WEATHER REPORT OF AKOLA

GEOGRAPHICAL AND METEOROLOGICAL INFORMATION OF AKOLA

Akola (Lat. 20.7002° N and Long. 77.0082° E, at 400 meter m.s.l) is located in the Middle East of Maharashtra state. Akola district forms the central part of Amravati division. Area of the district is 5428 Sq. km. There are ranges of Gavilgad hills on the north of the district.

Regional Meteorological Centre, Nagpur maintains two state Met. Centres, 64 surface observatories (17 departmental and 47 part-time observatories), 6 Pilot balloon observatories, 5 Radiosonde/Rawin(RS/RW) stations, 6 Agricultural observatories and 262 Rain gauge 82 AWS and 162 ARGs.

The Observatory at Nagpur works under Indian Meteorological Department, Ministry of Earth Sciences. The old observatory was established in 1869 at Mayo Hospital premises. Meteorological office at Airport Nagpur was established in 1947 as a class-I observatory. It was further enhanced to Regional Meteorological Centre from 01st April 1954 and was shifted to the new RMC building opposite the Airport terminal building. The RMC Nagpur covers the overall maintenance of Vidarbha, Madhya Pradesh and Chattisgarh. The AMOs has the provision of meteorological services to aviation. It plans and executes the administrative and technical matters pertaining to the aviation meteorological services.

Meteorological parameters like wind speed, thunderstorm, rain, drizzle, snow, fog, dew, temperature etc. are considered for the year 1969-2016.

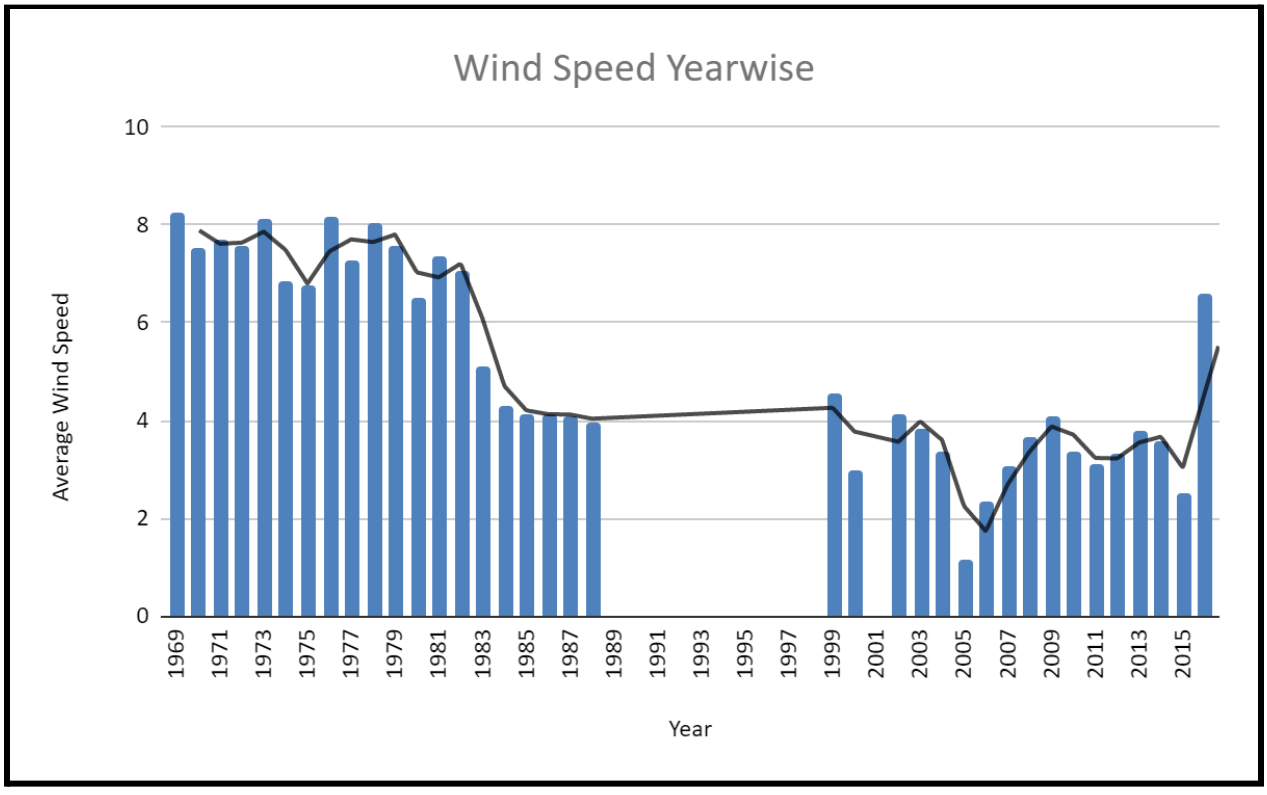
The available data is tabulated and arranged graphically for further analysis.

DATA OF AVERAGE WIND SPEED AND AVERAGE DEW POINT TEMPERATURE

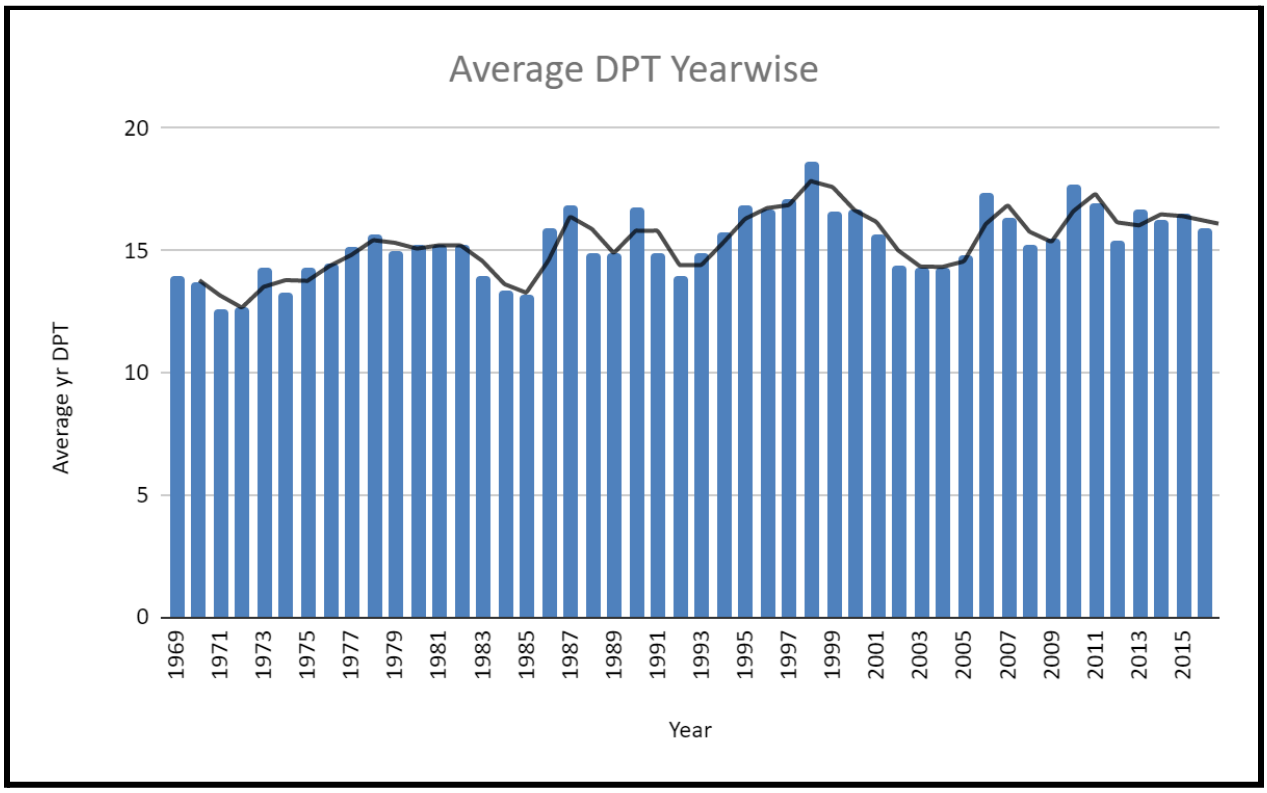
YEAR	Average WIND SPEED (Kmph)	AVERAGE DPT (degree C)
1969	8.27	13.9
1970	7.5	13.7
1971	7.6	12.6
1972	7.5	12.6
1973	8.1	14.3
1974	6.8	13.2
1975	6.7	14.2
1976	8.1	14.4
1977	7.2	15.1
1978	8.0	15.6
1979	7.5	14.9
1980	6.4	15.2
1981	7.3	15.2
1982	7.0	15.1
1983	5.1	13.9
1984	4.3	13.3
1985	4.1	13.2
1986	4.1	15.9
1987	4.1	16.8
1988	3.9	14.9
1989	N/A	14.8
1990	N/A	16.7
1991	N/A	14.8
1992	N/A	13.9
1993	N/A	14.8
1994	N/A	15.7
1995	N/A	16.8
1996	N/A	16.6
1997	N/A	17.0
1998	N/A	18.5
1999	4.5	16.5
2000	3	16.7
2001	N/A	15.6

2002	4.1	14.3
2003	3.8	14.3
2004	3.3	14.3
2005	1.1	14.7
2006	2.3	17.3
2007	3.0	16.3
2008	3.6	15.2
2009	4.0	15.4
2010	3.3	17.7
2011	3.1	16.9
2012	3.3	15.3
2013	3.7	16.6
2014	3.5	16.2
2015	2.5	16.5
2016	6.6	15.9

GRAPH OF AVERAGE WIND SPEED AND AVERAGE DEW POINT TEMPERATURE YEAR WISE



Graph 1



Graph 2

Above graphs shows average wind speed and dew point temperature of every year from 1969 to 2016

DATA OF AVERAGE MEAN SEA LEVEL, RELATIVE HUMIDITY, VAPOUR PRESSURE, DEW POINT TEMPERATURE MONTHWISE

SR. NO	Month	Average mean sea level pressure (hpa)	Average relative humidity (in %)	Average Vapour pressure (hpa)	Average Dew point temperature (degree C)
1	January	1013.9	48.8	12.6	9.8
2	February	1011.7	38.1	11.8	8.6
3	March	1009.0	30.4	12.4	9.0
4	April	1005.4	25.6	13.5	10.5
5	May	1002.2	31.7	17.9	14.8
6	June	1000.0	56.0	25.0	20.8
7	July	1000.8	73.1	27.5	22.6
8	August	1002.4	77.6	27.7	22.7
9	September	1005.1	71.2	26.6	21.9
10	October	1009.3	56.5	20.8	17.6
11	November	1012.7	51.8	16.2	13.6
12	December	1014.6	50.1	N/A	10.3

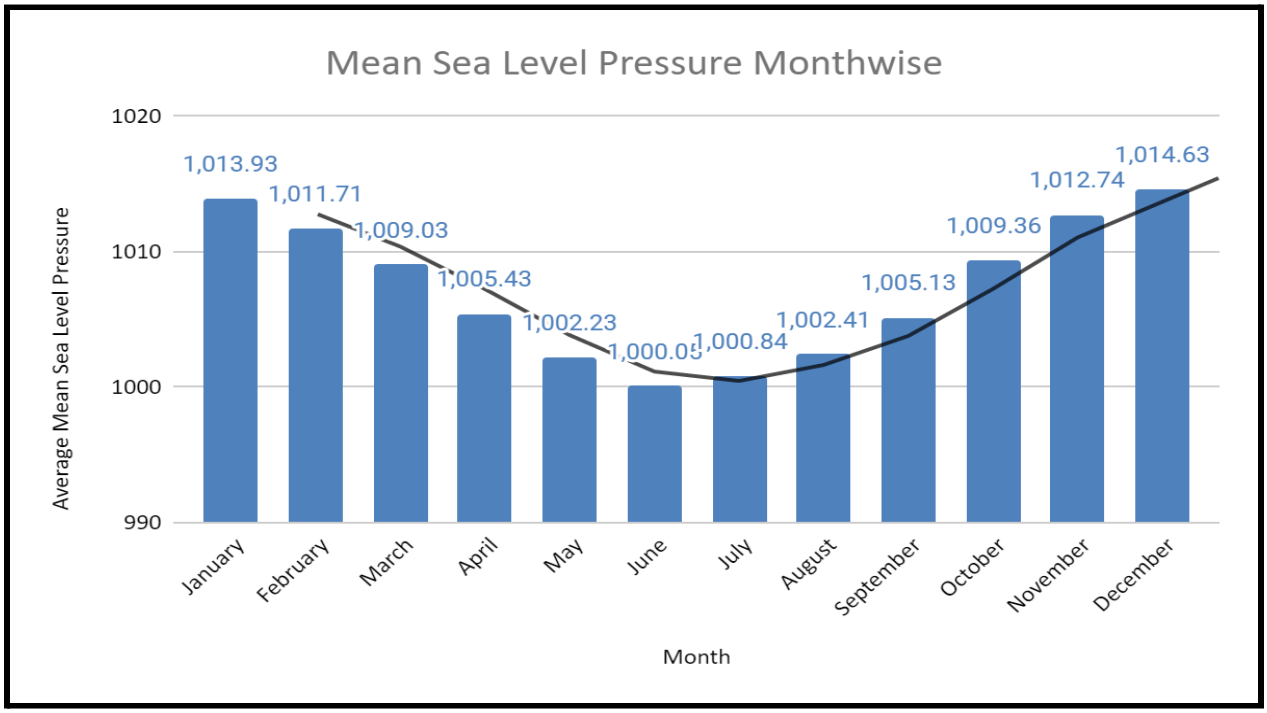
Above data shows the average sea level pressure, relative humidity, vapor pressure, dew point temperature of every month from 1969 to 2016

