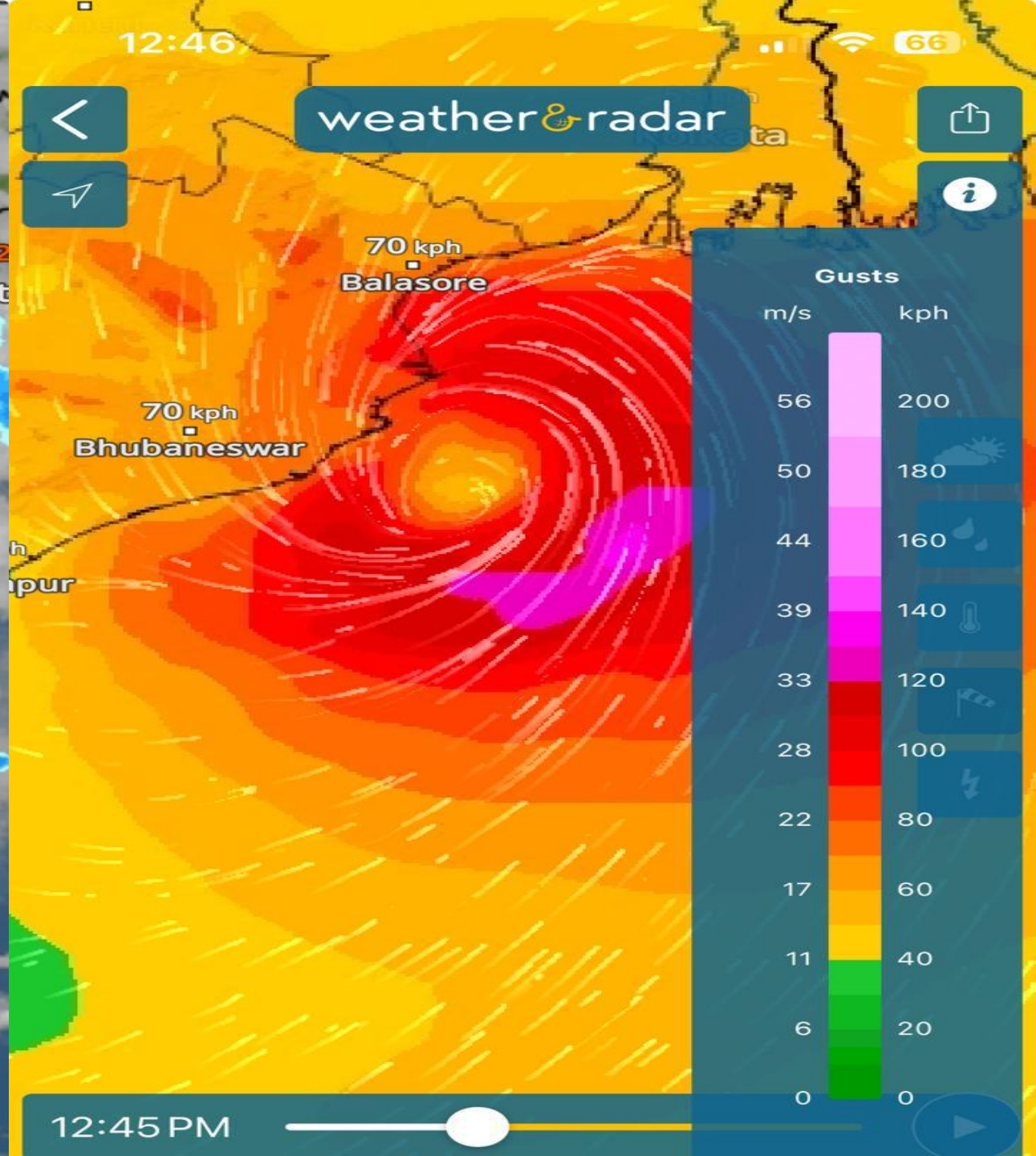


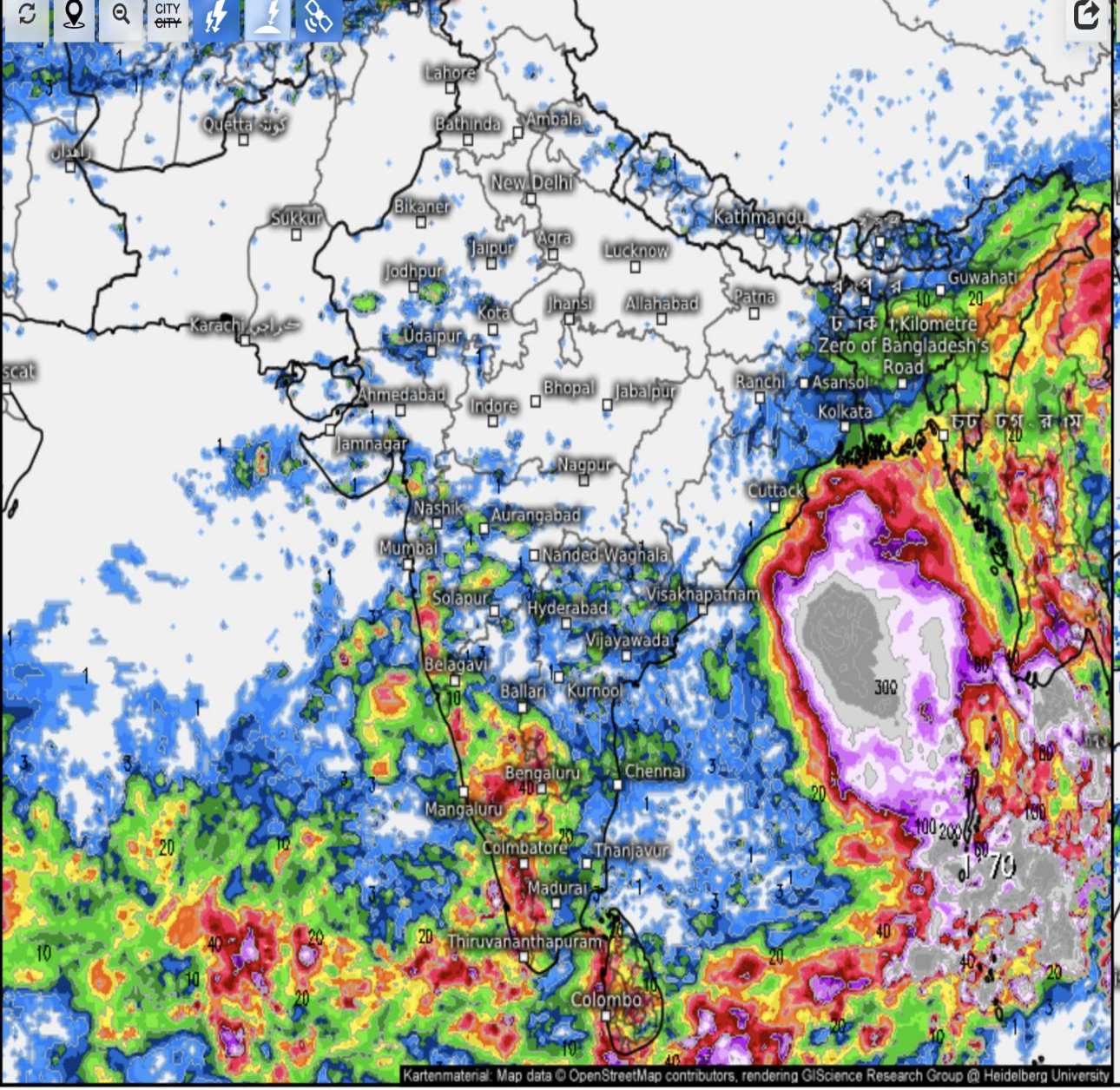



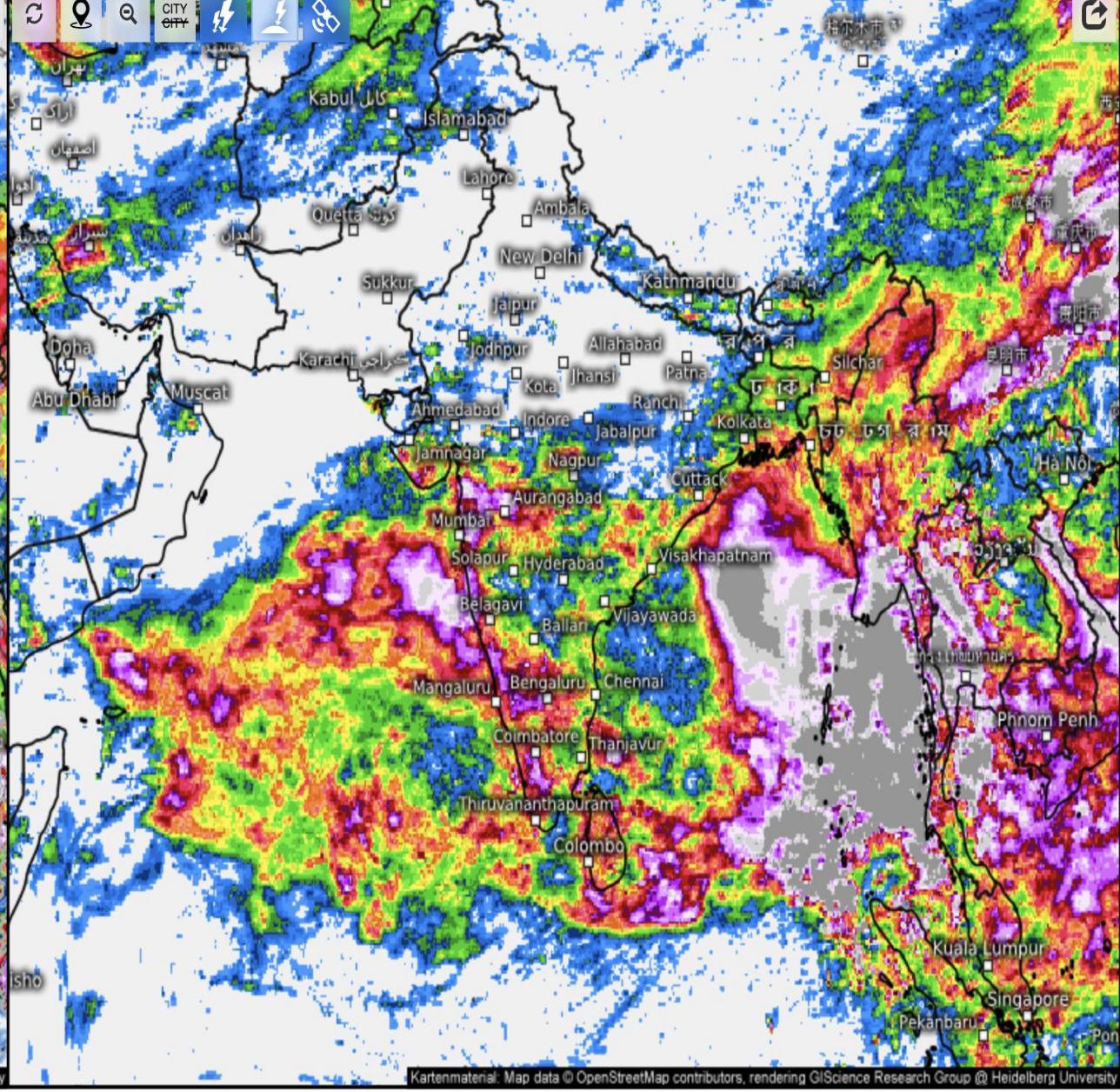

PARADEEP-RADAR
PPI
PPI_Z
Task: IMD-C
PRF: 250Hz
Elevation:0.5
Max Range:500 km
07:00:25Z
24 OCT 2024 UTC
12:30:25 IST
57.3 >60.0
54.7 57.3
52.0 54.7
49.3 52.0
46.7 49.3
44.0 46.7
41.3 44.0
38.7 41.3
36.0 38.7
33.3 36.0
30.7 33.3
28.0 30.7
25.3 28.0
22.7 25.3
20.0 22.7
Reflectivity in dBZ


PARADEEP-RADAR
CAPPI
Z_250_PSEUDO
Task: IMD-B
PRF:600/450
Height:1.0 km
Max Range:250 km
04:12:23Z
24 OCT 2024 UTC
62 >66
58 62
54 58
50 54
46 50
42 46
38 42
34 38
30 34
25 30
20 25
15 20
10 15
5 10
0 5
Reflectivity in dBZ


12:43
weather&radar
Durgapur
Dhaka
Khulna
Kolkata
Balasore
Bhubaneswar
25
27
26
28
15 min
30 min
12:40 PM


12:46
weather&radar
70 kph
Balasore
70 kph
Bhubaneswar
Gusts
m/s
kph
56
50
44
39
33
28
22
17
11
6
0
200
180
160
140
120
100
80
60
40
20
0
12:45 PM



