INDIA METEOROLOGICAL DEPARTMENT
(MINISTRY OF EARTH SCIENCES)
SOUTHWEST MONSOON-2014
END OF SEASON REPORT
For the state of
UTTAR PRADESH

HIGHLIGHTS

- For the country as a whole, the rainfall for the season (June-September) was 88% of its long period average (LPA). However, for the North West India this figure came out to 79% and 53% of its LPA for the Uttar Pradesh.
- Seasonal rainfall was 58% of its LPA over East Uttar Prasad and 44% of its LPA over West Uttar Pradesh.
- Out of the total 71 districts of Uttar Pradesh 01 district constituting 01% of the total area of the State received excess season rainfall, 02 districts constituting 03% of the total area of the State received normal season rainfall, 42 districts constituting 59% of the total area of the State received deficient season rainfall and 26 districts constituting 37% of the total area of the State received scanty rainfall.
- Monthly rainfall over the state Uttar Pradesh a whole was 40% of LPA in June, 70% of LPA in July, 39% of LPA in August and 56% of LPA in September.
- Monsoon current advanced over the Andaman Sea 2 days earlier than its normal date of 20th May. However, it set in over Kerala on 6th June, 5 days later than its normal date of 1st June. It entered in East Uttar Pradesh on 17th June, 2 days later than its normal dates of 15th June and covered whole Uttar Pradesh 14 days later i.e. on 14th July. The southwest monsoon currents covered the entire country by 17th July, 2 days later than its normal date of 15th July.
- Withdrawal of monsoon from West Uttar Pradesh commenced on 27th September against its normal date of 15th September and it completely withdrew from the state on 18th October.
- During the season, 1 Cyclonic Storm (Nanauk), 2 monsoon depressions and 10 monsoon low pressure areas were formed as against the normal of 6 monsoon depressions and 6 monsoon low pressure areas per season.
- The forecast for monsoon onset over Kerala for this year was correct, which is the tenth consecutive correct forecast for this event since issuing of forecast for the event was started in 2005.
- Forecast Probability for below normal monsoon was 71% for North West India as per the operational long range forecasts for the southwest monsoon 2014 forecast update issued in August 2014. The forecasts for the monthly rainfall (for the months July and August) and that for the second half of the monsoon season over the North West India as a whole remained within the forecast limits.

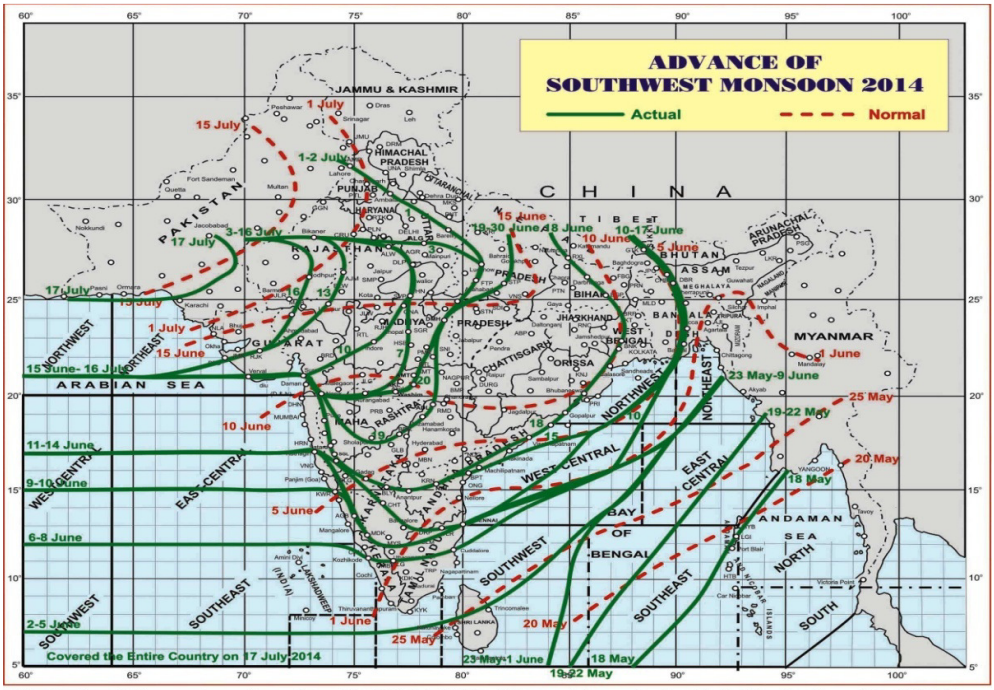
1. ONSET OF SOUTHWEST MONSOON – 2014

During South West Monsoon Season 2014, from 17th- 18th May, an easterly wave trough embedded in the northern hemispheric equatorial convergence zone developed into a cyclonic circulation over south Andaman Sea and neighborhood. Associated with this, low level cross equatorial monsoon flow strengthened over the region resulting in the advance of southwest monsoon over most parts of Andaman Sea and some parts of southeast Bay of Bengal on 18th May and remaining parts of Andaman Sea, some more parts of southeast Bay of Bengal and some parts of southwest and east central Bay of Bengal on 19th. Thus the southwest monsoon current reached over south Andaman Sea 2 days before normal date of 20th May.

However, the southwest monsoon set in over Kerala on 6th June, 5 days later than its normal date of 1st June. Same day, monsoon also advanced into most parts of south Arabian Sea, some parts of Tamil Nadu, most parts of southwest Bay of Bengal and some parts of west central Bay of Bengal. Thereafter, though not rapid, it consistently advanced and by 18th June, it covered central Arabian Sea, some parts of north Arabian Sea, south Gujarat, entire Konkan & Goa, some parts of south peninsula, Odisha, Jharkhand and Bihar, entire northeastern states and most parts of Gangetic West Bengal. The Arabian Sea branch of the monsoon current was aided by the formation of a Cyclonic Storm **(Nanauk)** over the Arabian Sea. The eastward propagation of Madden Julian Oscillation (MJO) over maritime continent led to the development of convection over north Bay of Bengal and the subsequent formation of season's first low pressure area over coastal areas of Bangladesh and neighborhood on 19th June. This aided the advance of Bay of Bengal branch of the southwest monsoon over northeastern states. Subsequently it further advanced into most parts of south peninsula, east and adjoining parts of central India by 20th June.

During the last week of June, the weakening of monsoon activity caused the re-appearance of the heat wave conditions over eastern parts of peninsular India. After a hiatus of 10 days, monsoon started reviving. Subsequently, a favourable interaction of the southwest monsoon current with the mid-latitude westerlies aided the advance of southwest monsoon into the western Himalayan region and adjoining plains of northwest India. It advanced into entire Uttarakhand, Himachal Pradesh and Jammu & Kashmir, some more parts of Uttar Pradesh and some parts of Haryana (including Chandigarh) and Punjab on 1st July.

During the first week of July, the presence of anticyclone over the peninsular region resulted in subdued rainfall activity over parts of north, central and peninsular region. But the formation of a low pressure area over north Bay of Bengal and adjoining coastal areas of Bangladesh and Gangetic West Bengal (during 1st – 7th July) and a cyclonic circulation over west Uttar Pradesh and neighborhood (during 3rd - 6th July) caused further advance of the monsoon into some more parts of Uttar Pradesh, remaining parts of Haryana (including Delhi) and Punjab and some parts of north Rajasthan on 3rd July and subsequently into most parts of Vidarbha, remaining parts of east Madhya Pradesh and Uttar Pradesh, some parts of west Madhya Pradesh and some more parts of northeast Rajasthan on 7th. Subsequent to the formation and west northwestwards movement of a low pressure area (during 11th- 16th July), an off shore trough at mean sea level extending from Gujarat coast to Kerala coast (10th-16th July) and the cyclonic circulation extending between 3.1 & 5.8 kms a.s.l. over northeast Arabian Sea during (14th-16th July) during the second week, the monsoon activity revived gradually over central India and west coast thereby causing further advance of southwest monsoon over remaining parts of central India and most parts of northwest India on 16th and remaining parts of north Arabian Sea, Saurashtra & Kutch, Gujarat Region and west Rajasthan and thus the entire country on 17th July 2014.Fig.1 shows the isochrones of advance of monsoon 2014.



The Southwest Monsoon has advanced on the 17th July 2014, into remaining parts of north Arabian Sea, Saurashtra & Kutch, Gujarat region and west Rajasthan. Thus it covered the entire country.

Fig.1: Isochrones of advance of Monsoon 2014

2. CHIEF SYNOPTIC FEATURES:

Strong cross equatorial flow prevailed during July and August. The presence of ridge and formation of Cyclonic Storm over Arabian Sea prevented the cross equatorial flow to actually reach the west coast of peninsular India during first half of June. It was weak during later part of the September as well.

The axis of monsoon trough mostly remained normal/South of its normal position during July and first half of September. It extended up to mid troposphere levels without its characteristic tilt. It mostly remained North of its normal position /close to foot hills of Himalayas during August. The seasonal 'heat low' was less demarcated since second half of August except for first half of September, when it became noticeable. Thereafter, it became less apparent and subsequently, the axis of monsoon trough also weakened thereby becoming less delineated since 22nd September. With the shifting of monsoon trough to the foot hills of Himalayas during the month of August, the circulation features and rainfall pattern resembled typical break like situation during 15th – 21st August.

During the season, 13 low pressure systems formed. These included 10 low pressure areas, one cyclonic storm (CS), a land depression and a deep depression. Tracks of the depressions and the CS are given in Fig.2. Out of the 10 low pressure areas formed during the season (against the season normal of 6), 8 (3 of them well marked) formed over the Bay of Bengal and two (as well marked) over the Arabian Sea. The monthly break up is 1 in June, 3 in July, 3 in August and 3 in September.

