



Rainfall Analysis



Rainiest District
Nizamabad

Total Rainfall (mm)
2.05M

Avg Rainfall (mm)
2.91

Least Rainfall District
Jogulamba...

Year

All

District & Mandal

All

Month

All

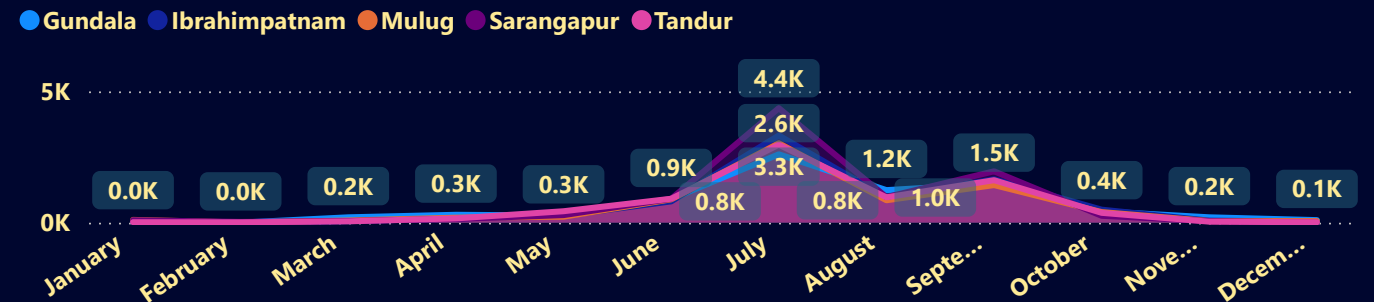
Metric

Humidity

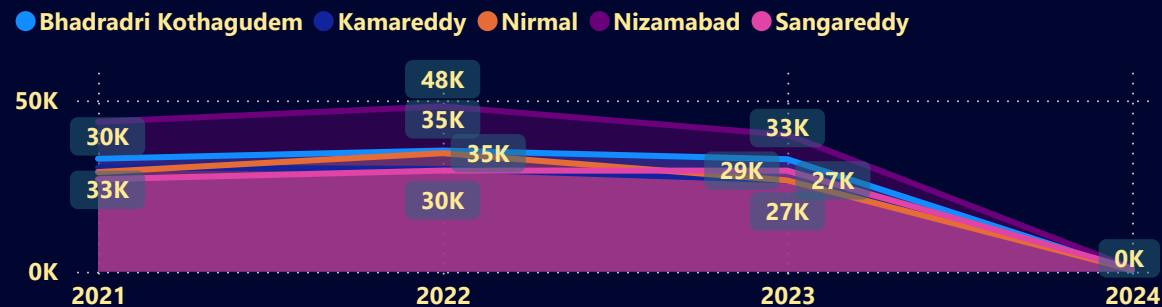
Highest Average Rainfall by District



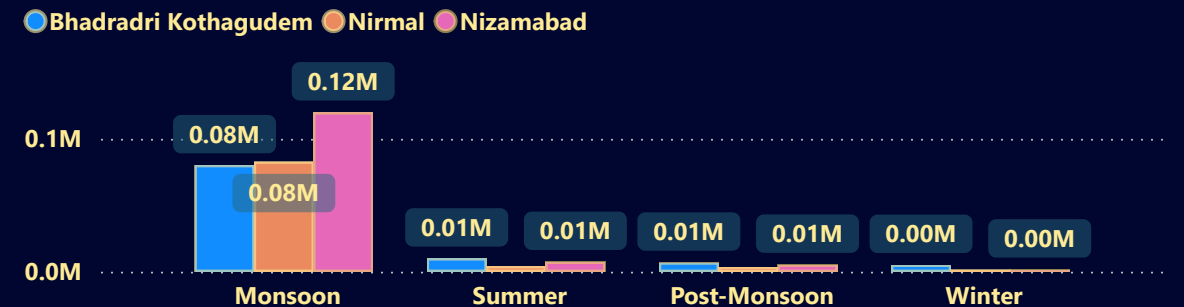
Monthly Rainfall Distribution by Mandal



Yearly Rainfall Trend by District



Seasonal Rainfall Variation Across Districts





Rainfall Analysis



Monthly % of Annual Rainfall

99.71

Heavy Rain Days Records

2K

Rainfall YoY Change

-0.99

01-01-2021 

24-03-2024 



Year

All

District & Mandal

All

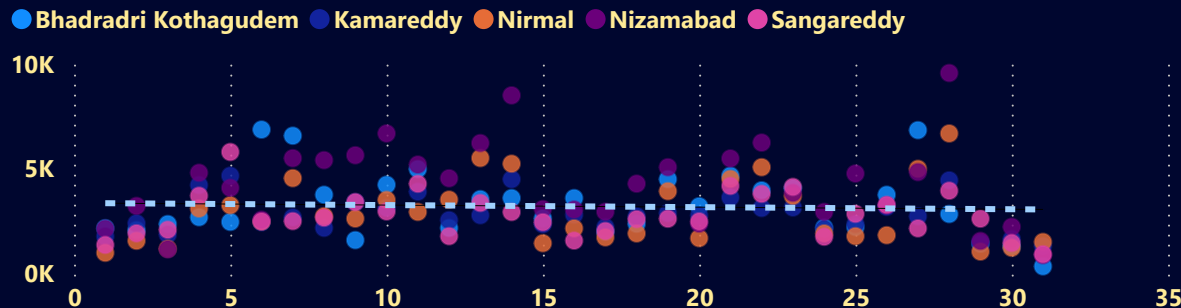
Month

All

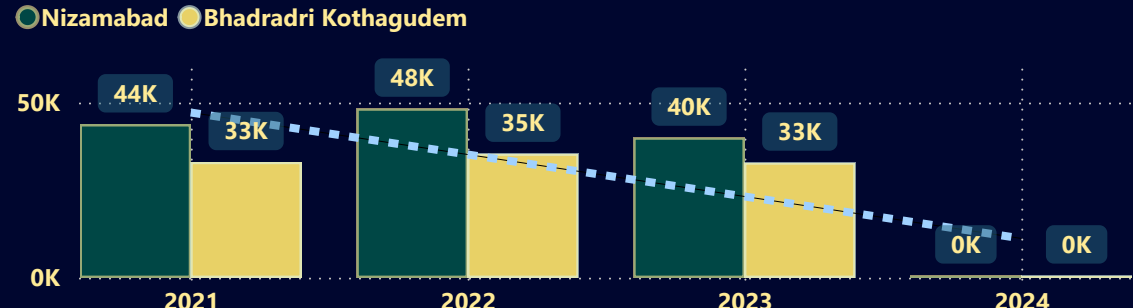
Metric

Humidity

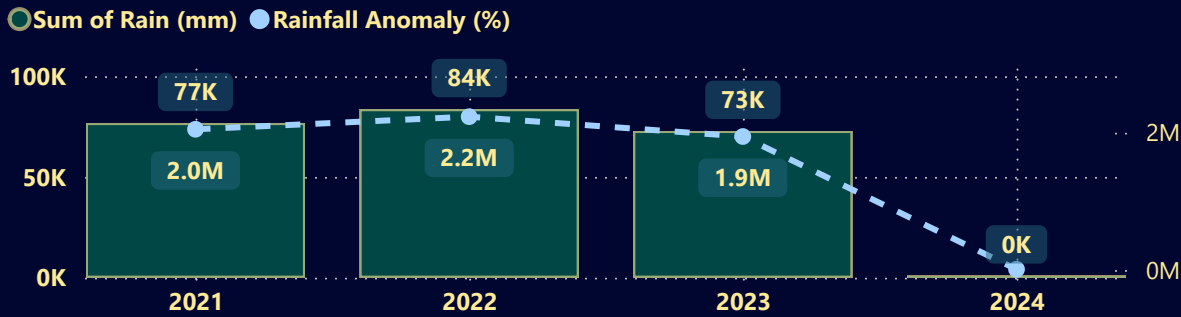
Rainfall Patterns on Key Dates



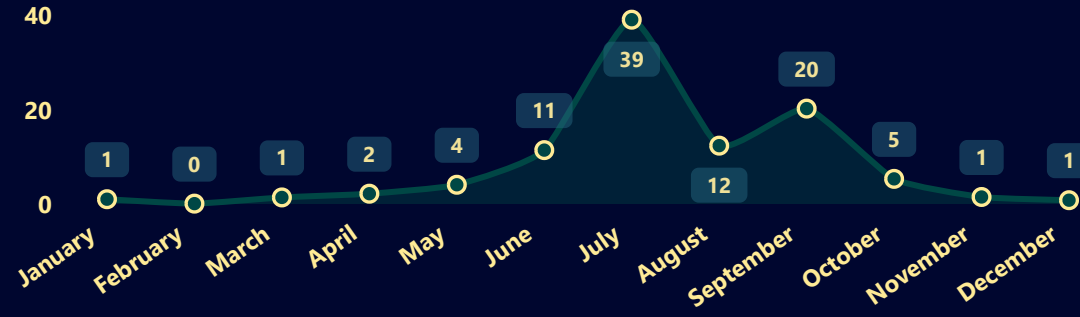
Annual Rainfall Comparison Between Districts



Rainfall Anomalies Over the Years



Monthly Share of Annual Rainfall (%)



Temperature Insights

Avg Max Temp (°C)

33.97

Avg Min Temp (°C)

21.75

Avg Daily Temp Range (°C)

12.23

Monthly Temp Range (°C)