DATA OF AVERAGE MEAN SEA LEVEL, RELATIVE HUMIDITY, VAPOUR PRESSURE, DEW POINT TEMPERATURE SEASON WISE

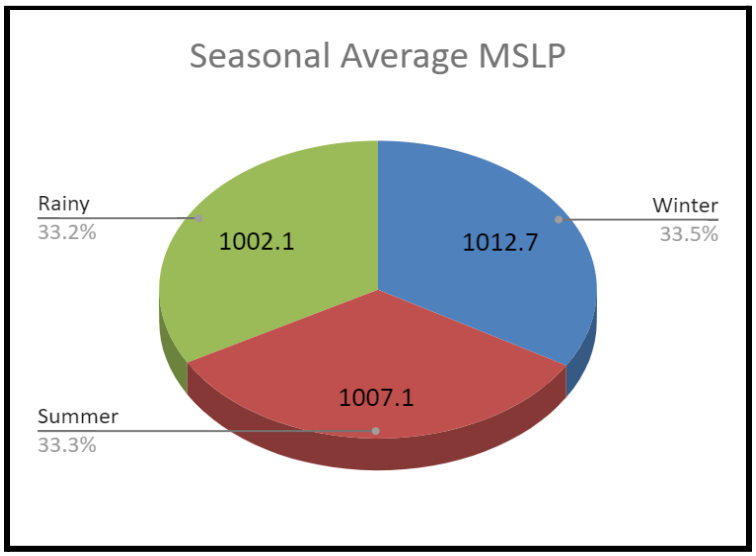
Season	Avg MSLP(hpa)	Avg DPT (degree C)	Avg RH (%)	Avg VP (hpa)
Winter	1012.7	12.8	51.9	15.7
Summer	1007.1	10.7	31.3	13.9
Rainy	1002.1	22	69.7	26.8

Above data shows the average sea level pressure, relative humidity, vapor pressure, dew point temperature of Season Wise from 1969 to 2016

GRAPH OF AVERAGE MEAN SEA LEVEL PRESSURE, RELATIVE HUMIDITY, VAPOUR PRESSURE, DEW POINT TEMPERATURE MONTHWISE

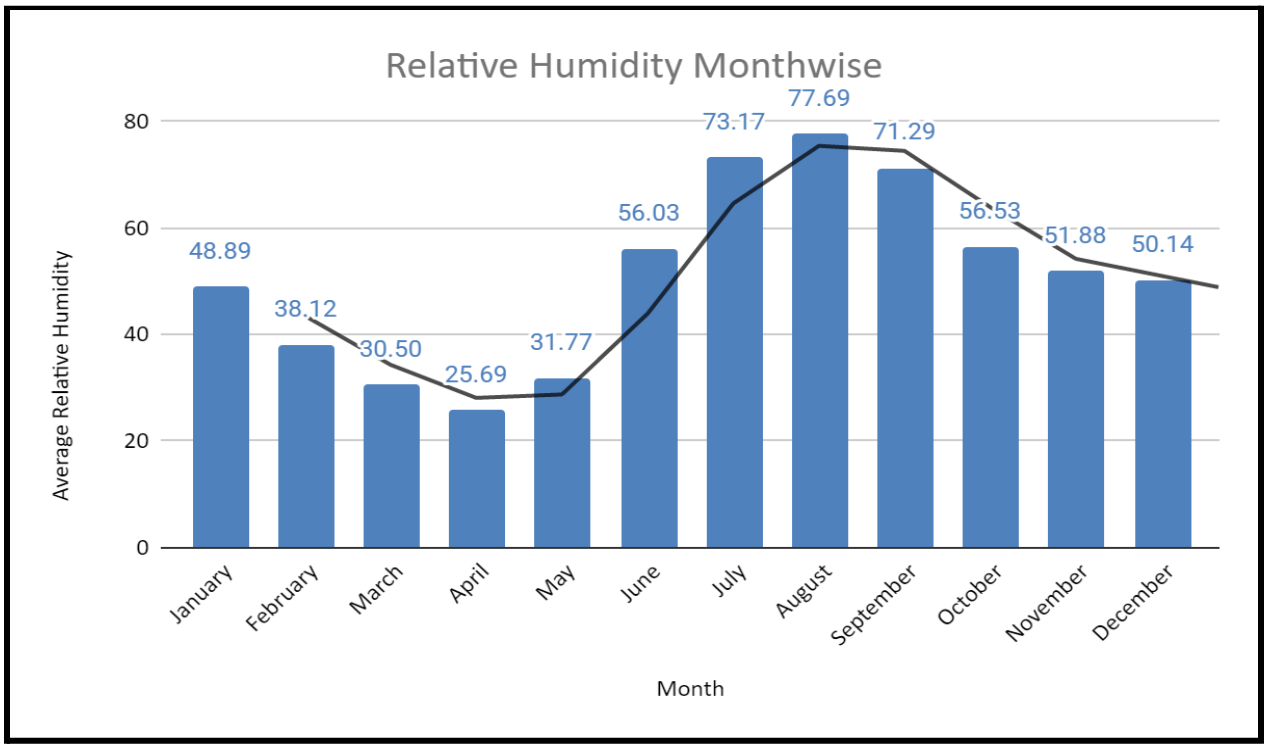


Graph 1

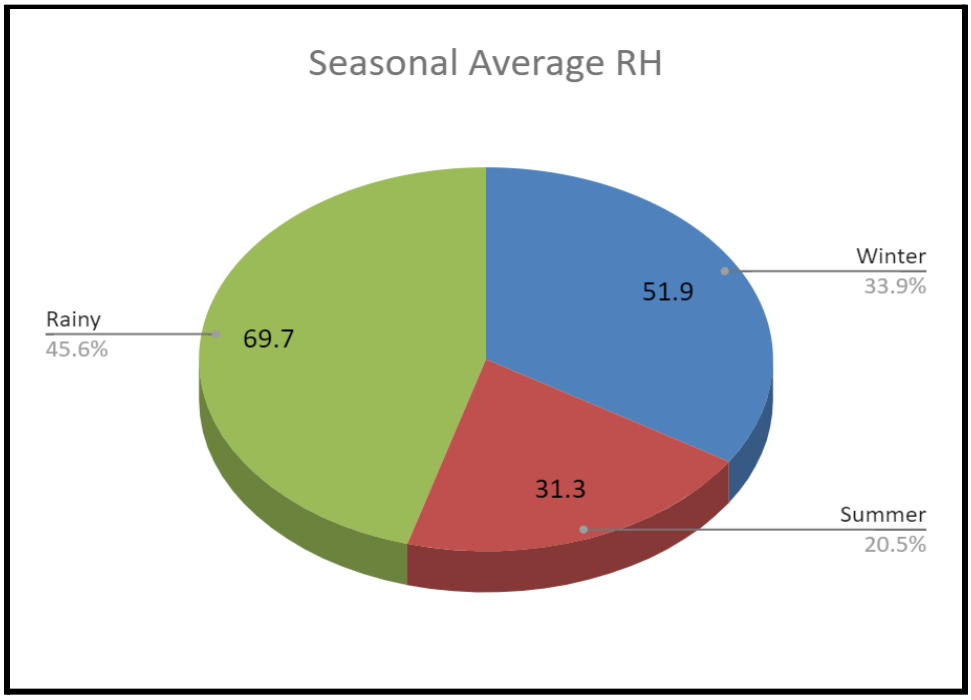


ABOVE GRAPH CLEARLY INDICATE THAT MEAN SEA LEVEL PRESSURE IS HIGH IN JANUARY AND FEB AND IT START DECREASES UP TO JUNE AND THEN IT AGAIN STARTS INCREASING