During the month of June, one CS and one low pressure area formed. The CS 'Nanauk' (9th–14th June) which formed over East Arabian Sea at the leading edge of the monsoon current aided the further advance of Arabian branch up to South Gujarat coast. Its remnant vortex drifting northeastwards towards Gujarat resulted in extremely heavy rainfall over Saurashtra & Kutch on 16th June. The first low pressure area (19th – 22nd June) formed over coastal areas of Bangladesh and neighborhood under the influence of a cyclonic circulation over northwest Bay of Bengal and neighborhood. It increased the rainfall activity over the region and thus led to the further advance of southwest monsoon over sub-divisions in the east.

The formation of second low pressure area (1st -7th July) over north Bay of Bengal and adjoining areas and its more north-northwesterly movement kept the monsoon activity over the eastern parts only. Therefore the rainfall activity all over India during the period remained subdued. With the formation of the land depression (21st – 23rd July) over northeastern parts of Odisha and adjoining areas of Genetic West Bengal and thereafter its movement as a low pressure area in westward direction along with the other two low pressure areas (11th-18th July & 27th -31st July) over northwest Bay of Bengal, revived the monsoon activity over central and peninsular India during the period.

First week of August witnessed the formation of a deep depression (3rd -6th Aug.) over coastal areas of west Bengal and neighborhood which spurred the vigorous monsoon conditions over the Indo- Genetic plains whereas its remnant cyclonic circulation enhanced the rainfall activity over parts of northwest India. The low pressure area (9th -11th Aug.) formed over north Bay of Bengal and its northwestwards movement and dissipation, led the monsoon trough to shift towards the foot hills of the Himalayas on 13th Aug.

With the formation of 2 well marked low pressure areas (23rd -24th Aug.) & (27th Aug – 6th Sept), one each over the Arabian Sea and Bay of Bengal, the rainfall activity over major parts of peninsular India enhanced during the last week of August. Monsoon activity in general remained weak outside this areas and northeastern parts of the country, which received rainfall associated with the North-South trough in the lower and mid tropospheric westerlies. The formation of the well marked low pressure area over the Bay of Bengal and its West-North West wards movement across the central parts of India along with the formation of the low pressure area (2nd -4th Sept.) over Saurashtra & Kutch and adjoining northeast Arabian Sea revived the rainfall activity over central and North West India.

The above well marked low pressure area took a more North ward course from 4th Sept and thereafter interacting with the trough in the mid-latitude Westerlies in the lower tropospheric levels, caused heavy to very heavy rainfall resulting severe floods in Jammu & Kashmir during first week of September. The formation and movement of the third well marked low pressure area (5th – 9th Sept) over North Bay of Bengal off West Bengal–Bangladesh coasts helped the monsoon trough to shift southwards of its normal position and thus led to vigorous monsoon activity over North, East central and adjoining peninsular India.

In the latter half of September, a low pressure area (16th -24th Sept.) formed over North West Bay of Bengal and adjoining coastal areas of Odisha and West central Bay of Bengal. Its North ward movement increased the rainfall activity over eastern parts only.

In context of weak monsoon activity over Uttar Pradesh was due to movement of most of the Lows and Depressions over through the southernmost part of Uttar Pradesh and position of monsoon trough south to its normal position. It was due to position of Anti-cyclone (Tibetan High) at 100 hPa level that was seen southwest to its normal position and was seen over the northeast part of Uttar Pradesh and adjoining areas most of the time at the same standard isobaric level. Fig.2 shows the track of monsoon depressions form during Monsoon 2014.

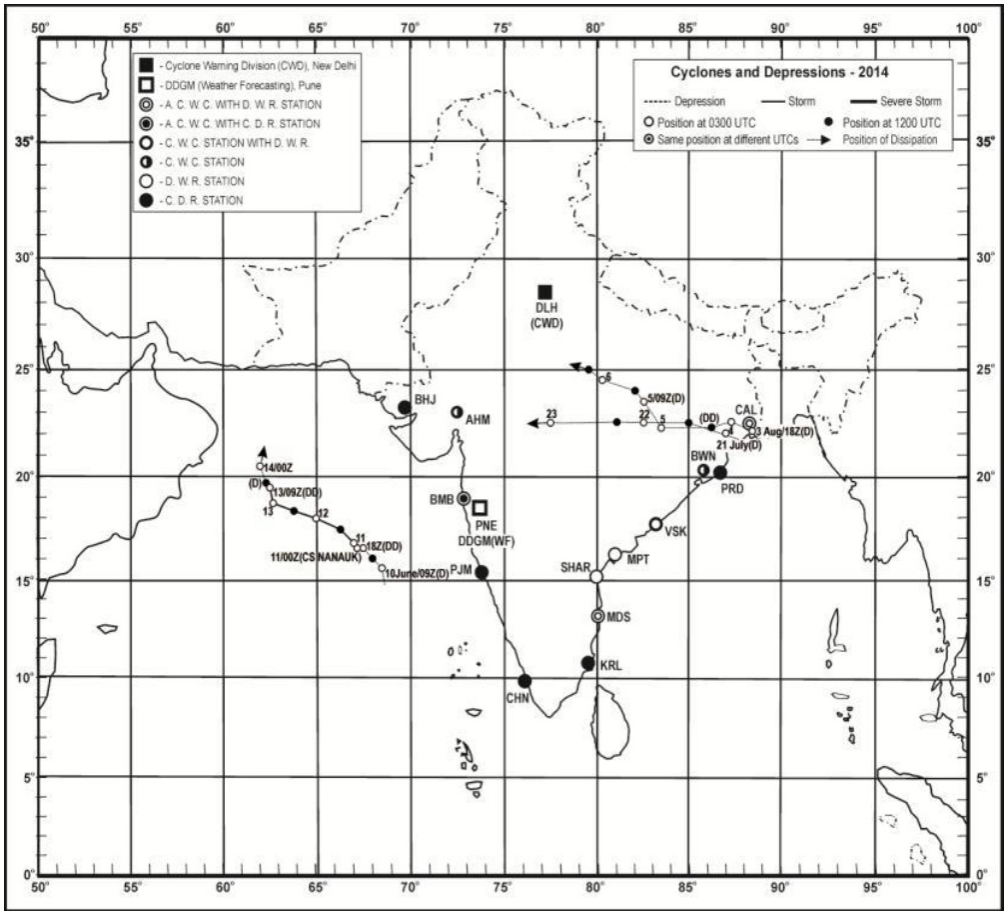
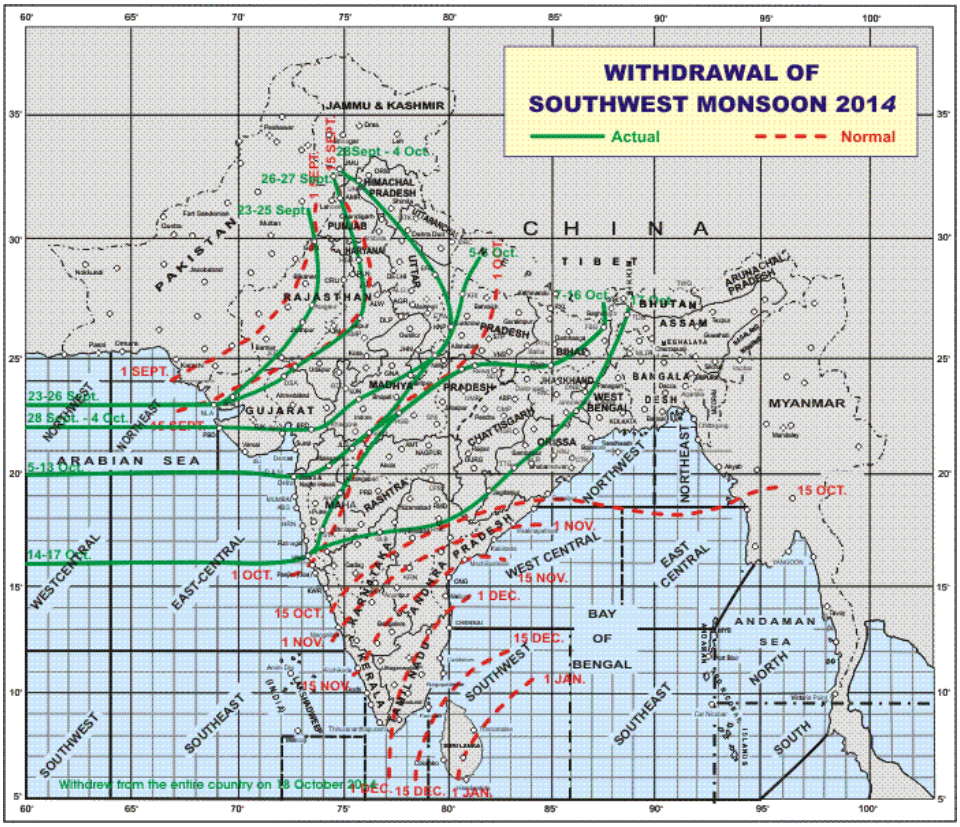


Fig.2: Track of monsoon depression during Monsoon Season 2014

3. WITHDRAWAL OF SOUTHWEST MONSOON:

The weather over the western parts of Rajasthan remained mainly dry from 17th Sept. A change in the lower tropospheric circulation pattern over the region from cyclonic to anti cyclonic during 16th - 17th Sept also made conditions favorable for the withdrawal of southwest monsoon from the region. Subsequently, withdrawal of monsoon from northwestern most parts of the country commenced on 23rd Sept. It withdrew from some parts of west Rajasthan and Kutch on 23rd Sept. and from some parts of Punjab, Haryana and Gujarat Region, some more parts of Kutch area and remaining parts of west Rajasthan on 26th. On 28th Sept., it further withdrew from remaining parts of Punjab, Haryana, Chandigarh & Delhi and east Rajasthan; some parts of Jammu & Kashmir, Himachal Pradesh, east Uttar Pradesh, Madhya Pradesh and Saurashtra; most parts of west Uttar Pradesh and some more parts of Gujarat Region, Kutch and north Arabian Sea. As on 30th

September, the withdrawal line passed through Jammu, Una, Bareilly, Kanpur, Nowgong, Ujjain, Vadodara, Porbandar , Lat. 22 N/ Long. 65 E and Lat. 22 N / Long. 60 E. On 15th October monsoon completely withdrew from Uttar Pradesh. Fig.3 shows the isochrones of withdrawal of Monsoon 2014.