12.25

Year

All

District & Mandal

All

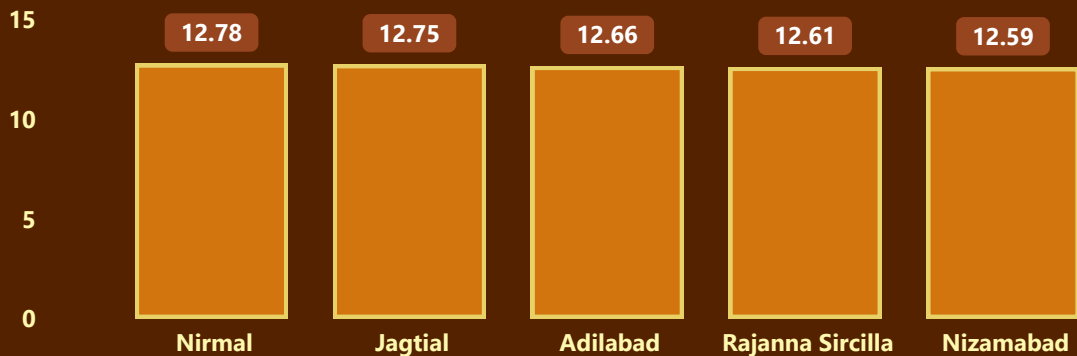
Month

All

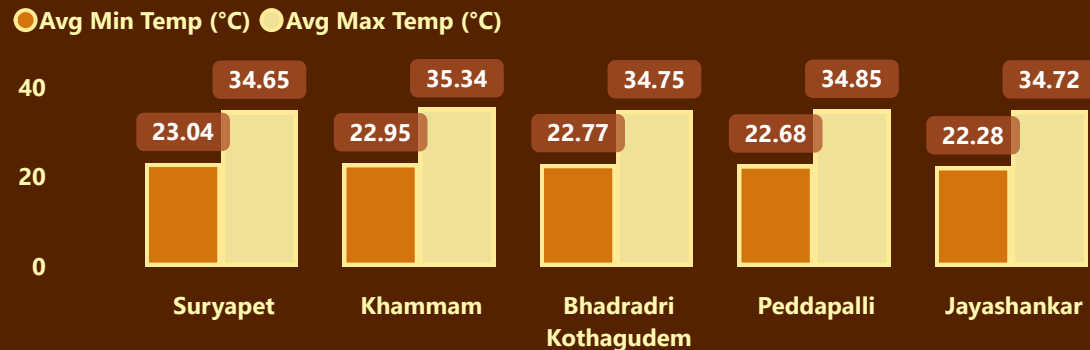
Metric

Humidity

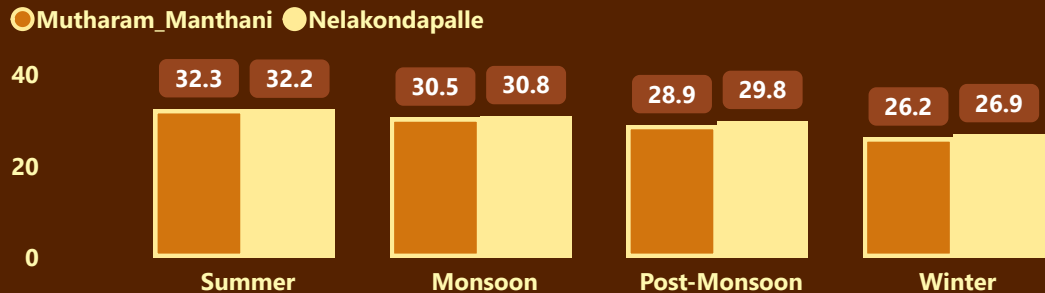
Avg Daily Temperature Range by District



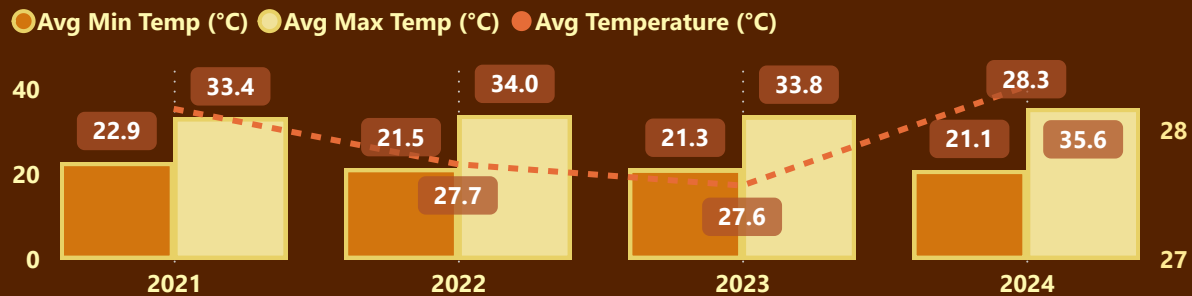
Average Min & Max Temperature by District



Seasonal Avg Temperature Variation by Mandal



Yearly Trend of Min & Max Temperatures



Temperature Insights

Hottest District Name

Khammam

Heatwave Days Records

51K

Temp YoY Change

0.05

Coldest District Name

Vikarabad

Year

All

District & Mandal

All

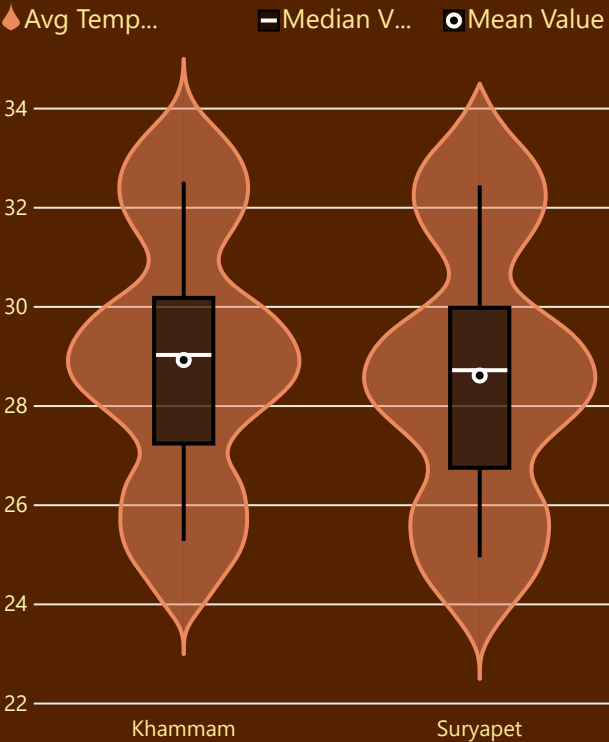
Month

All

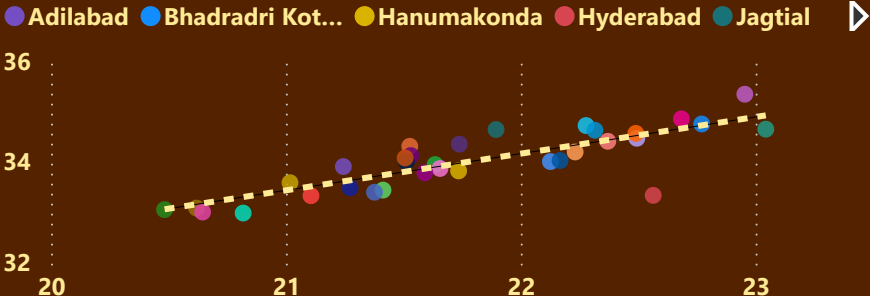
Metric

Humidity

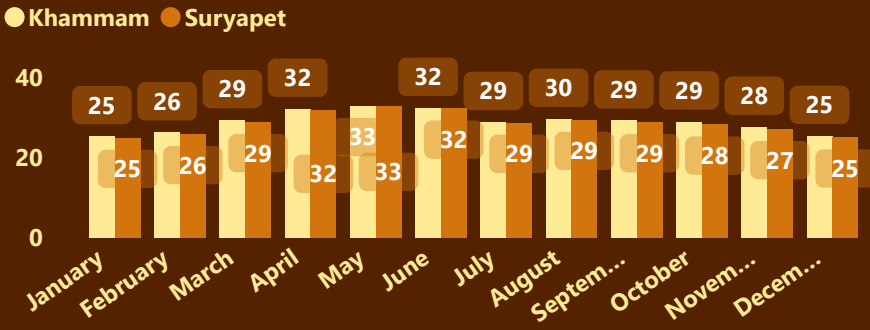
Temperature Distribution Between Two Districts