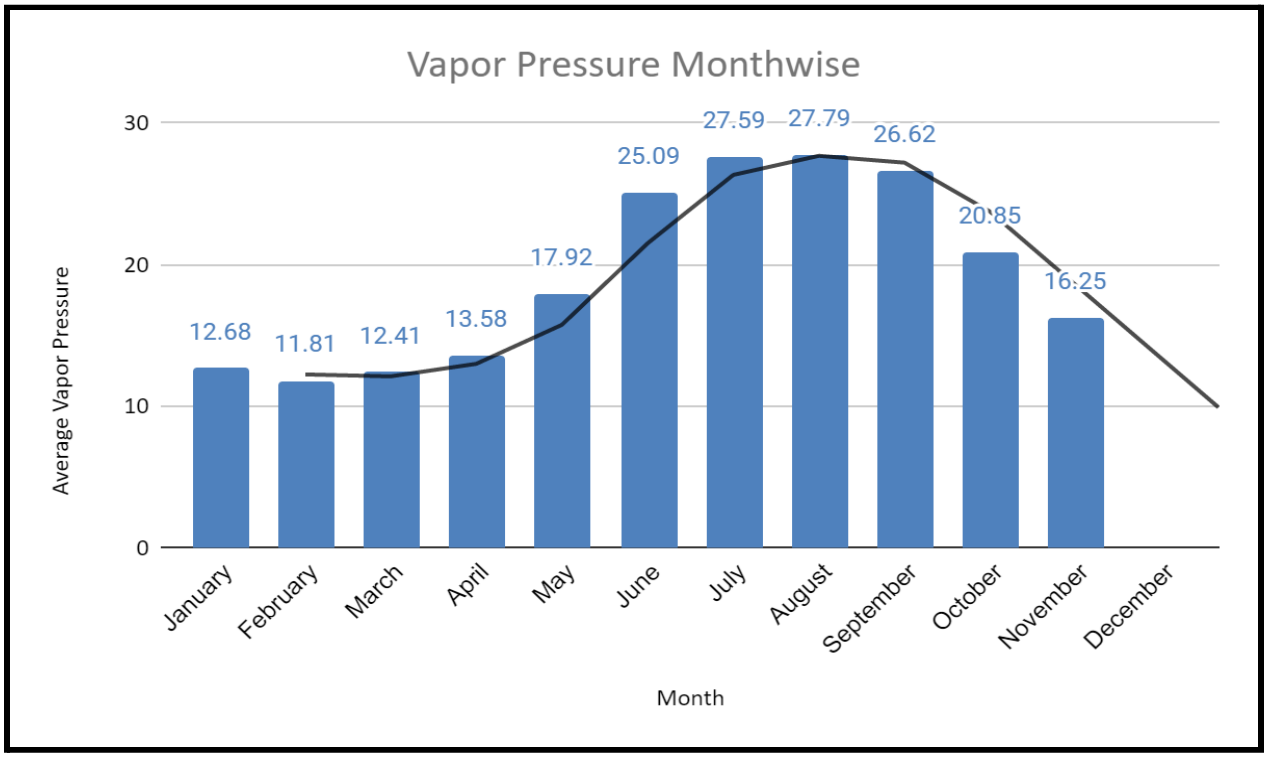
MEAN SEA LEVEL PRESSURE IS LOWEST IN JUNE



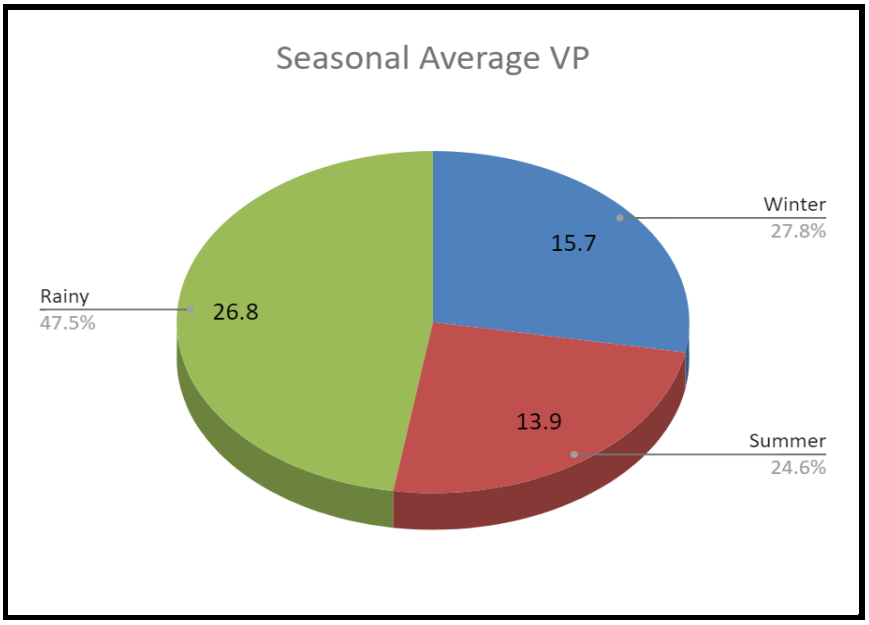
Graph 2



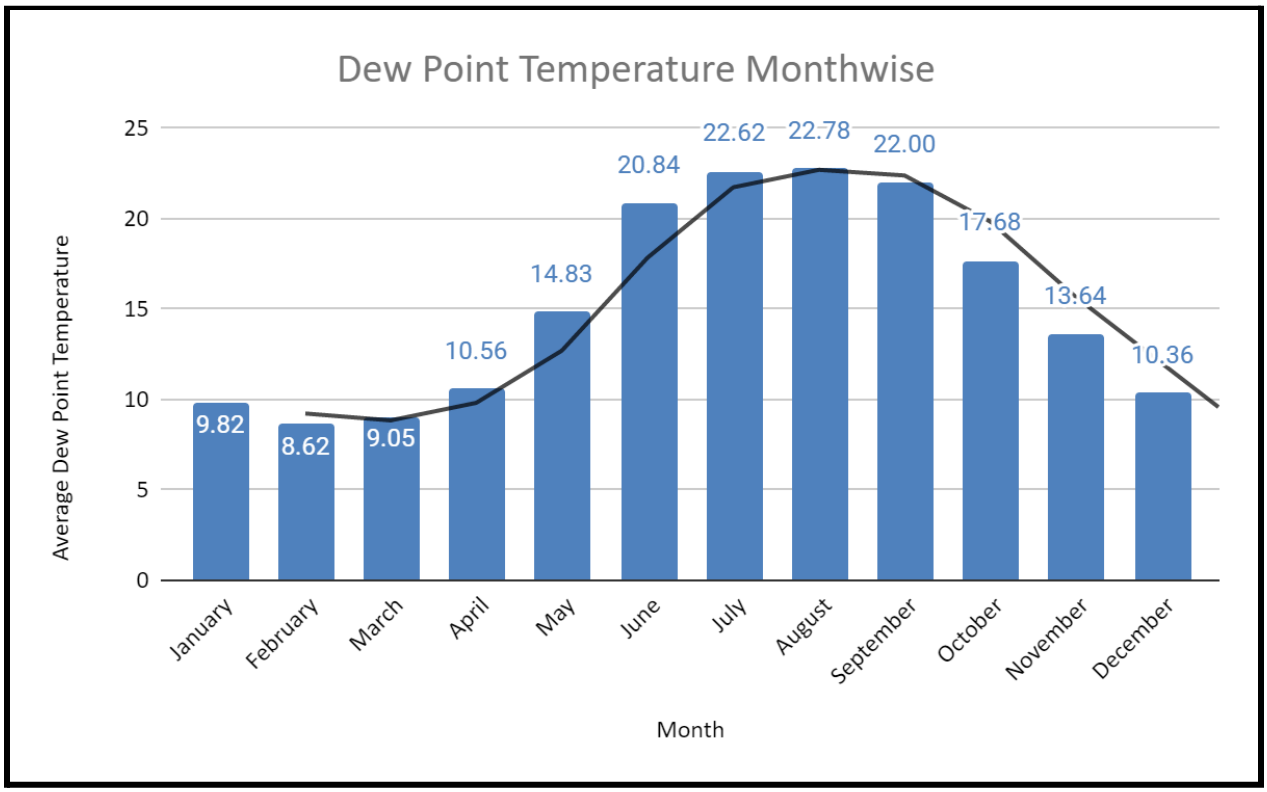
IN THE ABOVE GRAPH RELATIVE HUMIDITY DECREASES FROM JANUARY TO APRIL AND THE INCREASES UPTO AUGUST THEN AGAIN START DECREASING
IT IS MAXIMUM IN THE MONTH OF AUGUST



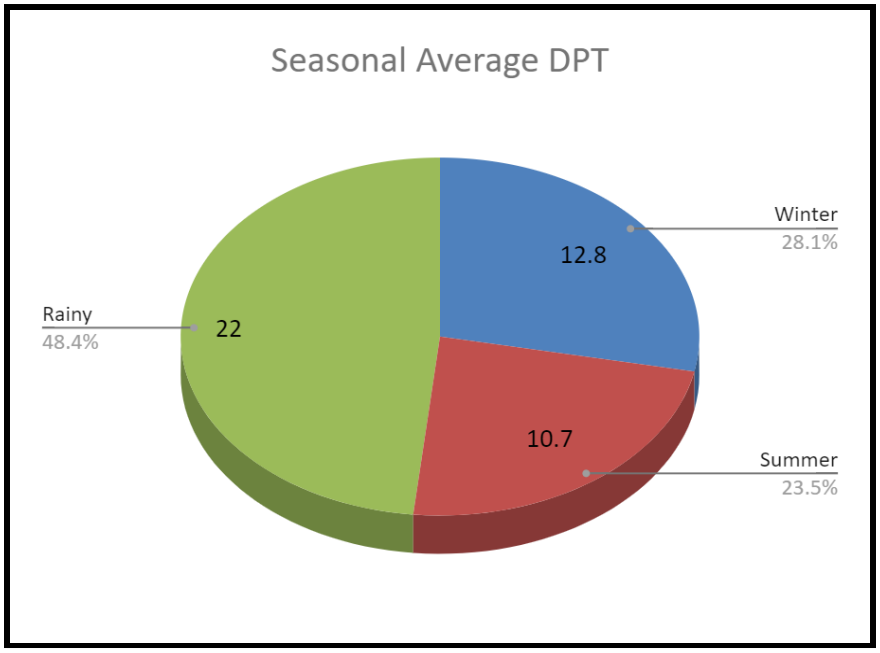
Graph 3



IN ABOVE GRAPH VAPOUR PRESSURE IS LOW FROM THE JANUARY UP TO APRIL THEN IT STARTS INCREASING
VAPOR PRESSURE IS HIGHEST IN THE MONTH OF AUGUST



Graph 4



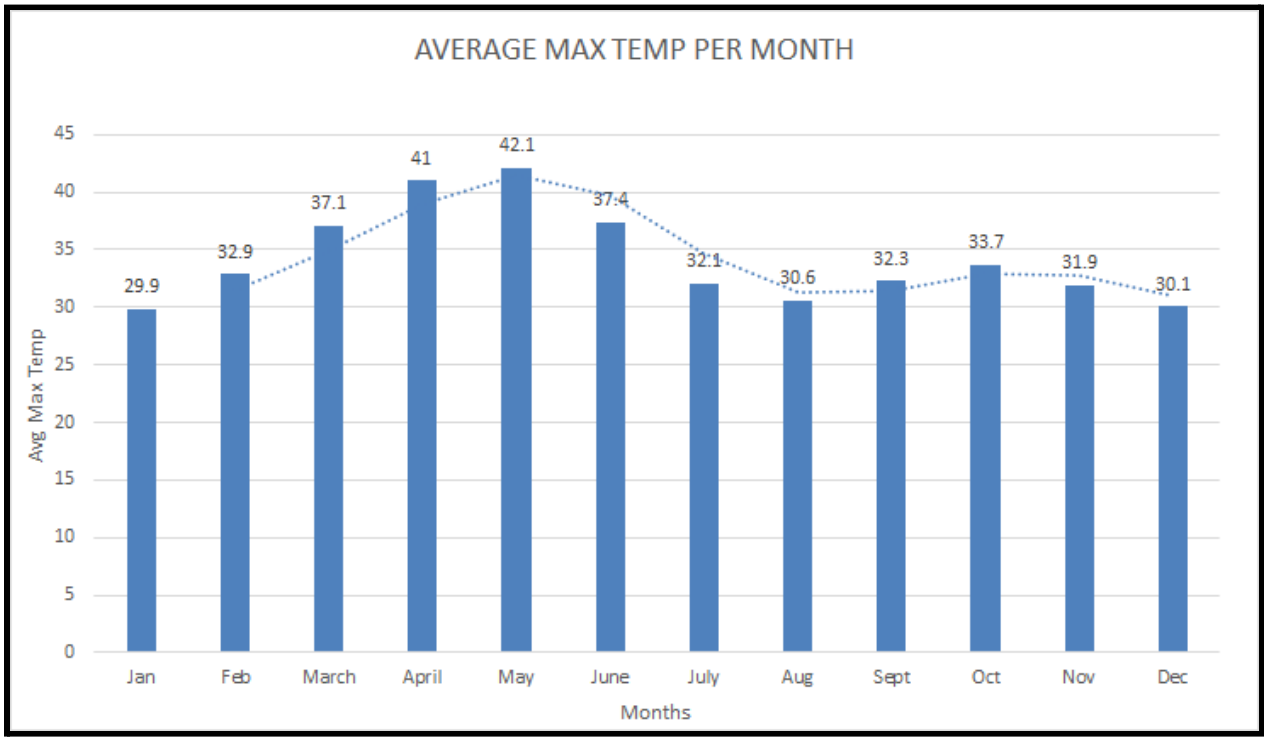
ABOVE GRAPH SHOWS THAT THE DPT IS VERY LOW IN THE MONTH OF JANUARY TO APRIL AND AFTER THAT IT START RISING

DPT IS MAXIMUM IN THE MONTH OF AUGUST

AVERAGE MAXIMUM TEMPERATURE MONTHWISE FROM 1969-2016
(In degree C)

SRNO	Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1	Avg max temp	29.9	32.9	37.1	41.0	42.1	37.4	32.1	30.6	32.3	33.7	31.9	30.1

GRAPHICAL REPRESENTATION OF DATA



Above graph shows the average maximum temperature monthwise from 1969 to 2016

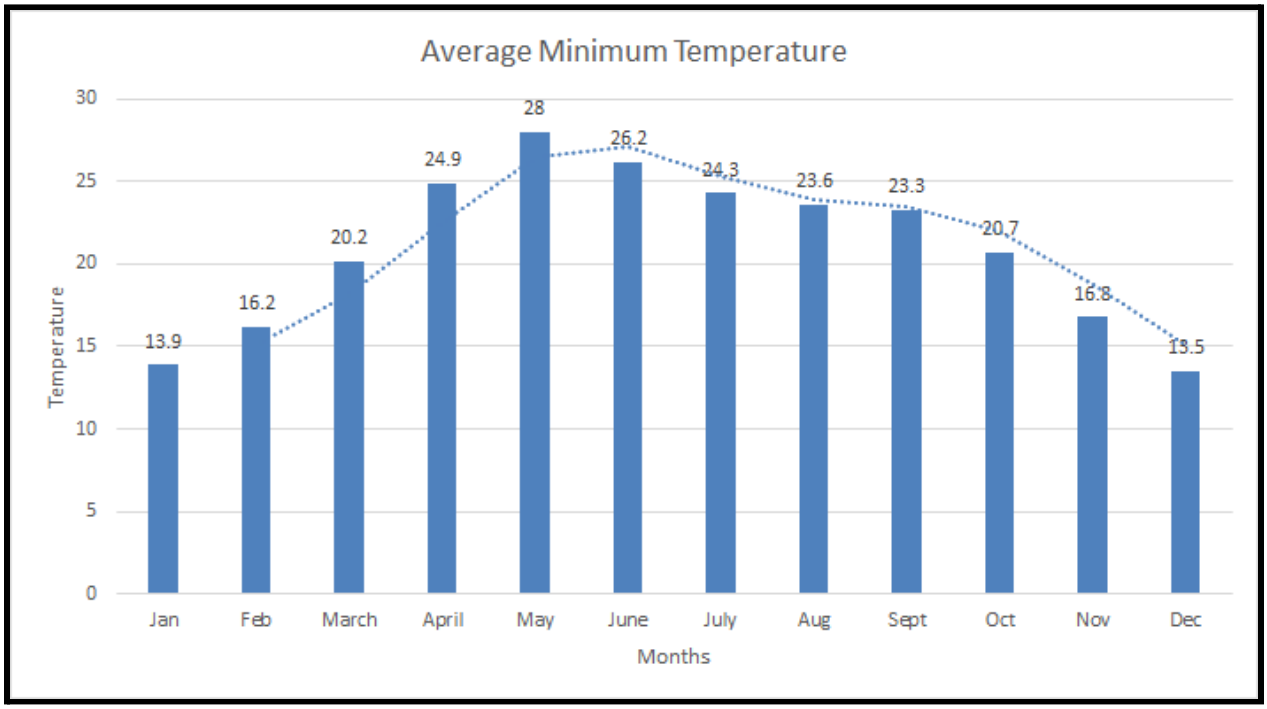
AVERAGE MAXIMUM TEMP IS RECORDED IN THE MONTH OF MAY

AVERAGE MAXIMUM TEMP IS RECORDED IN THE MONTH OF MAY

AVERAGE MINIMUM TEMPERATURE MONTHWISE FROM 1969-2016
(In degree C)

Year	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Average min temp	13.9	16.2	20.2	24.9	28.0	26.2	24.3	23.6	23.3	20.7	16.8	13.5

