Government of India
Earth System Science Organization
Ministry of Earth Sciences
India Meteorological Department

Press: Dated: 25 Aug, 2022

Subject: Current Weather Status and Extended range Forecast for next two weeks (25 August-7 Sept 2022)

1. Salient Observed Features for week ending on 24 Aug 2022

- Active to Vigorous monsoon spell over central India with isolated heavy to very heavy and isolated extremely heavy rainfall, observed over central India and adjoining parts of eastern parts of India during the week. It was mainly due to formation of an intense monsoon disturbance over northwest Bay & adjoining Northeast Bay of Bengal and its west-northwest wards movement to southwest Rajasthan across Odisha, Chhattisgarh, Madhya Pradesh during 18-24 Aug 2022 along the monsoon trough. Isolated heavy to very heavy and isolated extremely heavy rainfall was observed over: Odisha during 18-21 Aug, Gangetic west Bengal during 18-20 Aug, Jharkhand and Chhattisgarh during 19-21 Aug, Madhya Pradesh during 20-23 Aug, east Rajasthan during 21-23 Aug, Gujarat region and west Rajasthan during 23-24 Aug. This extreme rainfall spell caused flash floods and riverine flood across the region and thus severely impacted lives of people especially over Odisha, Chhattisgarh and Madhya Pradesh and it has been the worst affected flood in this season so far for Odisha and Madhya Pradesh. Bhopal had also reported very heavy to extremely heavy rainfall during 21-23 Aug causing severe urban flooding in the city.
- **This intense monsoon disturbance was formed from a remnant system which was moved from east, and was observed as a low pressure area** over Northeast and adjoining areas of Eastcentral Bay of Bengal, Bangladesh & Myanmar coasts in the morning the 18th August, 2022. It concentrated into a **Depression over** Northwest & adjoining Northeast Bay of Bengal in the morning 0530 hrs IST of the 19th Aug and then intensified into a **Deep Depression** over the same area

at 1130 hours IST of 19 Aug, it moved west-northwest wards and crossed West Bengal & adjoining north Odisha coast close to Digha during 1900-2000 IST of 19 Aug. It continued to move west-northwest wards and lay centered at 0830 hours IST of the 20th August, 2022 over south Jharkhand and adjoining North Odisha near latitude 22.7°N and longitude 85.6°E, about 60 km west-southwest of Jamshedpur (Jharkhand). It **weakened into a Depression** over northwest Chhattisgarh and adjoining northeast Madhya Pradesh & southeast Uttar Pradesh at 0530 hours IST of 21st August. It further moved west-northwestwards and lay centered at 0830 hrs IST of the 21st August, 2022 over Northwest Chhattisgarh and adjoining northeast Madhya Pradesh near latitude 23.8°N and longitude 81.7°E, about 80 km east-northeast of Umaria (Madhya Pradesh) and then moved further westwards and lay centered at 0830 hrs IST of 22nd August, 2022 over Northwest Madhya Pradesh and adjoining southwest Uttar Pradesh near latitude 24.3°N and longitude 78.4°E, about 60 km north-northwest of Sagar (Madhya Pradesh). It weakened into a **Well Marked Low Pressure Area** over East Rajasthan & adjoining Northwest Madhya Pradesh at 0830 hrs IST of 23 Aug and lay over southeast Pakistan & adjoining southwest Rajasthan with the associated cyclonic circulation extends upto middle tropospheric levels on 25th Aug.