Correlation Between Avg Min & Max Temperatures



Monthly Temperature Comparison Between Two Districts



District

District	2021	2022	2023	2024
Adilabad	-0.18	0.08	-0.10	0.35
Bhadradri Kothagudem	0.12	0.19	0.17	0.49
Hanumakonda	-0.51	0.05	-0.09	0.24
Hyderabad	-0.35	-0.22	-0.18	0.50
Jagtial	0.08	0.20	0.13	0.42
Jangaon	-0.09	0.00	-0.03	0.23
Jayashankar	0.05	0.23	0.16	0.53
Jogulamba Gadwal	-0.18	-0.06	0.00	0.67
Kamareddy	-0.26	-0.07	-0.20	0.27
Karimnagar	0.00	0.10	-0.02	0.28
Khammam	0.29	0.32	0.32	0.67
Kumuram Bheem	-0.15	0.00	-0.08	0.35
Mahabubabad	-0.01	0.10	0.12	0.53
Mahabubnagar	-0.31	-0.12	-0.12	0.53
Mancherial	0.00	0.10	0.09	0.47
Medak	-0.36	-0.25	-0.33	0.23
Medchal-Malkajgiri	-0.32	-0.16	-0.16	0.44
Mulugu	0.02	0.18	0.13	0.58
Nagarkurnool	-0.39	-0.16	-0.16	0.52



Humidity Patterns



Average Humidity (%)

67.31

Avg Min Humidity (%)

45.55

Extreme Wind Count

21.965K

Avg Daily Humidity Range (%)