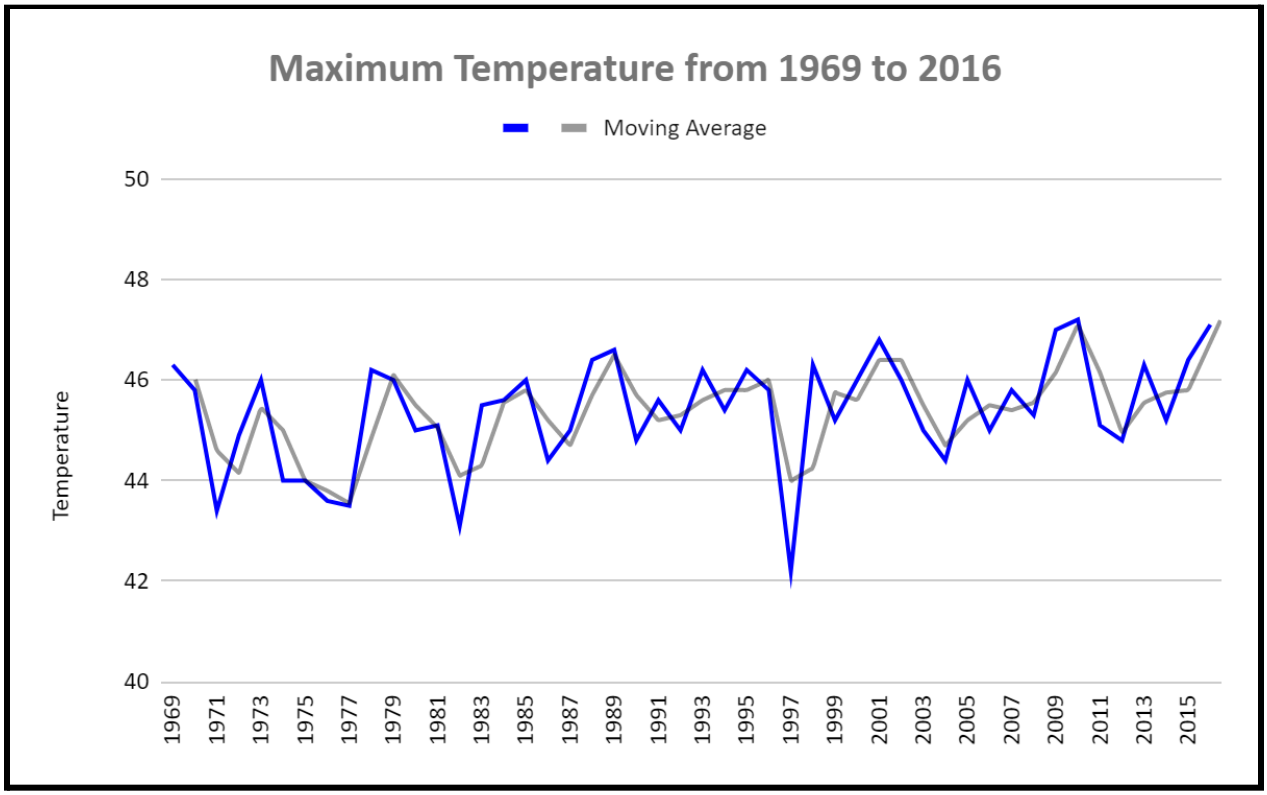
GRAPHICAL REPRESENTATION OF ABOVE DATA



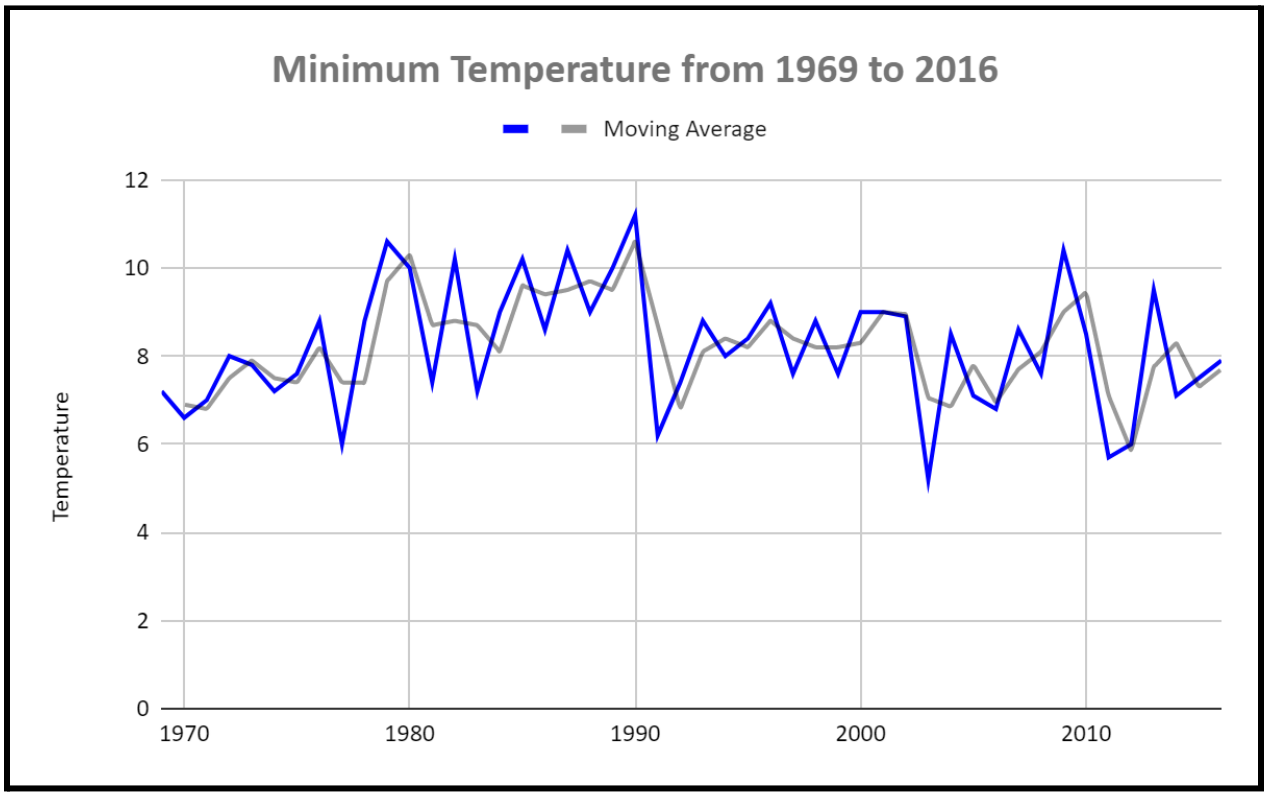
The above graph shows the average Minimum temperature month wise from 1969 to 2016.

AVERAGE MINIMUM TEMP IS RECORDED IN THE MONTH OF DECEMBER

MAXIMUM TEMPERATURE OF EVERY YEAR FROM 1969-2016



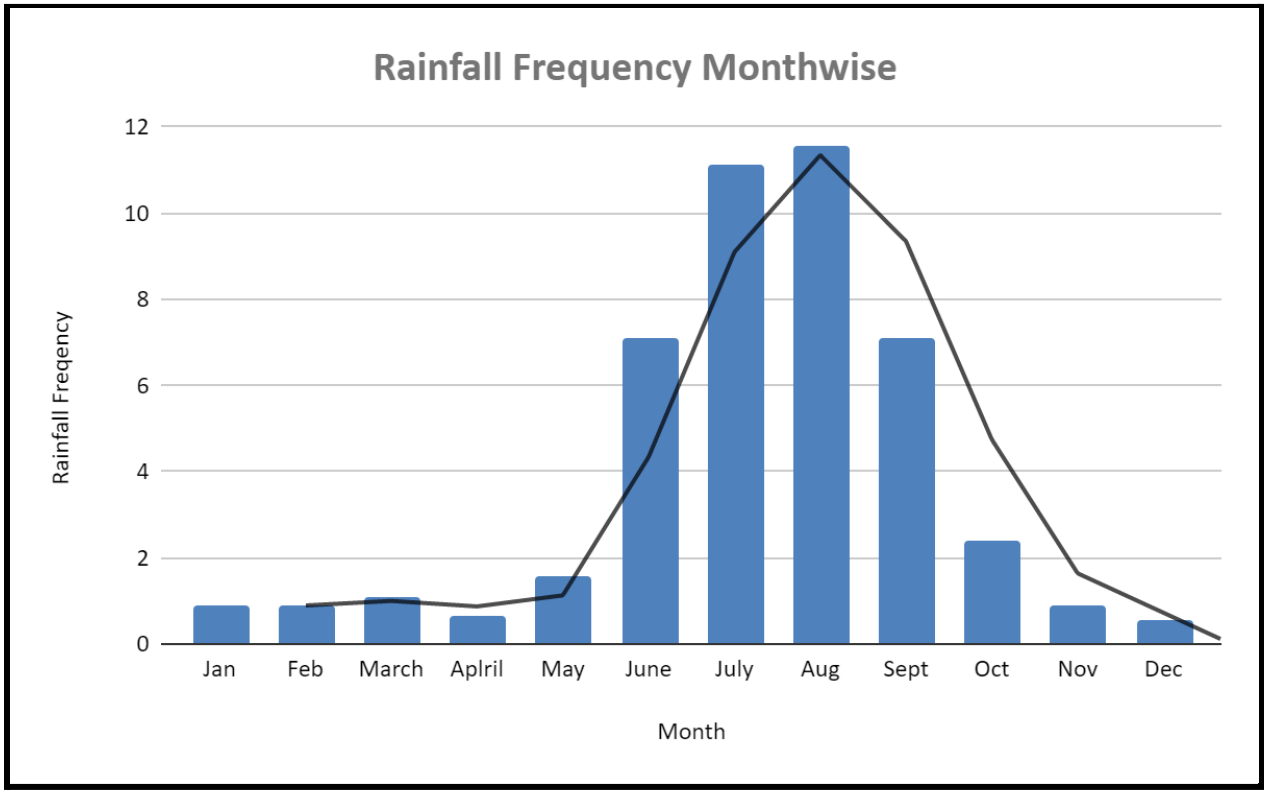
MINIMUM TEMPERATURE OF EVERY YEAR FROM 1969-2016



FREQUENCY OF RAIN PER MONTH FROM 1969-2016

Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
0.88	0.98	1.16	0.67	1.58	6.91	10.93	11.23	6.70	2.40	0.91	0.58

GRAPHICAL REPRESENTATION OF RAINFALL FREQUENCY MONTHWISE

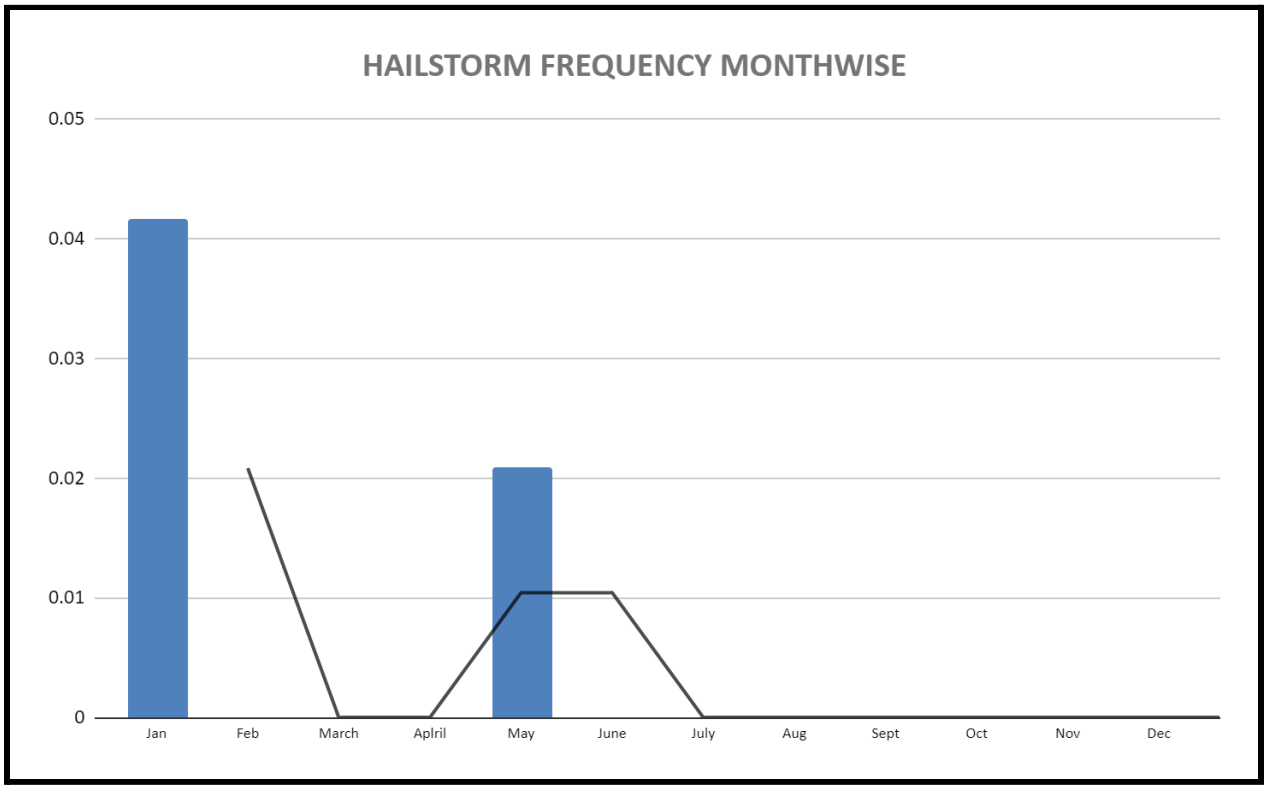


Above data shows the frequency of rain from 1969 to 2016 every month

FREQUENCY OF HAILSTORM PER MONTH FROM 1969-2016

Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
0.04	0	0	0	0.02	0	0	0	0	0	0	0

GRAPHICAL REPRESENTATION OF HAILSTORM MONTHWISE

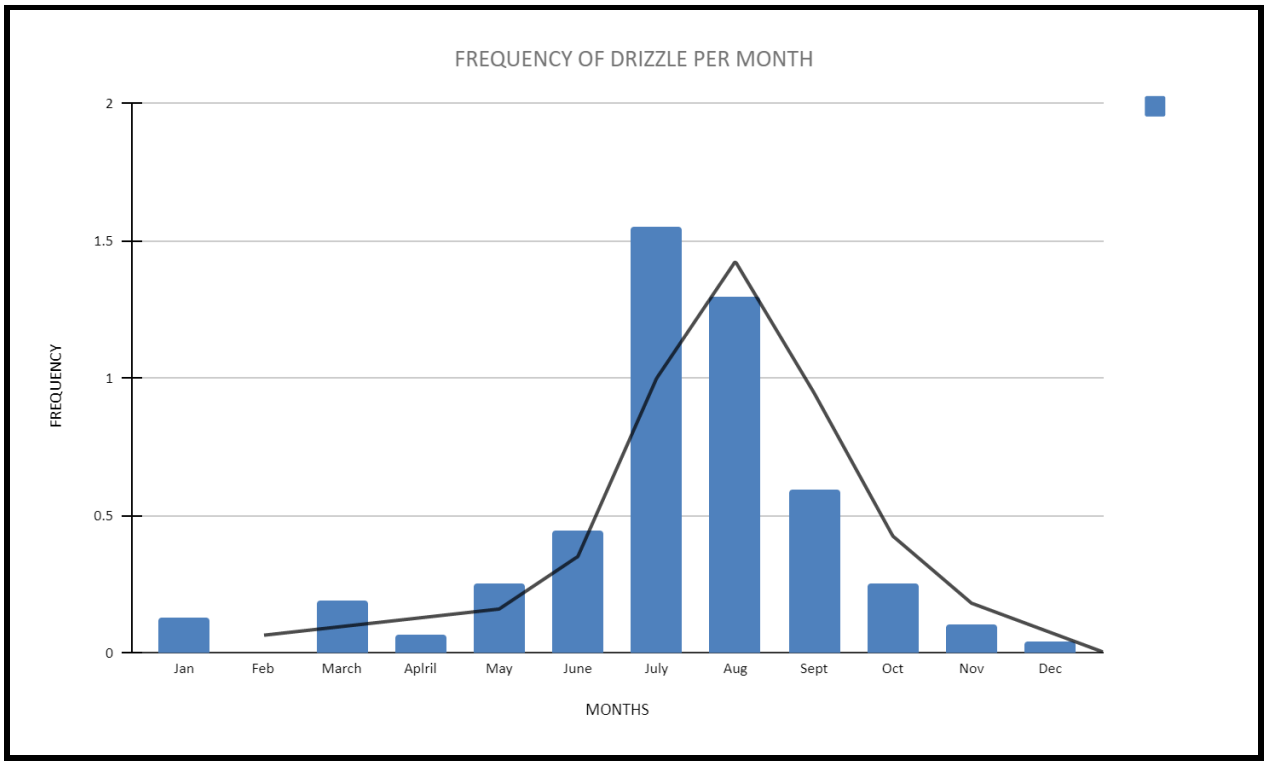


HAILSTORM RARELY COMES IN AKOLA REGION

FREQUENCY OF DRIZZLE PER MONTH FROM 1969-2016

Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
0.128	0	0.191	0.064	0.255	0.447	1.553	1.298	0.596	0.255	0.106	0.043