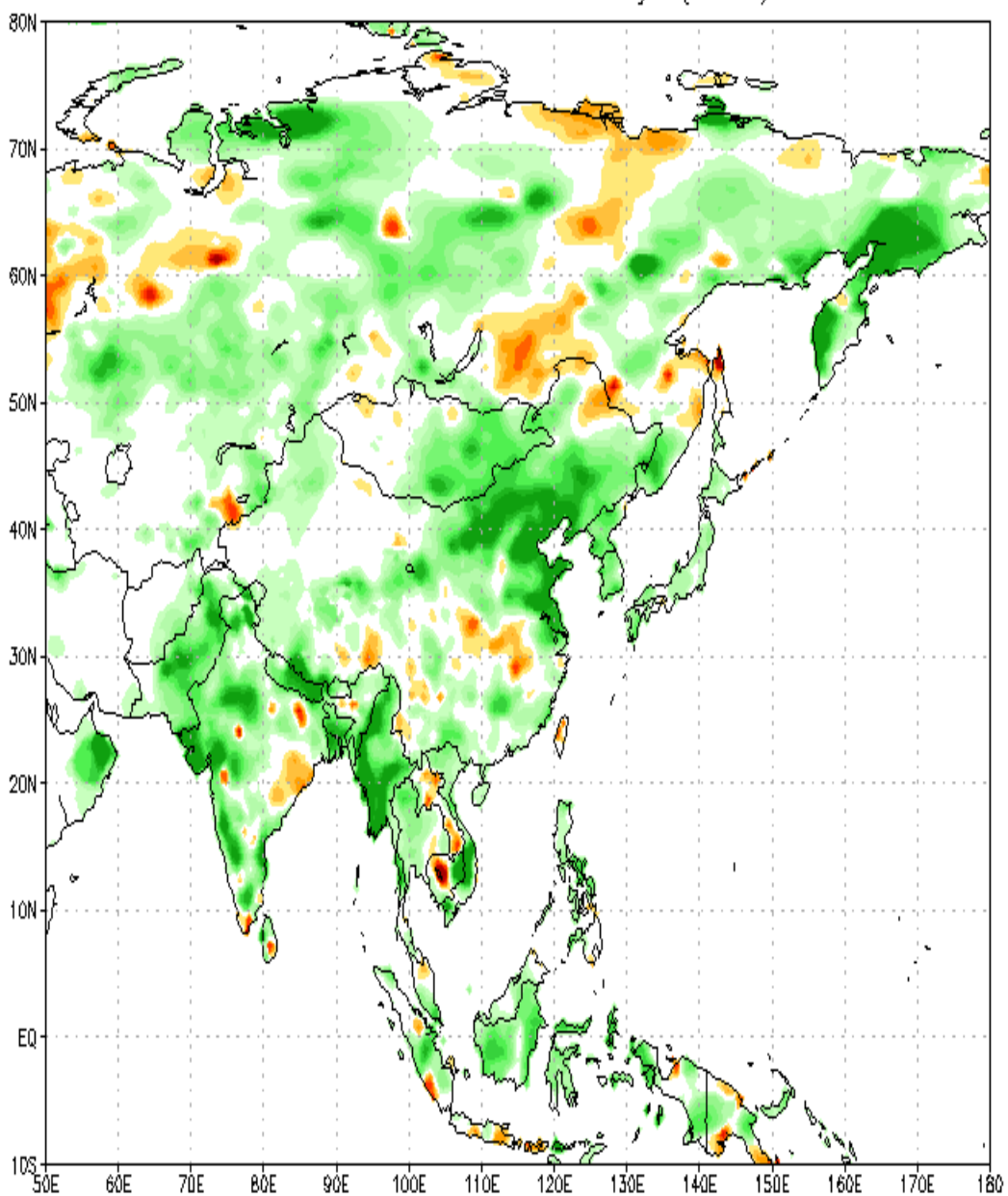



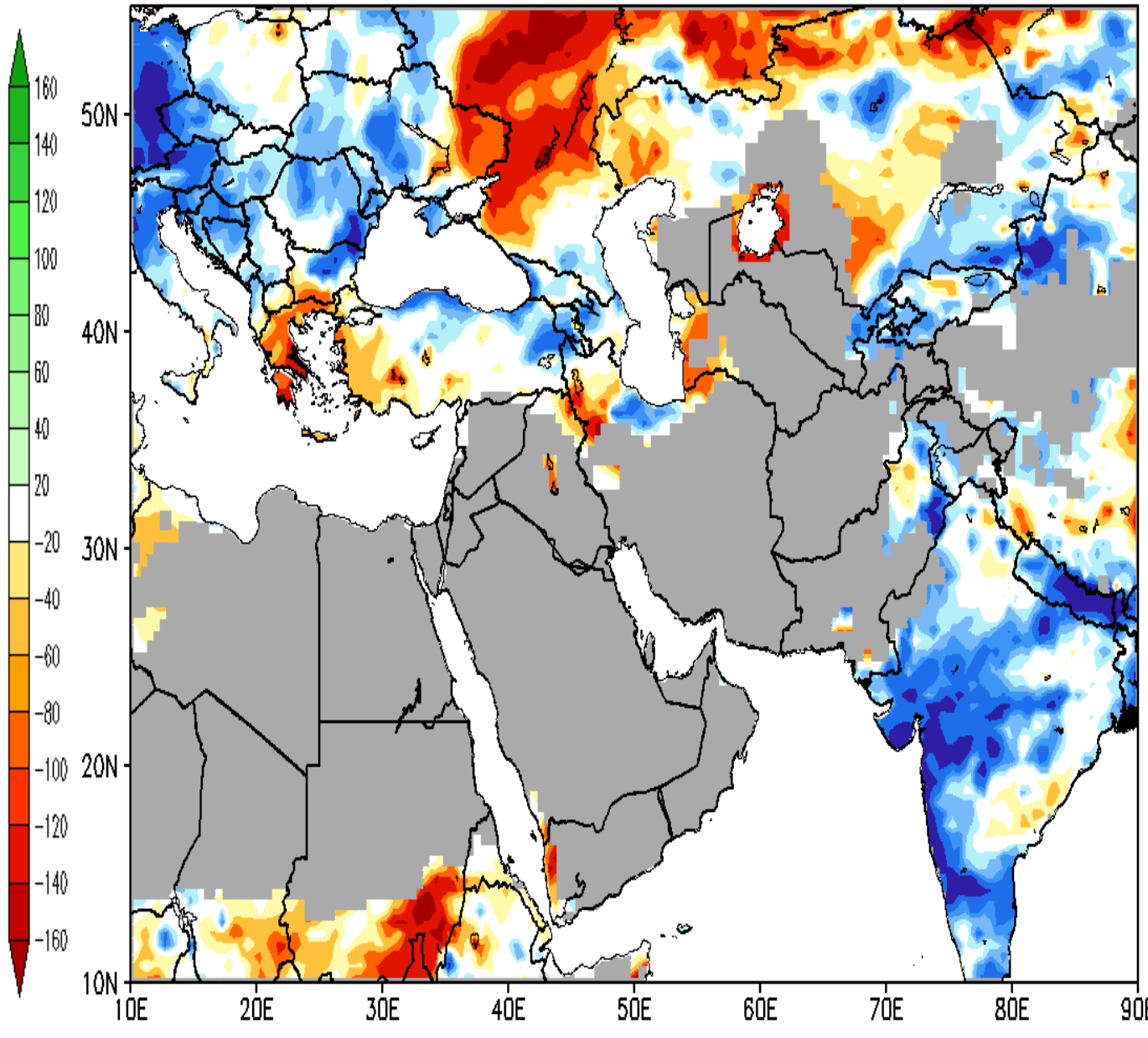

## Accumulated Precipitation, 72h (Satellite) (mm)

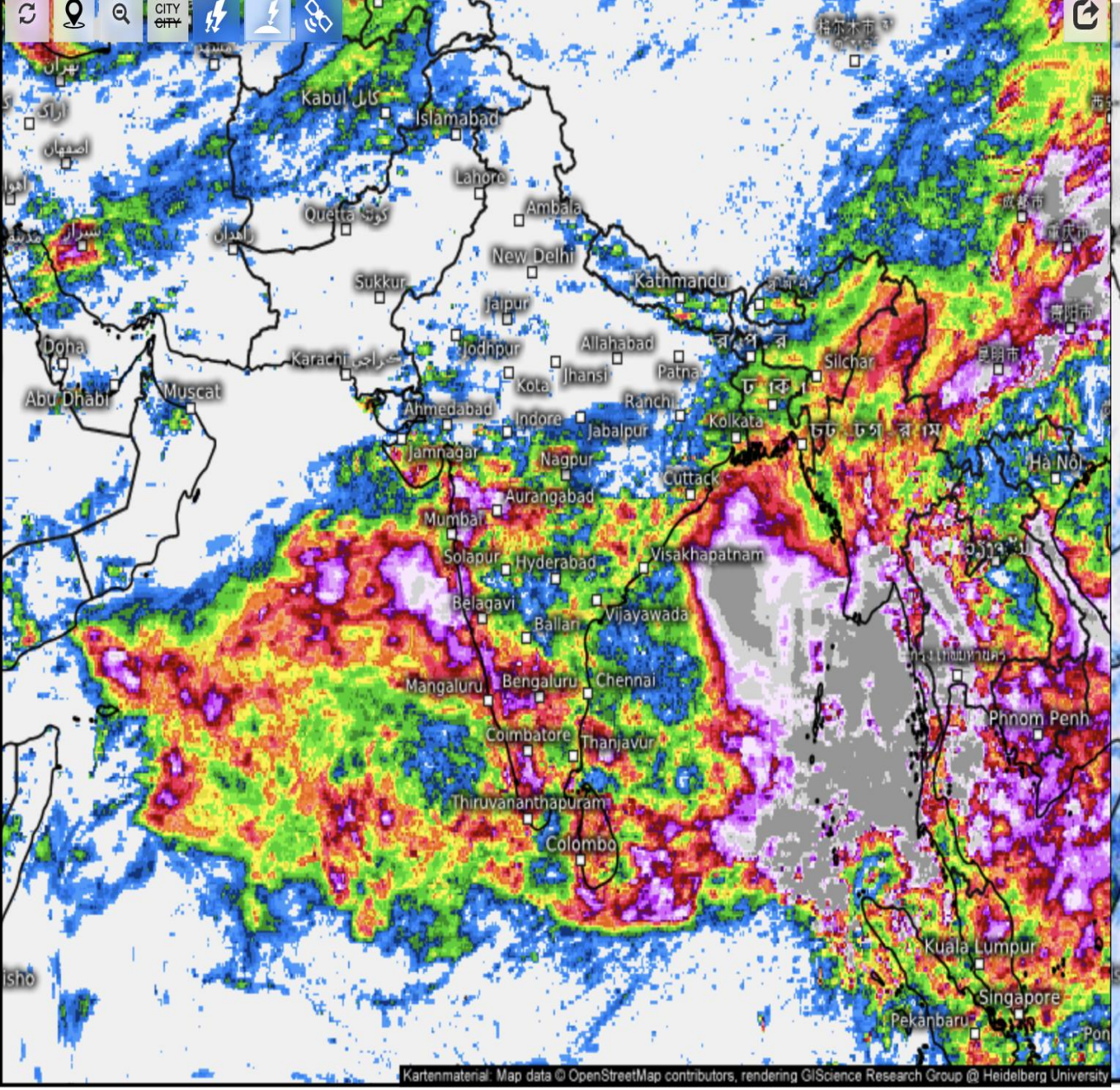
Thu 10/24/2024, 08:30am IST

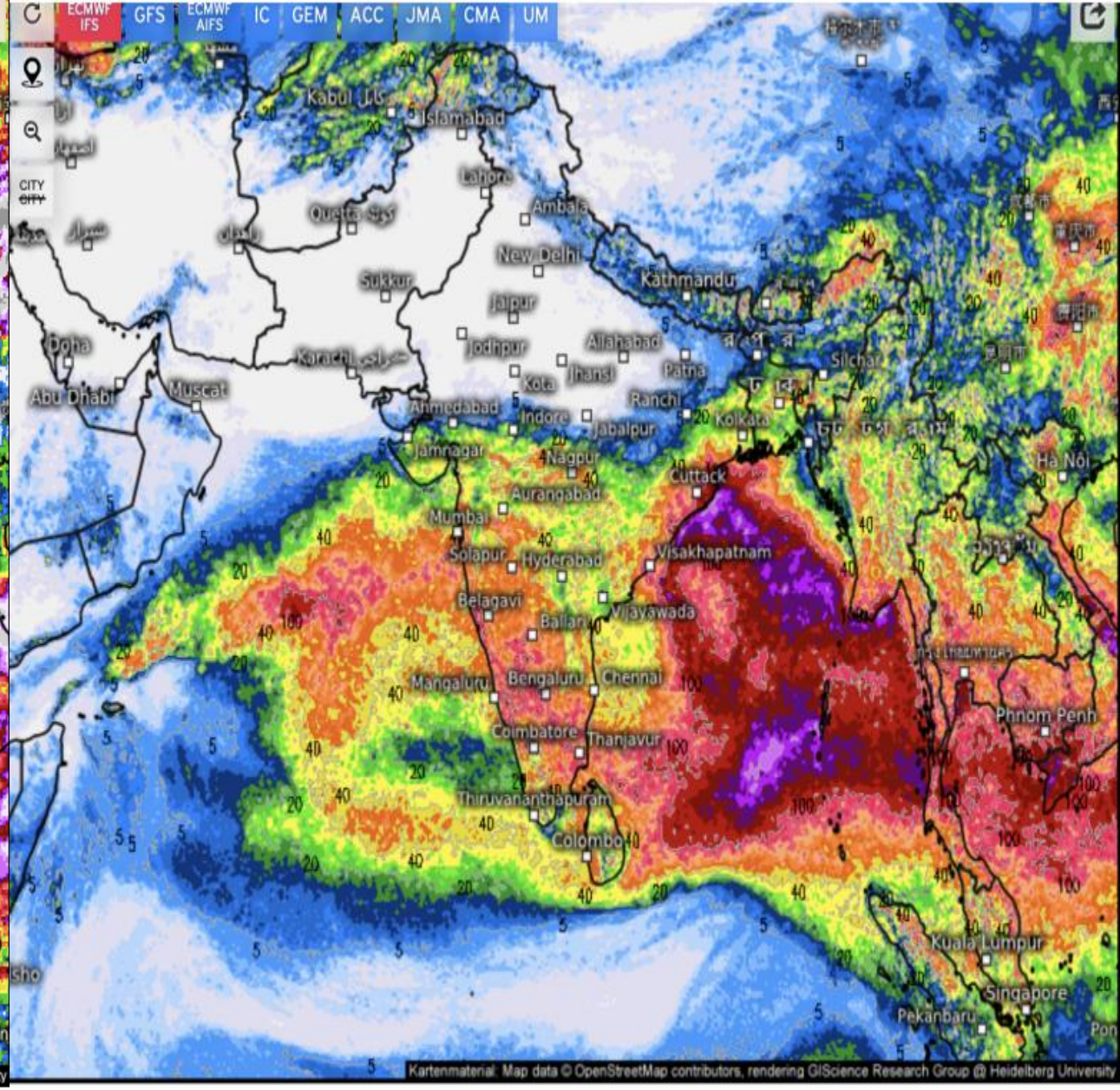

## Accumulated Precipitation, 7 days (Satellite) (mm)

Thu 10/24/2024, 08:30am IST


Calculated Soil Moisture Anomaly (mm) 20241022
80N
70N
60N
50N
40N
30N
20N
10N
EQ
10S
50E
60E
70E
80E
90E
100E
110E
120E
130E
140E
150E
160E
170E
180
160
140
120
100
80
60
40
20
-20
-40
-60
-80
-100
-120
-140
-160


CMORPH ADJ 00Z SPEI 1mo
22 September 2024 - 21 October 2024
50N
40N
30N
20N
10N
10E
20E
30E
40E
50E
60E
70E
80E
90E
-2
-1.5
-1.2
-0.8
-0.4
0.4
0.8
1.2
1.5
2




**Accumulated Precipitation, 7 days (Satellite) (mm)**

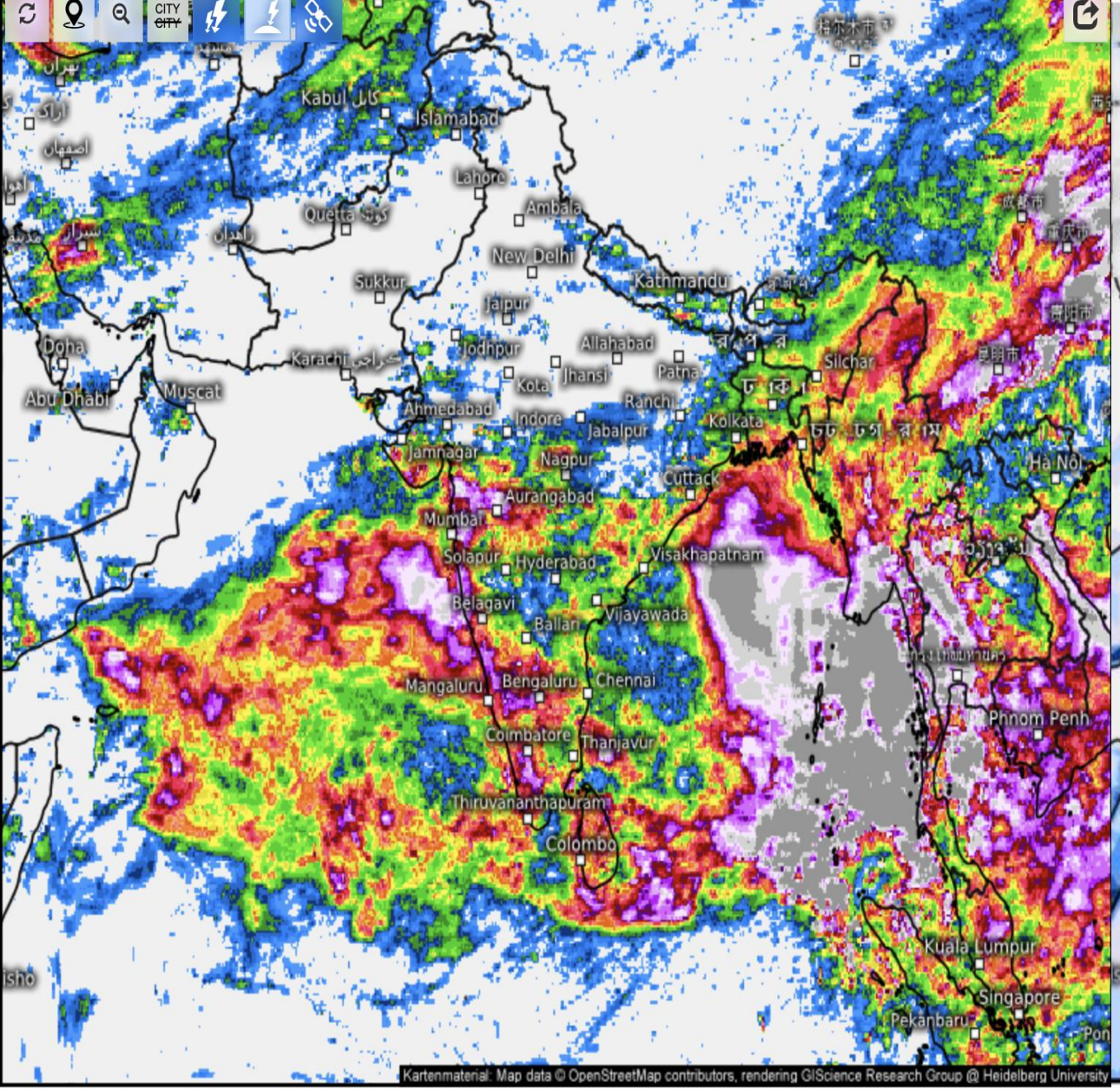
Thu 10/24/2024, 08:30am IST

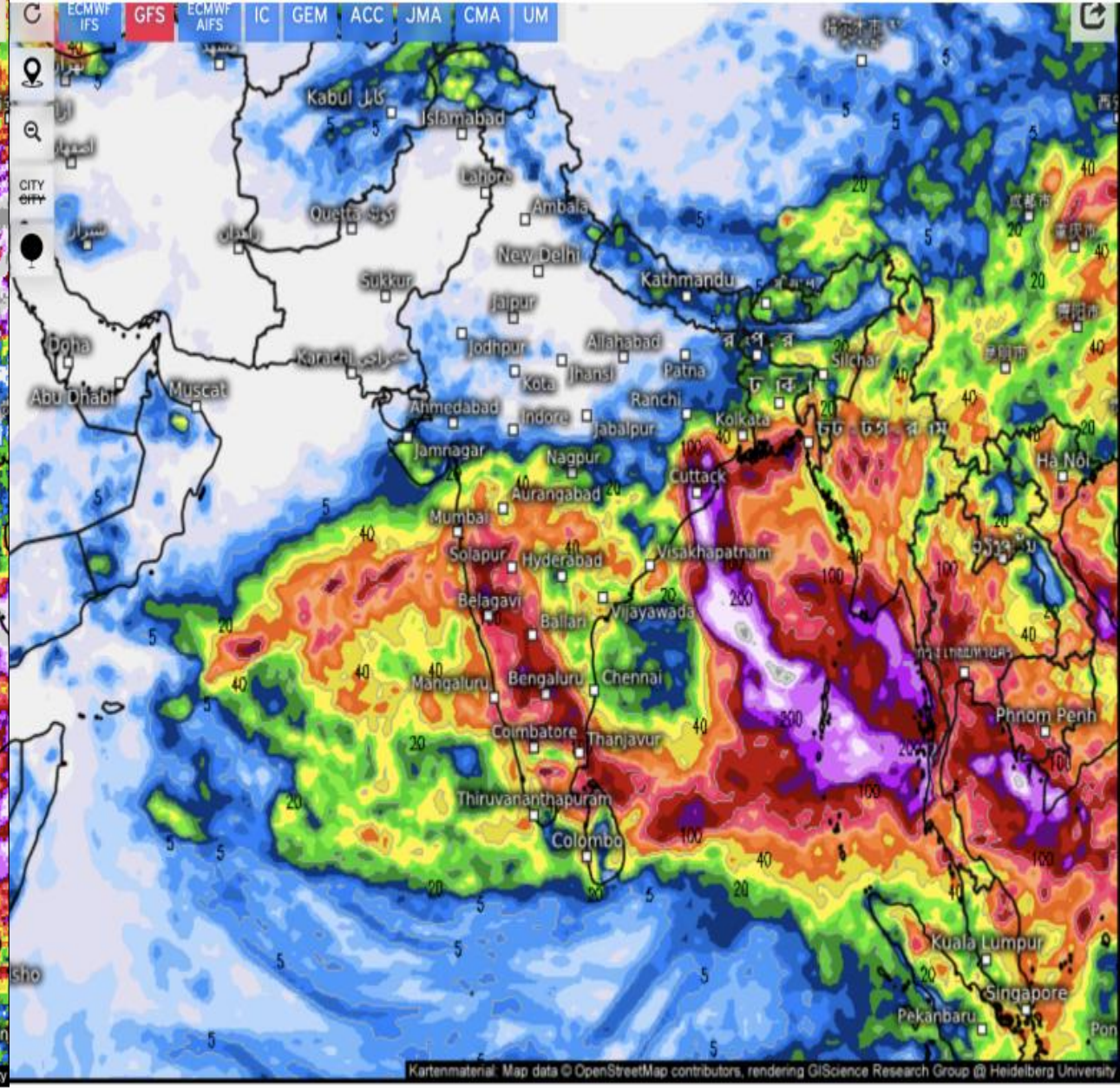
0.1 0.5 1 2 3 5 7 10 15 20 25 30 35 40 45 50 60 70 80 90 100 125 150 200 300

**Accumulated total precipitation (mm)**

From Thu 10/17/2024, 05:30am IST
to Thu 10/24/2024, 05:30pm IST

0.1 1 2 3 5 7 10 15 20 25 30 40 50 60 70 80 90 100 125 150 175 200 250 300 400 500




**Accumulated Precipitation, 7 days (Satellite) (mm)**

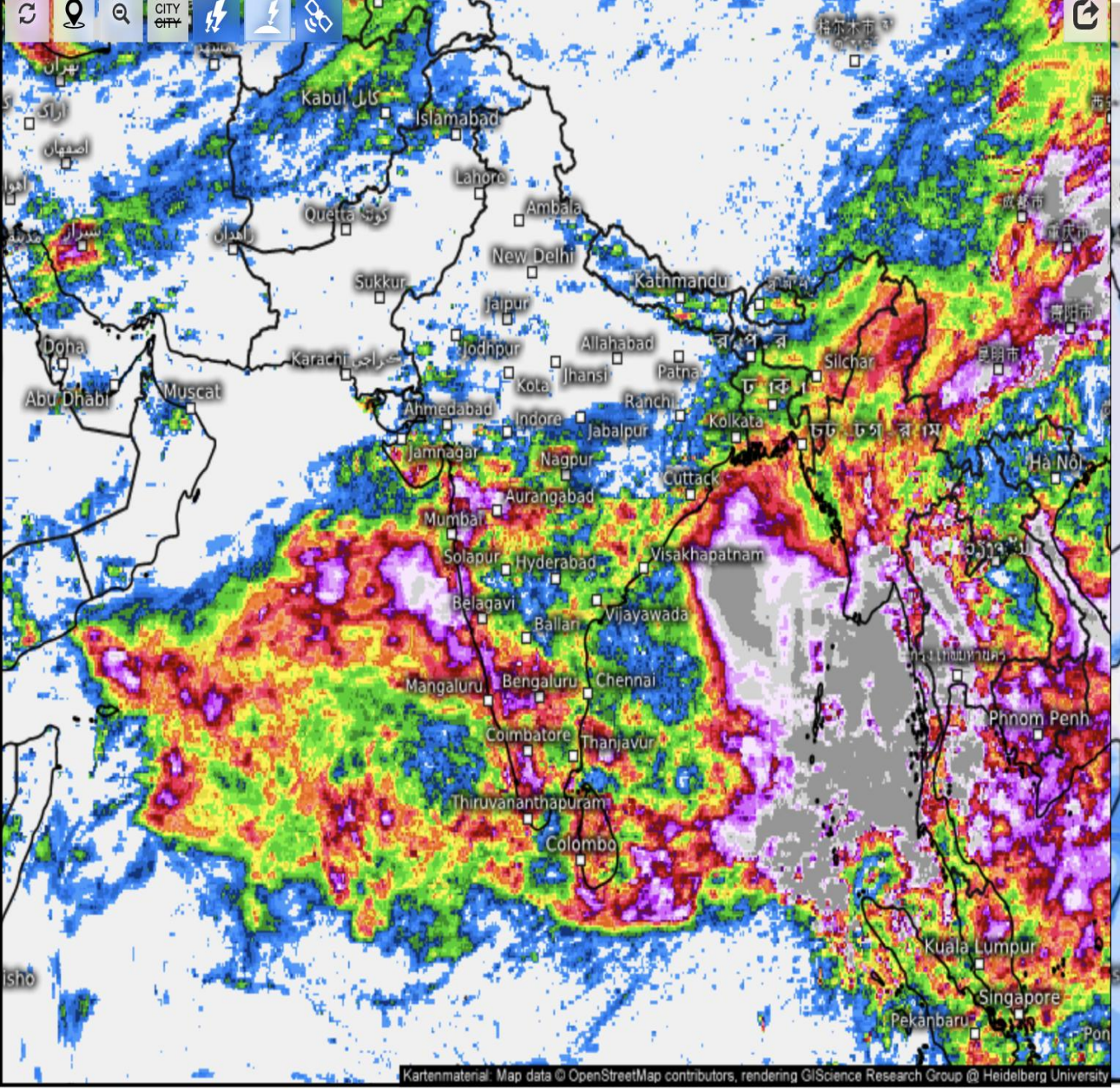
Thu 10/24/2024, 08:30am IST

0.1 0.5 1 2 3 5 7 10 15 20 25 30 35 40 45 50 60 70 80 90 100 125 150 200 300

**Accumulated total precipitation (mm)**

From Thu 10/17/2024, 05:30am IST
to Thu 10/24/2024, 05:30pm IST

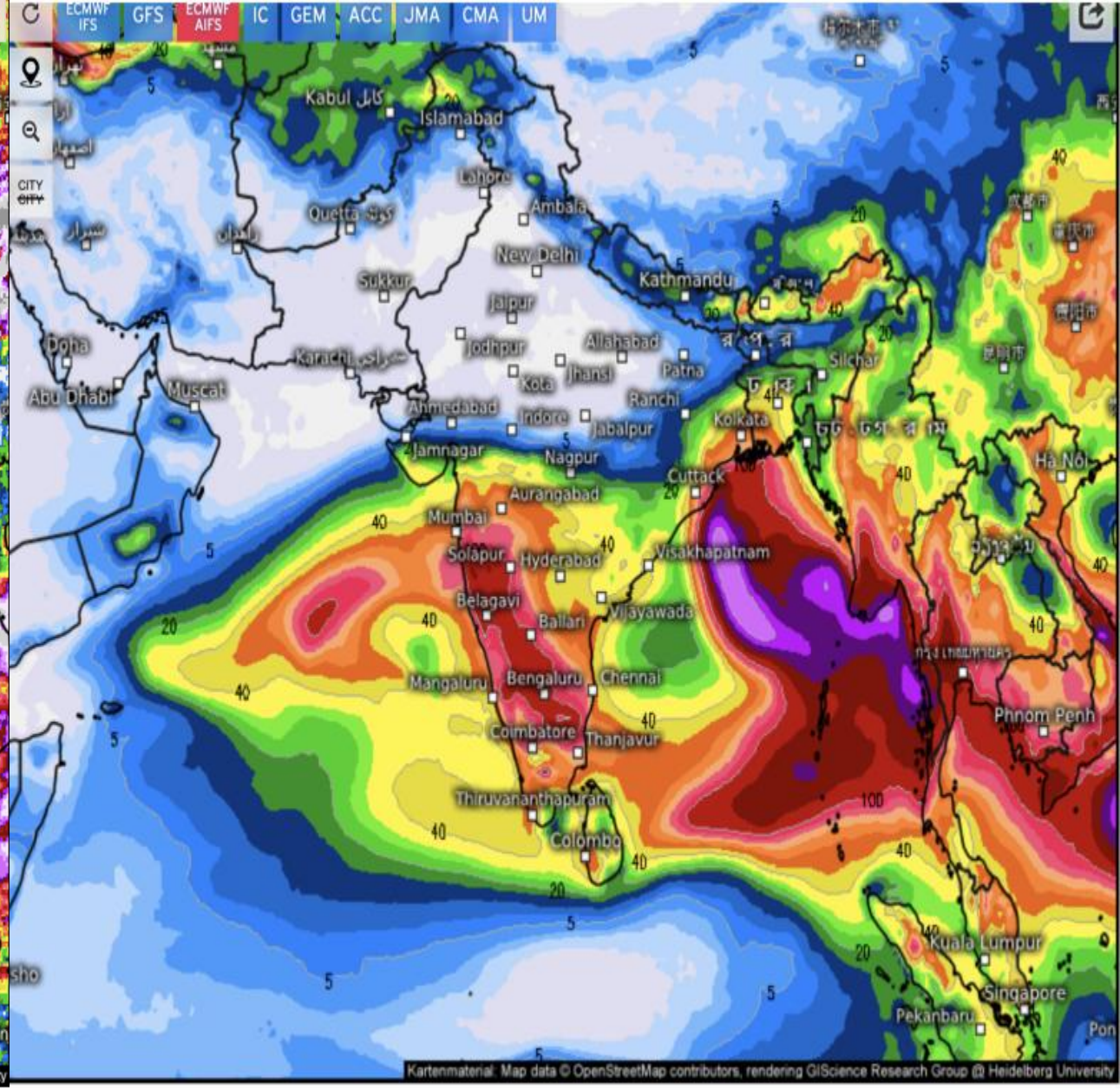
0.1 1 2 3 5 7 10 15 20 25 30 40 50 60 70 80 90 100 125 150 175 200 250 300 400 500




Accumulated Precipitation, 7 days (Satellite) (mm)