61.17

Year

All

District & Mandal

All

Month

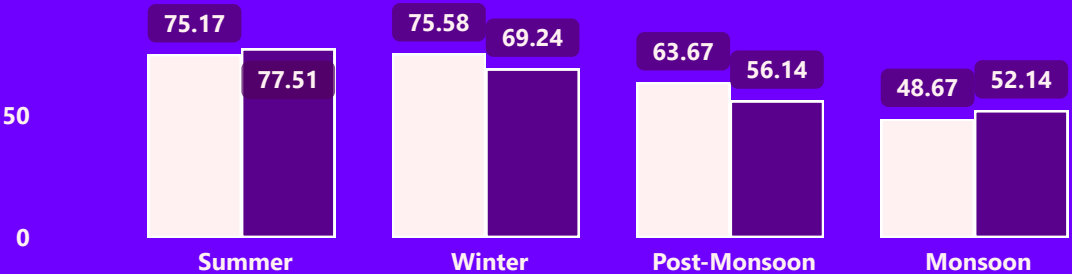
All

Metric

Humidity

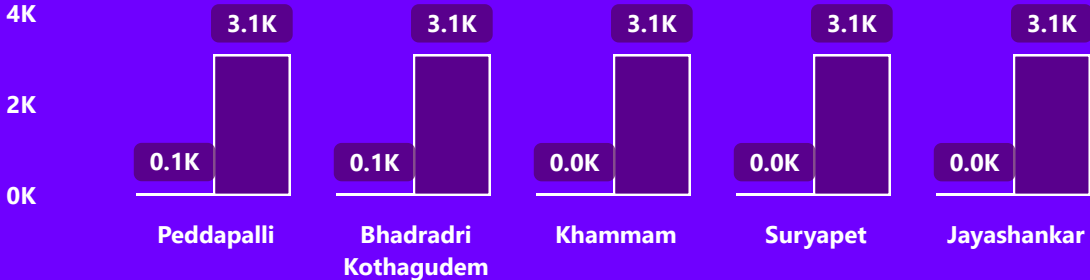
Daily Humidity Range by District

● Kamareddy ○ Nalgonda



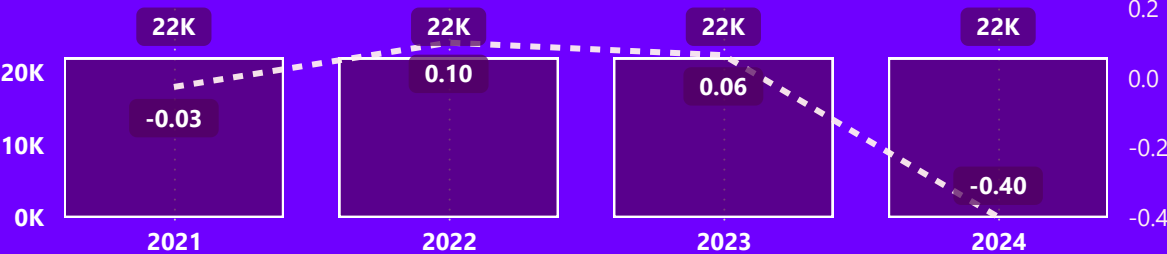
Average Min & Max Humidity by District

● Avg Min Humidity (%) ○ Extreme Wind Count



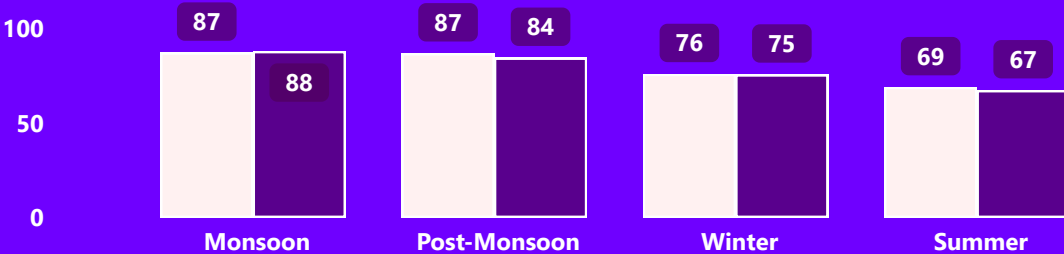
Humidity Anomalies Over the Years

● Extreme Wind Count ● Humidity Z-Score



Seasonal Humidity Variation by Mandal