. Fig.3: Isochrones of withdrawal of Monsoon 2014

4. RAINFALL DISTRIBUTION (JUNE- SEPTEMBER 2014):

The rainfall during monsoon season (June to September) for the State as a whole and its two meteorological sub- divisions are as follows :

Region	Actual (in mm)	Long period average (LPA) (in mm)	Departure from normal (in %)
Uttar Pradesh	447.6	846.5	-47
East- UP	518.1	897.5	-42
West-UP	340.3	768.8	-56

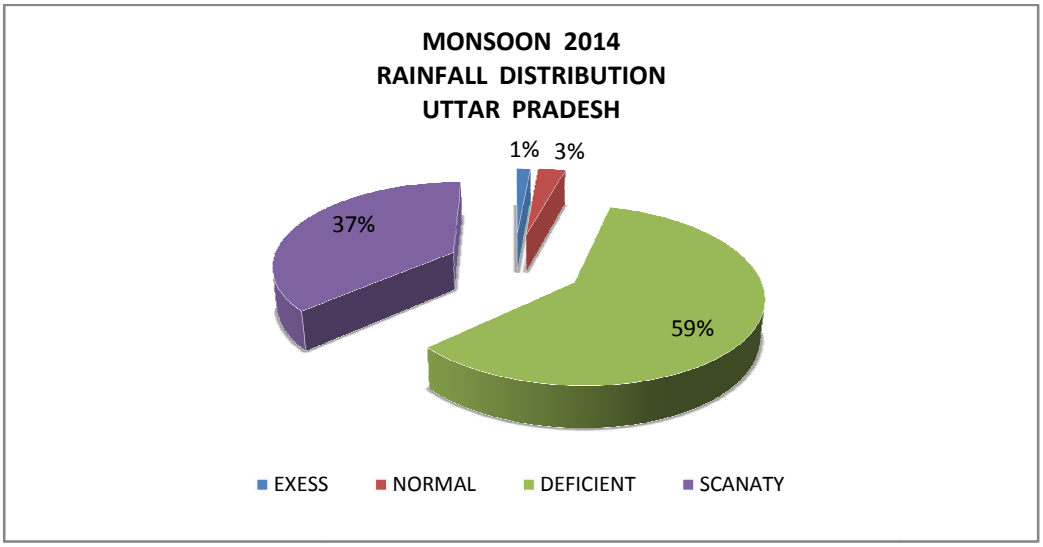


Fig.4: Rainfall distribution over the area of Uttar Pradesh (June-September) 2014

As seen in the table above, the seasonal rainfall over Uttar Pradesh as a whole was 53% of its LPA and over its two meteorological sub-divisions East-Uttar Pradesh and West Uttar Pradesh it were 58% and 44% respectively of its LPAs. The rainfall distribution was very uneven over the State. Out of 71 districts of Uttar Pradesh 42 districts received deficient, 26 districts received scanty, 2 districts received normal and only 1 district received excess rainfalls. Overall this year 59% area received deficit, 37% received scanty, 3% area received normal and 1% area of Uttar Pradesh received excess rainfall. In this way monsoon remained weak for the state.

5. MONTHLY DISTRIBUTION OF RAINFALL OVER THE STATE AND ITS TWO METEOROLOGICAL SUB-DIVISIONS:

(i) UTTAR PRADESH

MONTH	Actual Rainfall (in mm)	Normal Rainfall (in mm)	% Departure from Normal
June-2014	37.5	93.2	-60
July-2014	196.2	282.3	-30
August-2014	115.2	293.1	-61
September-2014	98.7	177.9	-44

(ii) EAST UTTAR PRADESH

MONTH	Actual Rainfall (in mm)	Normal Rainfall (in mm)	% Departure from Normal
June-2014	47.8	107.7	-56
July-2014	224.5	297.9	-25
August-2014	138.1	294.5	-53
September-2014	107.7	197.4	-45

(iii) WEST UTTAR PRADESH

MONTH	Actual Rainfall (in mm)	Normal Rainfall (in mm)	% Departure from Normal
June-2014	218	71.1	-69
July-2014	153.1	258.4	-41
August-2014	80.4	291.0	-72
September-2014	85.0	148.3	-43

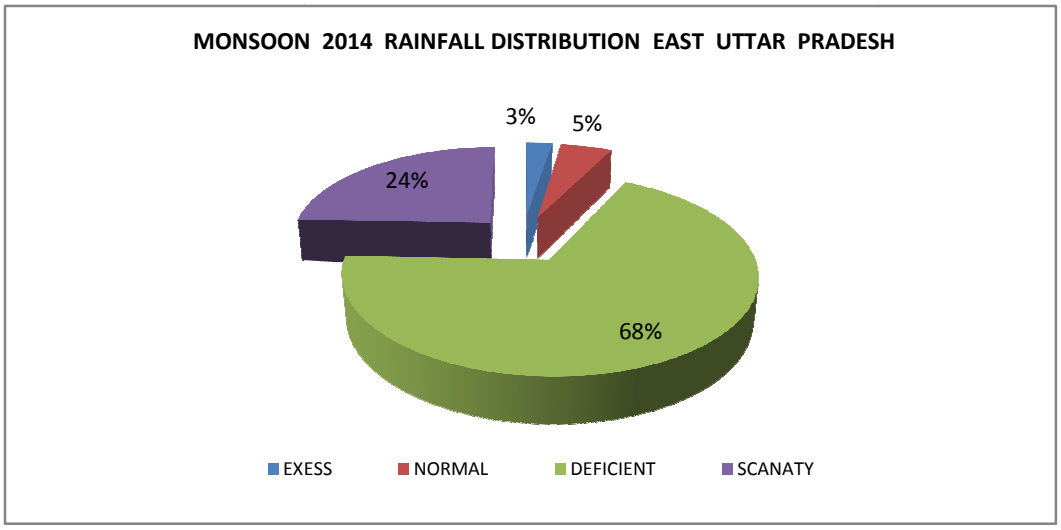


Fig.5: Rainfall distribution over the area of East-Uttar Pradesh (June-September) 2014

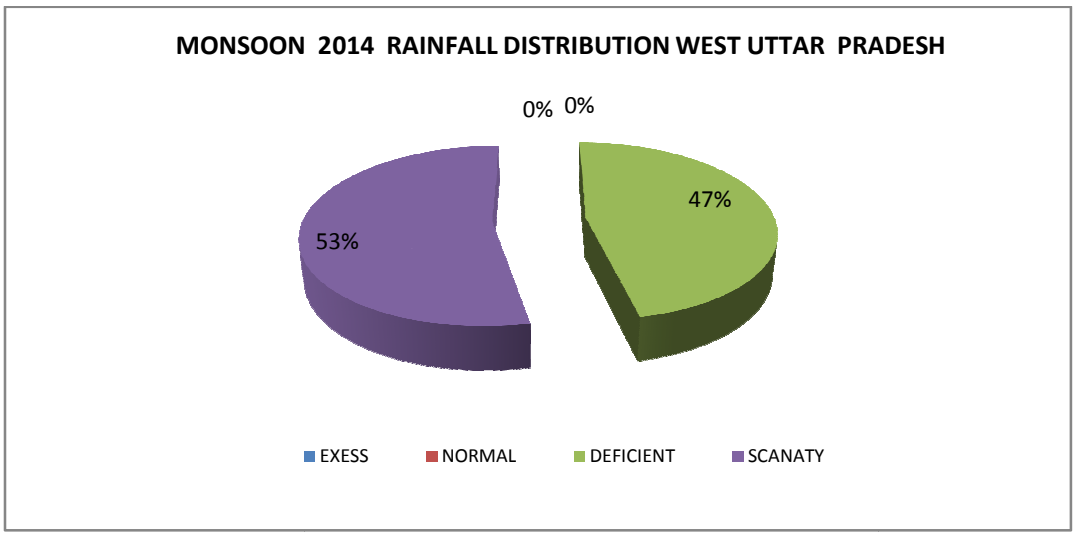


Fig.6: Rainfall distribution over the area of West Uttar Pradesh (June-September) 2014

From the above tables, the month wise rainfall over the state during June and August was scanty and July and September was deficient and was of the order of 40%, 70%, 39% and 56% for June, July, August and September respectively of its monthly LPAs. The amount of rainfall (in terms of % of LPA) was more over the East-UP as compare to West-UP during all four months June-September of monsoon 2014. This year 68% areas of East-UP received deficient rainfall, 24% areas received scanty rainfall, 5% areas received normal rainfall and only 3% areas received excess rainfall. In the West-UP, 53% areas received scanty rainfall and 47% areas received deficient rainfall. In this way performance of monsoon 2014 was poor over West-UP in compare to East-UP.