- Last week's Well Marked Low pressure area which was over southeast Pakistan & neighbourhood on 18 Aug, weakened into a Low Pressure Area on 20th over the same region and then merged with the new system as a low pressure area on 23rd August 2022
- The western end of the Monsoon trough initially shifted to foot-hills of Himalayas during 19-21 Aug while eastern end was at normal or south of the normal position during the same period. But, thereafter, the whole monsoon trough completely shifted south of the normal position to central India during 2nd half of the week due to formation and movement of the intense monsoon disturbances.
- In the evening and Night of 19th Aug, part of Himachal Pradesh and Uttarakhand was hit by extreme rain event and flash flood with 200-340 mm occurred over Kangra, Dharmsala, Rishikesh-Dehradun areas which severely affected these areas.
- Subdued rainfall over many parts of southern parts of Peninsula, interior Maharashtra and northern and northeastern states. Telangana, Interior Karnataka and Andhra Pradesh and Bihar and Uttar Pradesh, Punjab and Haryana Delhi and northeastern states continued to get sub-dued rain in most of the dates during the week
- **Analysis of Weekly overall Rainfall distribution during the current week ending on 24 Aug 2022 and Monsoon Season's Rainfall Scenario (01 June-24 Aug, 2022) shows rainfall status have further improved:** It shows for the country as a whole, the weekly

cumulative All India Rainfall departure till week ending on 24 Aug 2022, from its long period average (LPA) was +1 **%,** with **over east and northeast India as -29%** while all India Seasonal cumulative rainfall % departure during this year's **monsoon Season Rainfall during 01 June till 24 Aug 2022** is +9**%.** Details of the rainfall distribution over the four broad geographical regions of India are given in **Table 1** and Meteorological sub-division-wise rainfall both for week and season are given in Annex I and II respectively.

Table 1: Rainfall status (Week and season)

Region	WEEK			SEASON		
	18.08.2022 TO 24.08.2022			01.06.2022 TO 24.08.2022		
	Actual	Normal	% Dep	Actual	Normal	% Dep
EAST & NORTH-EAST INDIA	55.2	77.4	-29%	824.4	1016.1	-19%
NORTH-WEST INDIA	45.6	41.1	11%	460.2	449.8	2%
CENTRAL INDIA	79.7	63.8	25%	917.9	738.5	24%
SOUTH PENINSULA	27.5	41.2	-33%	639.8	518.3	23%
Country as a whole	55	54.5	1%	707.6	650.7	9%

2. Large scale features

- Currently, the sea surface temperatures (SSTs) as well as the atmospheric conditions over Equatorial Pacific Ocean indicate La Niña conditions. The latest forecasts from MMCFS and other global models indicate that La Niña conditions are likely to continue during remaining part of the monsoon season. In addition to ENSO conditions over Pacific, other factors such as the Indian Ocean Sea Surface Temperatures (SSTs) also have some influence on Indian monsoon. Currently, the SST conditions over Equatorial Indian Ocean are very close to the threshold level for negative Indian Ocean Dipole (IOD) conditions. The latest forecasts from MMCFS and other global models indicate negative IOD conditions are likely to develop during remaining part of the monsoon season.

➢ The Madden Julian Oscillation Index (MJO) currently lies in phase 2 with amplitude > 1. It would continue to stay there till 29 Aug with amplitude >1. It would likely to move westwards to phase 3 around 30 Aug and stay in Phase 3 till 3 Sept with amplitude < 1. Then it is likely to move further westwards into Phase 4 during start of the 2nd half of the week 2 and stay there till end of the week 2 with gradually decreasing amplitude.

3. Forecast for next two week

Weather systems & associated Precipitation during Week 1 (25 to 31 August, 2022) and Week 2 (01 to 07 September, 2022)

Forecast for week 1 (25 to 31 August, 2022):

- A Well Marked Low Pressure Area lies over southeast Pakistan & adjoining southwest Rajasthan with associated cyclonic circulation extending upto middle tropospheric levels. It is likely to move away from Indian region by tomorrow, the 26th August, 2022.
- The western end of the monsoon trough at mean sea level is south of its normal position and eastern end is near its normal position. It is very likely to shift gradually northwards, close to foothills of Himalayas during the week.
- A cyclonic circulation lies over south Jharkhand & neighbourhood extending upto middle tropospheric levels.
- Under the influence of the above systems:

✓ Fairly widespread to widespread light/moderate rainfall with **isolated heavy falls** and thunderstorm/lightning very likely over Nagaland, Manipur, Mizoram & Tripura during 27th-31st and over Arunachal Pradesh and Assam & Meghalaya during the week. **Isolated very heavy rainfall also likely over Arunachal Pradesh and Assam & Meghalaya on 27th August, 2022**.