GRAPHICAL REPRESENTATION OF DRIZZLE MONTHWISE



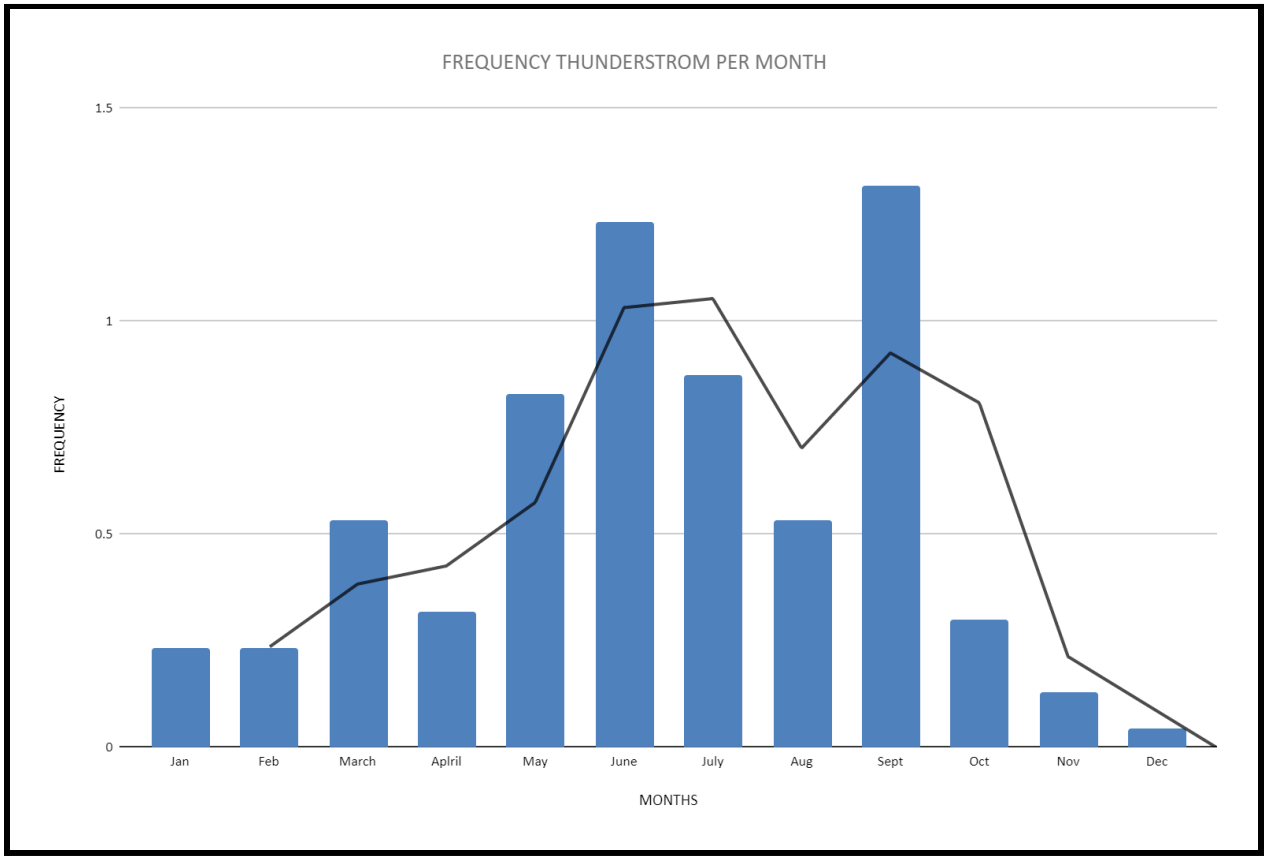
Above data shows the frequency of Drizzle every month from 1969 to 2016

THE ABOVE GRAPHS CLEARLY SHOWS THAT THE MAXIMUM NUMBER OF DRIZZLE IS RECORDED IN THE MONTH OF JULY

FREQUENCY THUNDERSTORM PER MONTH FROM 1969-2016

Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
0.23	0.23	0.53	0.32	0.83	1.23	0.87	0.53	1.32	0.30	0.13	0.04

GRAPHICAL REPRESENTATION OF THUNDER FREQUENCY MONTHWISE



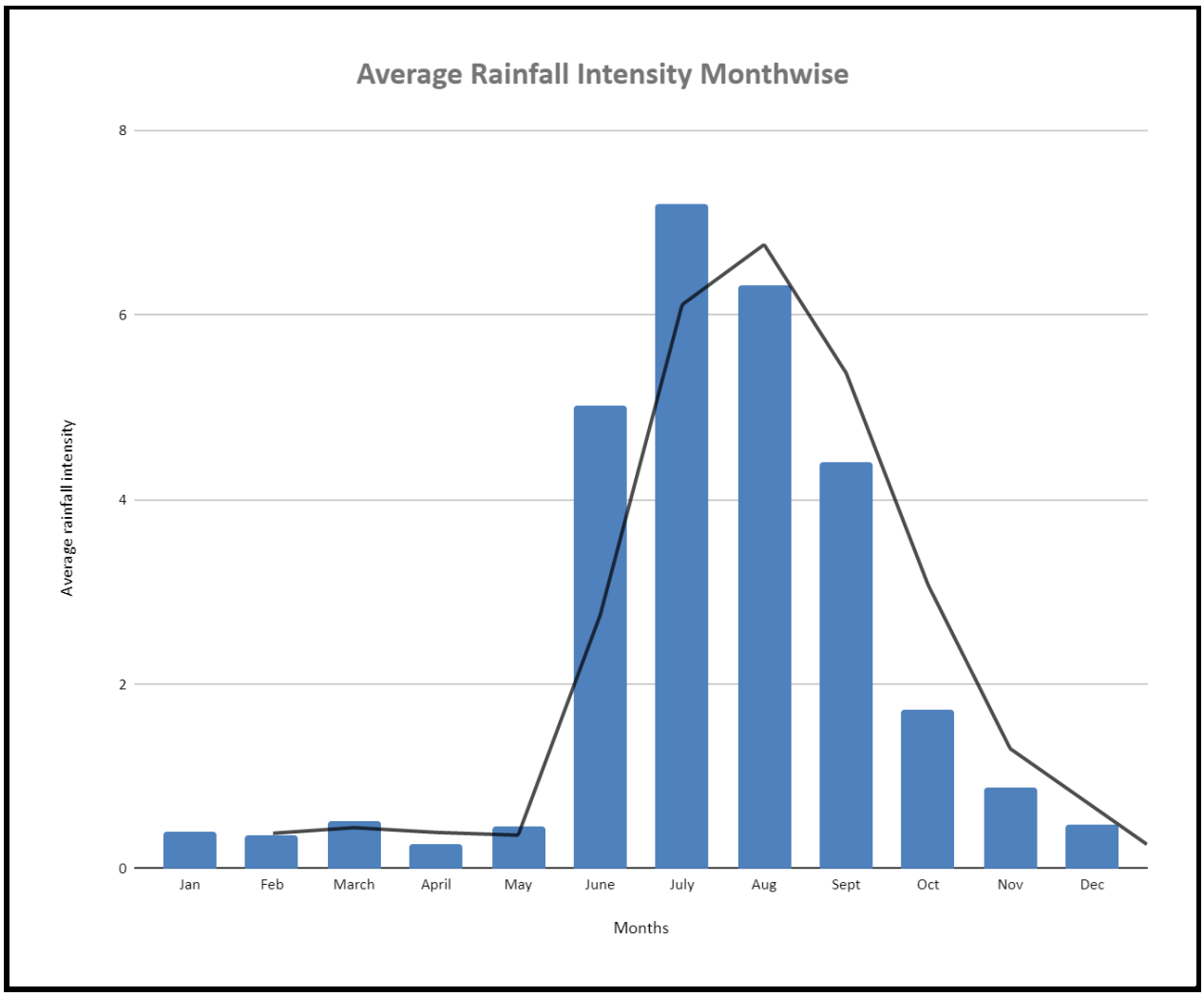
Above data shows the frequency of Thunderstorm every month from 1969 to 2016

MAXIMUM NUMBER OF THUNDERSTORM IS RECORDED IN THE MONTH OF SEPTEMBER

DATA OF AVERAGE RAINFALL INTENSITY IN MONTH FROM 1969-2016

Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
0.4	0.3	0.5	0.2	0.4	5.0	7.1	6.3	4.4	1.7	0.8	0.4