6. DISTRICTS WISE RAINFALL DISTRIBUTION (JUNE-SEPTEMBER) 2014 :

DISTRICTWISE SEASONAL RAINFALL DISTRIBUTION

Serial No.	State/ Districts	Monsoon rainfall in mm (June - September)	Year-2014	
		Actual (in mm)	Normal (in mm)	%Dep
	UTTAR PRADESH	447.6	846.5	-47
		MET. SUBDIVISIONS		
		EAST UTTAR PRADESH		
1	ALLAHABAD	469.1	808.7	-42
2	AMBEDKAR NAGAR	541.2	904.8	-40
3	AZAMGARH	381.2	952.7	-60
4	BAHRAICH	1085	993.8	9
5	BALLIA	565.3	827.2	-32
6	BALRAMPUR	735.7	1071.7	-31
7	BANDA	399.1	840.4	-53
8	BARABANKI	578.5	930.5	-38
9	BASTI	715.8	943.6	-24
10	CHANDAULI	398.4	846.1	-53
11	DEORIA	431.7	950.9	-55
12	FAIZABAD	375.2	989.7	-62
13	FARRUKHABAD	223.8	743.4	-70
14	FATEHPUR	257	812.5	-68
15	GHAZIPUR	573.9	883	-35
16	GONDA	550.6	1027.2	-46
17	GORAKHPUR	659.3	1175.5	-44
18	HARDOI	238.1	787.9	-70
19	JAUNPUR	324	874.1	-63
20	KANNAUJ	353.8	776.7	-54
21	KANPUR CITY	425.7	696.8	-39
22	KANPUR DEHAT	203.6	765	-73
23	KAUSHAMBI	275	765.6	-64

24	KHERI	805	926.1	-13
25	KUSHI NAGAR	465.3	1158.4	-60
26	LUCKNOW	506	772.5	-35
27	MAHARAJGANJ	602.1	1214.1	-50
28	MAU	388	1004.7	-61
29	MIRZAPUR	538.9	901.1	-40
30	PRATAPGARH	494.3	851.8	-42
31	RAE BAREILLY	435.3	750.3	-42
32	SAHUJI MAHARAJ NAGAR	439.7	885.9	-50
33	SANT KABIR NAGAR	694.5	990.7	-30
34	SANT RAVIDAS NAGAR	496	846.1	-41
35	SHRAWASTI	1258.6	993.8	27
36	SIDDHARTH NAGAR	807.6	1009.9	-20
37	SITAPUR	517.8	864.8	-40
38	SONBHADRA	548.8	916.9	-40
39	SULTANPUR	410.1	840.7	-51
40	UNNAO	433.6	790.3	-45
41	VARANASI	683.4	923.5	-26
	EAST UTTAR PRADESH	518.1	897.5	-42

WEST UTTAR PRADESH				
42	AGRA	258.5	687.2	-62
43	ALIGARH	256.6	655.7	-61
44	AURAIYA	211.2	700	-70
45	BADAUN	250.6	758	-67
46	BAGHPAT	362.3	545.3	-34
47	BAREILLY	430.5	853.8	-50
48	BIJNOR	644.4	914.2	-30
49	BULANDSHAHAR	208.9	670.7	-69
50	ETAH	232.3	615.3	-62
51	ETAWAH	211.9	728	-71
52	FIROZABAD	211.7	676.3	-69
53	GAUTAM BUDDHA NAGAR	134.5	572.8	-77
54	GHAZIABAD	131.1	641.7	-80
55	HAMIRPUR	368.9	796.9	-54
56	JALAUN	352.9	774.9	-54
57	JHANSI	399.1	837.9	-52
58	JYOTIBA PHULE NAGAR	325.3	783	-58
59	KANSHIRAM NAGAR	416.5	701.5	-41
60	LALITPUR	634	939.3	-33

61	MAHAMAYA NAGAR	264.5	625.4	-58
62	MAHOBA	258.8	776.4	-67
63	MAINPURI	191	655.3	-71
T 64	MATHURA	206	579.9	-64
65	MEERUT	281	778.5	-64
66	MORADABAD	514.6	855.2	-40
67	MUZAFFARNAGAR	313.3	736.8	-57
68	PILIBHIT	396.5	988.6	-60
69	RAMPUR	326.5	915.5	-64
70	SAHARANPUR	341.3	804.6	-58
71	SHAHJAHANPUR	423.8	859.2	-51
	WEST UTTAR PRADESH	**340.3**	**768.8**	**-56**

The cumulative seasonal rainfall for the State as a whole was 53% of its LPA, East-Uttar Pradesh 58% of its LPA and West Uttar Pradesh 44% of its LPA. The rainfall distribution was very uneven over the State. Out of 71 districts of Uttar Pradesh 42 districts received deficient rainfall, 26 districts received scanty rainfall, 2 districts received normal rainfall and only 1 district received excess rainfall. Shrawasti district got the highest rainfall (127%) and Gautam Buddh Nagar least rainfall (23%) of its LPA.

6. WEEKLY RAINFALL DISTRIBUTION :

Weekly rainfall distribution over the two Meteorological sub-divisions of the state is shown in the following charts.

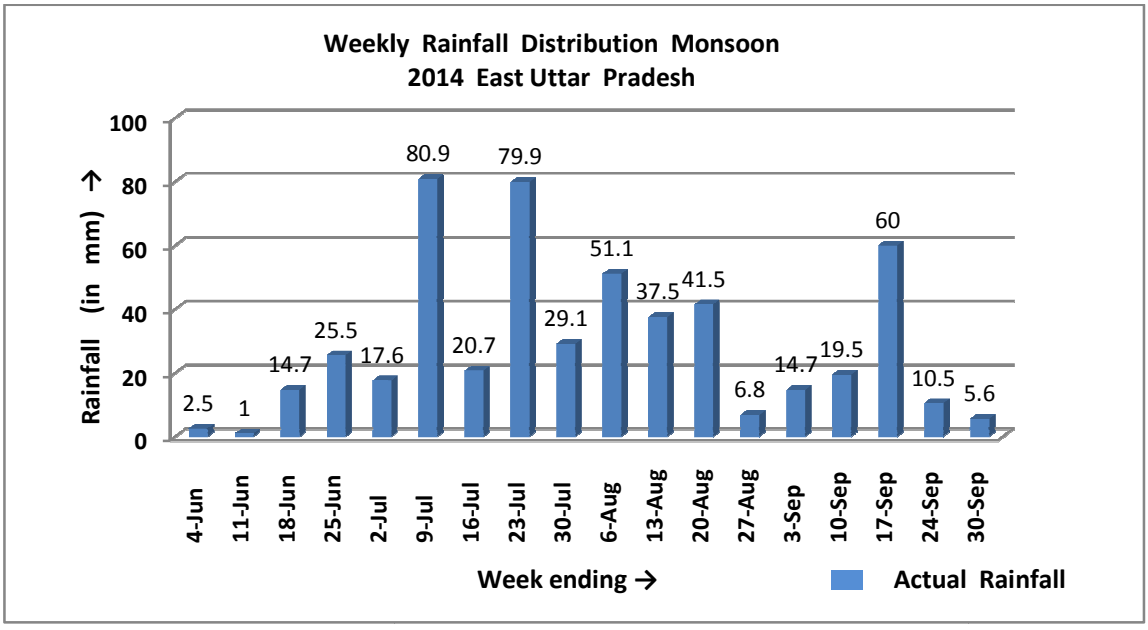


Fig.7: Weekly progress of Monsoon Rainfall-2014 over East-UP

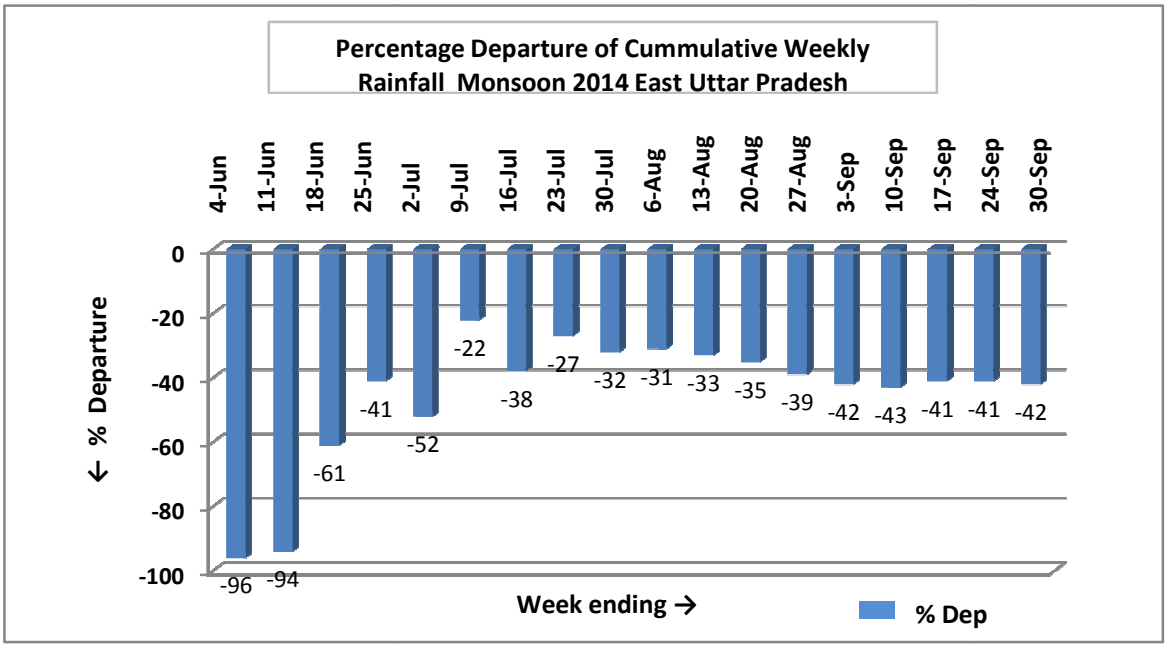


Fig. 8 Week-by-Week departure of the Monsoon Rainfall 2014 over East-UP (Cumulative)

Practically, on weekly basis the rainfall over East Uttar Pradesh was insignificant (< 15 mm) during the week ending 4th June, 11th June, 27th August and 30th September. Highest amount of rainfall (80 mm) was observed during the week ending on 9th and 23rd July. During the first three weeks of August rainfall was moderate after then it decreased during last week of August. With a revival of monsoon in fist two weeks of September rainfall slowly increased. On week ending 17th September rainfall activity increased suddenly thereafter rainfall activity gradually decreased.