✓ Fairly widespread/widespread light/moderate rainfall with **isolated heavy falls** & thunderstorm/lightning very likely over Odisha on 27th; Sub-Himalayan West Bengal & Sikkim during 27th-29th and over southeast Uttar Pradesh & Bihar on 27th & 28th August, 2022.

✓ Widespread light/moderate rainfall **with isolated heavy falls** & thunderstorm/lightning very likely over Vidarbha on 28th; East Madhya Pradesh & Chhattisgarh during 25th & 28th August, 2022

✓ Fairly widespread to widespread light/moderate rainfall with **isolated heavy falls** and

thunderstorm/lightning very likely over South Interior Karnataka on 26th, 30th & 31st; Rayalaseema during 25th-27th; Telangana on 27th & 28th; Kerala & Mahe during 26th-31st and over Tamil Nadu during the week.

- ✓ Fairly widespread/widespread light/moderate rainfall with isolated heavy falls and thunderstorm/lightning very likely over Jammu & Kashmir on 25th; Himachal Pradesh on 28th and over Uttarakhand on 28th & 29th August, 2022.
- ✓ Isolated to scattered rainfall with thunderstorm likely to occur over rest parts of the country during the week.

Rainfall for week 2 (01 to 07 September, 2022):

- **Conditions are likely to become favourable for commencement of withdrawal of southwest monsoon from some parts of northwest India during the week.**
- Scattered to fairly widespread rainfall likely over south Peninsula, east & northeast India during most days of the week.
- **Rainfall activity is likely to be below normal over northwest & central India.**
- **Rainfall activity is likely to be normal to above normal over south Peninsula; near normal over east & northeast India.**

Legends: **Heavy Rain:** 64.5 to 115.5 mm **Very Heavy Rain:** 115.6 to 204.4 mm, **Extremely Heavy Rain** > 204.4 mm