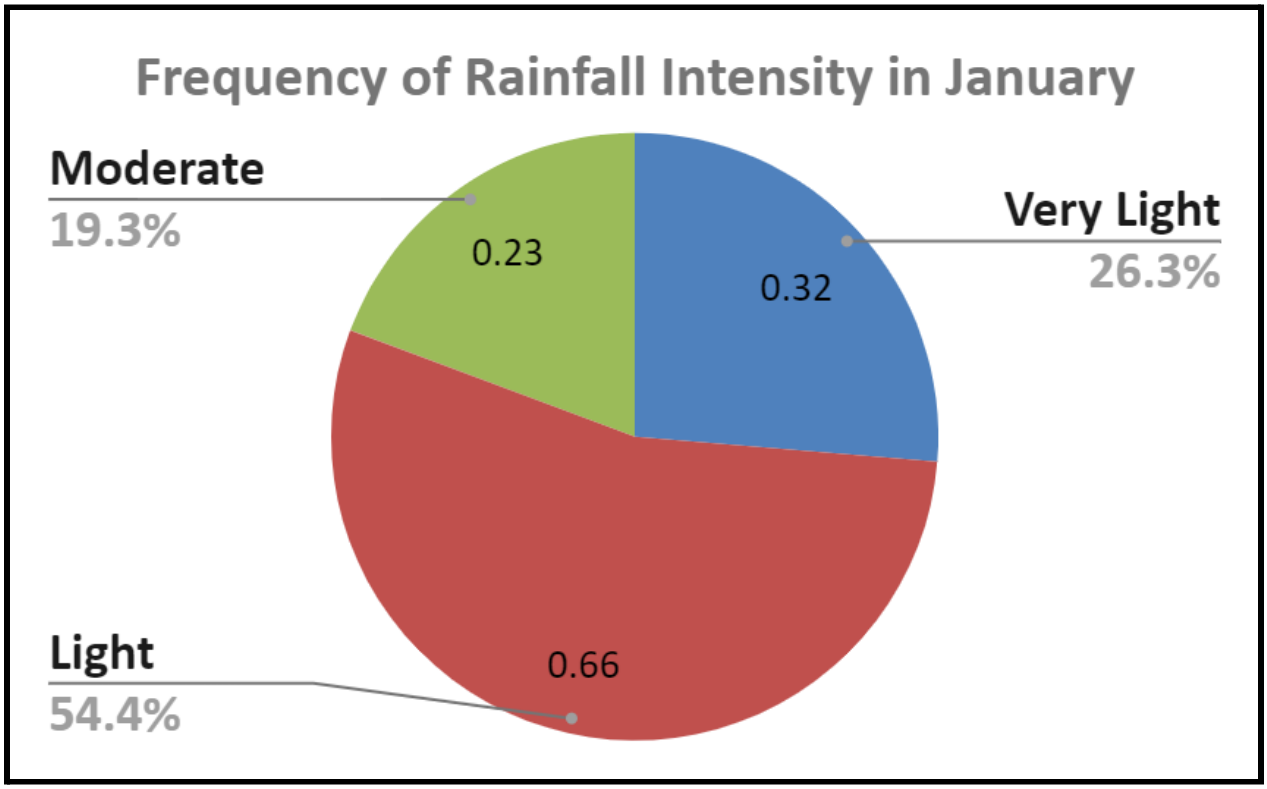
GRAPHICAL REPRESENTATION OF AVERAGE RAINFALL MONTH WISE

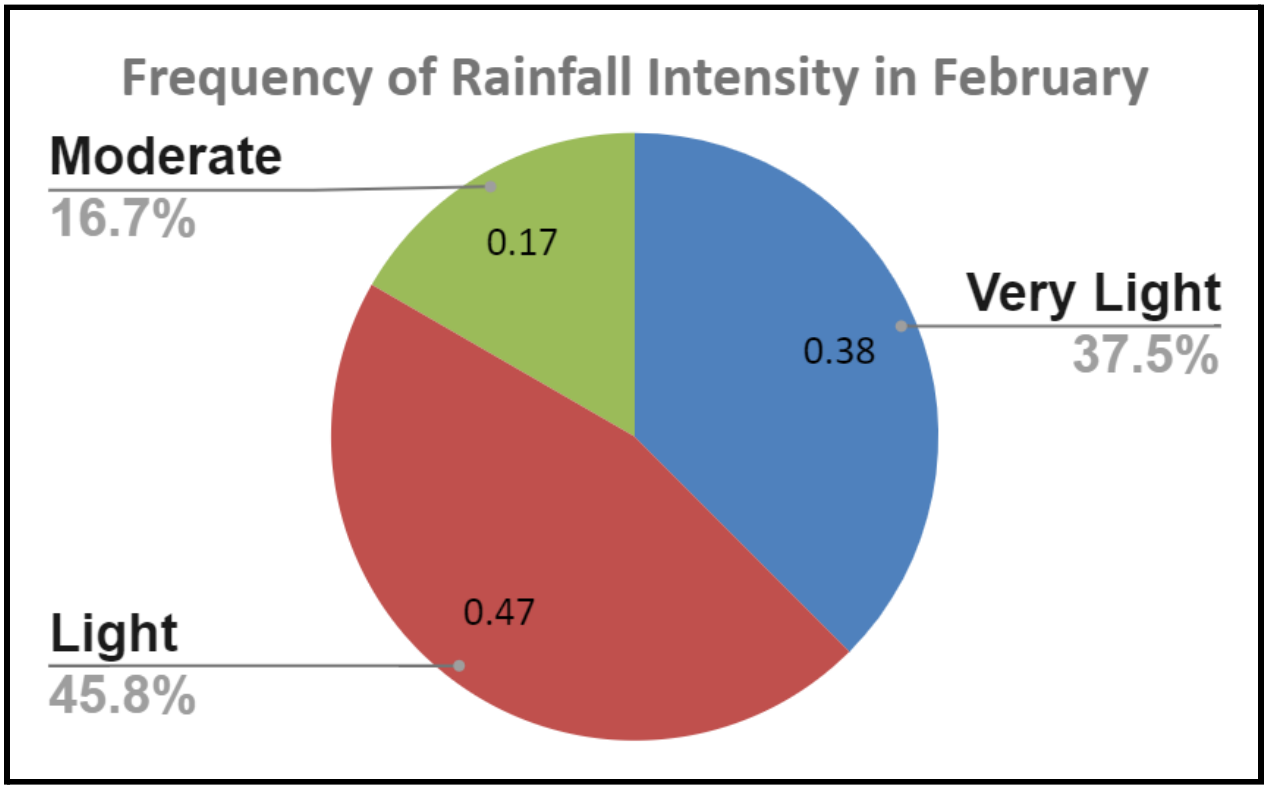


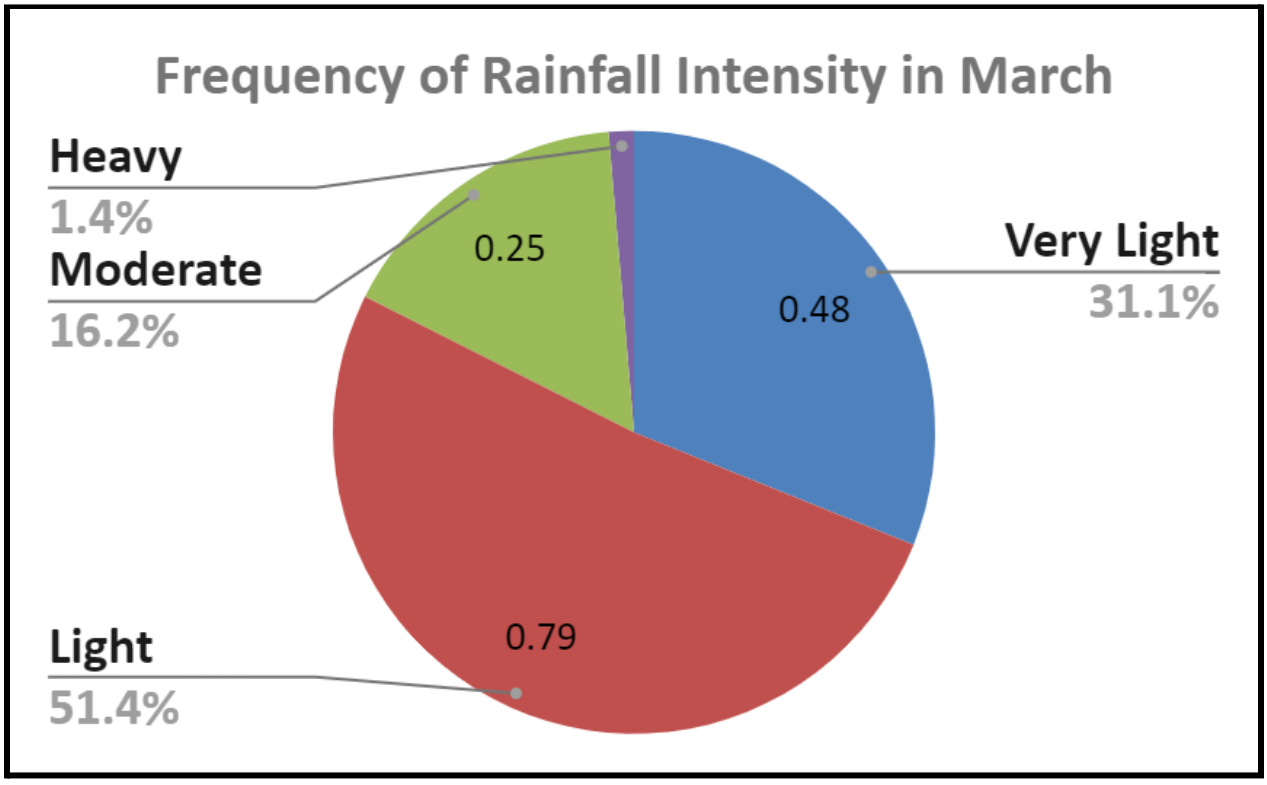
The above data shows the average rainfall intensity from 1969 to 2016 every month .
This also shows that most of the rainfall occurs in the months of July and august.

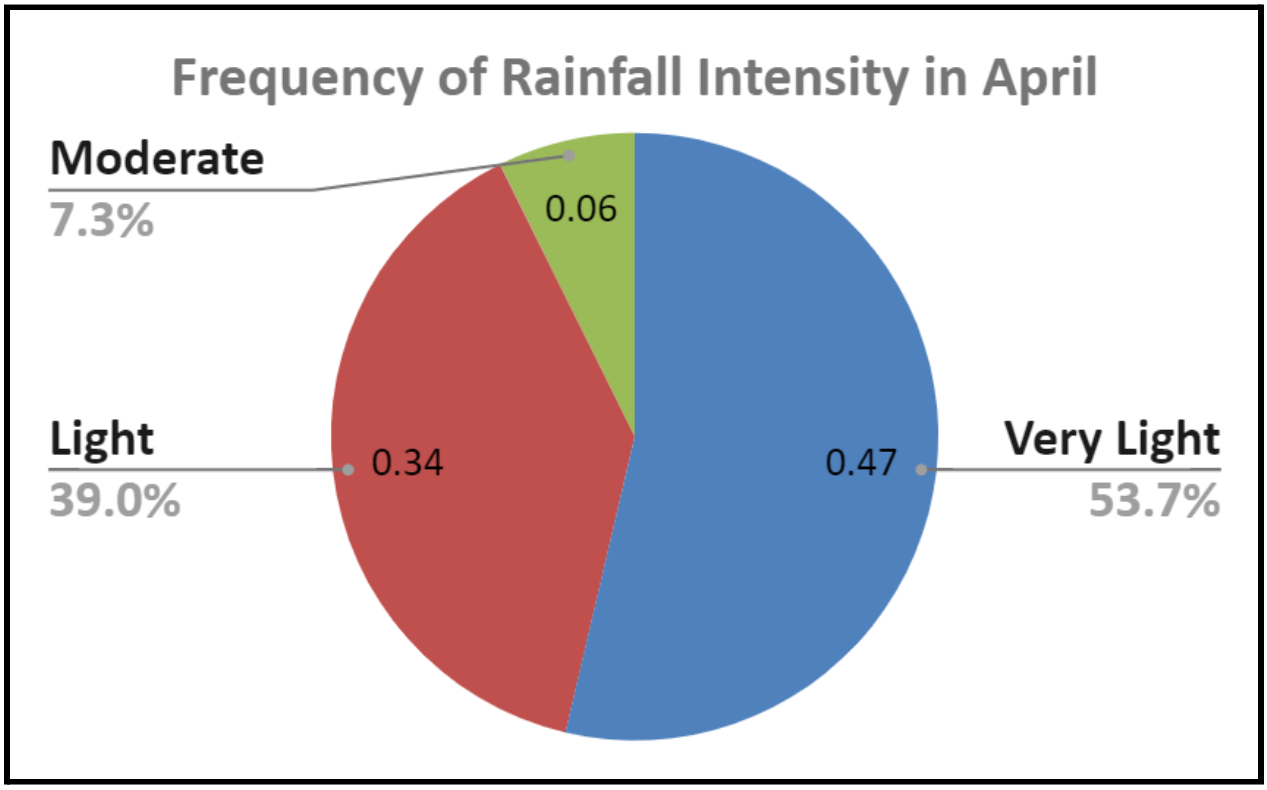
FREQUENCY OF RAINFALL INTENSITY MONTHWISE

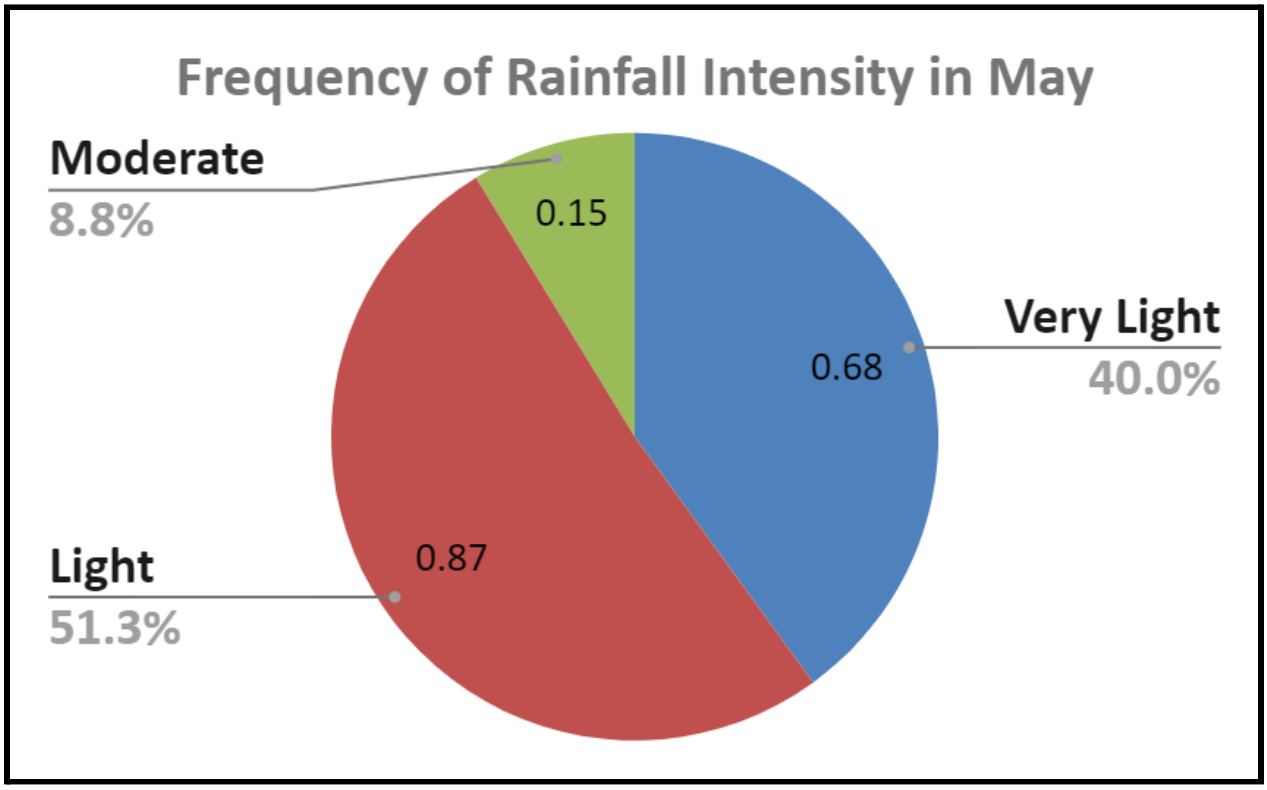
SR. NO	Very Light(0.1-2.4mm)	Light(2.5-15.5mm)	Moderate (15.6-64.4mm)	Heavy(64.5-115.5mm)	Very Heavy (115.6-204.4mm)	Extremely Heavy(>=204.5mm)
1	0.32	0.66	0.23	0.00	0.00	0.00
2	0.38	0.47	0.17	0.00	0.00	0.00
3	0.48	0.79	0.25	0.02	0.00	0.00
4	0.47	0.34	0.06	0.00	0.00	0.00
5	0.68	0.87	0.15	0.00	0.00	0.00
6	2.71	4.27	2.58	0.19	0.08	0.00
7	4.46	7.50	3.71	0.35	0.06	0.02
8	4.58	6.50	3.38	0.38	0.10	0.00
9	2.91	3.79	2.60	0.21	0.00	0.02
10	0.96	1.83	0.74	0.09	0.00	0.00
11	0.44	0.60	0.33	0.04	0.00	0.00
12	0.30	0.28	0.11	0.00	0.00	0.00