● Burgampadu ○ Elgaid



Humidity Patterns

Most Humid District
Peddapalli

Extreme Humidity Records
455K

Humidity YoY Change
-0.11

Least Humid District
Hyderabad

Year

All

District & Mandal

All

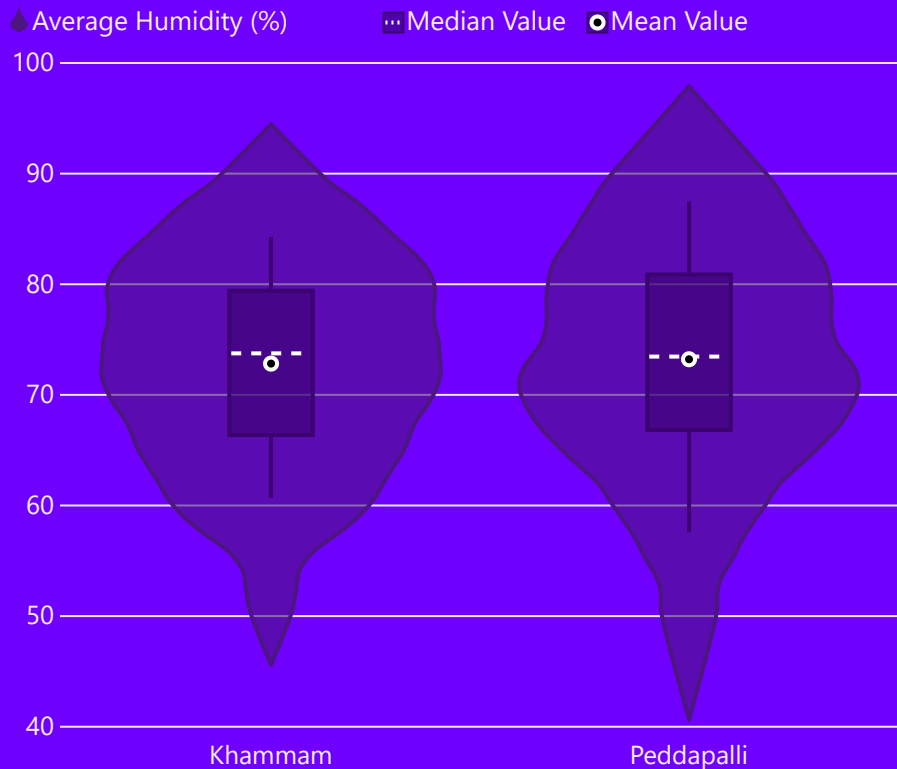
Month

All

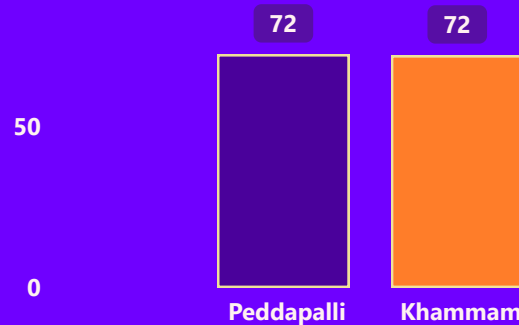
Metric

Humidity

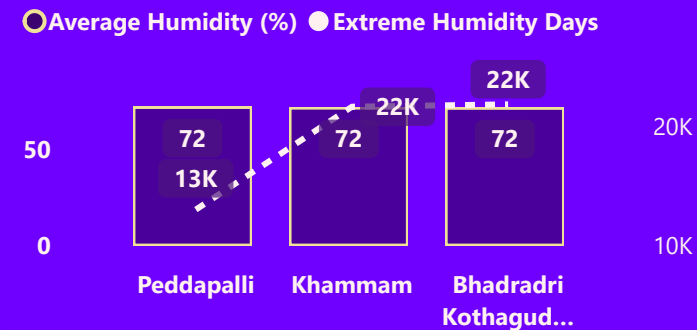
Humidity Distribution Between Two Districts



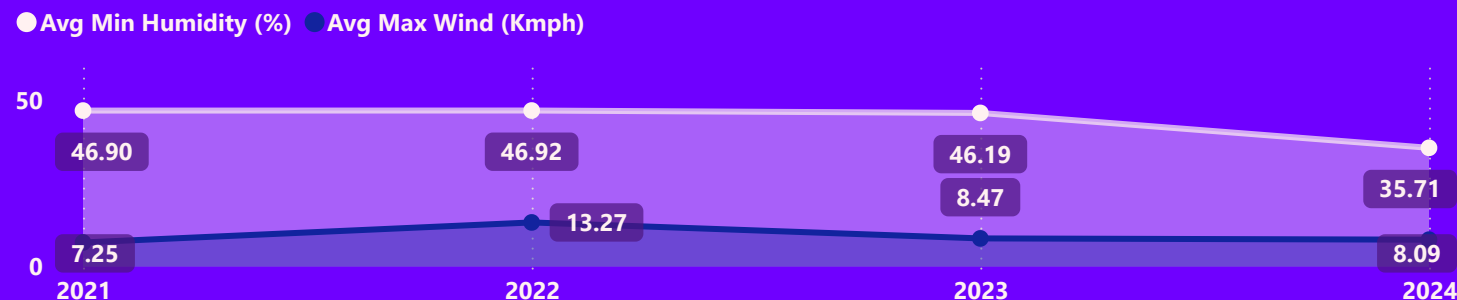
Humidity Comparison Between Two Districts