Thu 10/24/2024, 08:30am IST

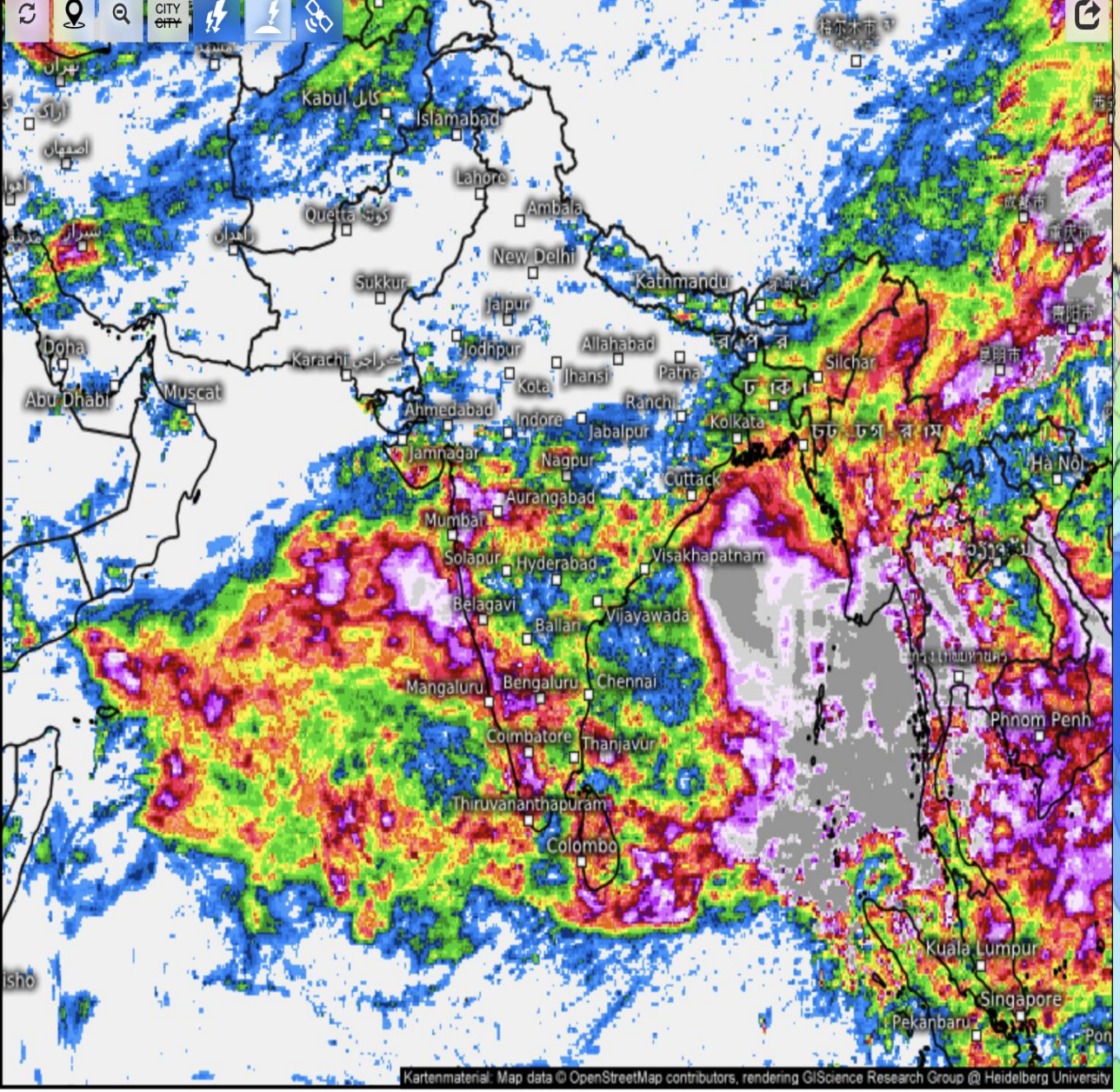
0.1 0.5 1 2 3 5 7 10 15 20 25 30 35 40 45 50 60 70 80 90 100 125 150 200 300




Accumulated total precipitation (mm)

From Wed 10/16/2024, 11:30pm IST
to Thu 10/24/2024, 05:30pm IST

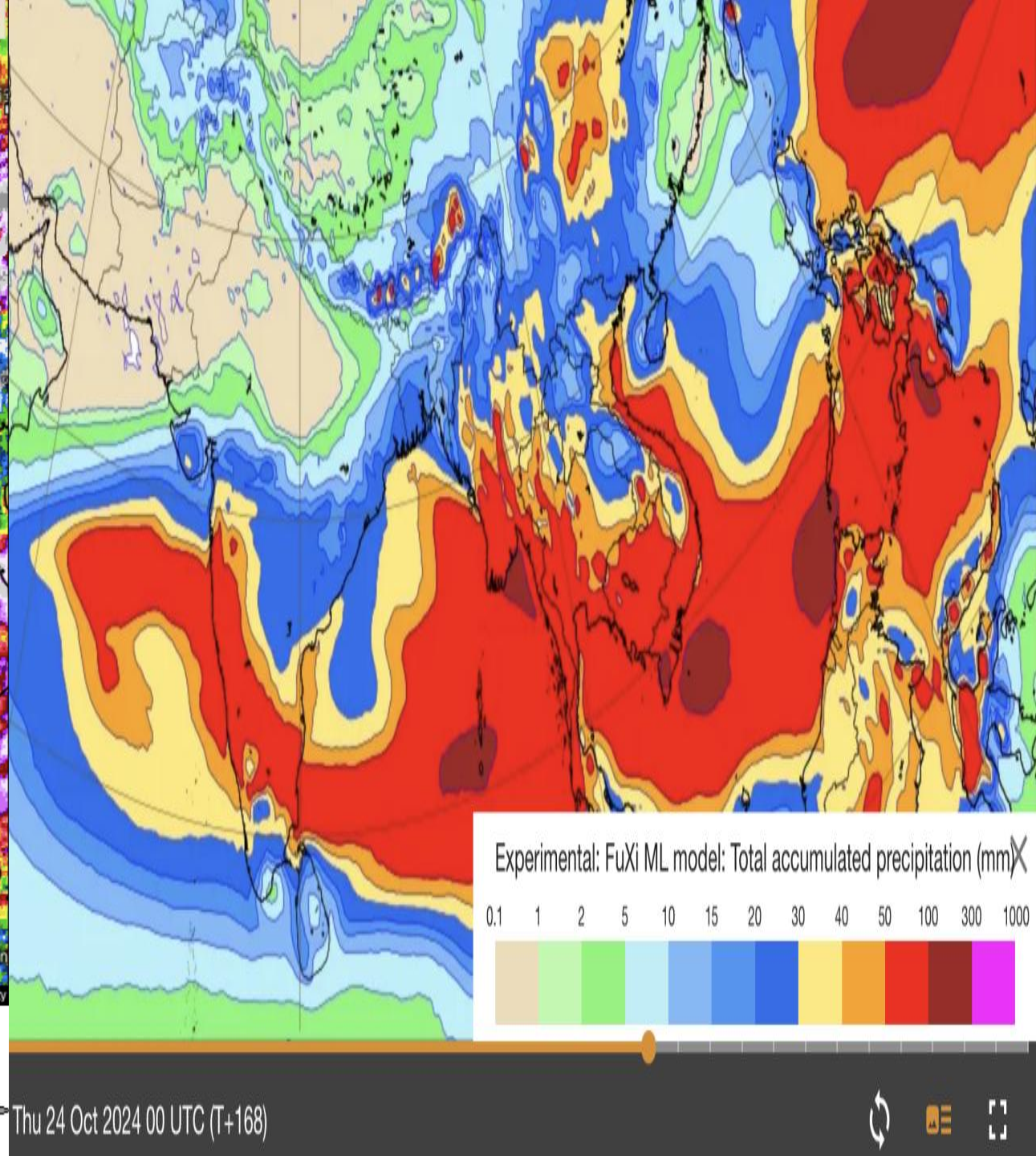
0.1 1 2 3 5 7 10 15 20 25 30 40 50 60 70 80 90 100 125 150 175 200 250 300 400 500

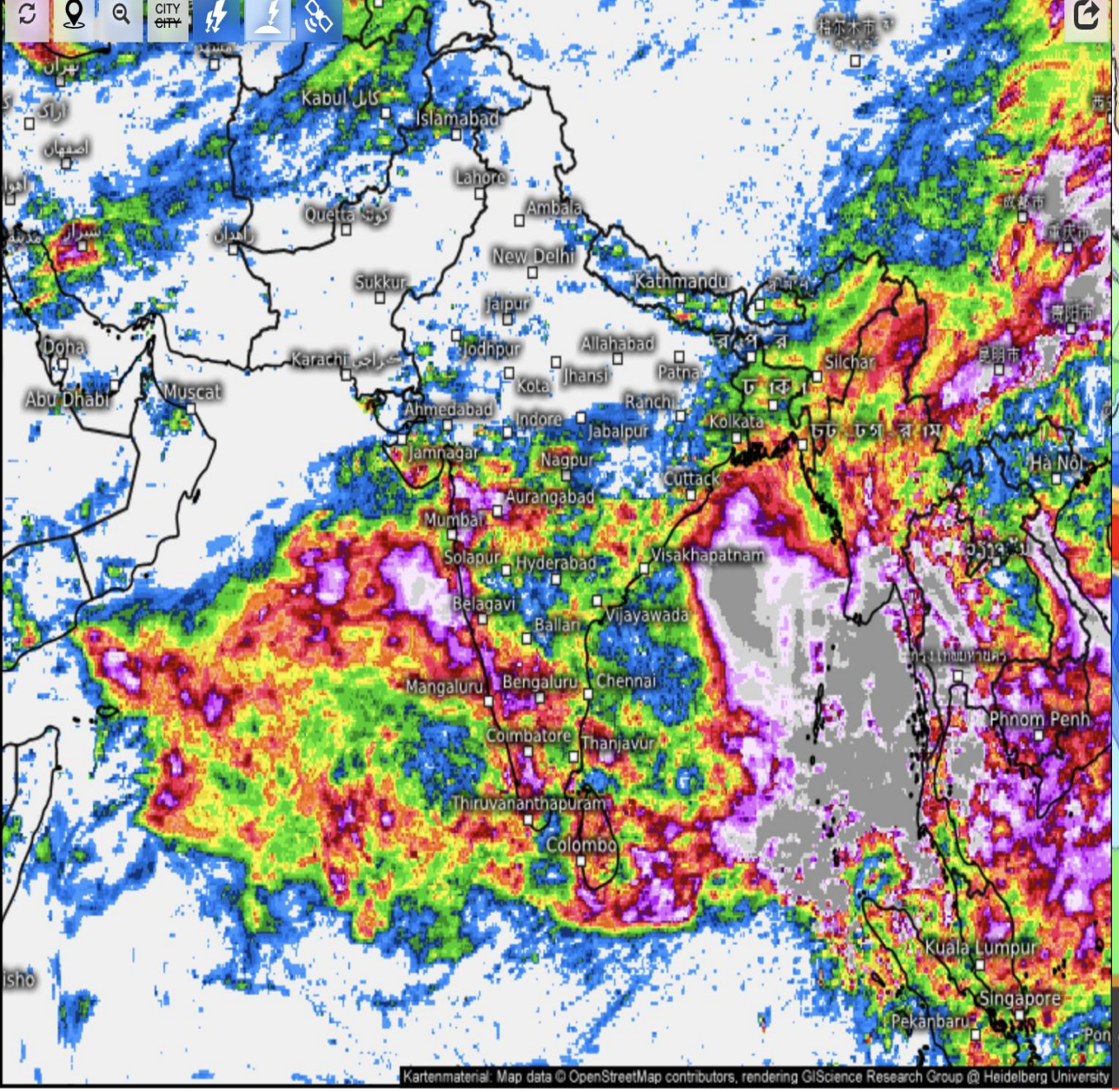


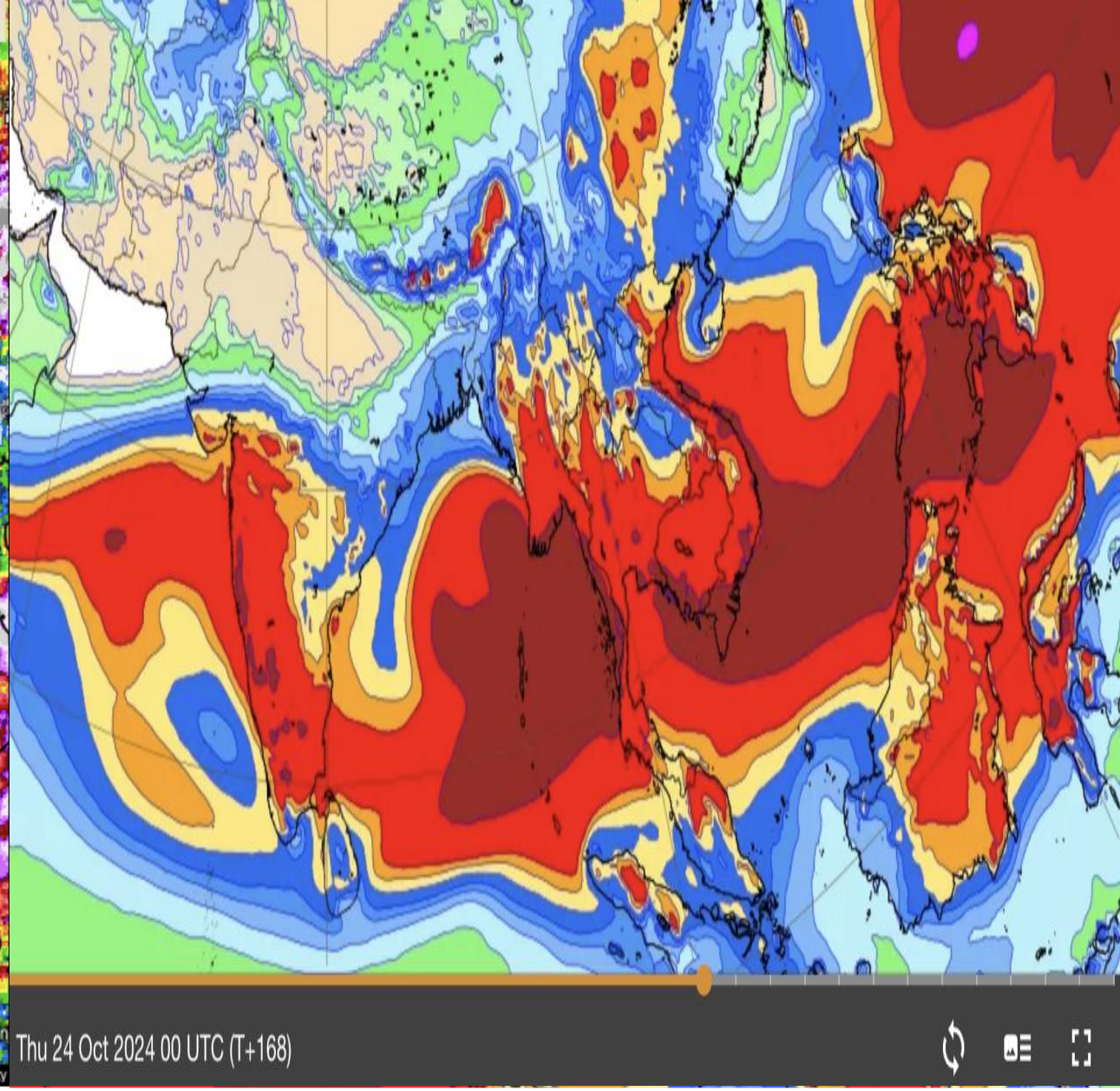

**Accumulated Precipitation, 7 days (Satellite) (mm)**

Thu 10/24/2024, 08:30am IST

0.1 0.5 1 2 3 5 7 10 15 20 25 30 35 40 45 50 60 70 80 90 100 125 150 200 300

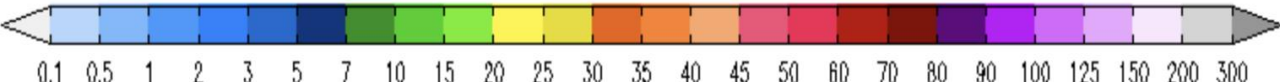




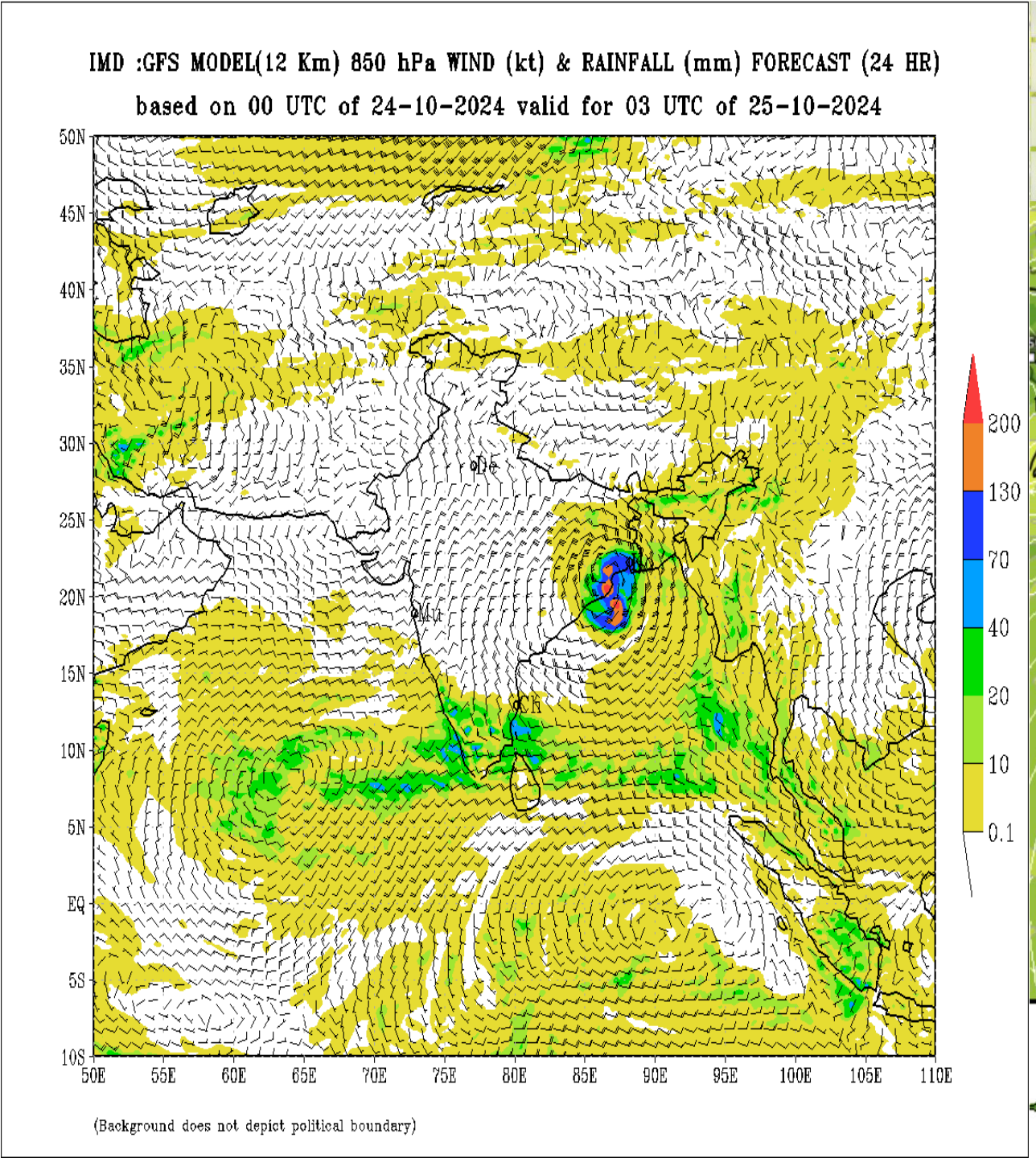



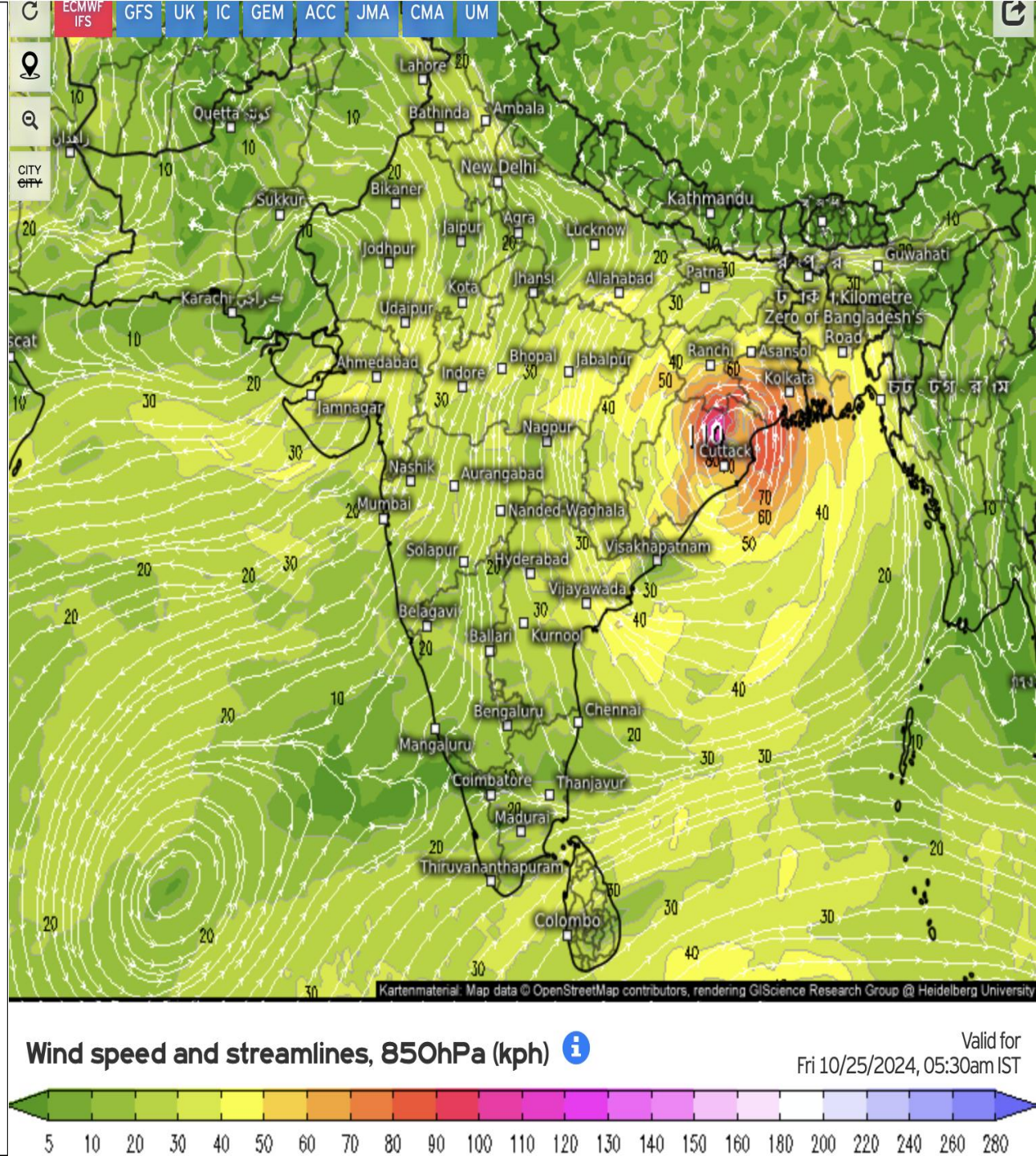

**Accumulated Precipitation, 7 days (Satellite) (mm)**

Thu 10/24/2024, 08:30am IST




Experimental: GraphCast (Google Deepmind) ML model: Total accumulated precipitation (mm)