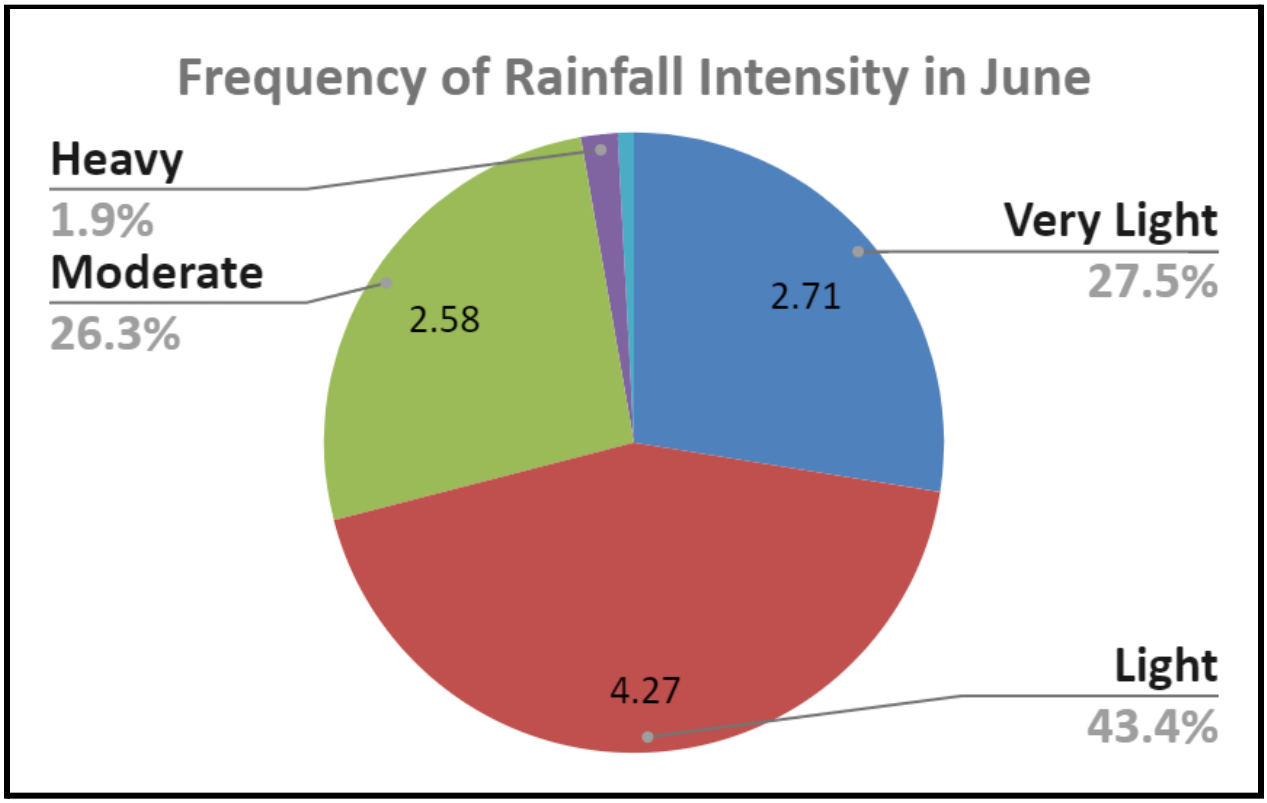


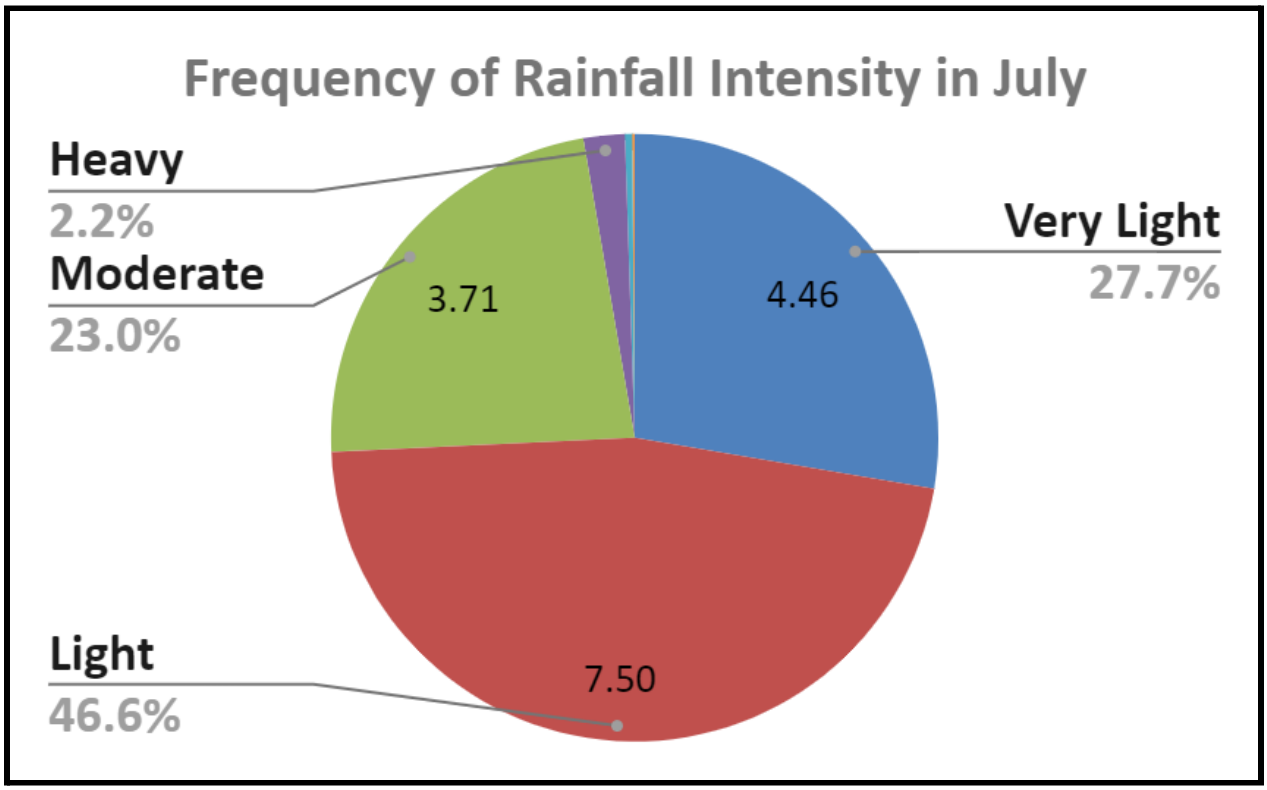

Frequency of Rainfall Intensity in February
Moderate
16.7%
0.17
Very Light
37.5%
0.38
0.47
Light
45.8%

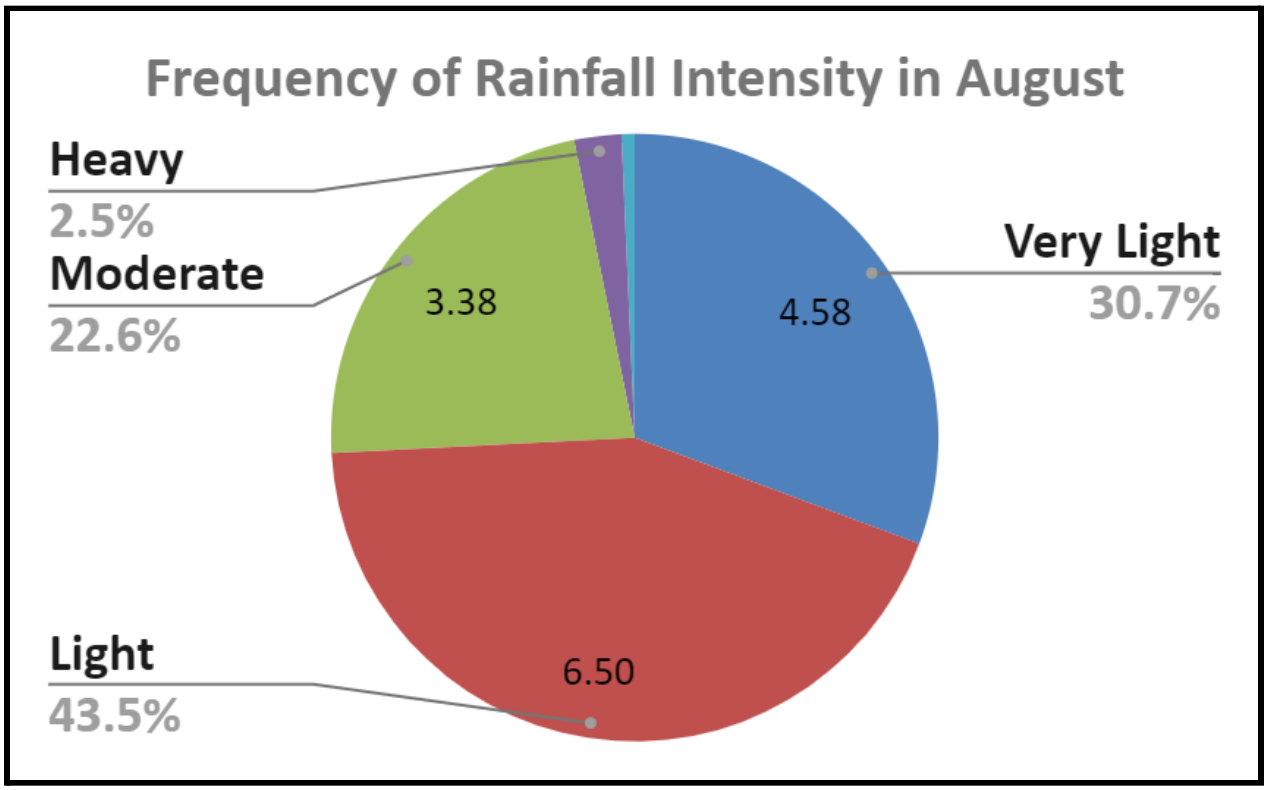

Frequency of Rainfall Intensity in March
Heavy
1.4%
Moderate
16.2%
0.25
Very Light
31.1%
0.48
0.79
Light
51.4%

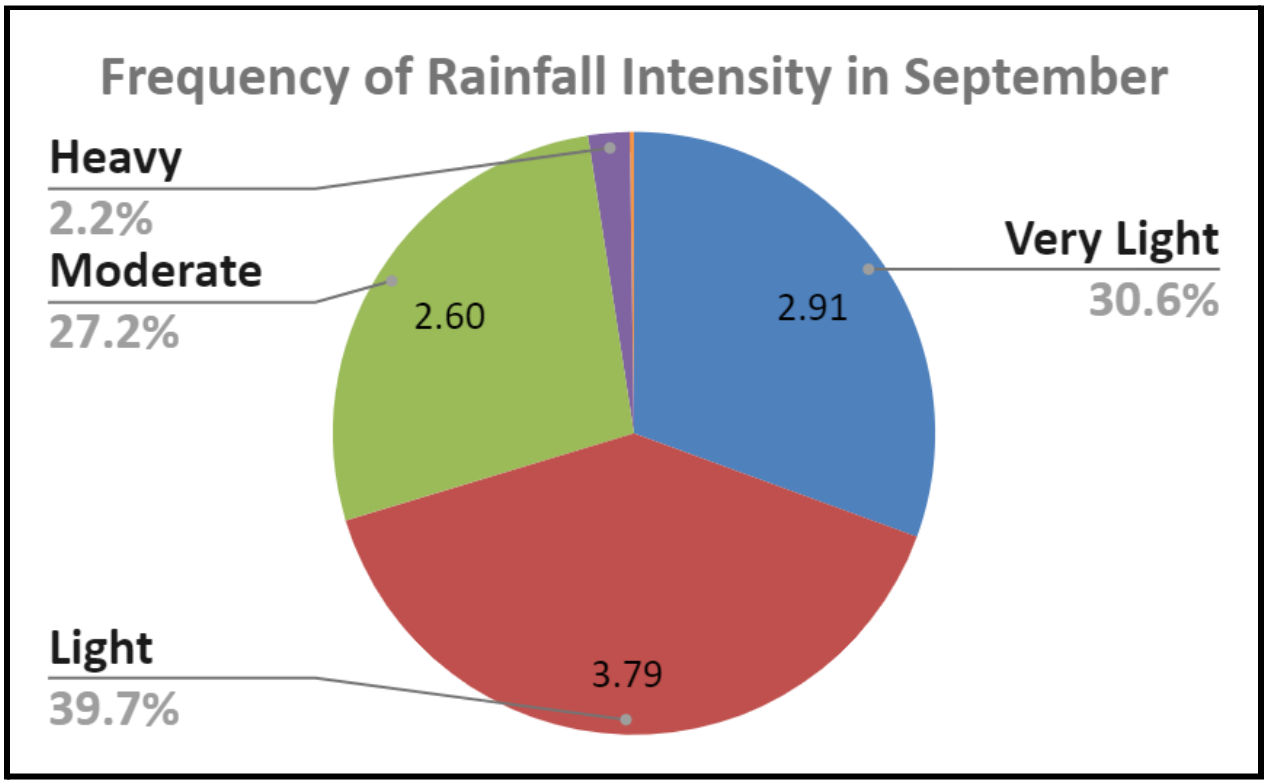

Frequency of Rainfall Intensity in April
Moderate
7.3%
0.06
Light
39.0%
0.34
0.47
Very Light
53.7%