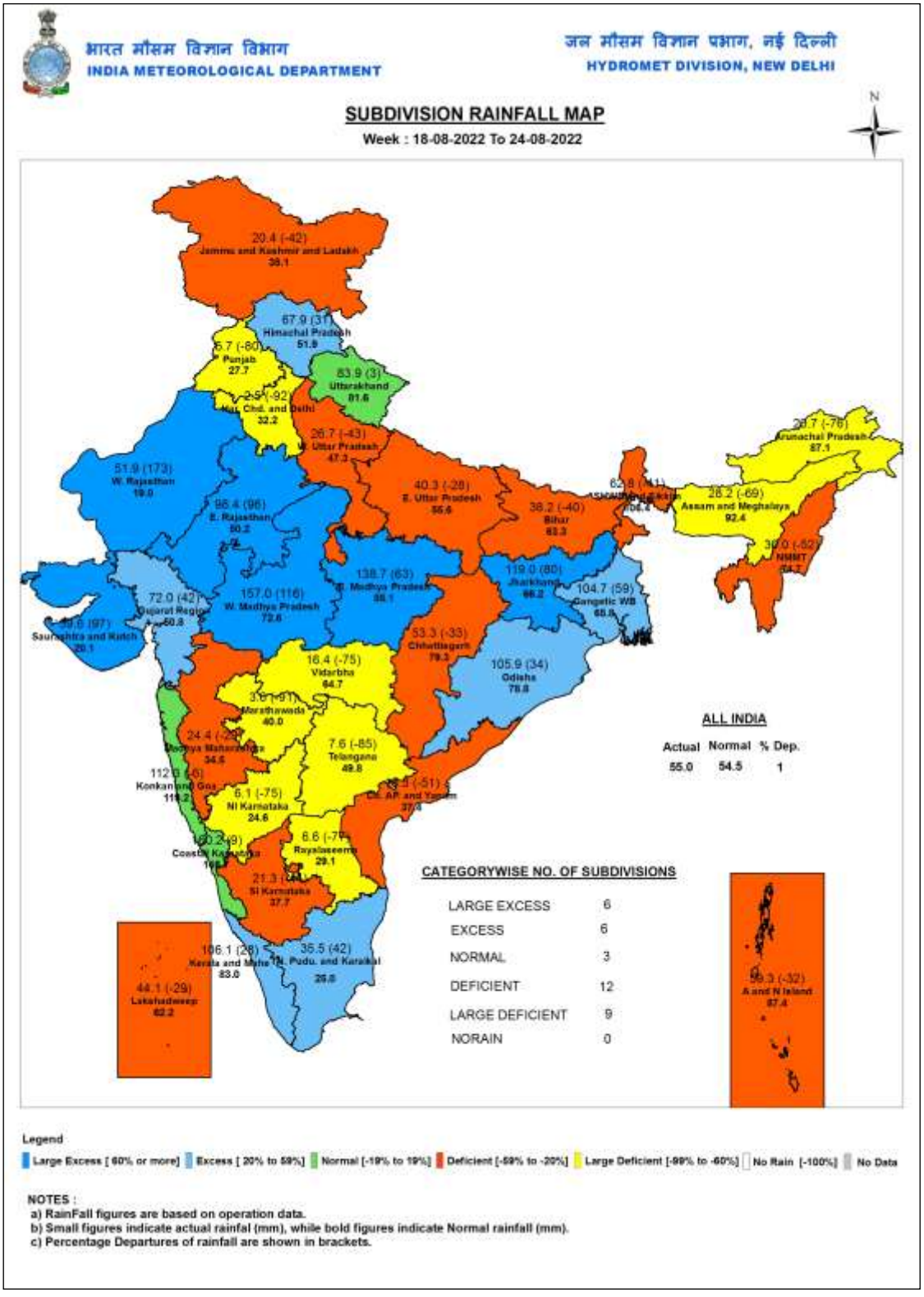
SPATIAL DISTRIBUTION (% of Stations reporting)

% Stations	Category	% Stations	Category
76-100	Widespread (WS/Most Places)	26-50	Scattered (SCT/ A Few Places)
51-75	Fairly Widespred (FWS/ Many Places)	1-25	Isolated (ISOL)