IMD :GFS MODEL(12 Km) 850 hPa WIND (kt) & RAINFALL (mm) FORECAST (24 HR)
based on 00 UTC of 24-10-2024 valid for 03 UTC of 25-10-2024
50N
45N
40N
35N
30N
25N
20N
15N
10N
5N
EQ
5S
10S
50E
55E
60E
65E
70E
75E
80E
85E
90E
95E
100E
105E
110E
200
130
70
40
20
10
0.1
(Background does not depict political boundary)


ECMWF IFS
GFS
UK
IC
GEM
ACC
JMA
CMA
UM
CITY
Lahore
Quetta
Bathinda
Ambala
New Delhi
Bikaner
Sukkur
Kathmandu
Jaipur
Agra
Lucknow
Jodhpur
Guwahati
Patna
Kota
Jhansi
Allahabad
Karachi
Udaipur
Kilometre Zero of Bangladesh's Road
Ahmedabad
Indore
Bhopal
Jabalpur
Ranchi
Asansol
Kolkata
Jamnagar
Nagpur
Cuttack
Nashik
Aurangabad
Mumbai
Nanded Waghala
Solapur
Hyderabad
Visakhapatnam
Vijayawada
Belagavi
Ballari
Kurnool
Bengaluru
Chennai
Mangaluru
Coimbatore
Thanjavur
Madurai
Thiruvananthapuram
Colombo
Kartenmaterial: Map data © OpenStreetMap contributors, rendering GIScience Research Group @ Heidelberg University
Wind speed and streamlines, 850hPa (kph)
Valid for
Fri 10/25/2024, 05:30am IST
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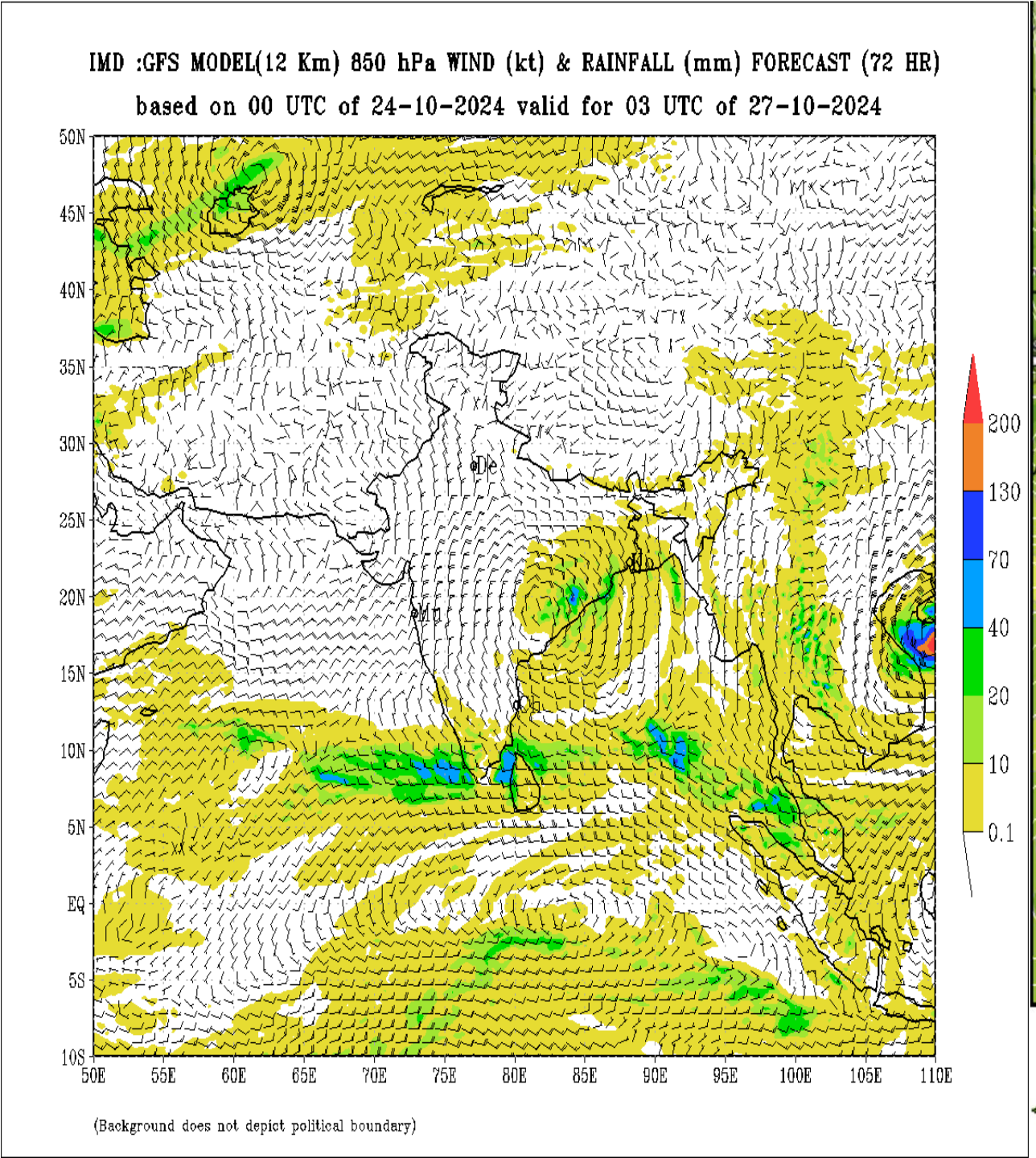
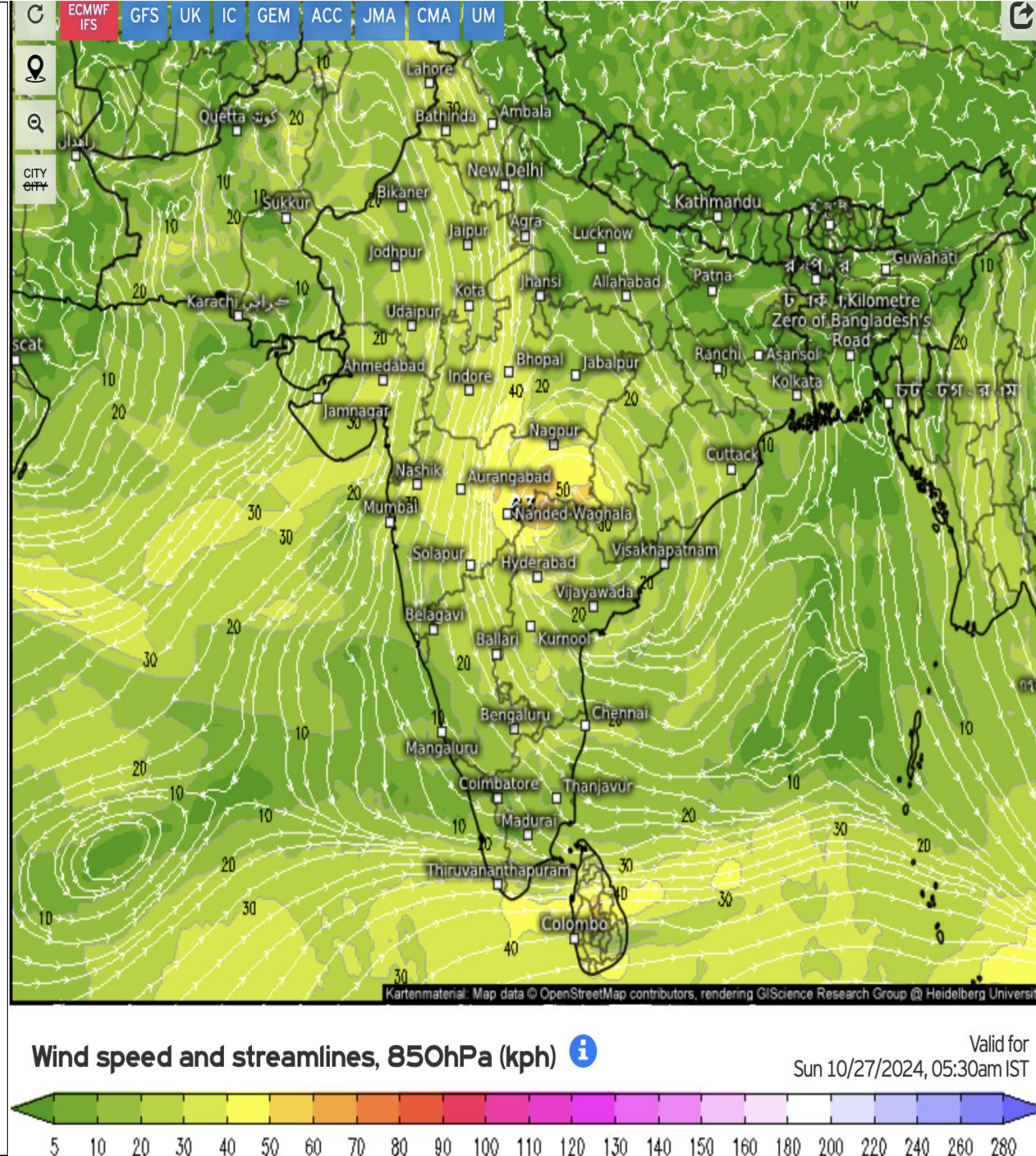
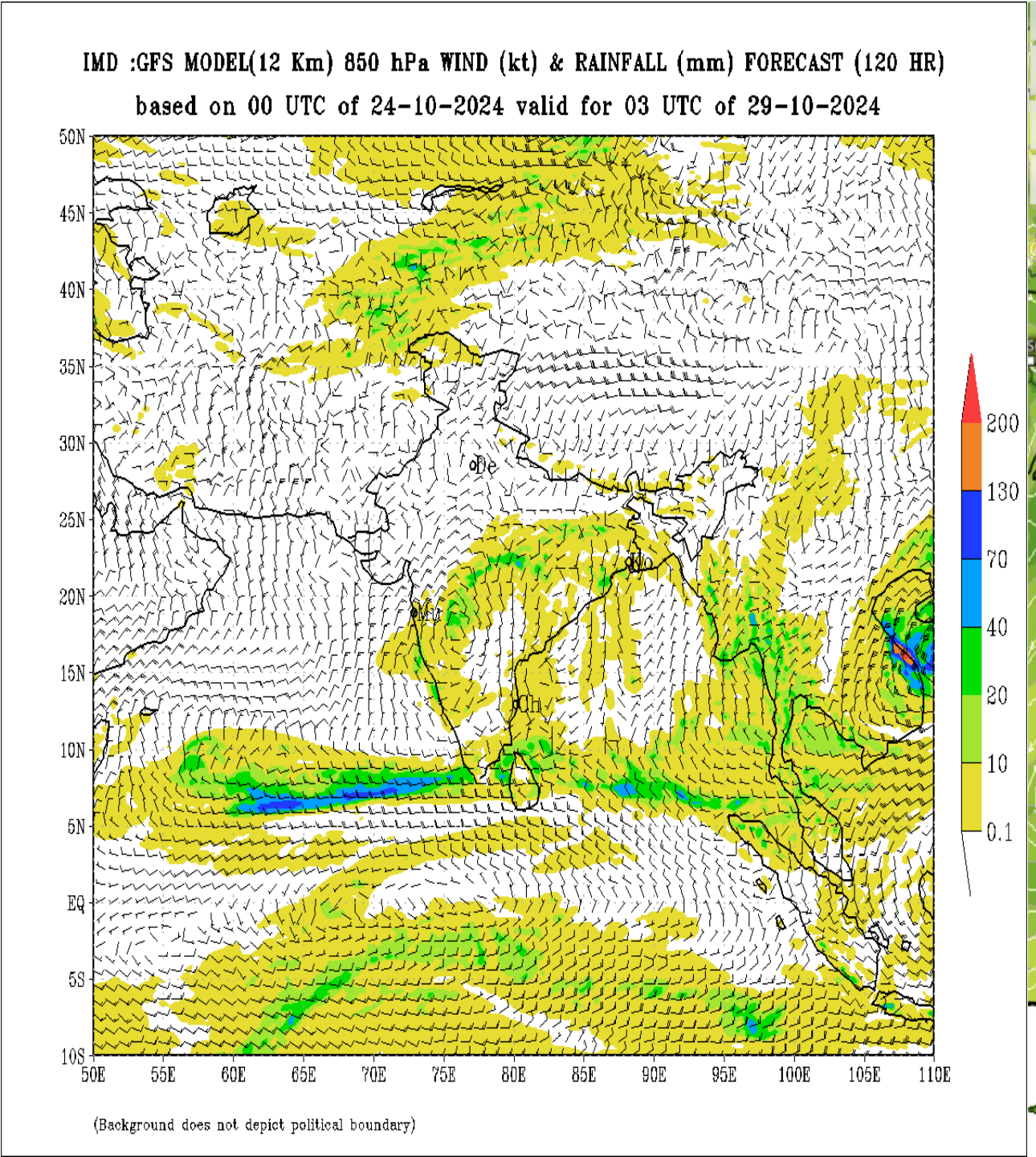
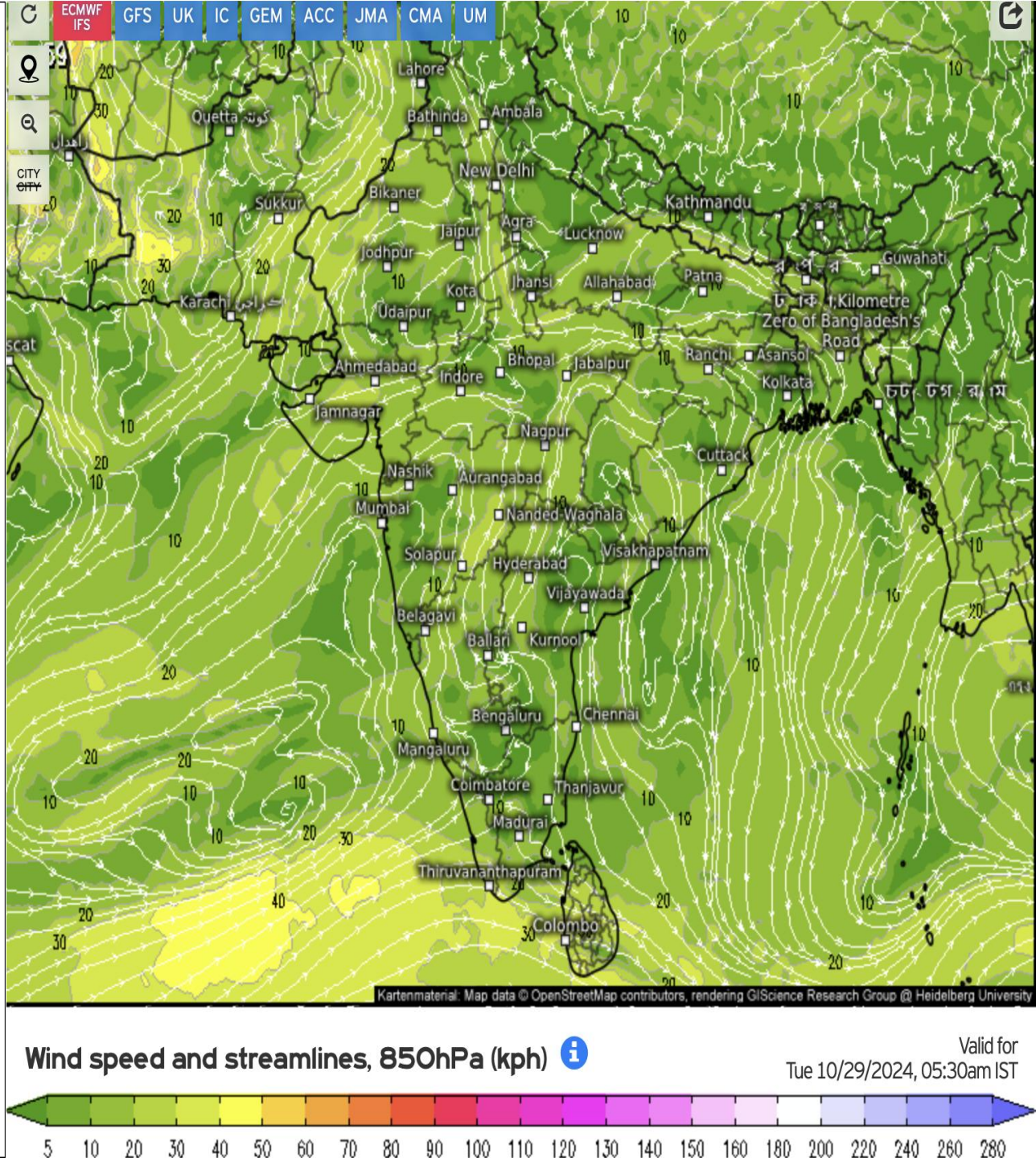

IMD :GFS MODEL(12 Km) 850 hPa WIND (kt) & RAINFALL (mm) FORECAST (72 HR)
based on 00 UTC of 24-10-2024 valid for 03 UTC of 27-10-2024
50N
45N
40N
35N
30N
25N
20N
15N
10N
5N
EQ
5S
10S
50E
55E
60E
65E
70E
75E
80E
85E
90E
95E
100E
105E
110E
200
130
70
40
20
10
0.1
(Background does not depict political boundary)

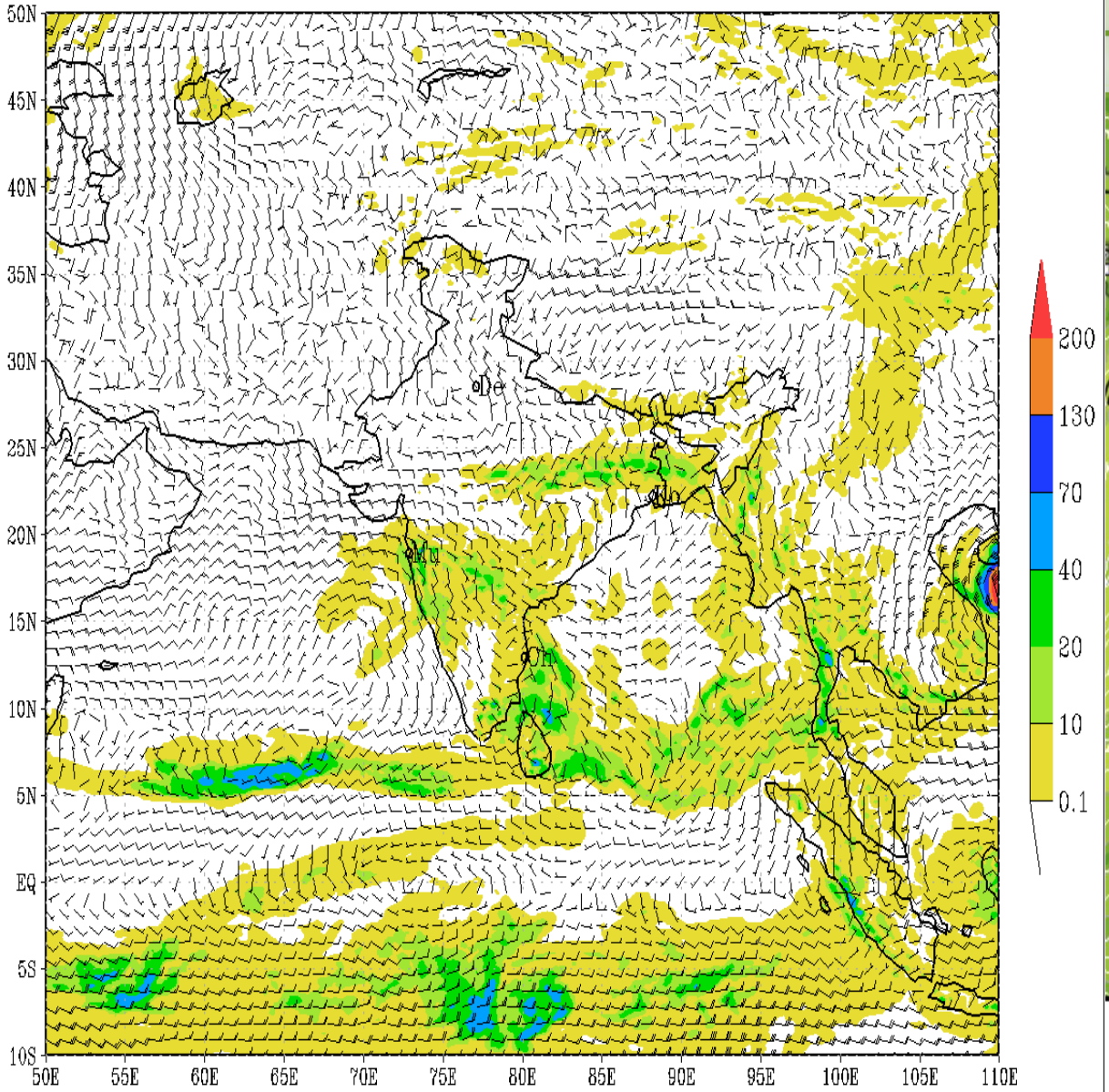

ECMWF IFS
GFS
UK
IC
GEM
ACC
JMA
CMA
UM
CITY
Lahore
Bathinda
Ambala
Quetta
New Delhi
Bikaner
Sukkur
Kathmandu
Agra
Jaipur
Lucknow
Jodhpur
Guwahati
Patna
Jhansi
Allahabad
Kota
Karachi
Udaipur
Kilometre Zero of Bangladesh's Road
Ranchi
Asansol
Bhopal
Jabalpur
Ahmedabad
Indore
Kolkata
Jamnagar
Nagpur
Cuttack
Nashik
Aurangabad
Mumbai
Nanded-Waghala
Solapur
Hyderabad
Visakhapatnam
Vijayawada
Belagavi
Ballari
Kurnool
Bengaluru
Chennai
Mangaluru
Coimbatore
Thanjavur
Madurai
Thiruvananthapuram
Colombo
Kartenmaterial: Map data © OpenStreetMap contributors, rendering GIScience Research Group @ Heidelberg Universi
Wind speed and streamlines, 850hPa (kph)
Valid for
Sun 10/27/2024, 05:30am IST
5
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
180
200
220
240
260
280


IMD :GFS MODEL(12 Km) 850 hPa WIND (kt) & RAINFALL (mm) FORECAST (120 HR)
based on 00 UTC of 24-10-2024 valid for 03 UTC of 29-10-2024
50N
45N
40N
35N
30N
25N
20N
15N
10N
5N
EQ
5S
10S
50E
55E
60E
65E
70E
75E
80E
85E
90E
95E
100E
105E
110E
200
130
70
40
20
10
0.1
(Background does not depict political boundary)