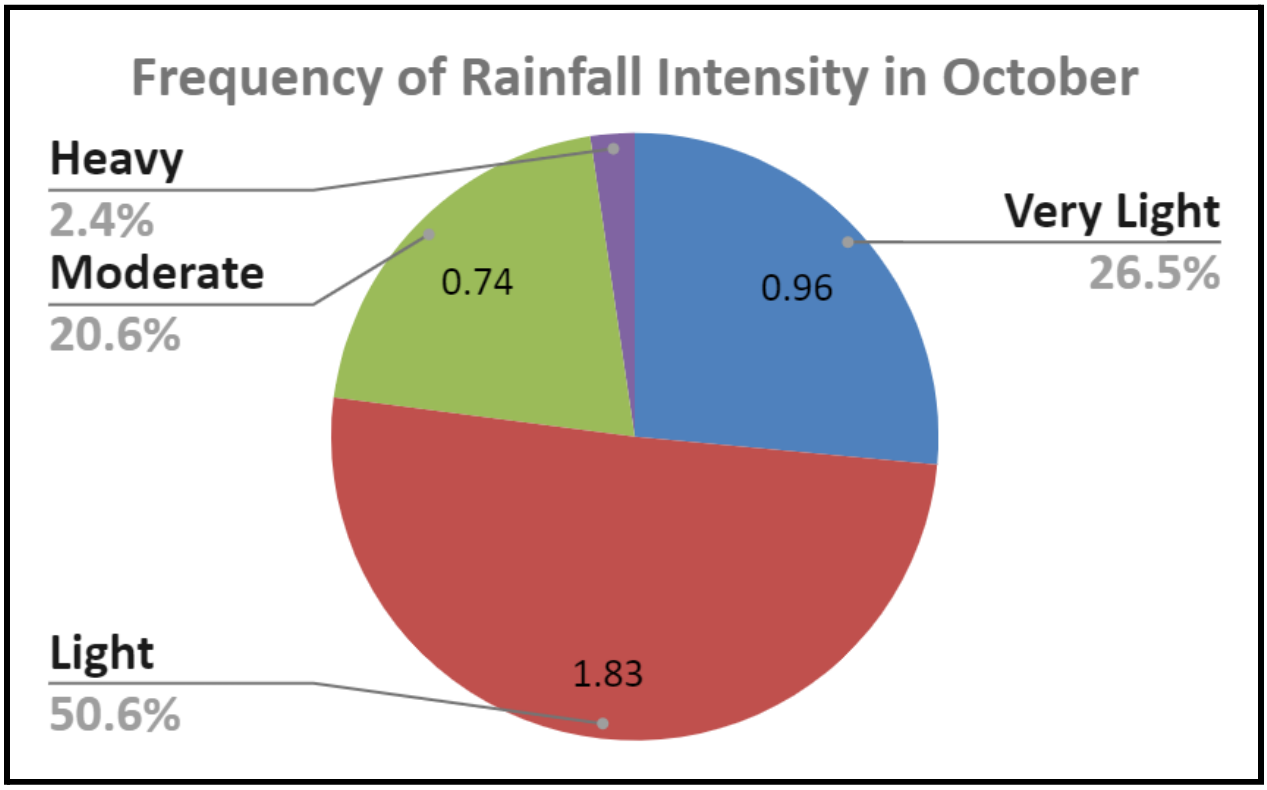

Frequency of Rainfall Intensity in May
Moderate
8.8%
0.15
Very Light
40.0%
0.68
Light
51.3%
0.87

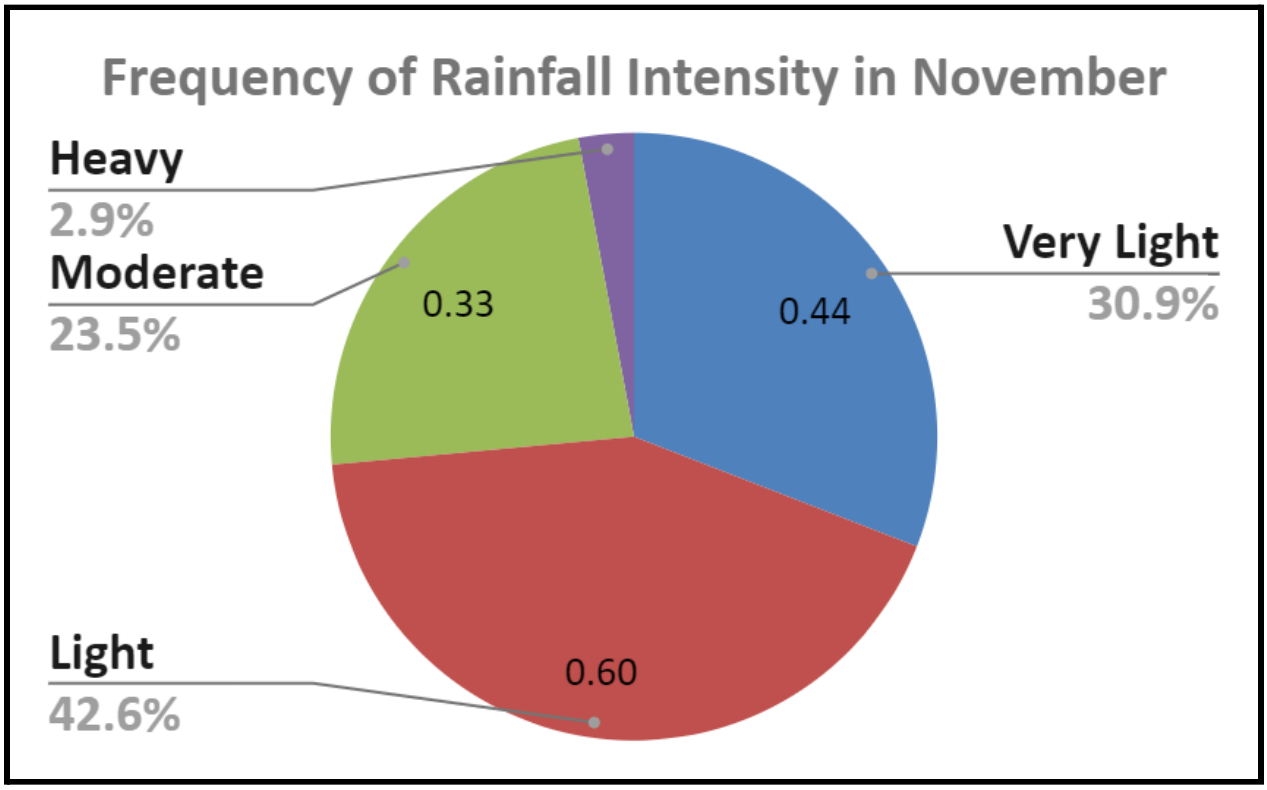

Frequency of Rainfall Intensity in June
Heavy
1.9%
Moderate
26.3%
Very Light
27.5%
Light
43.4%
2.71
2.58
4.27

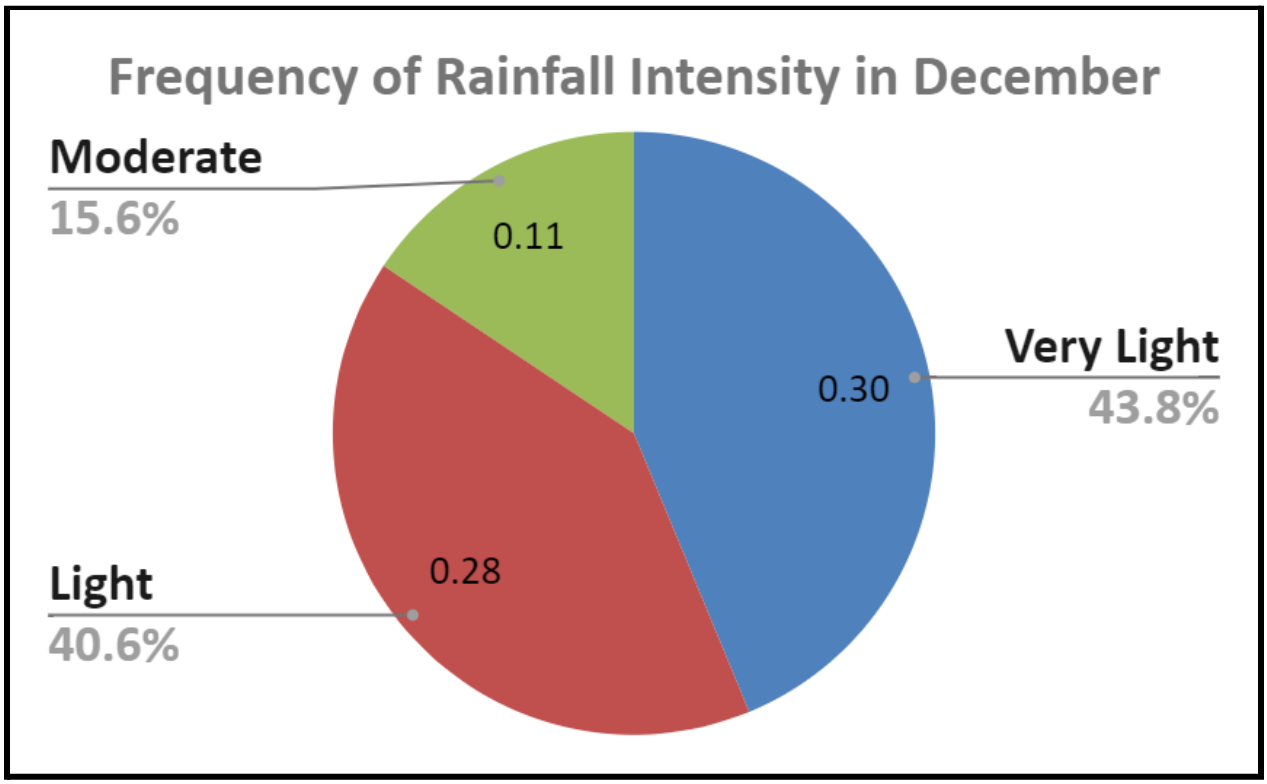

Frequency of Rainfall Intensity in July
Heavy
2.2%
Moderate
23.0%
Very Light
27.7%
Light
46.6%
4.46
3.71
7.50


Frequency of Rainfall Intensity in August
Heavy
2.5%
Moderate
22.6%
Very Light
30.7%
Light
43.5%
3.38
4.58
6.50


Frequency of Rainfall Intensity in September
Heavy
2.2%
Moderate
27.2%
Very Light
30.6%
Light
39.7%
2.60
2.91
3.79


Frequency of Rainfall Intensity in October
Heavy
2.4%
Moderate
20.6%
Very Light
26.5%
Light
50.6%
0.74
0.96
1.83

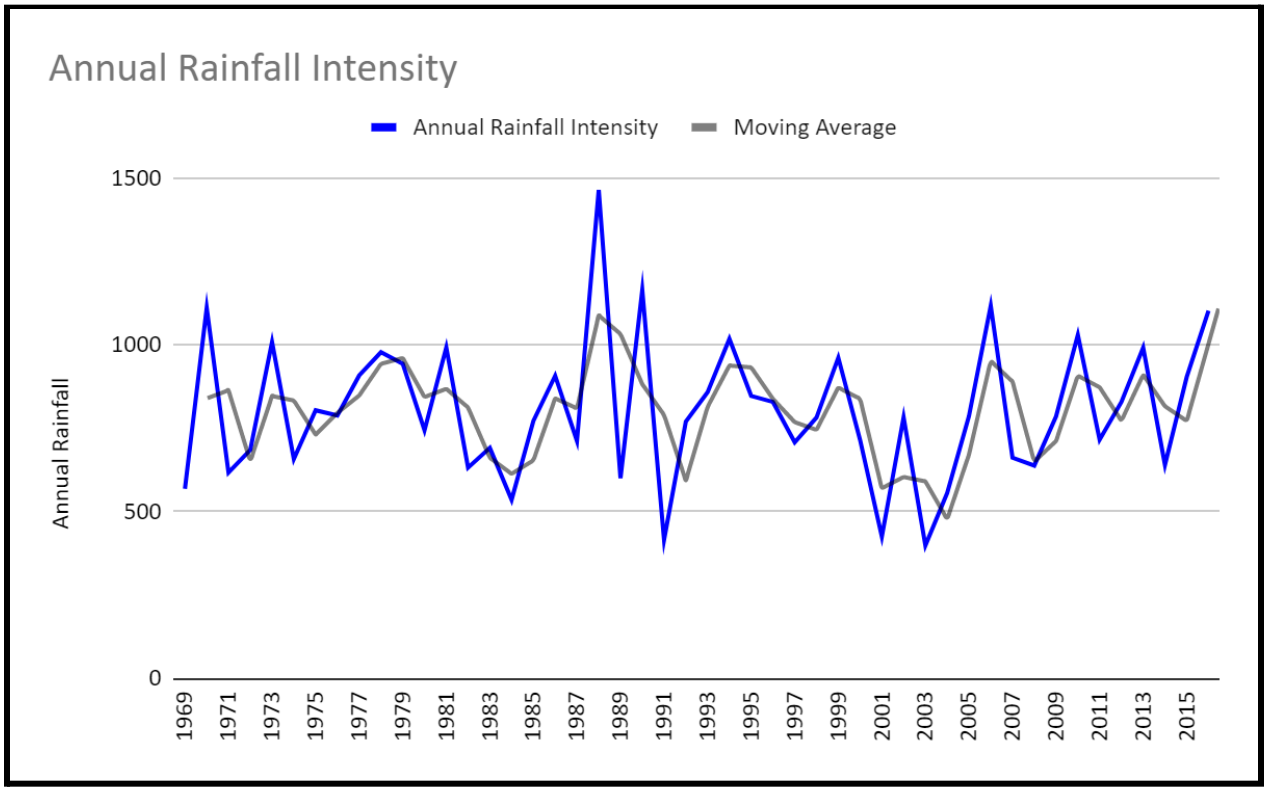

Frequency of Rainfall Intensity in November
Heavy
2.9%
Moderate
23.5%
Very Light
30.9%
Light
42.6%
0.33
0.44
0.60



THE ABOVE GRAPHS MAKES IT CLEAR THAT MOST AMOUNT OF MODERATE AND HEAVY RAINFALL HAS BEEN OBSERVED IN MONTH OF JULY AUGUST AND SEPTEMBER

AND THERE IS MOSTLY NO TO VERY LITTLE AMOUNT OF RAINFALL IN APRIL MAY

ANNUAL RAINFALL INTENSITY YEAR WISE



THE ABOVE GRAPH CONCLUDES THAT THE AVERAGE ANNUAL RAINFALL INTENSITY IS NEARLY 800mm.
TILL NOW MAXIMUM ANNUAL RAINFALL INTENSITY HAS BEEN OBSERVED IN 1988.