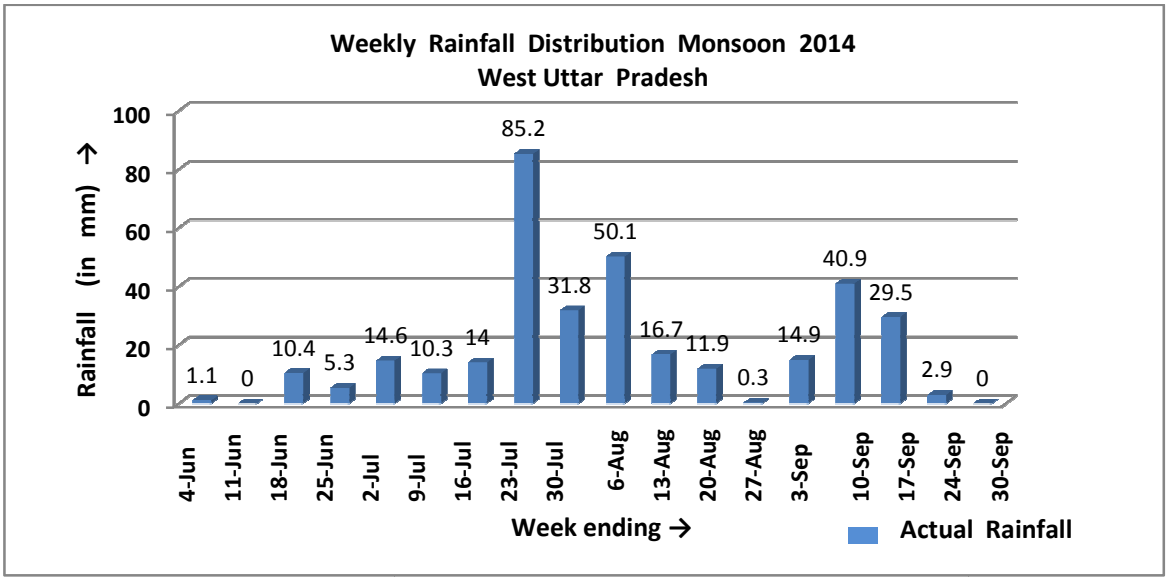


Fig.9: Weekly progress of Monsoon Rainfall-2014 over West-UP

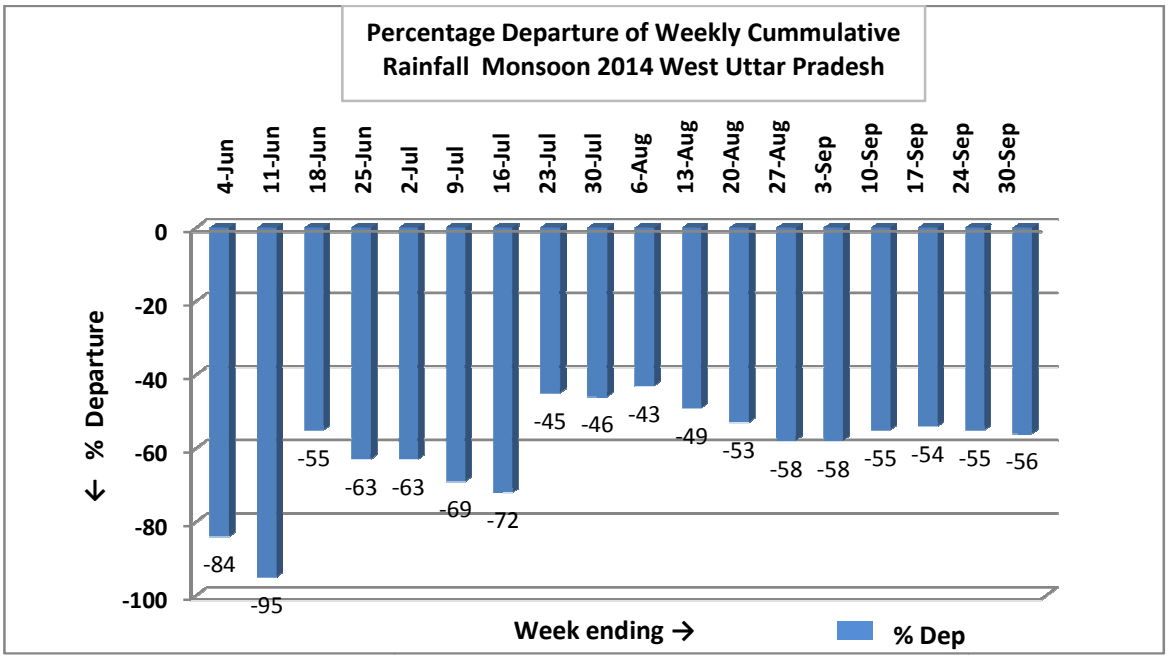


Fig. 10 Week-by-Week departure of the Monsoon Rainfall 2014 over West-UP (Cumulative)

Practically, on weekly basis the rainfall was insignificant (less than 15 mm) during first seven weeks (i.e. up to all week ending on 16th July) and two weeks of August (i.e. weeks ending on 20th and 27th August) and last two weeks of September over West-UP. The rainfall picked up over this Met Sub-division from week ending 23rd July to week ending 6th August. After a break of one week rainfall activity again increased in first week of September and lasted up to week ending on 17th September. Highest (85.2 mm) rainfall was observed during the week ending on 23rd July. With a revival of monsoon, last two weeks and first one week of August received good rainfall over the West-UP.

7. DISTRICT-WISE SPATIAL AND INTENSITY SEASONAL RAINFALL DISTRIBUTION :

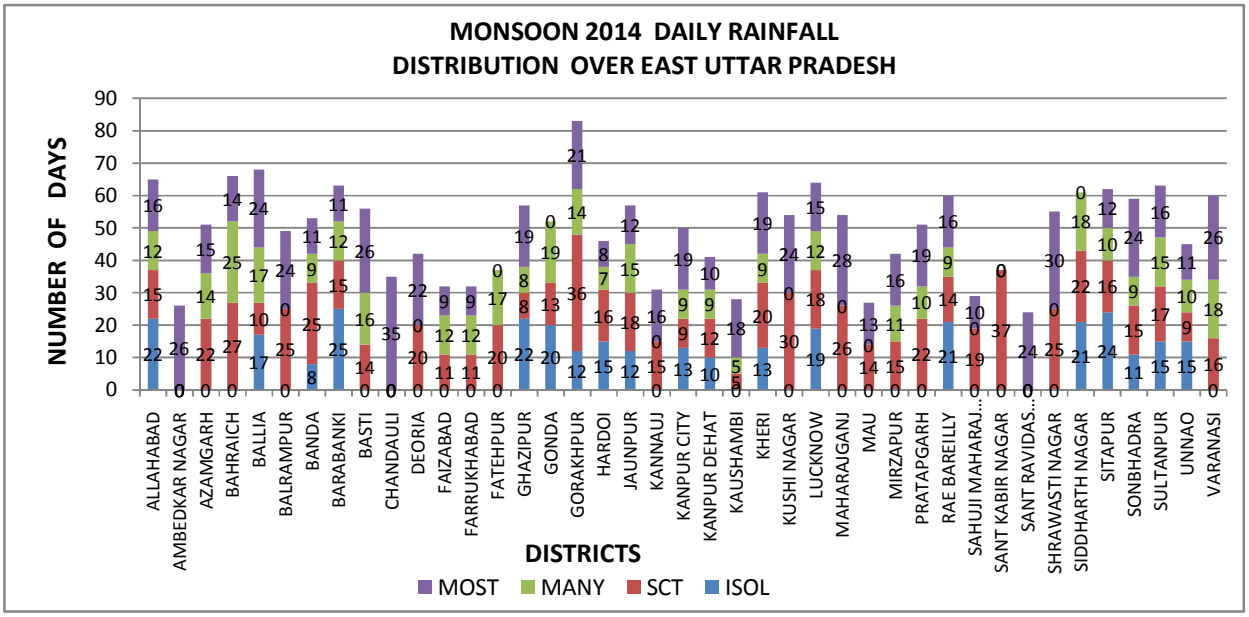


Fig. 11 Districtwise Spatial Distribution Rainfall during monsoon 2014 over East-UP

In the East-UP, maximum rainfall days were 83 days over Gorakhpur district and minimum rainfall days were 24 days over Santravidas Nagar district. Fairly wide spread to wide spread rainfall occurred on 13 days (minimum) over Mau district and 44 days (maximum) over Varanasi district.

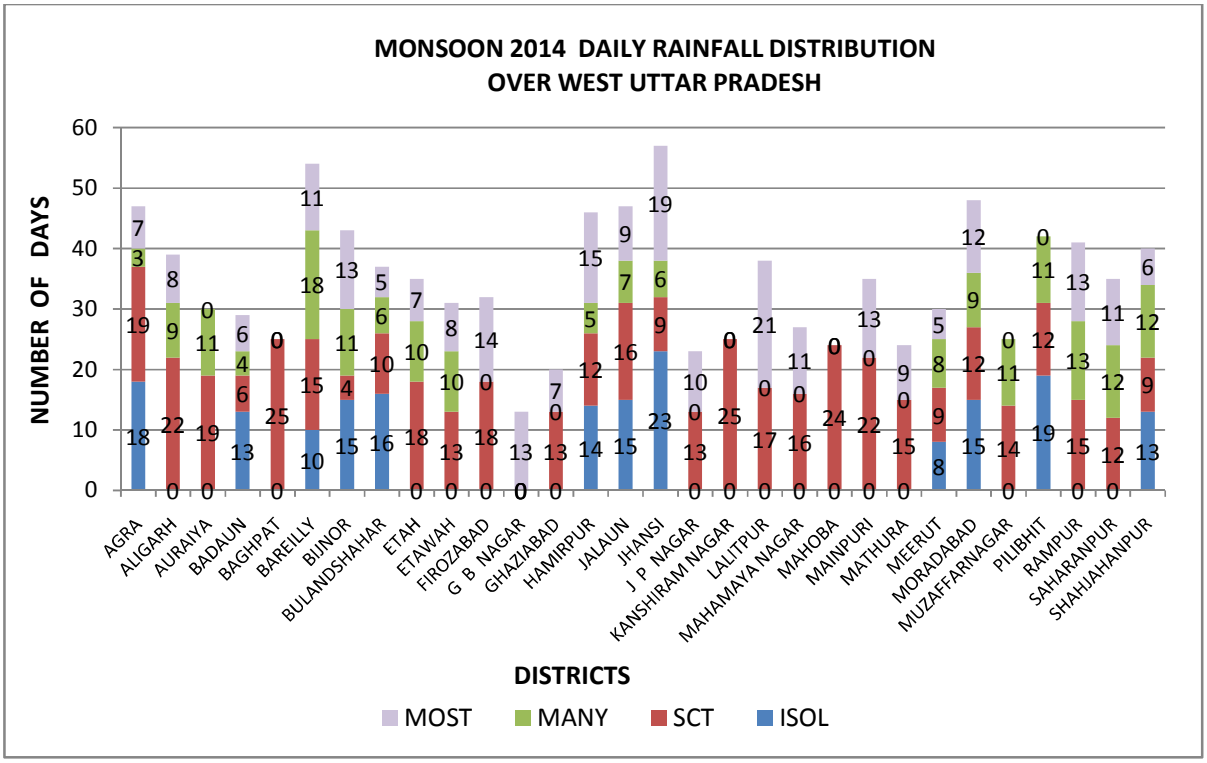


Fig. 12 District wise Spatial Distribution Rainfall during monsoon 2014 over West-UP

In West-UP maximum rainfall days were 57 days over Jhansi district and minimum rainfall days were 13 days over Gautam Buddha Nagar district. Fairly wide spread to wide spread rainfall occurred on 29 days (maximum) in Bareilly district and 07 days (minimum) in Gaziabad district.