ECMWF IFS
GFS
UK
IC
GEM
ACC
JMA
CMA
UM
CITY
Lahore
Quetta
Bathinda
Ambala
New Delhi
Bikaner
Sukkur
Kathmandu
Jaipur
Agra
Lucknow
Jodhpur
Guwahati
Kota
Jhansi
Allahabad
Patna
Karachi
Udaipur
Ahmedabad
Indore
Bhopal
Jabalpur
Ranchi
Asansol
Kolkata
Jamnagar
Nagpur
Cuttack
Nashik
Aurangabad
Mumbai
Nanded-Waghala
Visakhapatnam
Solapur
Hyderabad
Vijayawada
Belagavi
Ballari
Kurnool
Bengaluru
Chennai
Mangaluru
Coimbatore
Thanjavur
Madurai
Thiruvananthapuram
Colombo
Kartenmaterial: Map data © OpenStreetMap contributors, rendering GIScience Research Group @ Heidelberg University
Wind speed and streamlines, 850hPa (kph)
Valid for
Tue 10/29/2024, 05:30am IST
5
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
180
200
220
240
260
280

IMD :GFS MODEL(12 Km) 850 hPa WIND (kt) & RAINFALL (mm) FORECAST (168 HR)

based on 00 UTC of 24-10-2024 valid for 03 UTC of 31-10-2024

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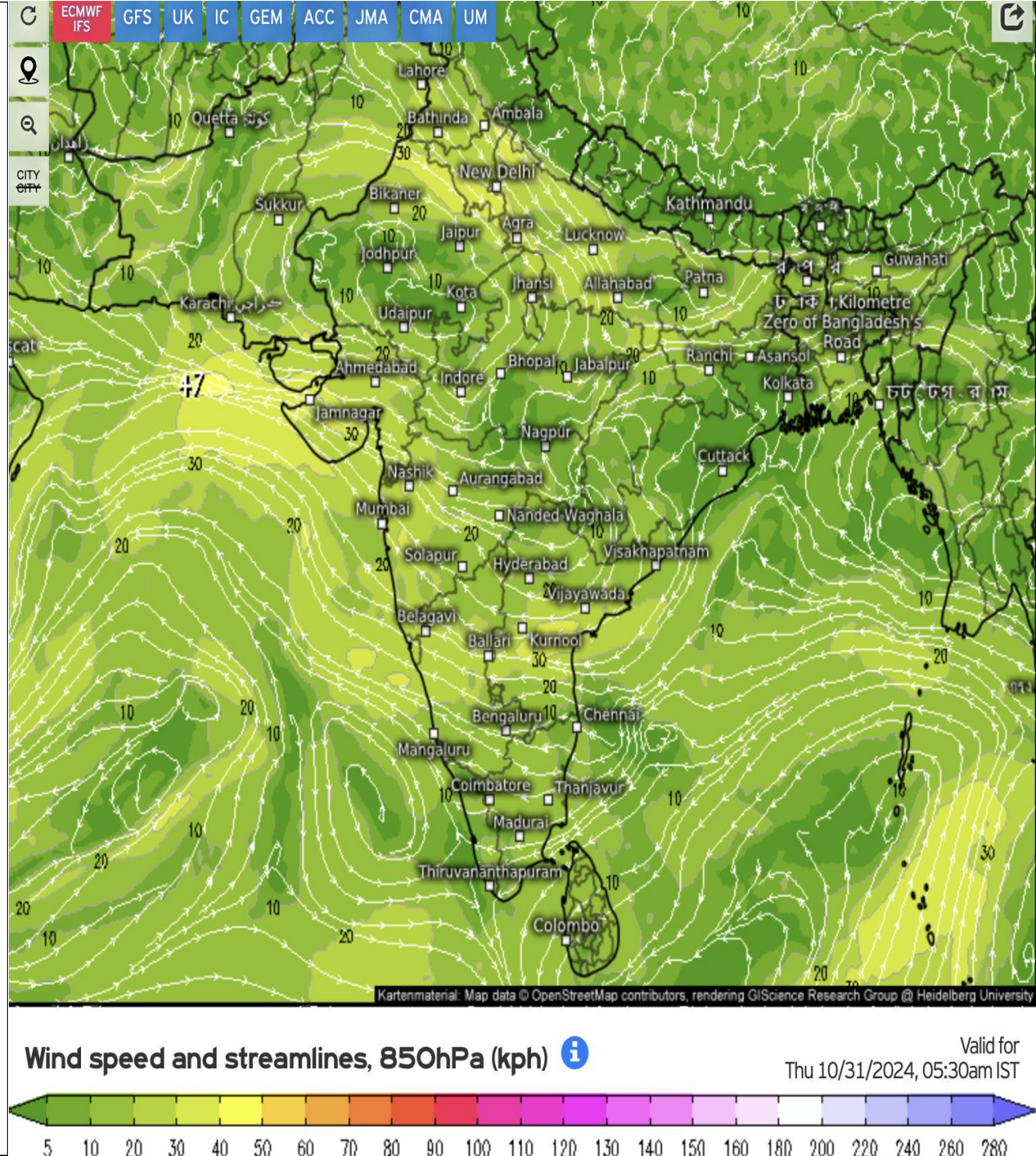
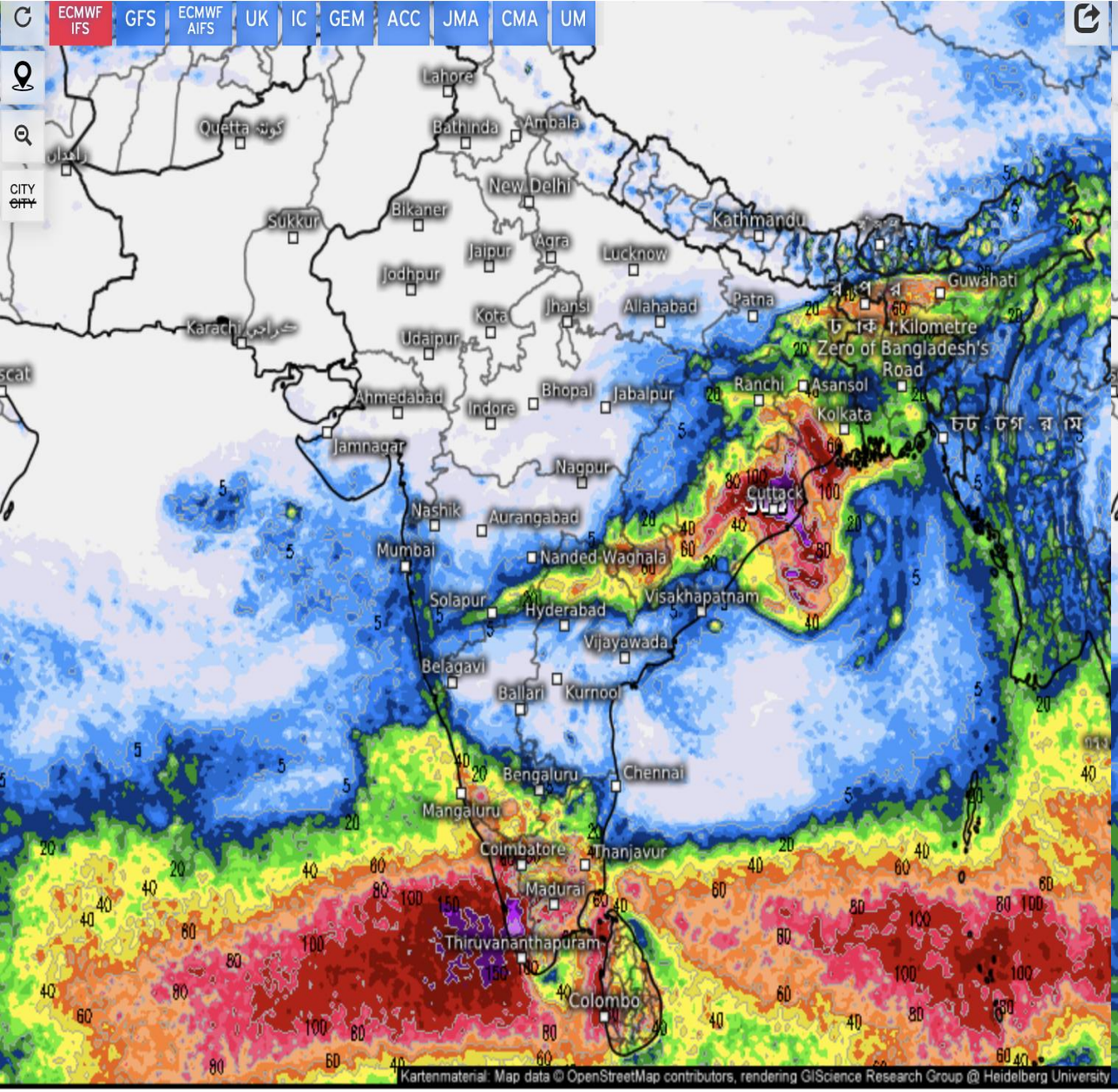
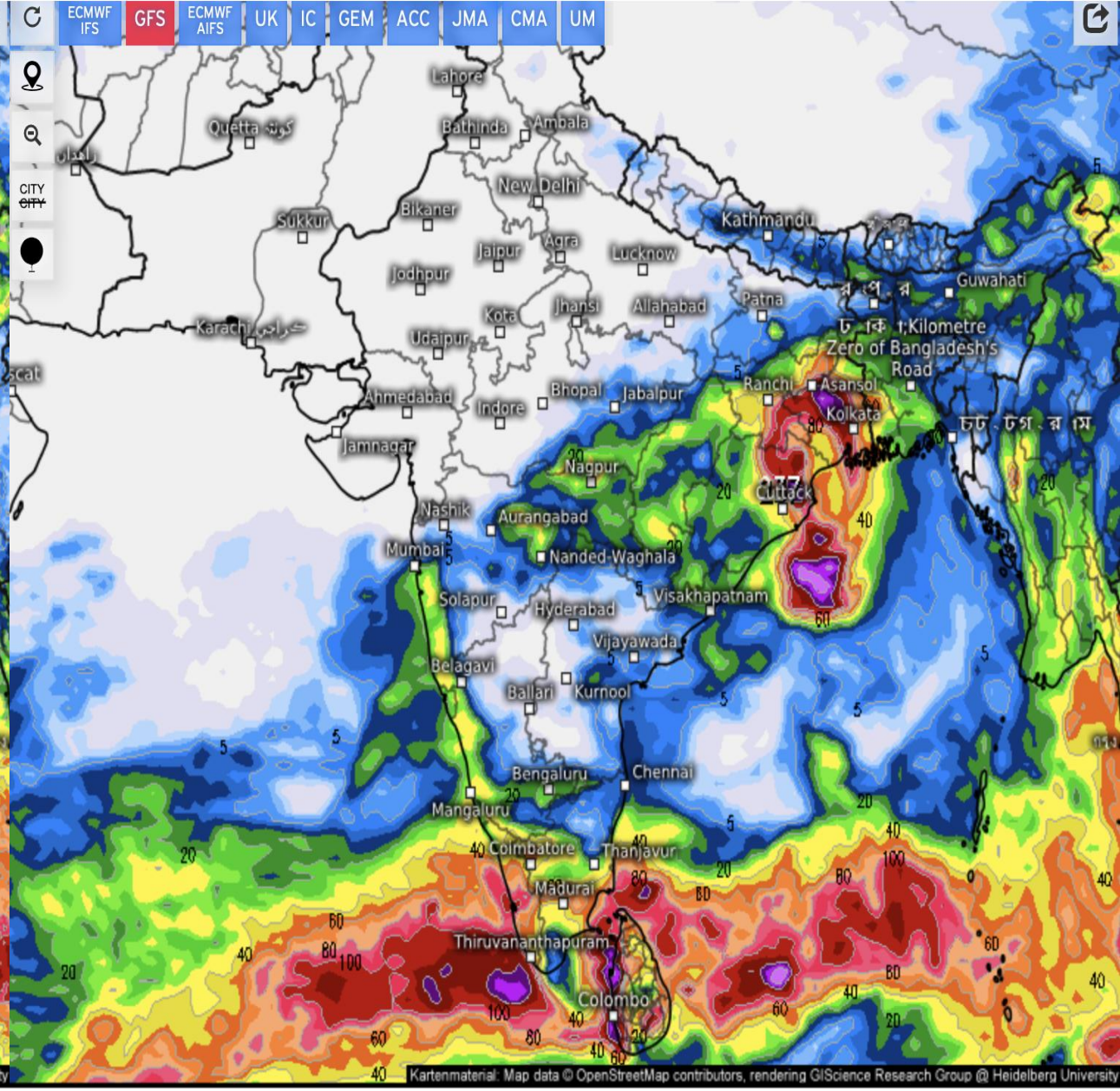
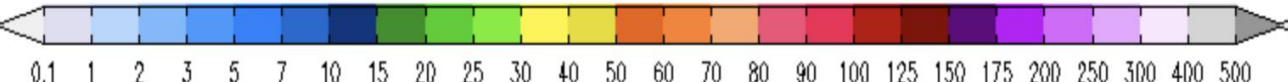




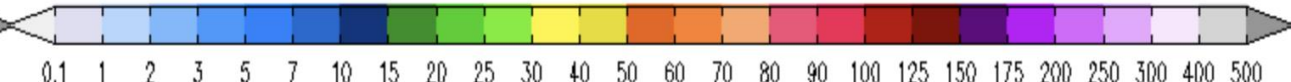

## Accumulated total precipitation (mm)

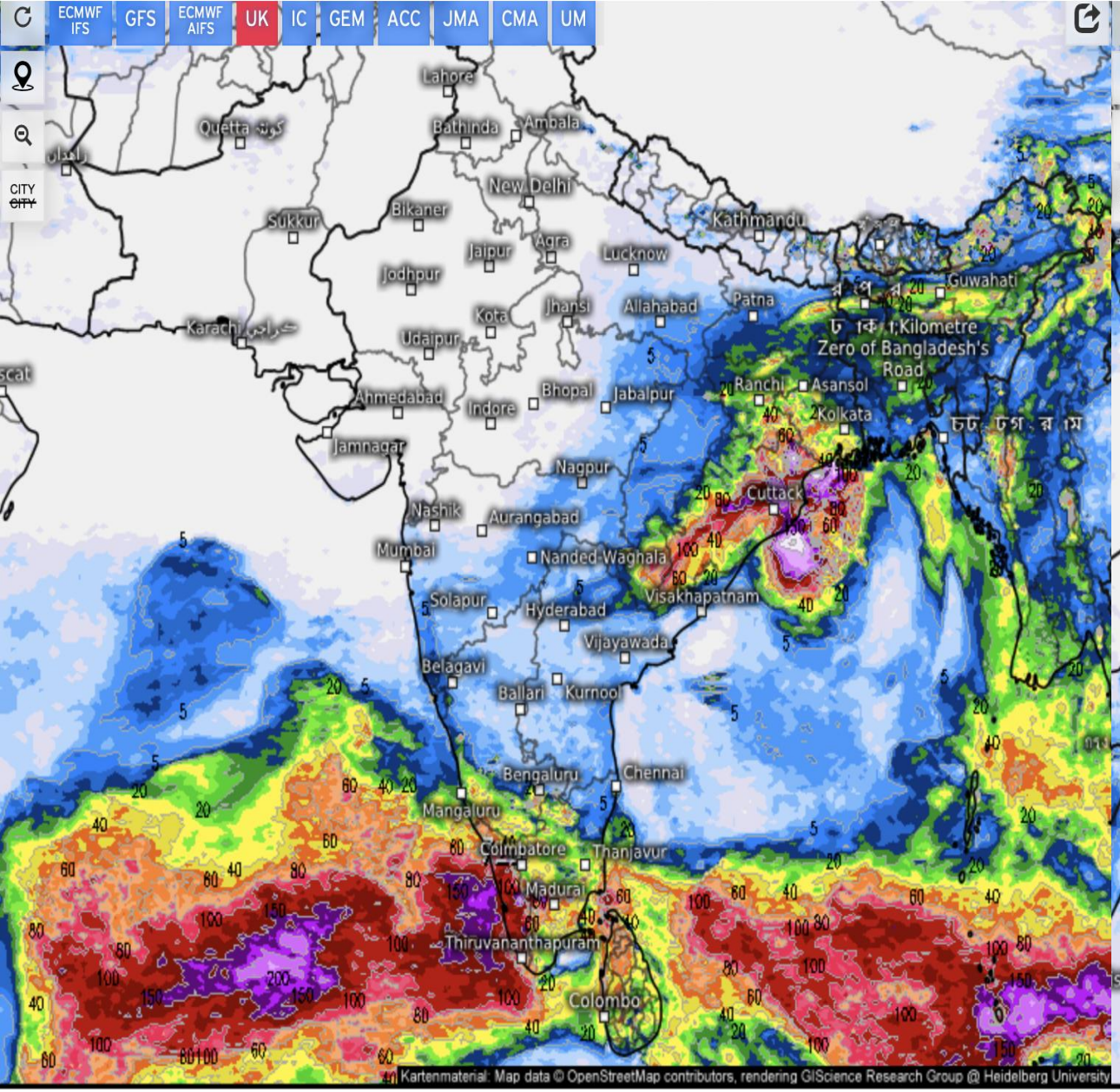
From Thu 10/24/2024, 05:30am IST
to Thu 10/31/2024, 05:30am IST

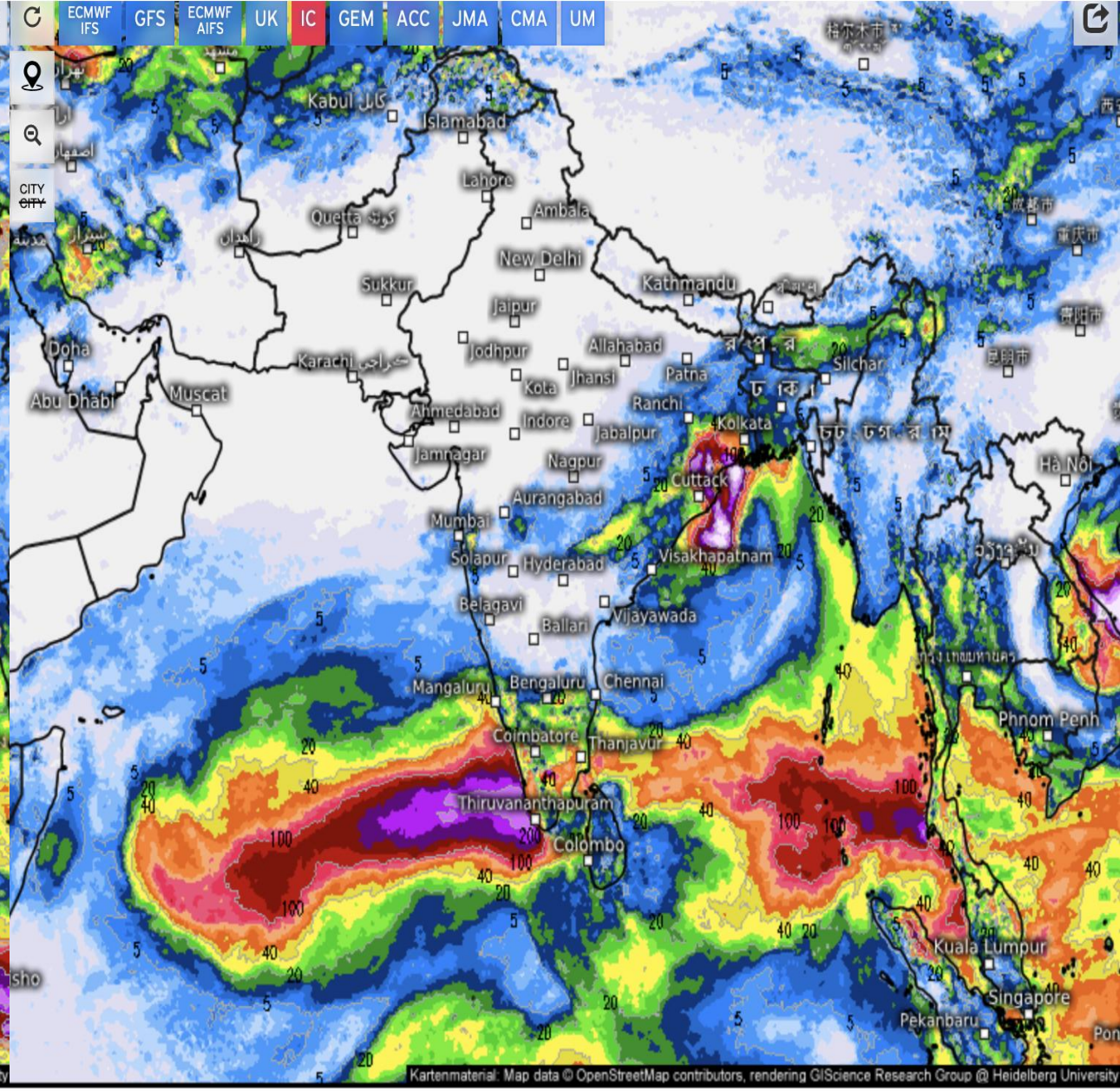



Accumulated total precipitation (mm)