Extreme Humidity Days by District



Yearly Trend of Min & Max Humidity



Wind Speed Analysis

Avg Wind (Kmph)
4.85

Avg Min Wind (Kmph)
0.13

Avg Max Wind (Kmph)
9.57

Avg Daily Wind Range...
19.80

Year

All

District & Mandal

All

Month

All

Metric

Humidity

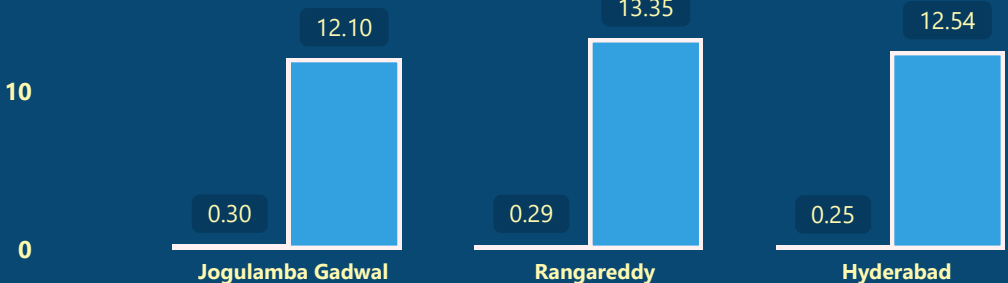
Wind Speed Patterns & Outliers

● Normal ● Very High

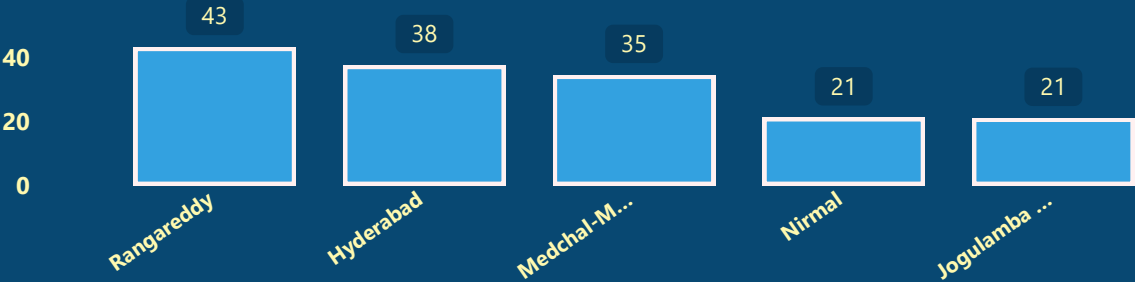


Average Min & Max Wind Speed by District

● Avg Min Wind (Kmph) ● Avg Max Wind (Kmph)

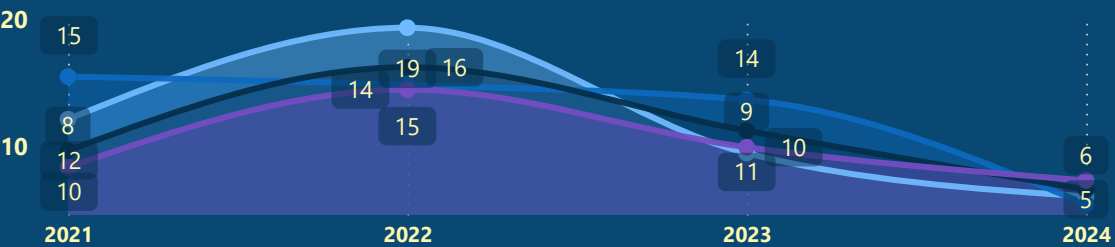


Daily Wind Speed Range by District



Yearly Wind Speed Variation by Mandal

● Abdullapurmet ● Hayathnagar ● Malkajgiri ● Serilingampally



Wind Speed Analysis

Highest Wind Speed...
Rangareddy

High Wind Days
61

Wind YoY Change
-0.05

Lowest Wind Speed...
Mahabubabad

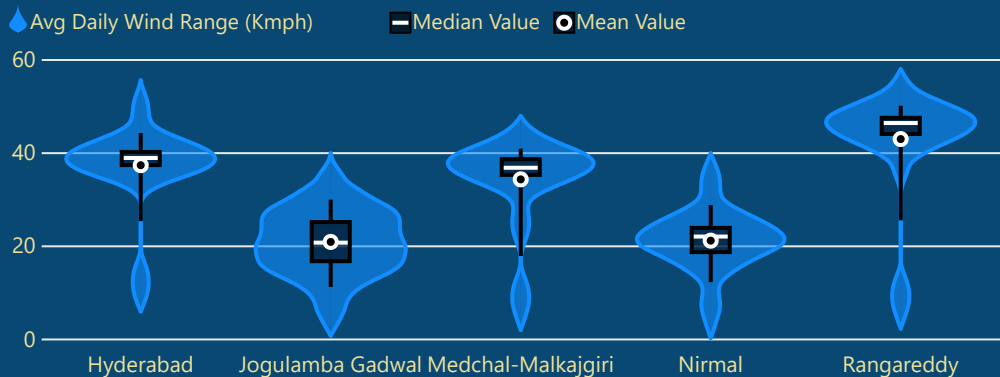
Year
All

District & Mandal
All

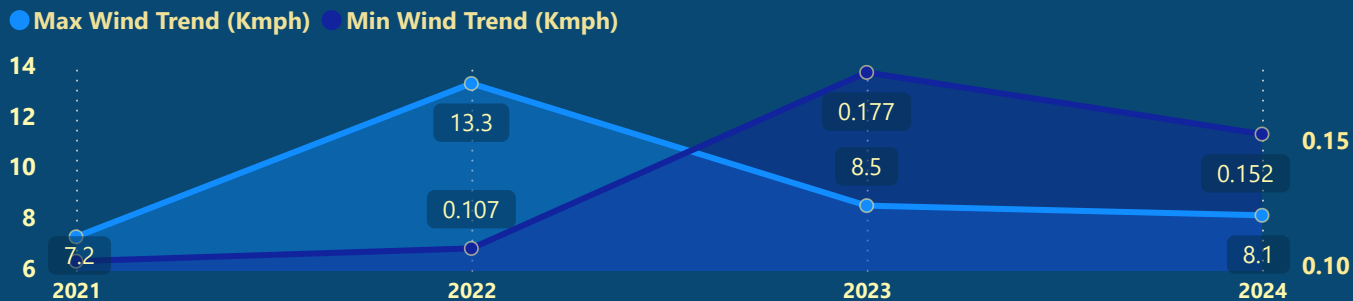
Month
All

Metric
Humidity

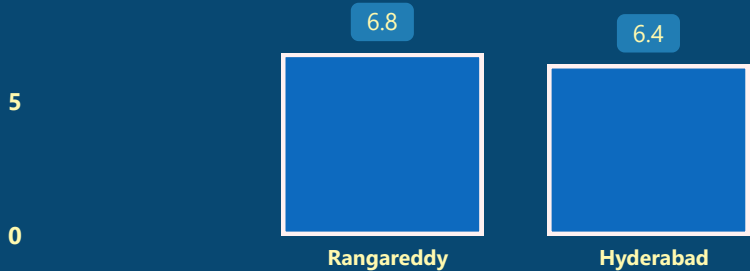
Wind Speed Distribution Across Districts