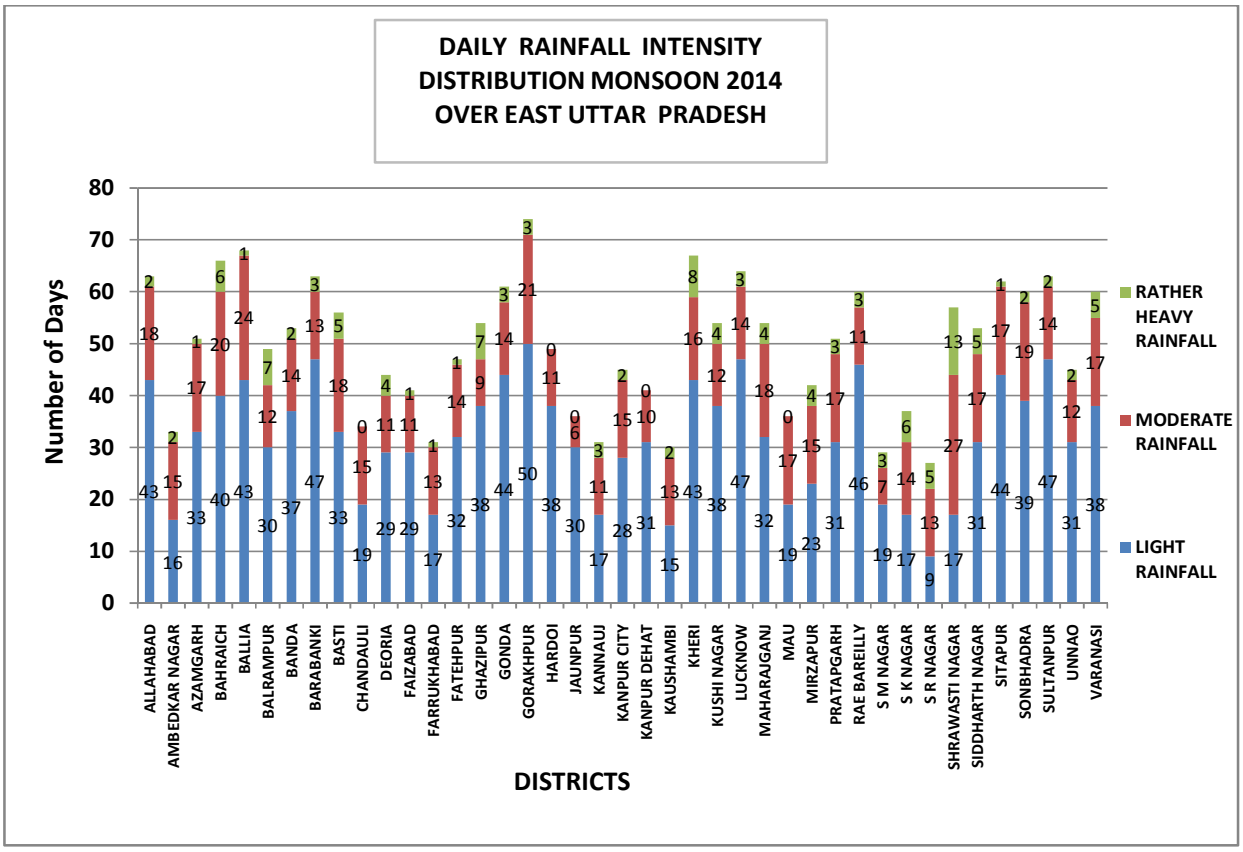


Fig. 13 District wise Rainfall Intensity during monsoon 2014 over East-UP

In East-UP, considering average rainfall of districts, occasions of rather heavy to heavy rainfall was 13 days (maximum) over Shrawasti district and zero occasions observed over Chandauli, Jaunpur, Kanpur Dehat and Mau districts during the monsoon season.

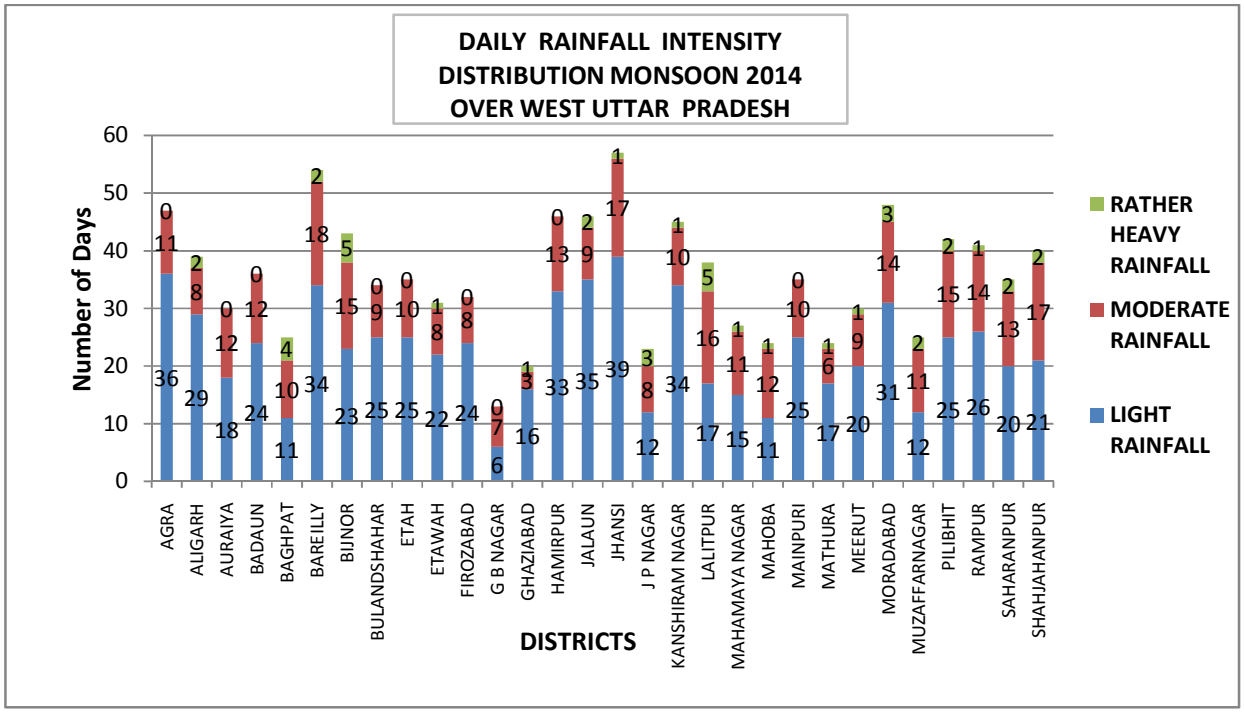


Fig. 14 Districtwise Rainfall Intensity during monsoon 2014 over West-UP

In West-UP, considering average rainfall of districts, occasions of rather heavy or more rainfall was 5 days (maximum) over Bijnor and Lalitpur and no occasions observed over Agra, Badaun, Bulandshahar, Etah, Firozabad, Hamirpur and Mainpuri districts.

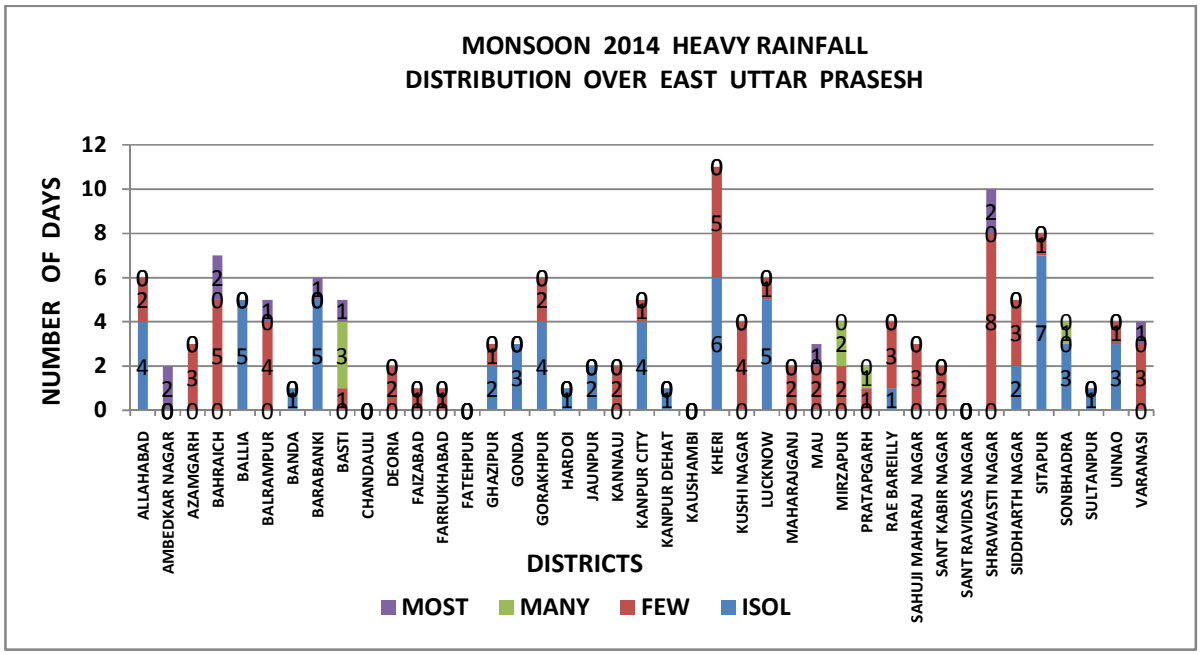


Fig. 15 District wise Heavy Rainfall during monsoon 2014 over East-UP

.In East-UP, maximum number of days of heavy rainfall was experienced in area of Kheri district. The districts namely Chandauli, Fatehpur,Kausambi and Sant Ravodas Nagar have experienced no occasions of Heavy Rainfall in their area. It was 37 districts where in their area at least one or more days were experienced heavy rainfall during the monsoon season.