From Thu 10/24/2024, 05:30am IST
to Thu 10/31/2024, 05:30am IST

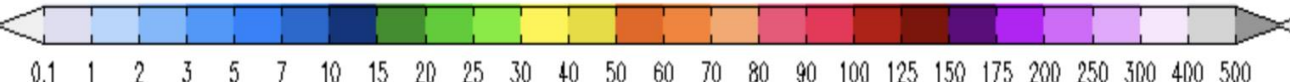




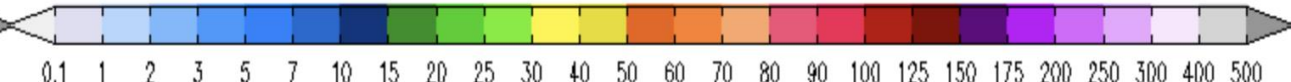

## Accumulated total precipitation (mm)

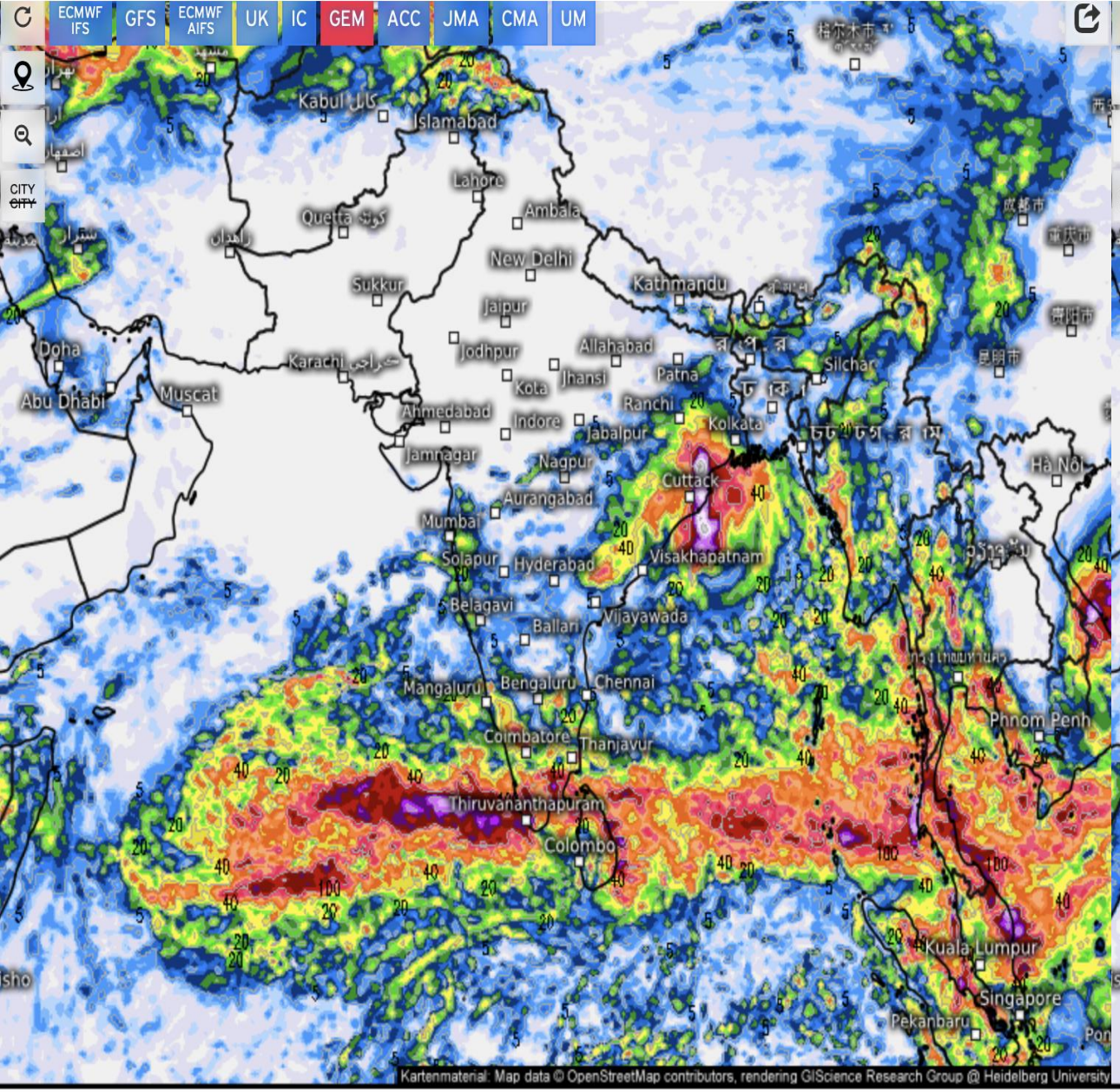
From Thu 10/24/2024, 05:30am IST
to Thu 10/31/2024, 05:30am IST

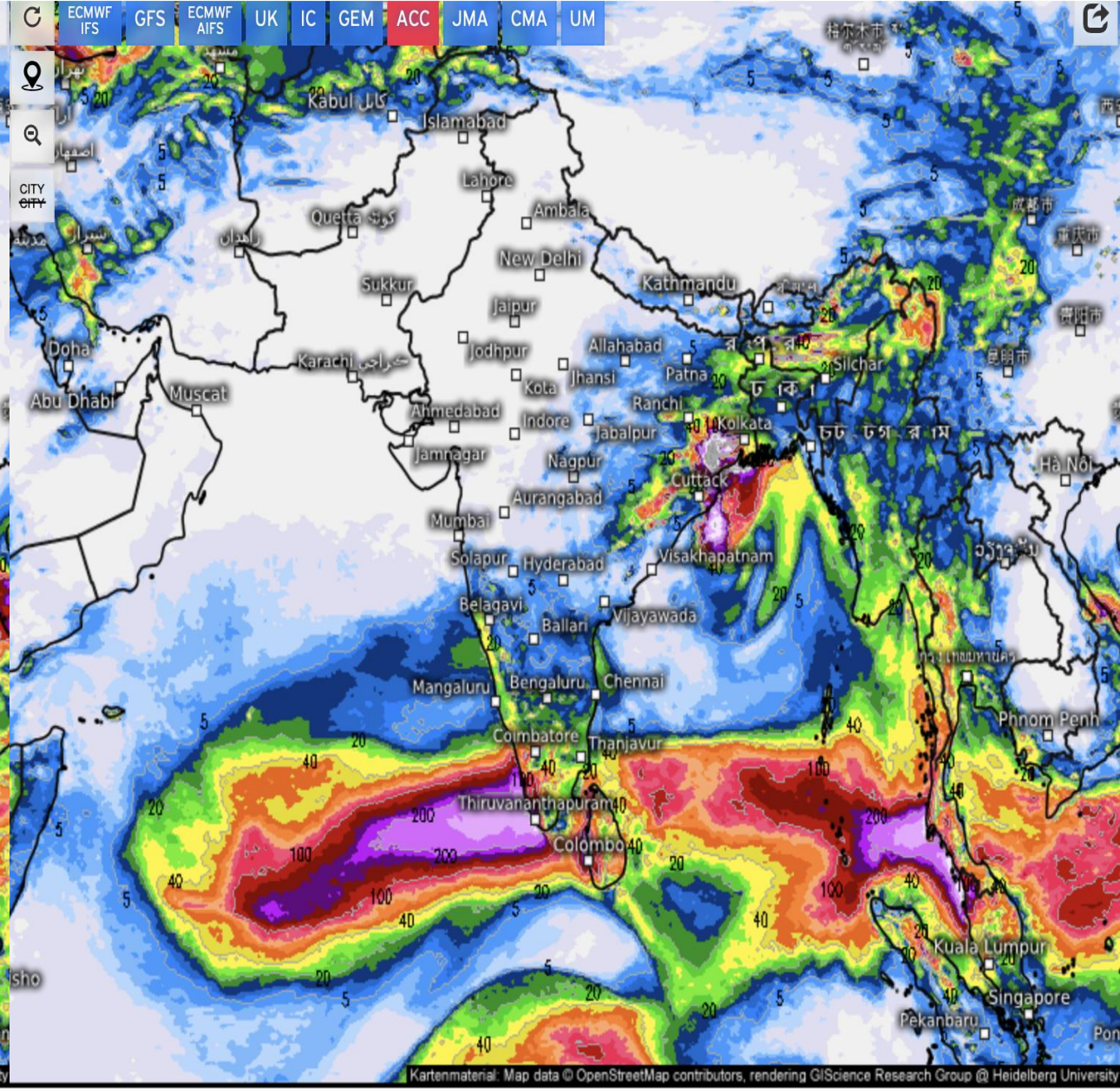



## Accumulated total precipitation (mm)

From Thu 10/24/2024, 05:30am IST
to Thu 10/31/2024, 05:30am IST

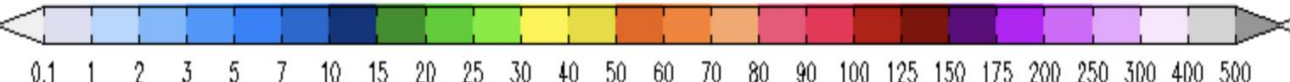




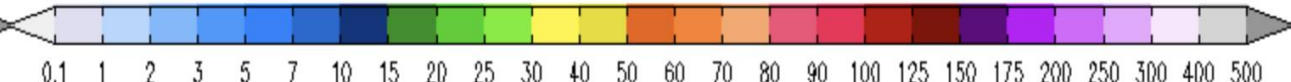

## Accumulated total precipitation (mm)

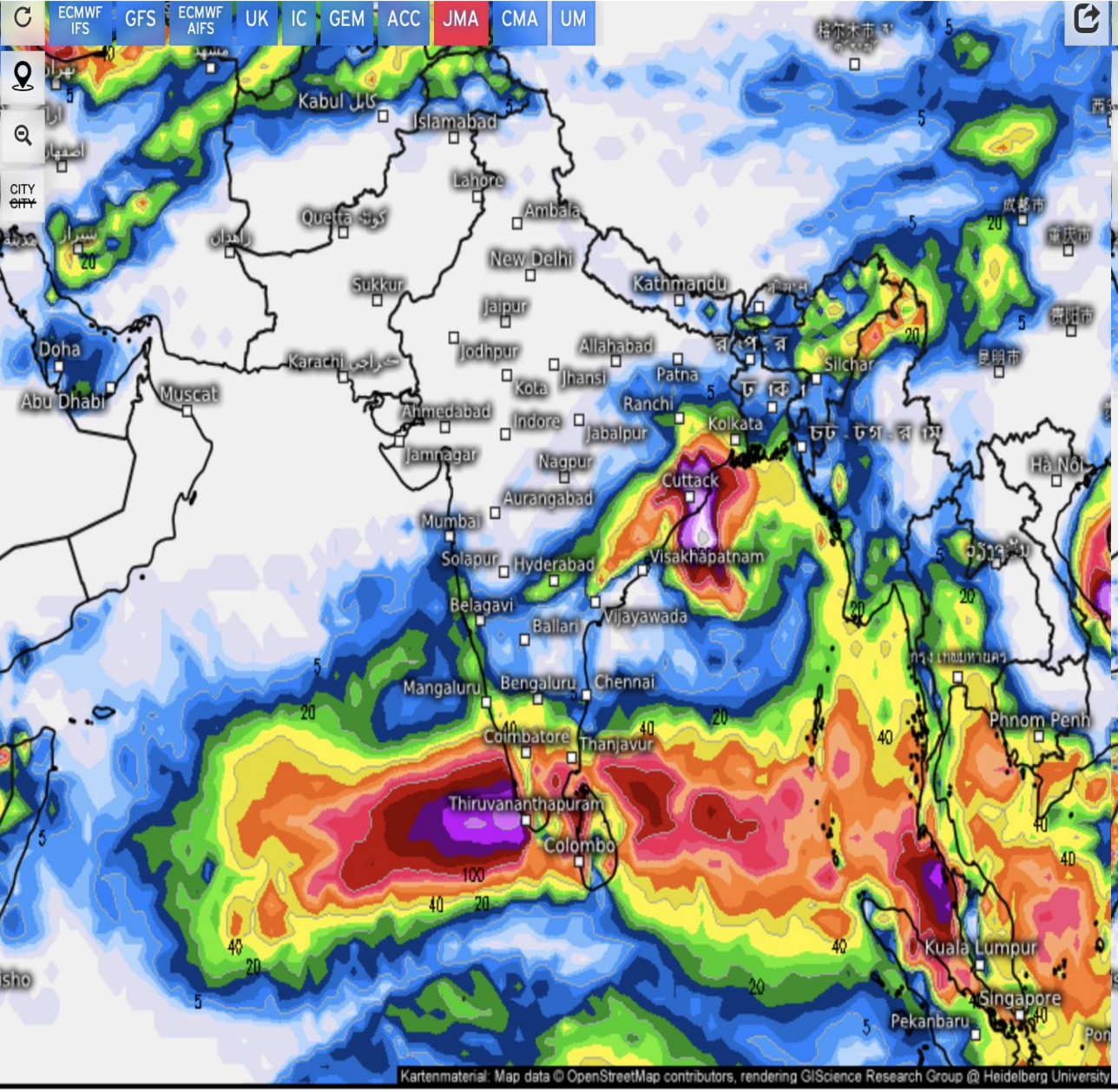
From Thu 10/24/2024, 05:30am IST
to Thu 10/31/2024, 05:30am IST

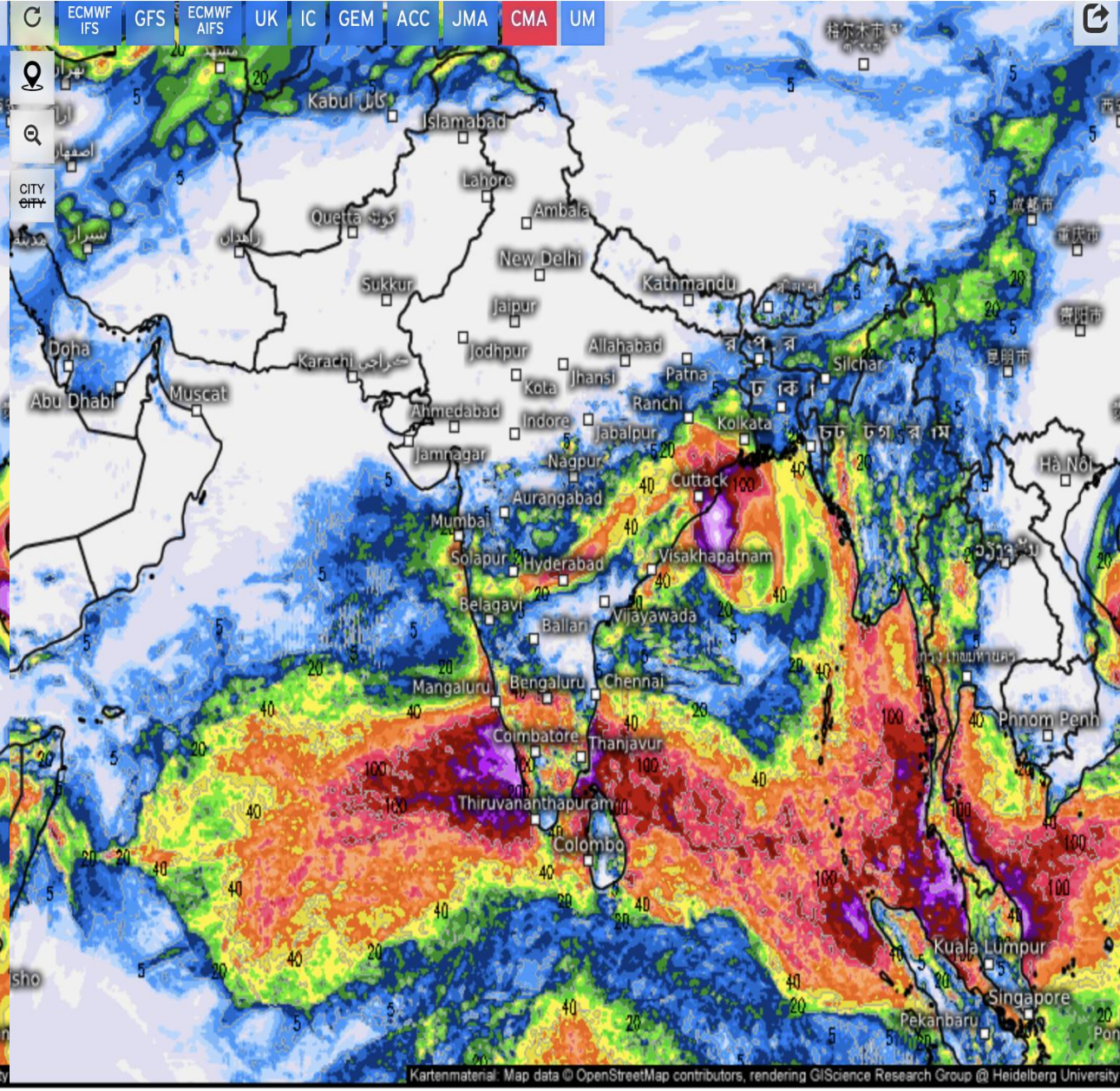



Accumulated total precipitation (mm)

From Thu 10/24/2024, 05:30am IST
to Thu 10/31/2024, 05:30am IST

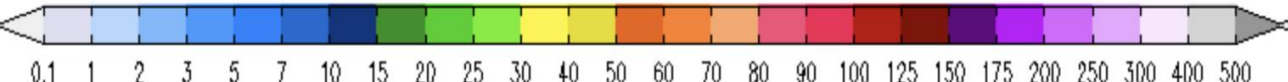




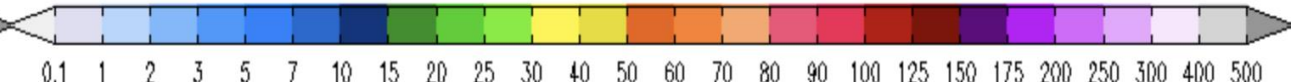

## Accumulated total precipitation (mm)

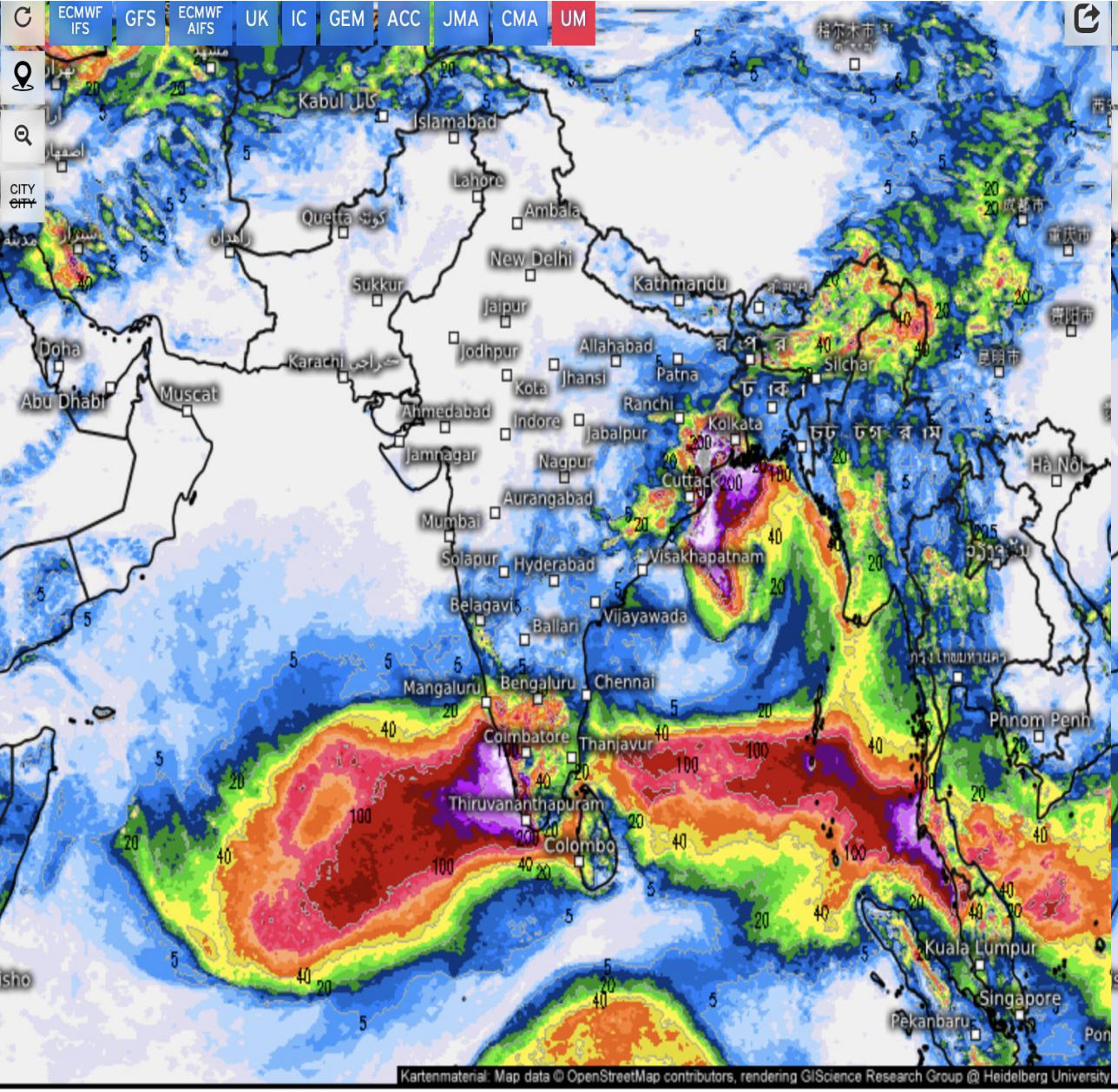
From Wed 10/23/2024, 05:30pm IST
to Thu 10/31/2024, 05:30am IST