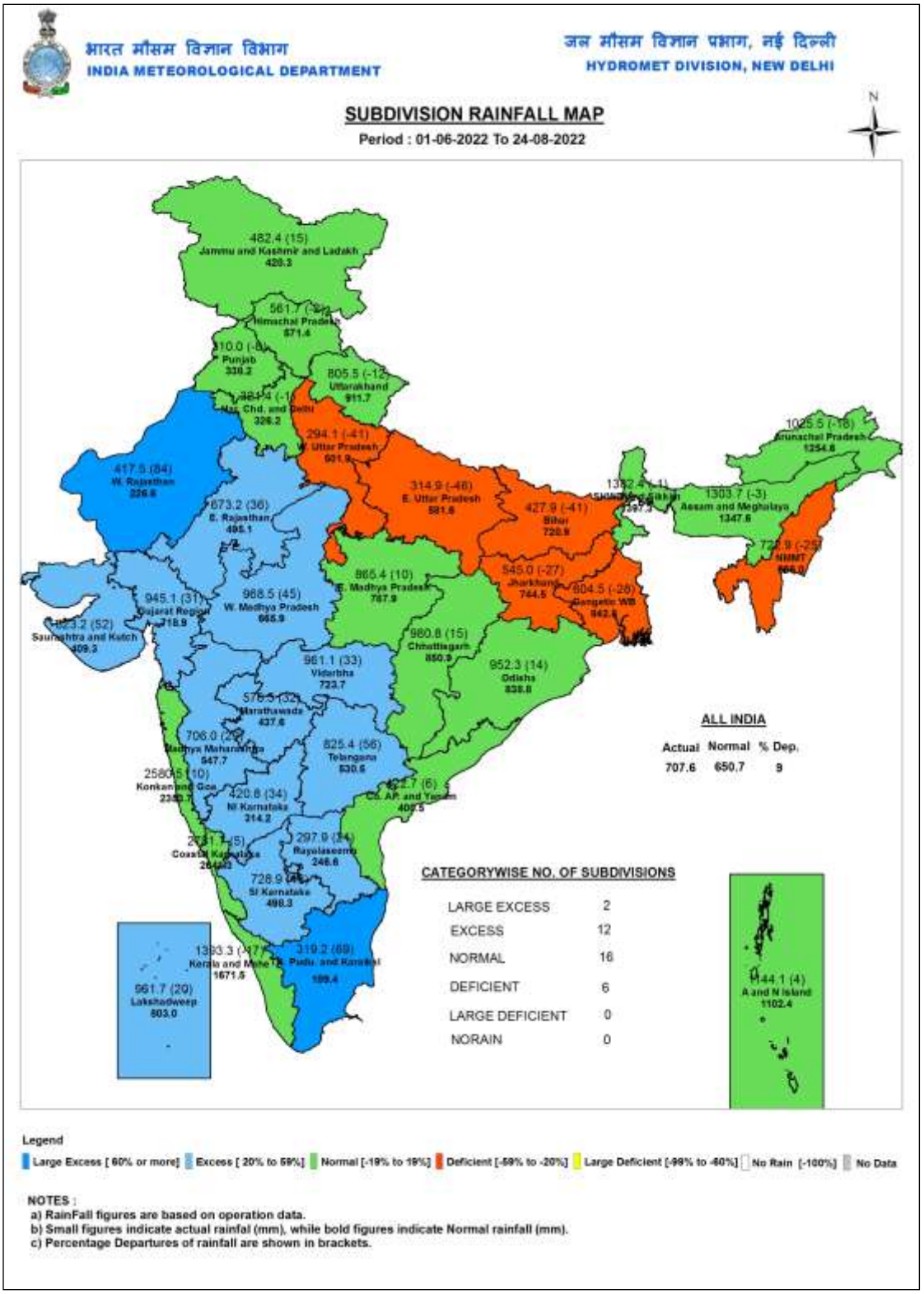
Probabilistic Forecast

Terms	Probability of Occurrence (%)
Unlikely	< 25
Likely	25 - 50
Very Likely	50 - 75
Most Likely	> 75

Annex 1


भारत मौसम विज्ञान विभाग
INDIA METEOROLOGICAL DEPARTMENT
जल मौसम विज्ञान प्रभाग, नई दिल्ली
HYDROMET DIVISION, NEW DELHI
SUBDIVISION RAINFALL MAP
Week : 18-08-2022 To 24-08-2022
N
20.4 (-42) Jammu and Kashmir and Ladakh 36.1
67.9 (31) Himachal Pradesh 51.9
5.7 (-80) Punjab 27.7
83.9 (3) Uttarakhand 81.6
2.9 (-92) Hry. Chd. and Delhi 32.2
26.7 (-43) W. Uttar Pradesh 47.3
51.9 (173) W. Rajasthan 19.0
96.4 (96) E. Rajasthan 50.2
40.3 (-28) E. Uttar Pradesh 55.6
38.2 (-40) Bihar 63.3
28.7 (-76) Arunachal Pradesh 87.1
28.2 (-69) Assam and Meghalaya 92.4
30.0 (-52) NMMT
72.0 (42) Gujarat Region
69.0 (97) Saurashtra and Kutch
157.0 (116) W. Madhya Pradesh 72.6
138.7 (63) E. Madhya Pradesh 85.1
119.0 (80) Jharkhand 66.2
104.7 (59) Gangetic WB 65.5
53.3 (-33) Chhattisgarh 79.3
16.4 (-75) Vidarbha 64.7
105.9 (34) Odisha 78.8
3.6 (-91) Marathwada 40.0
24.4 (-28) Madhya Maharashtra 34.0
7.6 (-85) Telangana 49.8
112.0 (-6) Konkan and Goa 119.2
6.1 (-75) NI Karnataka 24.6
6.6 (-79) Rayalaseema 29.1
21.3 (-24) SI Karnataka 27.7
106.1 (28) Kerala and Mahe 83.0
35.5 (42) TN, Pudu. and Karaikal 25.0
44.1 (-29) Lakshadweep 62.2
59.3 (-32) A and N Island 87.4
ALL INDIA
Actual Normal % Dep.
55.0 54.5 1
CATEGORYWISE NO. OF SUBDIVISIONS
LARGE EXCESS 6
EXCESS 6
NORMAL 3
DEFICIENT 12
LARGE DEFICIENT 9
NORAIN 0
Legend
Large Excess [60% or more]
Excess [20% to 59%]
Normal [-19% to 19%]
Deficient [-59% to -20%]
Large Deficient [-99% to -60%]
No Rain [-100%]
No Data
NOTES :
a) RainFall figures are based on operation data.
b) Small figures indicate actual rainfal (mm), while bold figures indicate Normal rainfall (mm).
c) Percentage Departures of rainfall are shown in brackets.