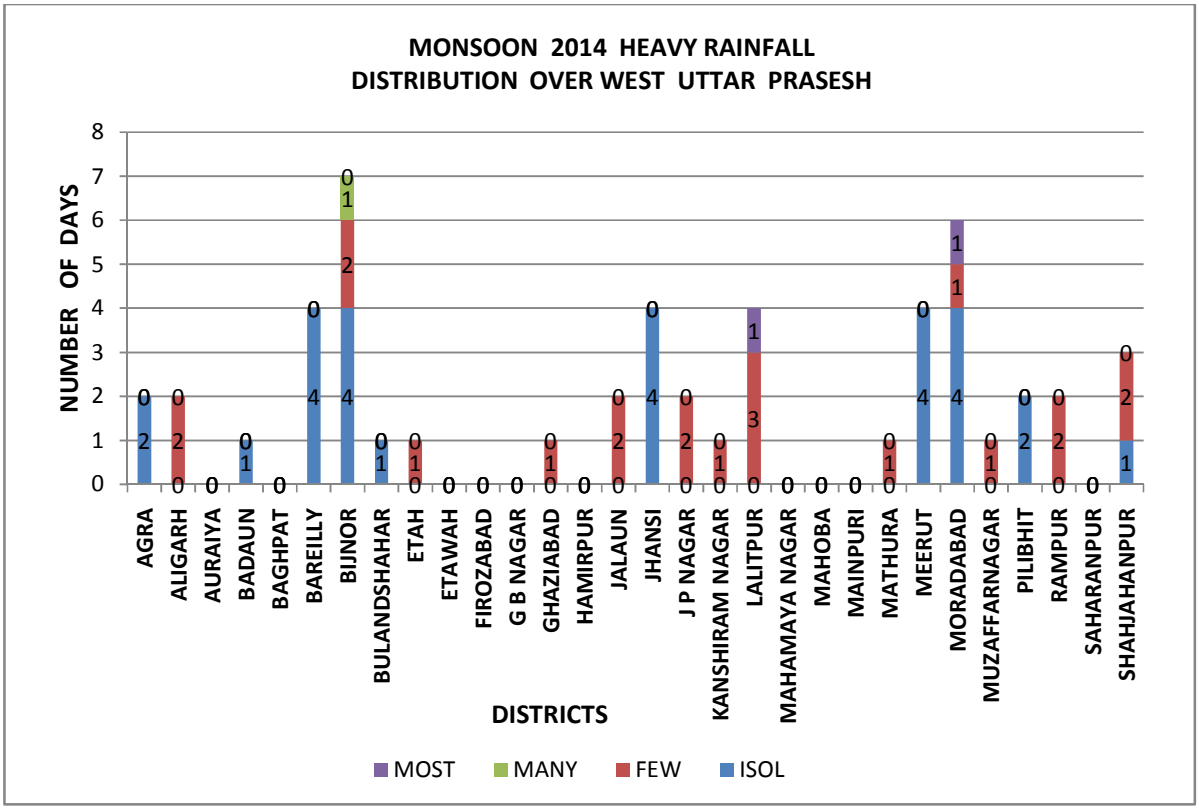


Fig. 16 District wise Heavy Rainfall during monsoon 2014 over East-UP

In West-UP, maximum number of days of heavy rainfall was 7 over the area of Bijnor district. There were no occasions of heavy rainfall in the areas of districts namely Auraiya, Baghpat, Etawah, Firozabad, G B Nagar, Hamirpur, Mahamaya Nagar, Mahoba, Mainpuri, and Saharanpur. It was 20 districts where at least one or more days were experienced heavy rainfall in their areas. There were only two districts namely Lalitpur and Moradabad realized heavy rainfall at most places in their area on one day.

Weekly district-wise rainfall (in mm) over East Uttar Pradesh during Monsoon Season 2014

Week ending	4-Jun	11-Jun	18-Jun	25-Jun	2-Jul	9-Jul	16-Jul	23-Jul	30-Jul	6-Aug	13-Aug	20-Aug	27-Aug	3-Sep	10-Sep	17-Sep	24-Sep	30-Sep
ALLAHABAD	0.0	0.0	11.0	26.3	0.8	48.5	14.5	110.0	28.1	102.4	40.7	10.5	2.1	11.7	41.6	18.8	0.7	1.2
AMBEDKAR NAGAR	0.0	0.0	0.0	4.3	2.0	48.5	14.5	110.0	28.1	37.2	32.0	17.0	0.0	1.0	0.0	51.3	21.0	5.0
AZAMGARH	0.0	0.0	0.0	30.4	4.7	40.2	16.3	89.3	17.1	53.7	22.6	26.7	0.0	7.8	8.7	45.3	18.4	0.0
BAHRAICH	0.0	0.0	23.9	13.8	27.3	378.5	44.7	79.2	54.8	50.5	47.3	114.7	13.6	7.3	14.2	185.8	18.3	11.3
BALLIA	0.0	2.0	17.4	38.9	22.6	65.2	7.6	70.1	34.3	29.1	28.1	95.6	25.4	14.8	10.6	39.0	36.8	27.9
BALRAMPUR	0.0	1.6	6.4	60.1	12.7	122.9	82.1	44.8	28.2	36.7	50.9	182.6	10.8	2.8	0.0	56.2	22.6	14.5
BANDA	3.0	0.0	28.4	18.6	4.3	6.2	5.8	46.9	44.7	92.3	28.3	27.2	6.8	26.9	47.8	11.6	0.2	0.0
BARABANKI	0.0	0.0	13.1	13.2	11.9	207.7	27.8	68.2	55.1	20.1	36.2	8.4	9.2	17.0	13.2	74.5	0.0	1.7
BASTI	0.0	0.0	5.2	72.3	85.3	120.7	7.5	112.9	30.5	19.7	26.1	45.2	1.3	49.7	13.4	113.3	9.1	2.6
CHANDAULI	0.0	0.0	0.0	0.0	39.0	34.5	9.5	33.0	26.5	34.2	75.0	30.4	0.0	4.4	5.2	18.0	6.4	3.0
DEORIA	0.0	0.0	18.3	49.5	28.9	89.1	1.5	43.5	22.5	53.6	6.5	79.4	40.0	4.5	0.0	19.0	1.5	4.0
FAIZABAD	0.0	0.0	1.6	9.7	4.9	12.0	2.8	42.7	16.5	37.2	30.5	20.5	0.0	9.7	11.6	75.2	0.0	0.8
FARRUKHABAD	0.0	0.0	11.5	5.1	0.3	32.4	3.2	83.7	15.6	0.7	7.1	0.1	0.0	9.8	24.1	91.1	0.0	0.0
FATEHPUR	0.0	0.0	8.8	15.0	22.6	58.6	33.5	73.2	11.8	28.6	7.4	0.7	0.0	24.3	14.2	23.2	0.0	0.0
GHAZIPUR	0.0	1.3	0.5	62.1	12.6	95.9	2.6	83.9	18.2	42.5	76.9	26.5	9.0	15.3	30.4	51.1	54.3	0.0
GONDA	0.0	0.0	24.0	37.4	37.0	67.6	14.7	25.0	52.1	70.1	47.1	51.2	0.5	6.6	6.7	87.3	10.7	3.3
GORAKHPUR	0.0	2.5	12.8	93.0	10.5	16.8	7.2	42.2	43.8	19.3	18.5	129.8	26.7	19.0	9.9	53.7	32.1	36.9
HARDOI	0.0	0.0	1.6	3.2	2.3	58.9	12.6	78.2	5.6	30.1	10.7	0.0	0.0	22.7	27.8	35.7	0.0	0.0
JAUNPUR	0.0	0.0	0.0	11.6	2.7	0.0	0.0	0.0	0.0	30.3	52.6	11.9	4.0	7.1	2.5	37.5	3.0	0.3
KANNAUJ	0.0	0.0	50.1	2.7	0.0	8.5	0.0	66.2	28.5	59.0	8.1	0.0	0.0	13.8	33.6	77.3	0.0	2.5
KANPUR CITY	0.0	0.0	18.8	6.4	4.8	15.8	40.8	86.8	36.1	38.0	11.9	3.8	0.0	16.9	38.0	98.0	0.0	0.0
KANPUR DEHAT	0.0	0.0	7.2	5.0	1.5	2.0	5.8	58.7	25.8	79.2	13.1	0.3	0.0	6.7	18.5	19.2	0.0	0.0
KAUSHAMBI	0.0	0.0	0.0	6.9	0.0	41.2	0.0	70.6	12.5	91.7	17.9	48.6	0.0	25.9	25.5	5.9	0.0	0.0
KHERI	1.9	0.0	61.6	22.4	20.1	155.1	86.0	77.2	26.7	8.5	14.5	190.5	18.0	8.9	26.9	137.3	3.6	3.7
KUSHI NAGAR	0.0	2.5	6.0	29.0	46.0	32.8	5.5	7.5	6.5	6.5	14.5	190.5	18.0	2.0	0.0	68.0	20.5	9.5
LUCKNOW	0.0	0.2	7.4	7.6	14.4	64.1	25.5	180.1	13.0	35.9	31.8	3.5	0.0	13.3	43.1	66.1	0.0	0.2
MAHARAJGANJ	0.0	27.5	28.0	46.5	52.5	36.0	4.0	19.5	29.5	6.5	6.5	183.8	51.0	12.5	0.0	51.6	17.5	29.3
MAU	0.0	4.5	3.5	45.0	15.0	32.0	0.0	49.5	38.0	31.0	1.5	63.0	18.0	4.0	3.0	18.0	31.0	31.0
MIRZAPUR	0.0	0.0	1.0	46.1	5.3	74.7	2.3	162.5	1.7	35.1	101.2	12.0	0.0	4.7	18.3	42.5	30.5	1.0
PRATAPGARH	0.0	0.0	15.0	18.7	10.7	66.7	13.3	156.3	13.0	81.3	46.7	5.3	1.3	17.0	30.3	16.7	2.0	0.0
RAE BAREILLY	0.0	0.0	7.0	17.7	3.3	140.6	1.2	111.7	18.1	33.1	17.3	4.7	0.9	9.9	10.2	56.4	0.7	0.2
SAHUJI MAHARAJ NAGAR	0.0	0.0	0.0	14.5	8.0	16.7	2.5	56.5	43.3	107.3	7.3	6.3	0.0	38.5	74.5	6.5	25.5	0.0
SANT KABIR NAGAR	0.0	10.0	0.0	4.0	109.5	97.0	15.0	42.0	34.0	57.0	4.0	132.0	30.0	25.0	0.0	54.0	22.0	30.0
SANT RAVIDAS NAGAR	0.0	0.0	12.6	44.1	13.9	50.0	0.0	238.0	0.0	0.0	93.0	2.0	0.0	28.0	29.0	13.0	0.0	0.0
SHRAWASTI NAGAR	0.0	1.2	4.4	97.9	49.4	287.0	163.9	111.6	122.4	116.6	25.8	112.2	57.7	14.0	9.9	109.8	11.0	23.7
SIDDHARTH NAGAR	0.0	0.0	36.9	7.8	23.5	74.8	21.5	40.6	5.9	61.5	15.1	170.7	22.5	12.8	0.0	130.2	27.0	38.1
SITAPUR	0.0	0.0	19.0	12.9	22.6	136.8	17.1	75.7	46.5	37.3	34.3	11.1	1.6	19.7	15.4	65.9	2.9	1.0
SONBHADRA	0.0	0.0	4.7	42.1	1.7	24.2	14.8	57.9	58.1	64.1	151.0	35.7	3.5	21.0	22.3	22.4	18.8	0.0
SULTANPUR	0.0	0.0	4.7	42.1	6.1	71.6	3.3	86.5	28.4	43.7	45.5	9.1	0.3	23.2	12.2	33.6	0.0	0.0
UNNAO	0.0	0.0	13.5	13.3	2.3	26.8	22.8	108.5	6.4	74.6	9.3	0.3	0.0	11.3	33.2	108.8	0.0	1.0
VARANASI	0.0	0.0	2.9	16.5	8.3	74.7	17.0	219.6	6.2	39.7	149.7	13.2	16.7	9.5	26.1	68.9	11.9	2.3