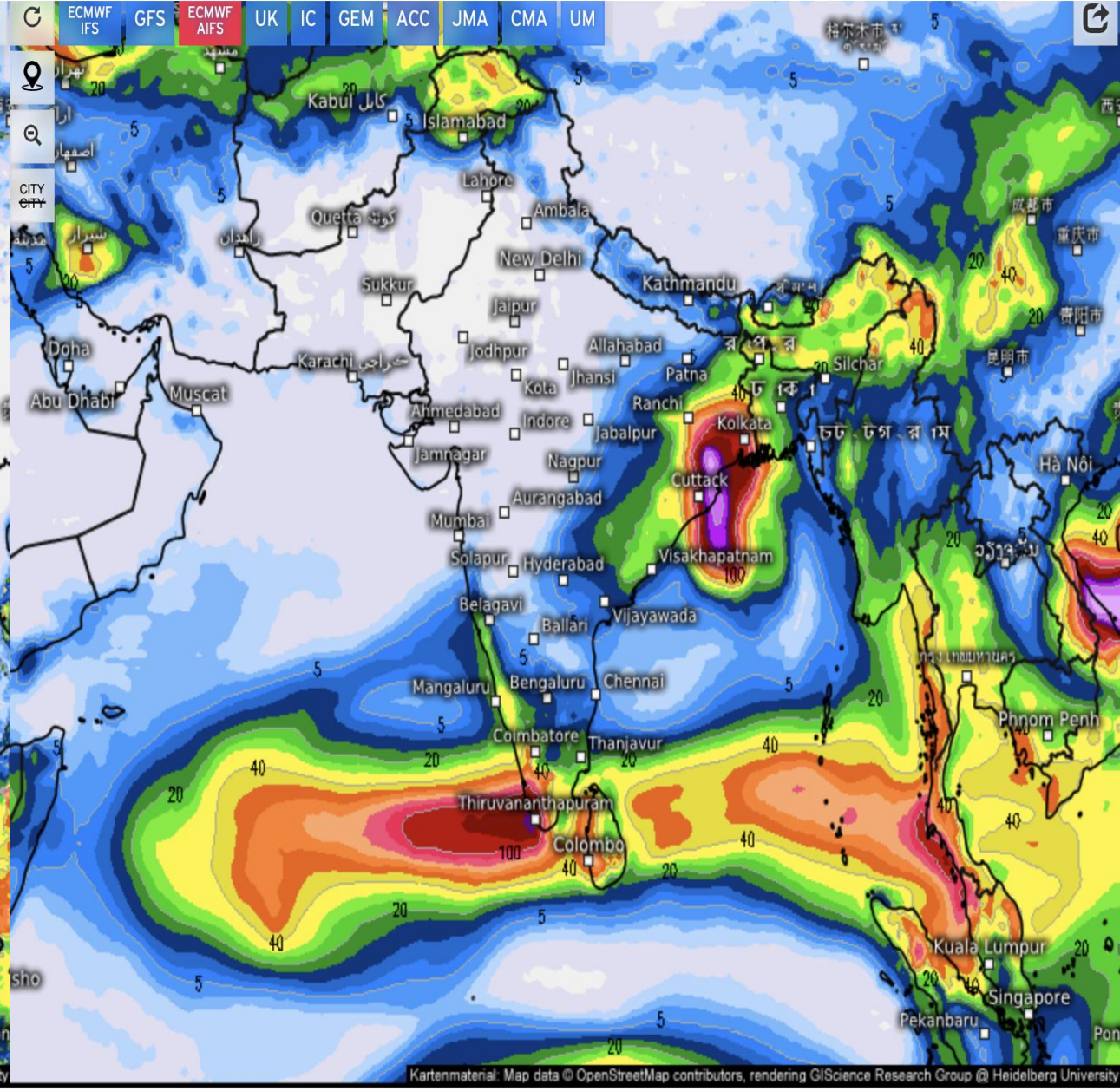



## Accumulated total precipitation (mm)

From Wed 10/23/2024, 05:30pm IST
to Thu 10/31/2024, 05:30am IST

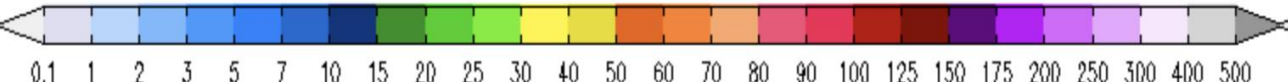




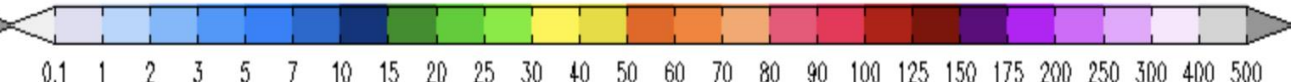

## Accumulated total precipitation (mm)

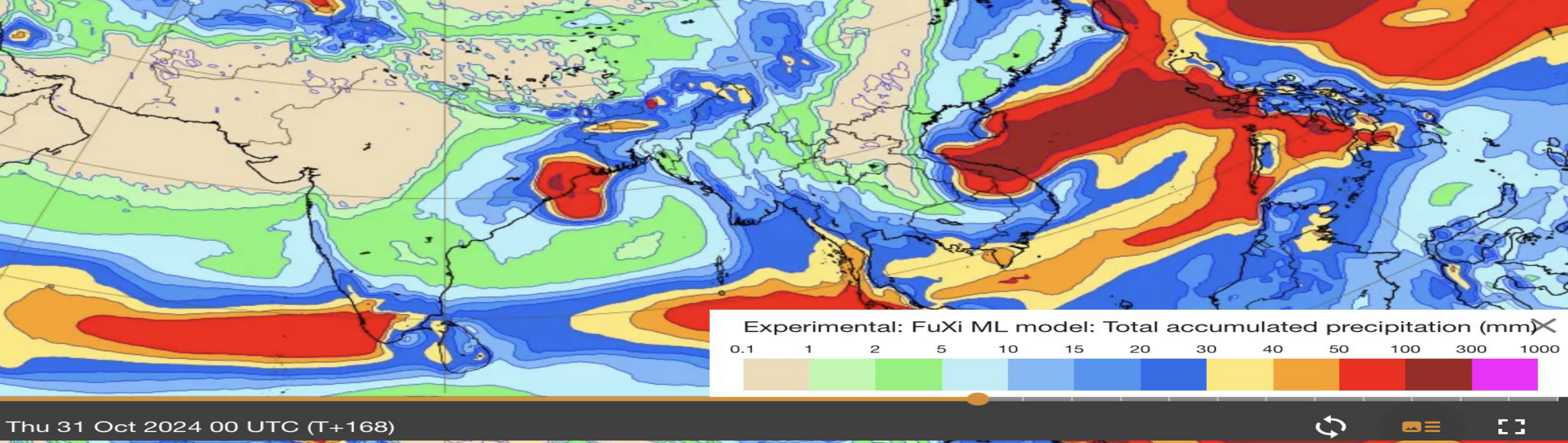
From Wed 10/23/2024, 05:30pm IST
to Thu 10/31/2024, 05:30am IST

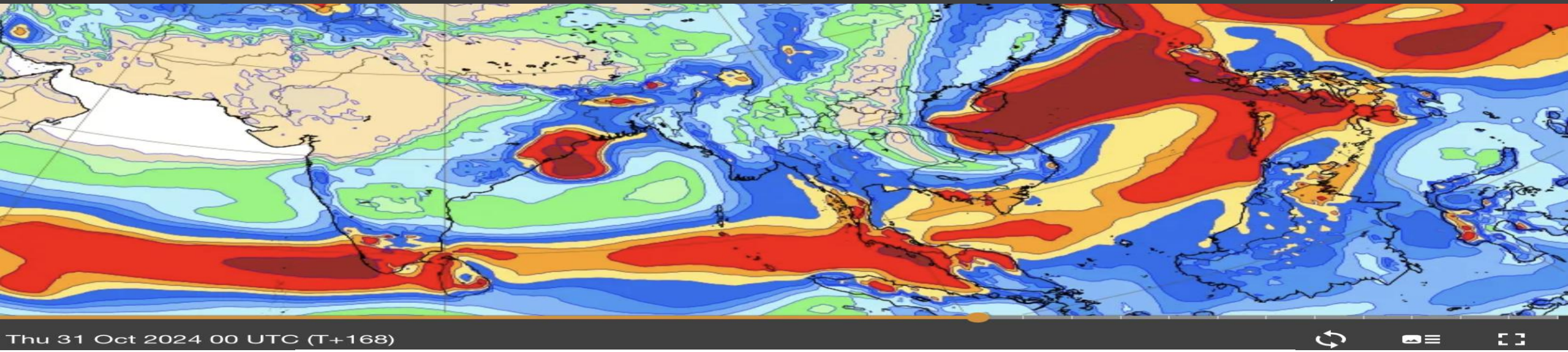



## Accumulated total precipitation (mm)

From Wed 10/23/2024, 11:30pm IST
to Thu 10/31/2024, 05:30am IST

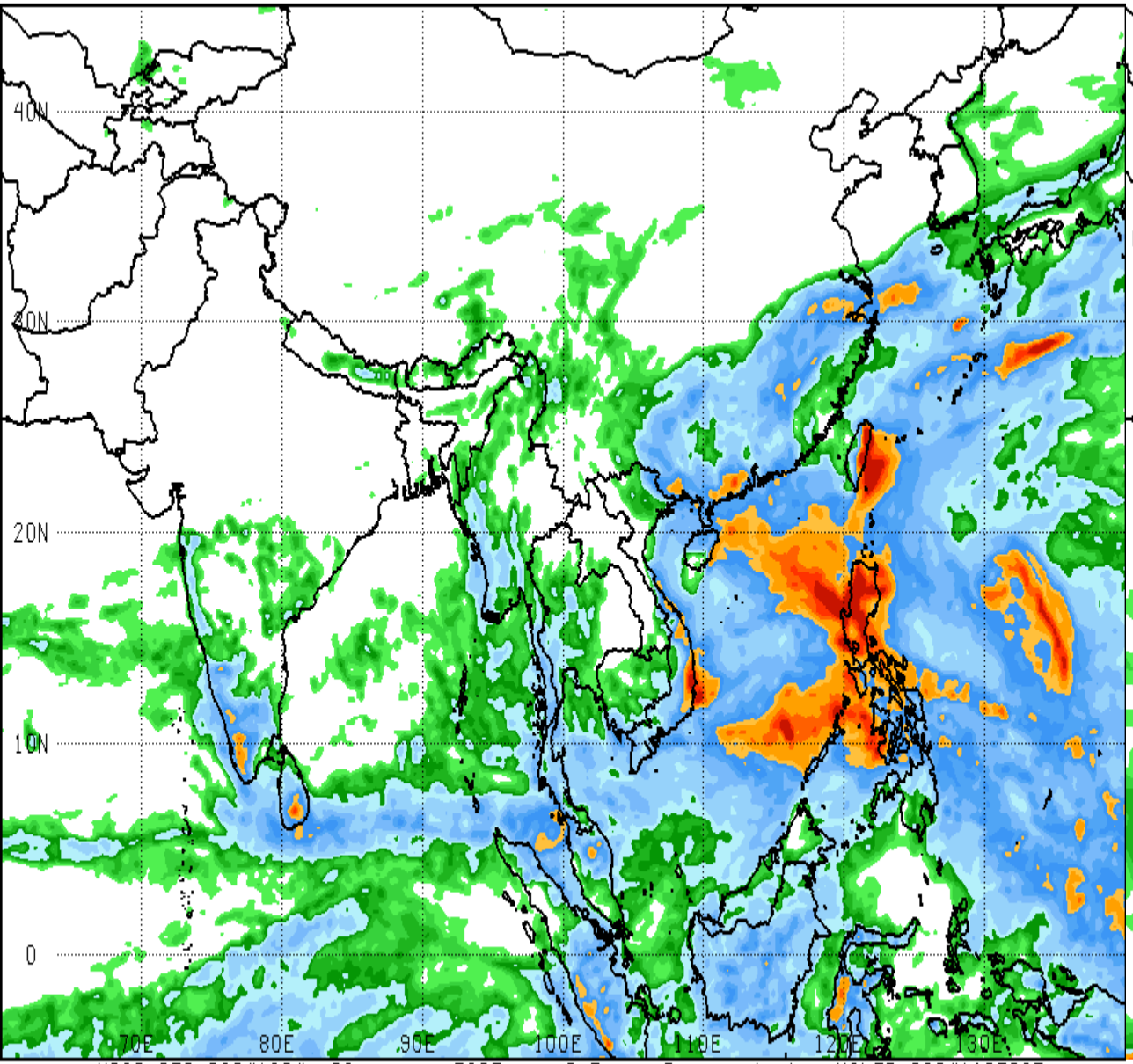




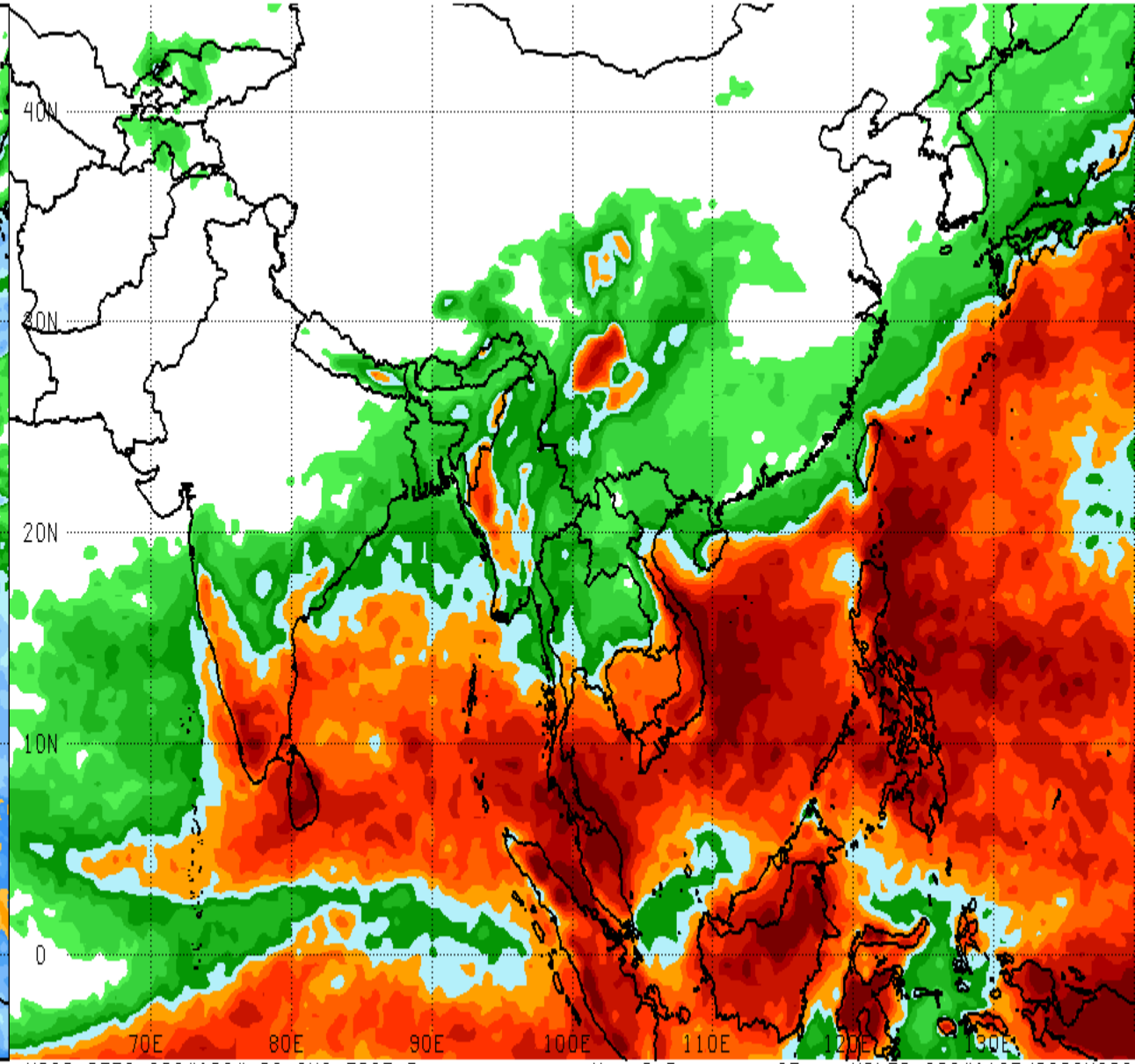

Experimental: GraphCast (Google Deepmind) ML model: Total accumulated precipitation (mm)

0.1 1 2 5 10 15 20 30 40 50 100 300 1000



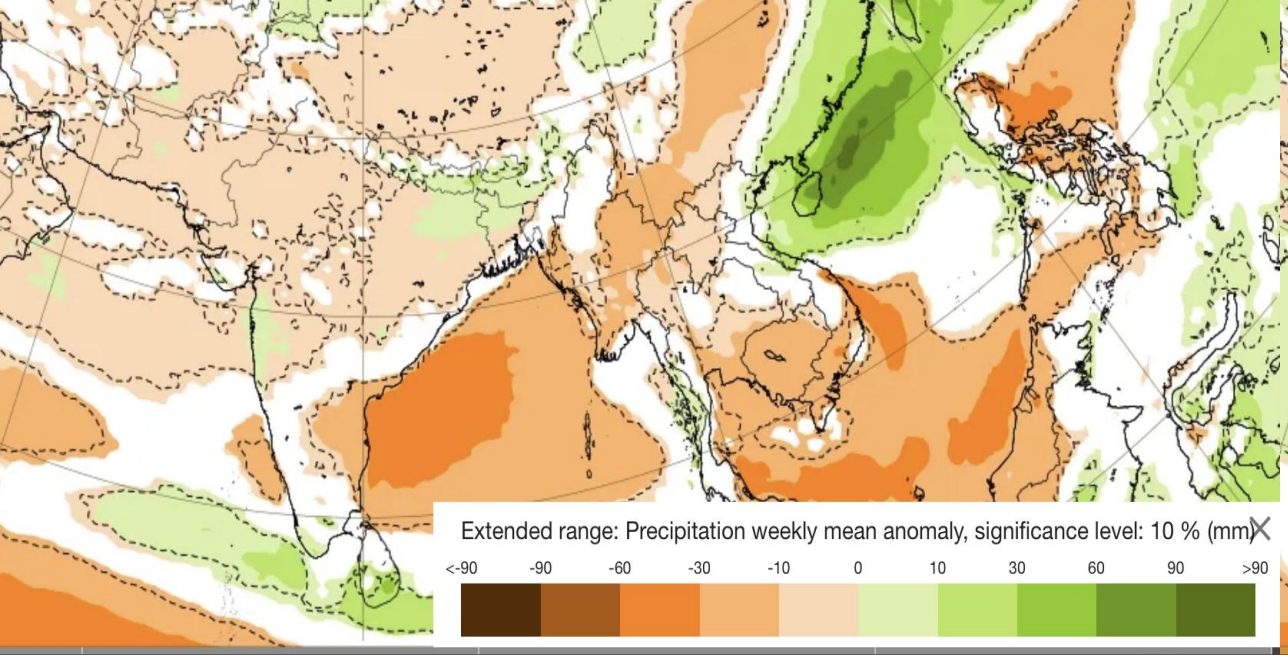

NOAA GFS 20241024 t00z cycle FCST week2 Total Precip (mm) VALID 2024110700Z

10 15 20 25 30 40 60 80 100 125 150 200 250 300

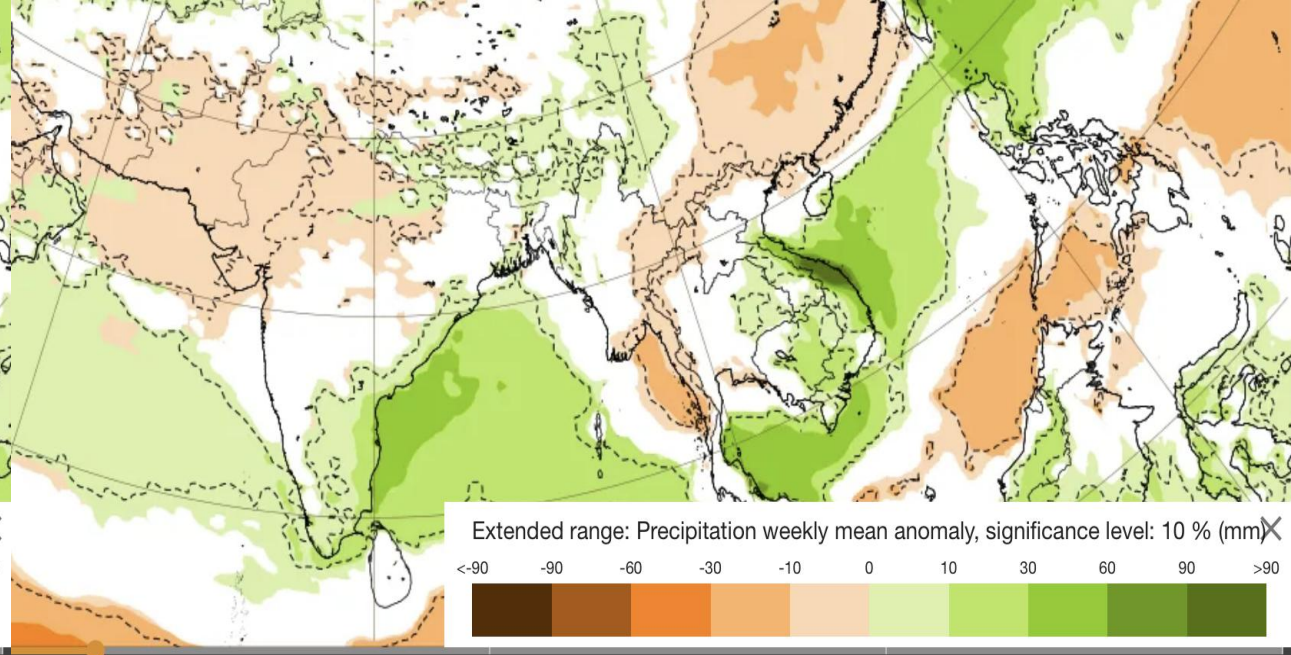



NOAA GEFS 20241024 00zCYC FCST Probability of Week2 Precip > 25mm VALID 20241107/0000V336