Annex: II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HYDROMET DIVISION, NEW DELHI
SUBDIVISION RAINFALL MAP
Period : 01-06-2022 To 24-08-2022
N
482.4 (15)
Jammu and Kashmir and Ladakh
420.3
561.7 (-3)
Himachal Pradesh
671.4
310.0 (-8)
Punjab
338.2
805.5 (-12)
Uttarakhand
911.7
382.4 (-1)
Haryana, Chd. and Delhi
386.2
294.1 (-41)
W. Uttar Pradesh
501.9
417.5 (84)
W. Rajasthan
226.8
673.2 (36)
E. Rajasthan
495.1
314.9 (-46)
E. Uttar Pradesh
581.8
427.9 (-41)
Bihar
729.9
1352.4 (-1)
Sikkim
1367.9
1025.5 (-16)
Arunachal Pradesh
1254.8
1303.7 (-3)
Assam and Meghalaya
1347.6
729.9 (-25)
NMMT
966.0
865.4 (10)
E. Madhya Pradesh
787.9
545.0 (-27)
Jharkhand
744.5
804.5 (-28)
Gangetic WB
942.6
945.1 (31)
Gujarat Region
718.9
988.5 (45)
W. Madhya Pradesh
665.9
Saurashtra and Kutch
409.3
960.8 (15)
Chhattisgarh
850.9
952.3 (14)
Odisha
838.8
961.1 (33)
Vidarbha
723.7
576.5 (32)
Marathawada
437.6
706.0 (29)
Madhya Maharashtra
547.7
825.4 (56)
Telangana
530.6
Konkan and Goa
420.8 (34)
NI Karnataka
314.2
SI Karnataka
498.3
297.9 (24)
Rayalaseema
246.6
961.7 (29)
Lakshadweep
803.0
319.2 (69)
Pudu. and Karaikal
189.4
944.1 (4)
A and N Island
1102.4
ALL INDIA
Actual Normal % Dep.
707.6 650.7 9
CATEGORYWISE NO. OF SUBDIVISIONS
LARGE EXCESS 2
EXCESS 12
NORMAL 16
DEFICIENT 6
LARGE DEFICIENT 0
NORAIN 0
Legend
Large Excess [60% or more] Excess [20% to 59%] Normal [-19% to 19%] Deficient [-59% to -20%] Large Deficient [-99% to -60%] No Rain [-100%] No Data
NOTES :
a) RainFall figures are based on operation data.
b) Small figures indicate actual rainfal (mm), while bold figures indicate Normal rainfall (mm).
c) Percentage Departures of rainfall are shown in brackets.

Annexure III