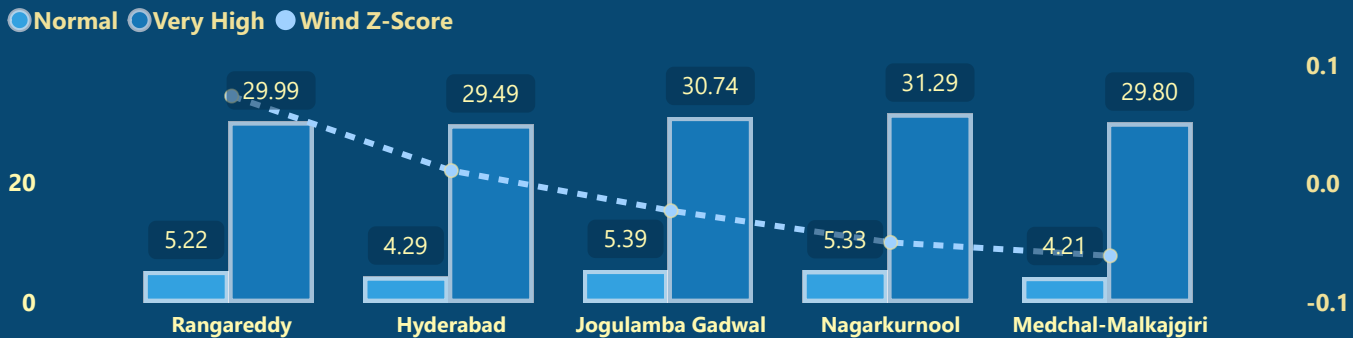
Trend of Min & Max Wind Speeds Over Years



Wind Speed Comparison Between Two Districts



Extreme Wind Speed Periods by District





Comprehensive Weather Insights



Avg Rainfall (mm)

2.91

Avg Temperature (°C)

27.86

Average Humidity (%)

67.31

Avg Wind (Kmph)

4.85

Year



All



District & Mandal



All



Month



All



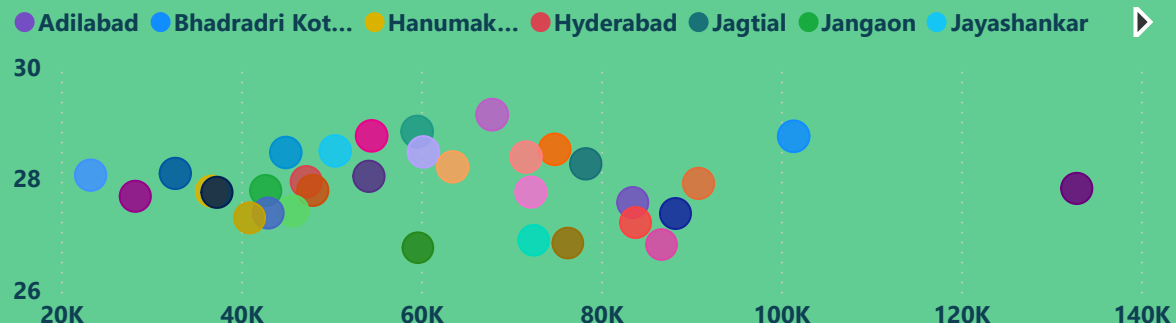
Metric



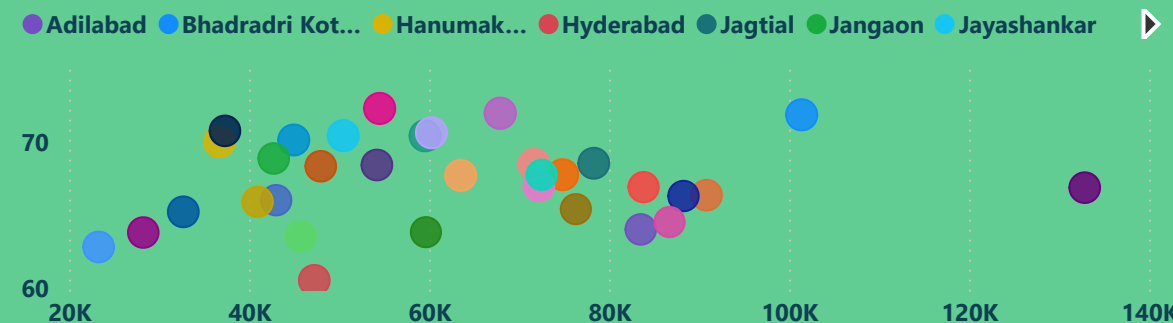
Humidity



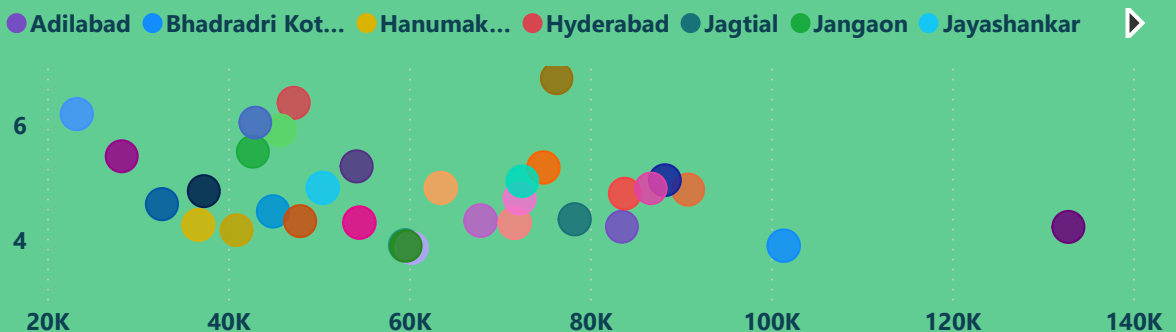
Rainfall vs Temperature



Rainfall vs Humidity



Rainfall vs Wind



Corr Rain vs Temp

-0.05

Corr Rain vs Humidity

0.10

Corr Rain vs Wind

-0.28



Comprehensive Weather Insights



Daily Rain Range (mm)