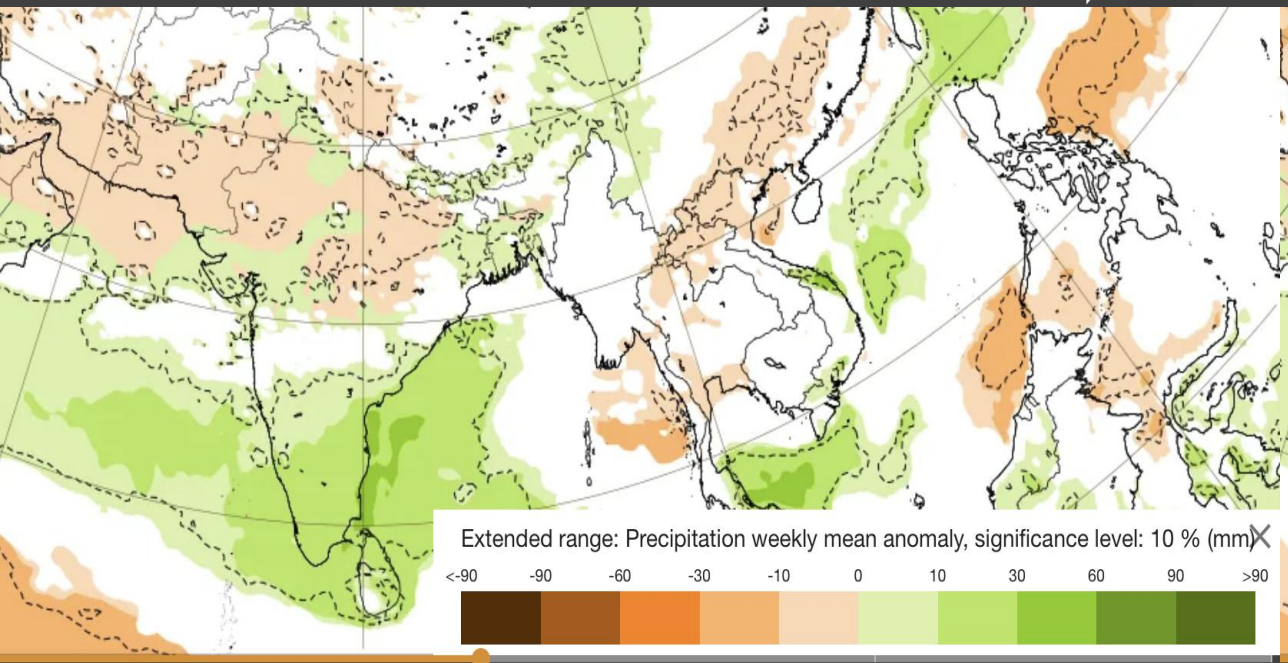
5 10 20 30 40 50 60 70 80 90 95



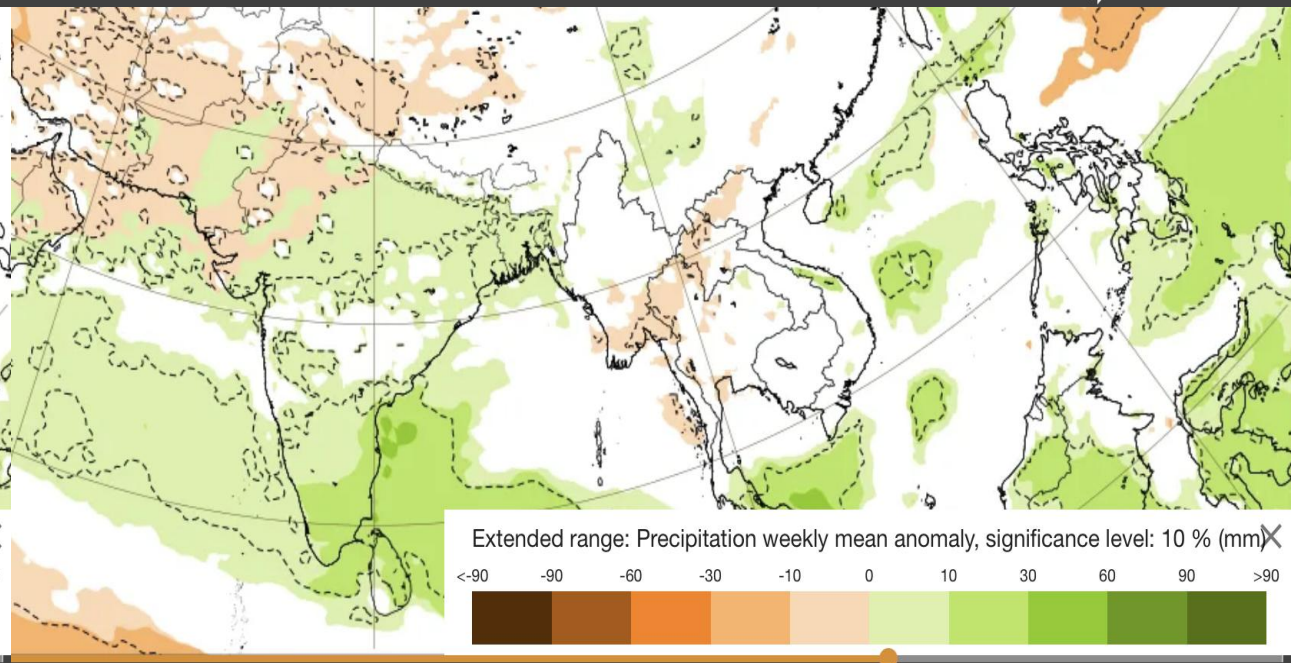

Mon 28 Oct 2024 - Mon 04 Nov 2024



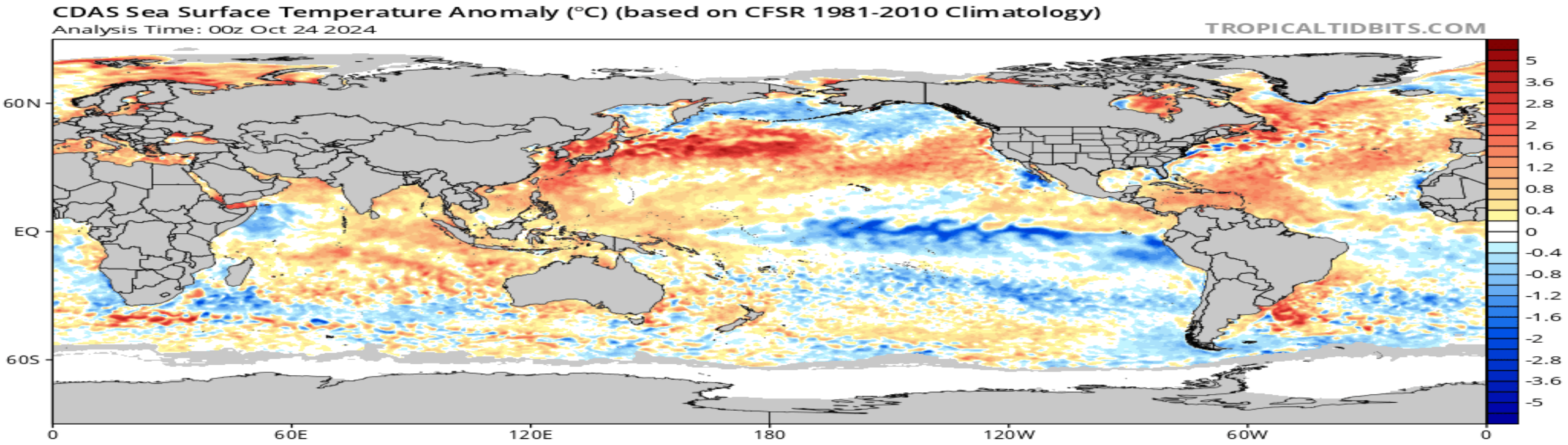

Mon 04 Nov 2024 - Mon 11 Nov 2024



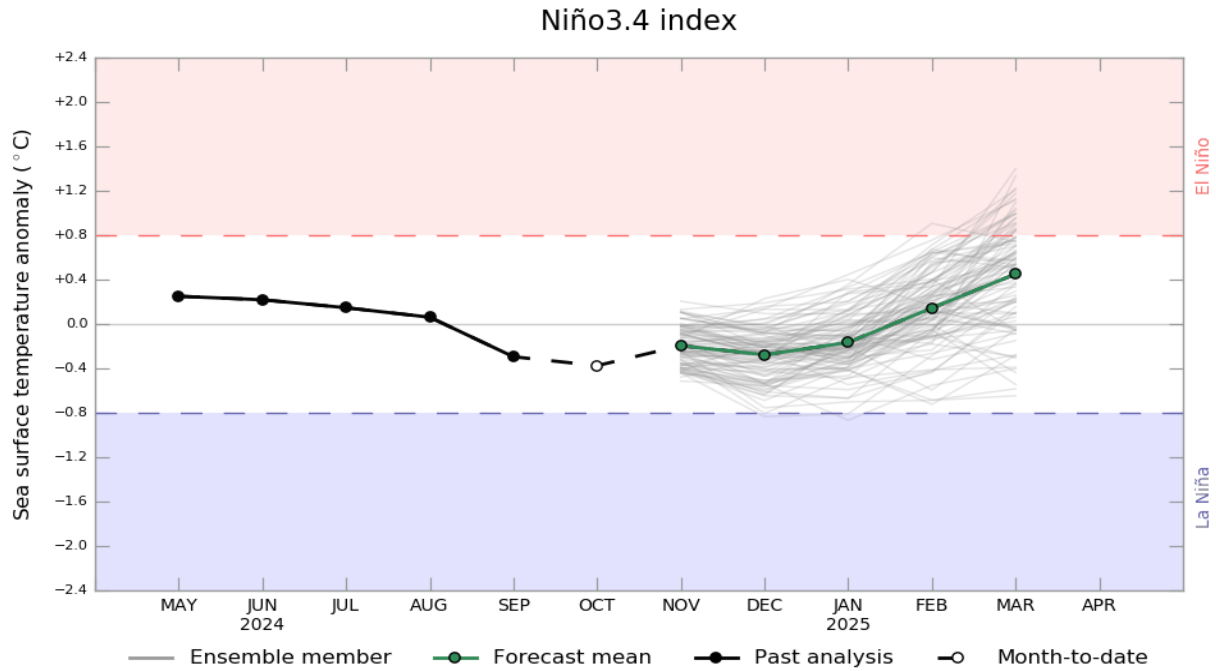

Mon 11 Nov 2024 - Mon 18 Nov 2024

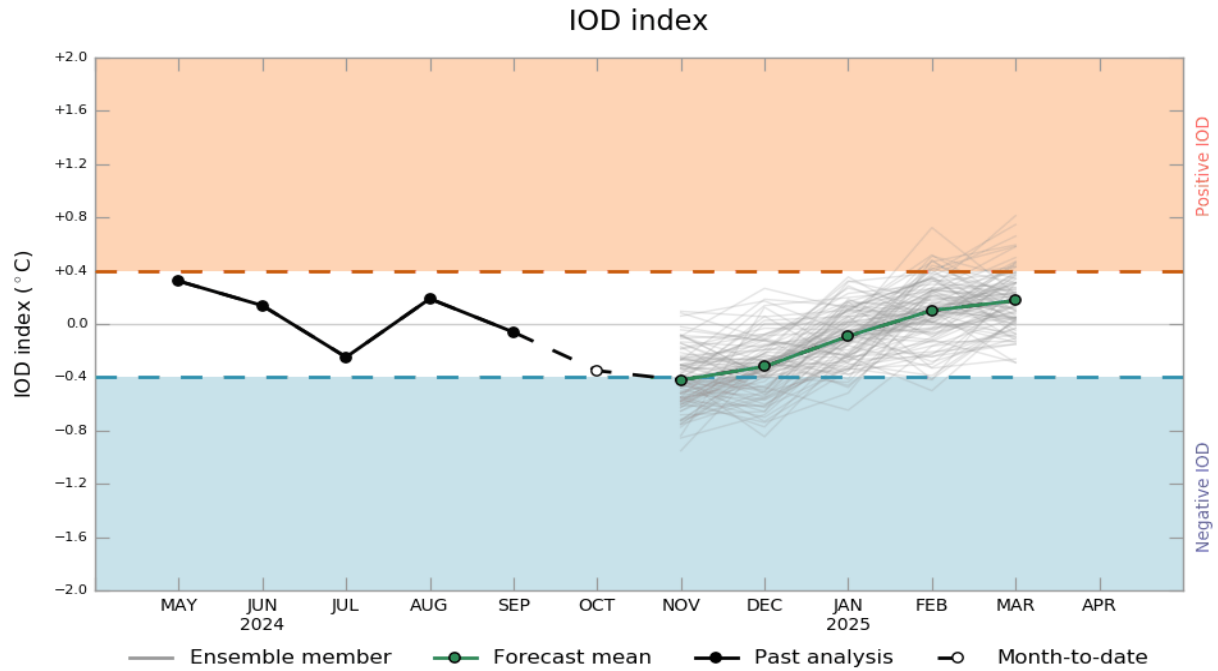


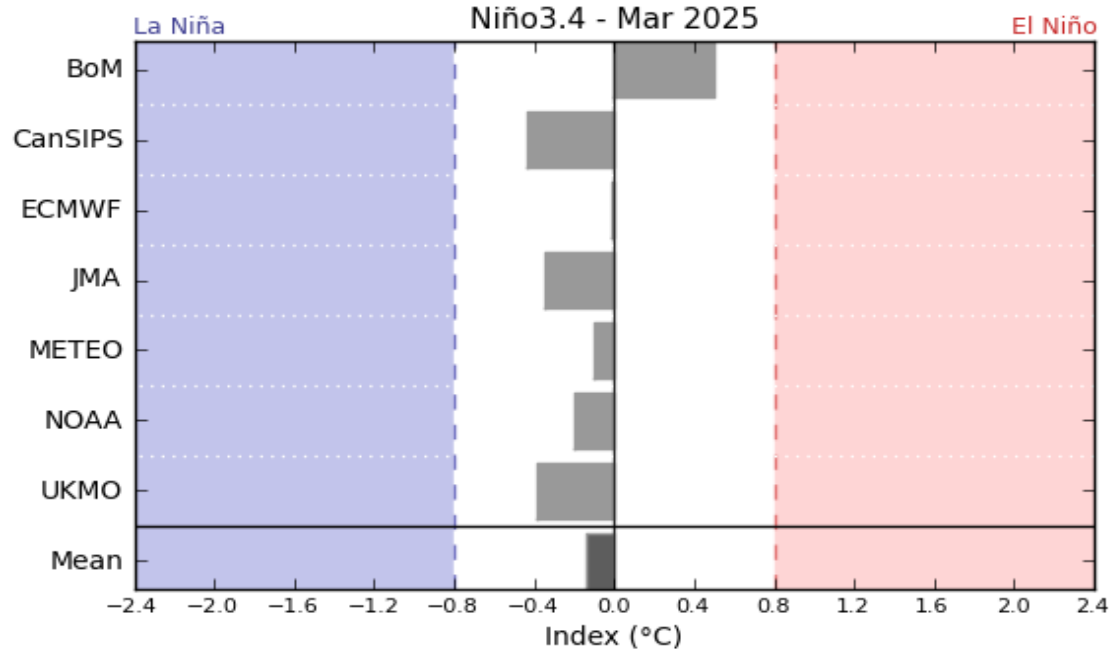

Mon 18 Nov 2024 - Mon 25 Nov 2024

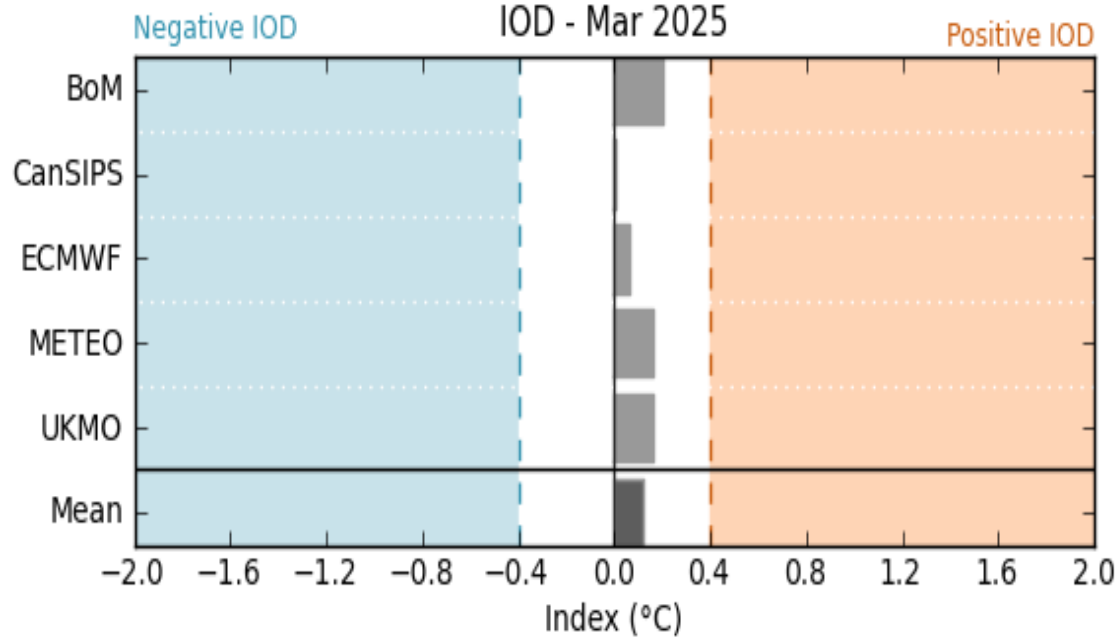

CDAS Sea Surface Temperature Anomaly (°C) (based on CFSR 1981-2010 Climatology)
Analysis Time: 00z Oct 24 2024
TROPICALTIDBITS.COM
60N
EQ
60S
0
60E
120E
180
120W
60W
0
5
3.6
2.8
2
1.6
1.2
0.8
0.4
0
-0.4
-0.8
-1.2
-1.6
-2
-2.8
-3.6
-5


CDAS Niño 3.4 Index
SST Anomaly (°C) (1981-2010 climatology)
+1.5
+1.0
+0.5
0.0
-0.5
-1.0
-1.5
Latest Value: -1.003
00z Oct 24
Aug 01
Aug 15
Aug 29
Sep 12
Sep 26
Oct 10
Oct 24
Levi Cowan - tropicaltidbits.com

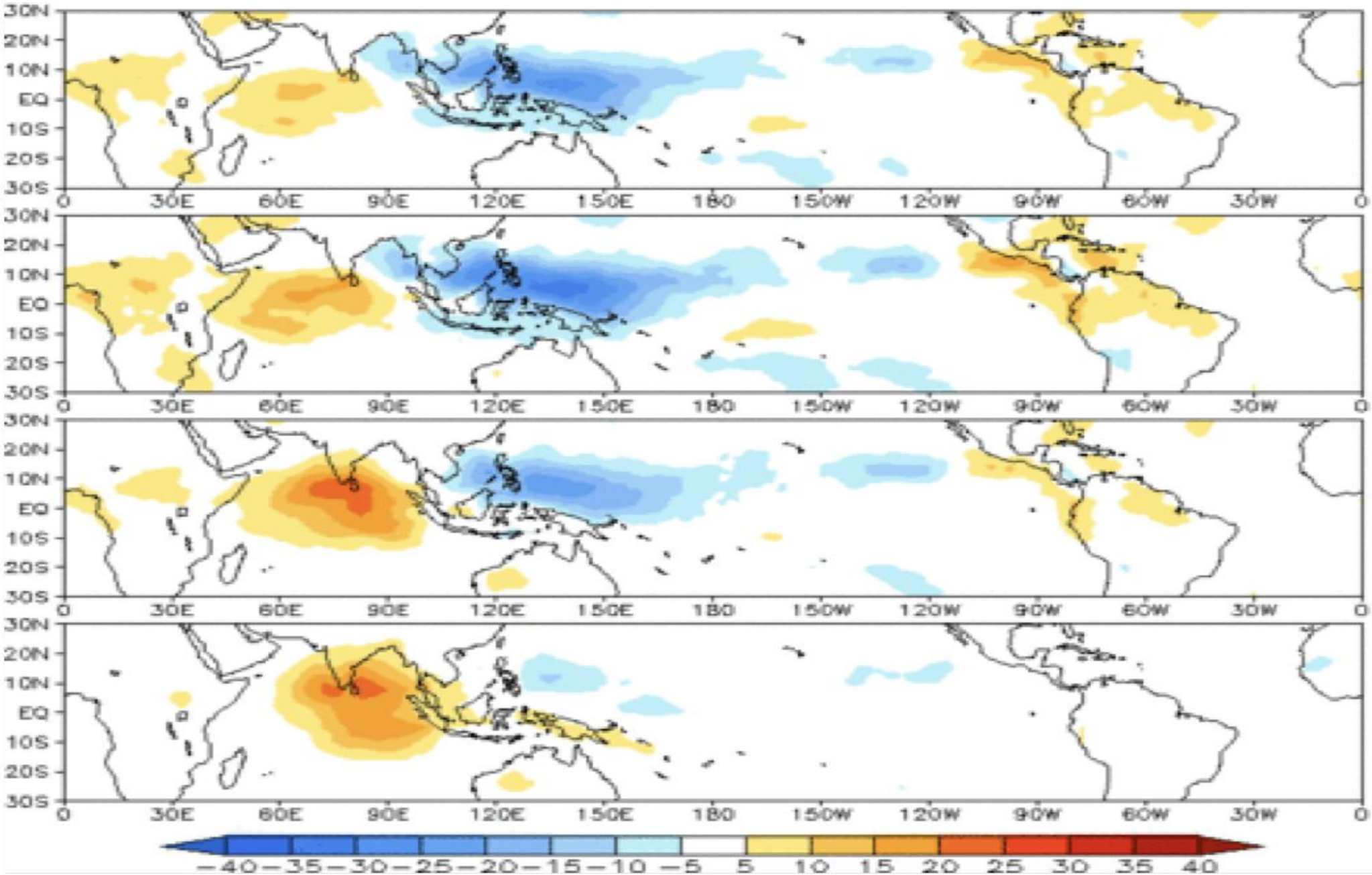


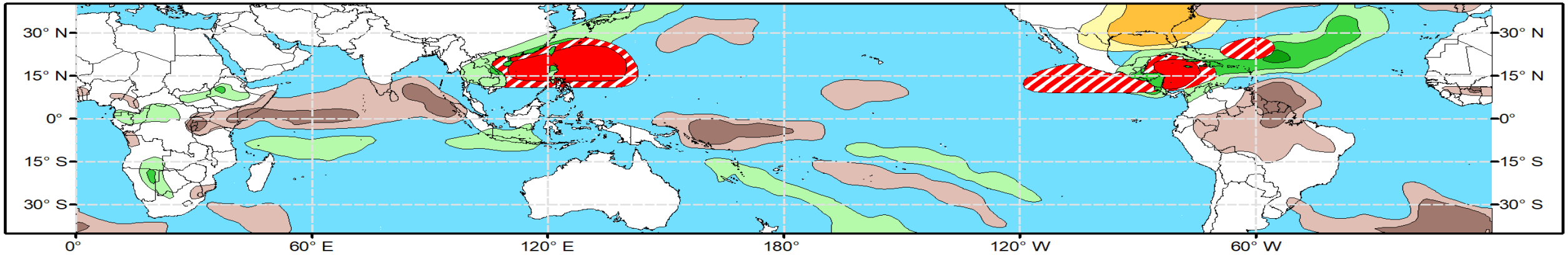
Prediction of MJO–related anomalies using GEFS operational forecast
Initial date: 20 Oct 2024
OLR



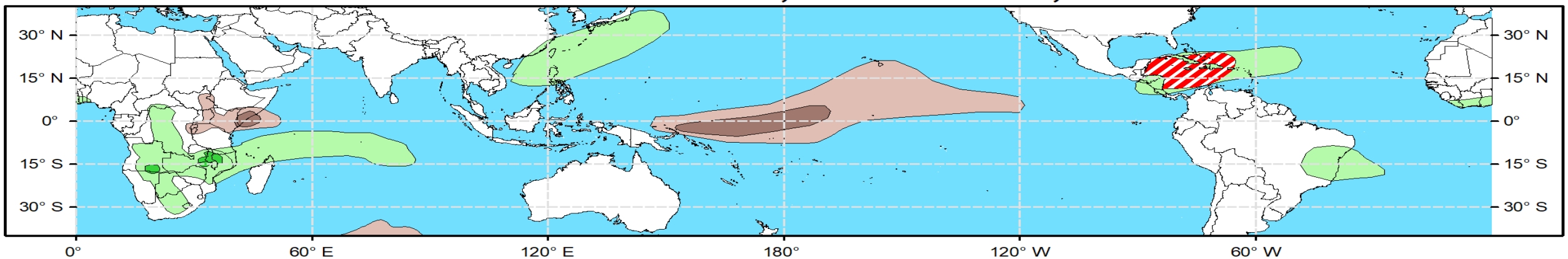
# Global Tropics Hazards Outlook

## Climate Prediction Center

## Week 2 - Valid: Oct 30, 2024 - Nov 05, 2024




## Week 3 - Valid: Nov 06, 2024 - Nov 12, 2024




**Tropical Cyclone (TC) Formation Probability**

>20% >40% >60%

*Tropical Depression (TD) or greater strength*

**Above-Average Rainfall Probability**

>50% >65% >80%

*Weekly total rainfall in the Upper third of the historical range*

**Below-Average Rainfall Probability**

>50% >65% >80%

*Weekly total rainfall in the Lower third of the historical range*

**Above-Average Temperatures Probability**

>50% >65% >80%

*7-day max temperatures in the Upper third of the historical range*

**Below-Average Temperatures Probability**

>50% >65% >80%

*7-day min temperatures in the Lower third of the historical range*

**Issued: 10/22/2024**

**Forecaster: Pugh**

**This product is updated once per week and targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.**