Weekly district-wise rainfall (in mm) over West Uttar Pradesh during Monsoon Season 2014

Week ending	4-Jun	11-Jun	18-Jun	25-Jun	2-Jul	9-Jul	16-Jul	23-Jul	30-Jul	6-Aug	13-Aug	20-Aug	27-Aug	3-Sep	10-Sep	17-Sep	24-Sep	30-Sep
AGRA	0.0	0.0	3.3	9.0	0.0	9.4	13.3	40.9	10.4	93.9	15.1	0.0	0.0	20.7	29.2	12.0	0.0	0.0
ALIGARH	0.0	0.0	24.8	11.8	0.0	13.2	1.3	76.5	7.4	22.4	20.6	1.1	0.0	2.5	20.1	53.8	0.0	0.0
AURAIYA	0.0	0.0	4.8	3.5	0.0	0.0	23.5	60.3	31.5	29.8	15.6	0.0	0.0	9.0	31.5	4.0	0.0	0.0
BADAUN	0.0	0.0	1.4	2.0	12.6	2.2	0.0	56.0	46.6	73.6	7.8	1.0	0.0	3.4	14.8	29.2	0.0	0.0
BAGHPAT	0.0	0.0	52.6	2.5	48.7	13.2	0.0	54.9	9.3	43.8	10.1	0.0	0.0	28.6	99.6	1.0	0.0	0.0
BAREILLY	0.0	0.0	11.0	2.9	39.3	22.6	24.1	116.6	31.0	17.6	10.5	48.1	0.0	6.4	59.2	27.2	4.5	0.0
BIJNOR	0.0	0.0	6.1	0.0	53.9	3.6	5.5	262.2	67.3	36.5	10.0	43.6	0.0	15.9	99.5	36.3	4.0	0.0
BULANDSHAHAR	0.0	0.0	10.4	3.7	8.5	0.0	3.2	60.4	7.4	24.0	7.0	0.0	0.0	12.1	39.7	35.7	0.0	0.0
ETAH	0.0	0.0	1.3	2.3	0.0	0.5	0.7	52.0	39.4	38.8	24.7	0.0	0.0	6.7	21.3	36.8	0.0	0.0
ETAWAH	0.0	0.0	14.5	0.3	0.7	0.5	13.9	44.6	8.3	31.1	40.3	0.0	0.0	1.3	29.3	27.1	0.0	0.0
FIROZABAD	0.0	0.0	0.0	23.1	0.0	10.0	5.7	21.1	10.7	15.6	22.4	2.0	0.0	10.8	38.9	47.9	0.0	0.0
GAUTAM BUDDHA NAGAR	0.0	0.0	15.0	0.0	0.0	12.0	0.0	15.5	0.0	8.0	17.0	0.0	0.0	0.0	56.0	11.0	0.0	0.0
GHAZIABAD	0.0	0.0	5.7	0.0	39.3	0.0	0.0	25.1	2.8	16.6	1.0	0.0	0.0	1.3	26.5	12.9	0.0	0.0
HAMIRPUR	3.7	0.0	24.2	1.1	0.8	9.0	2.3	65.8	26.3	83.3	13.0	7.5	0.8	38.5	38.0	28.5	0.0	0.0
JALAUN	11.7	0.0	3.2	5.5	2.8	4.2	33.6	20.6	74.8	52.6	6.9	0.0	3.5	36.8	73.8	13.3	8.8	0.0
JHANSI	0.9	0.0	2.4	19.7	3.7	8.4	26.5	90.7	15.3	82.3	22.9	0.3	2.9	33.3	49.1	40.7	0.0	0.0
JYOTIBA PHULE NAGAR	0.0	0.0	1.5	0.0	7.0	0.5	8.0	106.5	118.5	10.0	0.0	15.0	0.0	1.5	28.8	8.0	20.0	0.0
KANSHIRAM NAGAR	0.0	0.0	18.0	0.0	6.0	0.0	0.0	57.5	83.0	45.0	16.1	6.5	0.4	15.3	39.5	22.7	8.6	0.0
LALITPUR	0.0	0.0	20.5	4.0	0.0	29.5	43.0	159.0	7.0	196.5	51.5	4.0	0.0	35.0	2.0	82.0	0.0	0.0
MAHAMAYA NAGAR	0.0	0.0	3.0	5.5	1.0	11.5	15.5	47.0	49.5	54.5	9.5	0.0	0.0	0.5	11.0	53.5	0.0	0.0
MAHOBA	0.0	0.0	5.2	0.0	0.0	3.0	8.4	64.4	5.4	54.2	29.6	0.0	0.0	10.0	76.6	2.0	0.0	0.0
MAINPURI	0.0	0.0	12.2	3.0	0.0	1.5	22.8	31.4	45.6	18.3	11.4	1.5	0.0	5.1	6.6	31.1	0.0	0.0
MATHURA	0.0	0.0	3.6	14.3	2.2	1.0	0.0	32.3	35.5	39.6	18.8	0.0	0.0	16.3	34.9	8.3	0.0	0.0
MEERUT	0.0	0.0	6.7	0.0	27.8	2.8	0.0	82.0	23.7	24.0	4.3	0.0	0.0	21.7	54.4	33.6	0.0	0.0
MORADABAD	0.0	0.0	4.2	4.0	34.7	8.9	10.0	211.9	24.3	30.2	22.5	37.1	0.0	5.7	50.0	42.5	28.1	0.5
MUZAFFARNAGAR	0.0	0.0	17.0	2.1	35.8	1.0	0.0	104.7	8.4	46.6	0.0	0.0	0.0	31.1	66.7	0.0	0.0	0.0
PILIBHIT	0.0	0.0	28.8	22.4	7.4	41.7	13.2	102.2	24.9	18.2	18.6	69.0	0.0	8.4	29.7	10.1	2.0	0.0
RAMPUR	0.0	0.0	2.5	0.8	25.6	2.4	6.9	94.6	36.8	18.7	20.9	39.9	0.0	12.6	30.9	14.1	19.5	0.0
SAHARANPUR	0.0	0.0	20.0	0.0	47.0	1.7	0.0	76.0	22.3	49.7	8.0	0.3	0.0	20.7	55.0	40.7	0.0	0.0
SHAHJAHANPUR	0.0	0.0	14.1	0.0	10.5	55.3	67.5	71.2	62.8	25.9	9.6	36.9	0.0	12.5	12.9	44.6	0.0	0.0

Report Prepared by- R P Kuril, AM-II