55.91K

Avg Daily Temp Range (°C)

12.23

Avg Daily Humidity Range (%)

61.17

Avg Daily Wind Range (Kmph)

19.80

Year



All



District & Mandal



All



Month



All



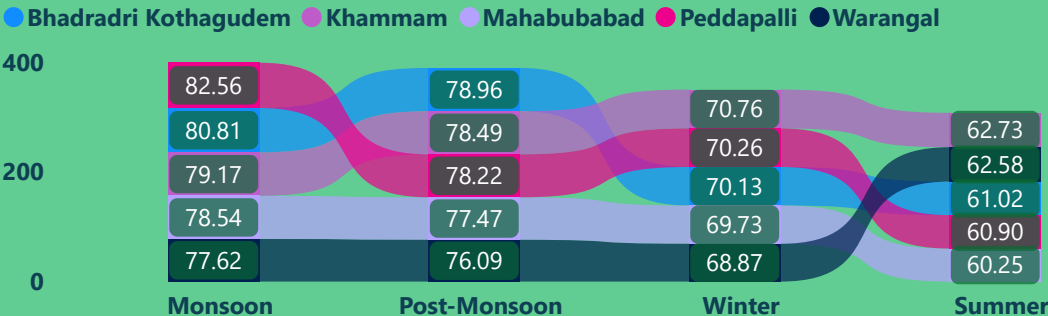
Metric



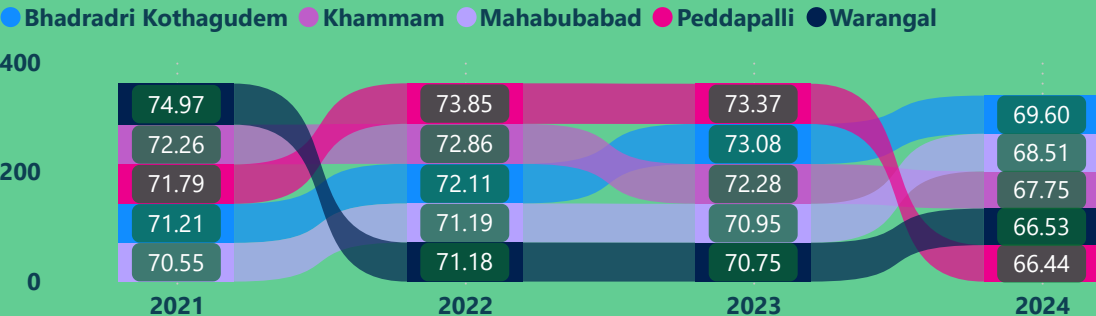
Humidity



Seasonal Weather Patterns Across Districts



Yearly Trends in Key Weather Metrics



Seasonal Weather Metrics Across Districts

District	Seasonal Rainfall (mm)	Seasonal Avg Temp (°C)	Seasonal Avg Humidity (%)	Seasonal Avg Wind Speed (Kmph)
<div>+ Nizamabad</div>	1,32,860.70	27.83	66.89	4.23
<div>+ Bhadradri Kothagudem</div>	1,01,410.20	28.76	71.87	3.90
<div>+ Nirmal</div>	90,840.20	27.92	66.38	4.88
<div>+ Kamareddv</div>	88,277.40	27.38	66.32	5.05



Comprehensive Weather Insights

Rainfall YoY %

-0.98

Temperature YoY Δ (°C)

0.77

Humidity YoY Δ (%)

-7.54

Wind YoY Δ (Kmph)

-0.20

Year



All



District & Mandal



All



Month



All



Metric

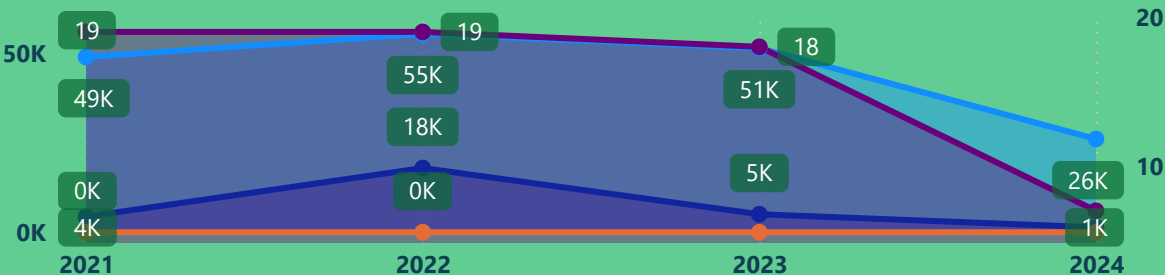


Humidity



Anomalies in Weather Data

Extreme Humidity Days Extreme Wind Days High Humidity Days Extreme Rain Days



Δ Temp when Extreme Rain

-1.57

Δ Humid when Extreme Rain

20.55

Δ Wind when Extreme Rain

0.68

Most Affected District

Mahabubnaga...

Anomalies in Weather Data

District	Rainfall Z-Score	Temperature Z-Score	Humidity Z-Score	Wind Speed Z-Score	Anomaly Flag
Adilabad	0.08	-0.08	-0.20	-0.11	✓ Normal
Bhadradri Kothagudem	0.07	0.26	0.28	-0.17	✓ Normal
Hanumakonda	0.00	-0.02	0.17	-0.11	✓ Normal