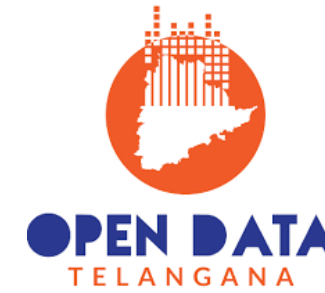
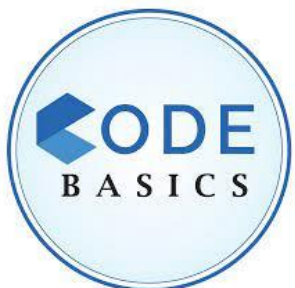


Telangana Growth Analysis



Objective:

- Explore Stamp Registration, Transportation and Ts-Ipass Datasets. Understand their attributes, categories and time period.
- Analyze trends and patterns within each department.
- Identify growth opportunities and areas needing attention.
- Find correlation among these departments and report the overall growth of the state through insights and relevant visuals such as shape maps

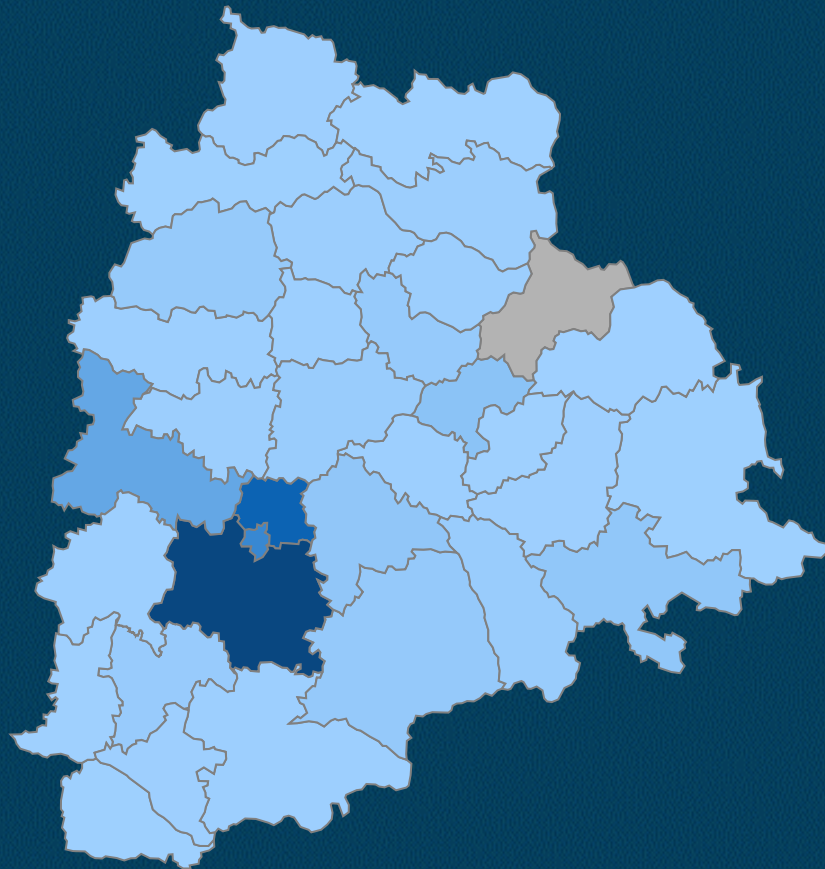


Telangana State

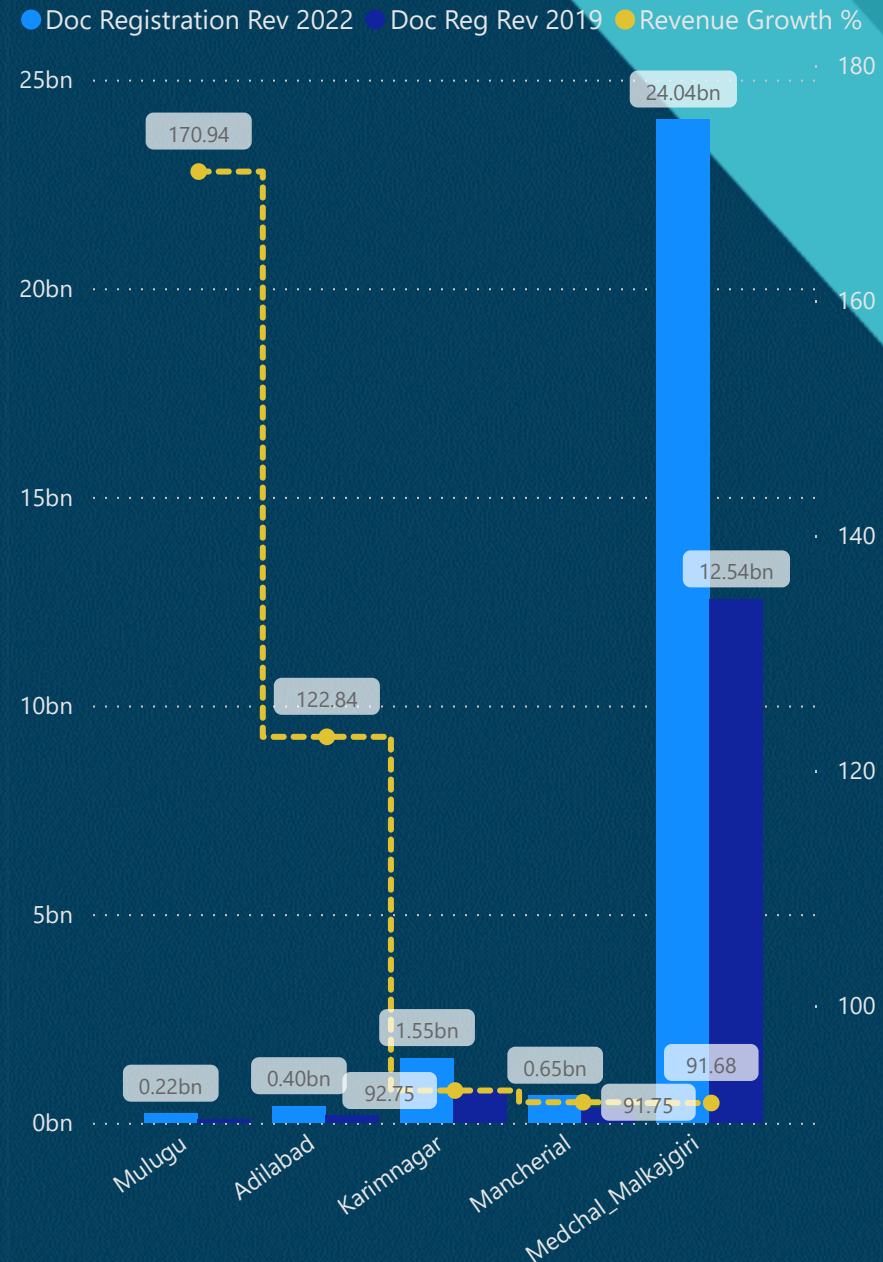
Stamp Registration Insights from FY-2019 to FY-2022

1.1 Document Registration Revenue Heat Map

How does the revenue generated from document registration vary across districts in Telangana



1.2 Top 5 Highest Document Revenue Registration

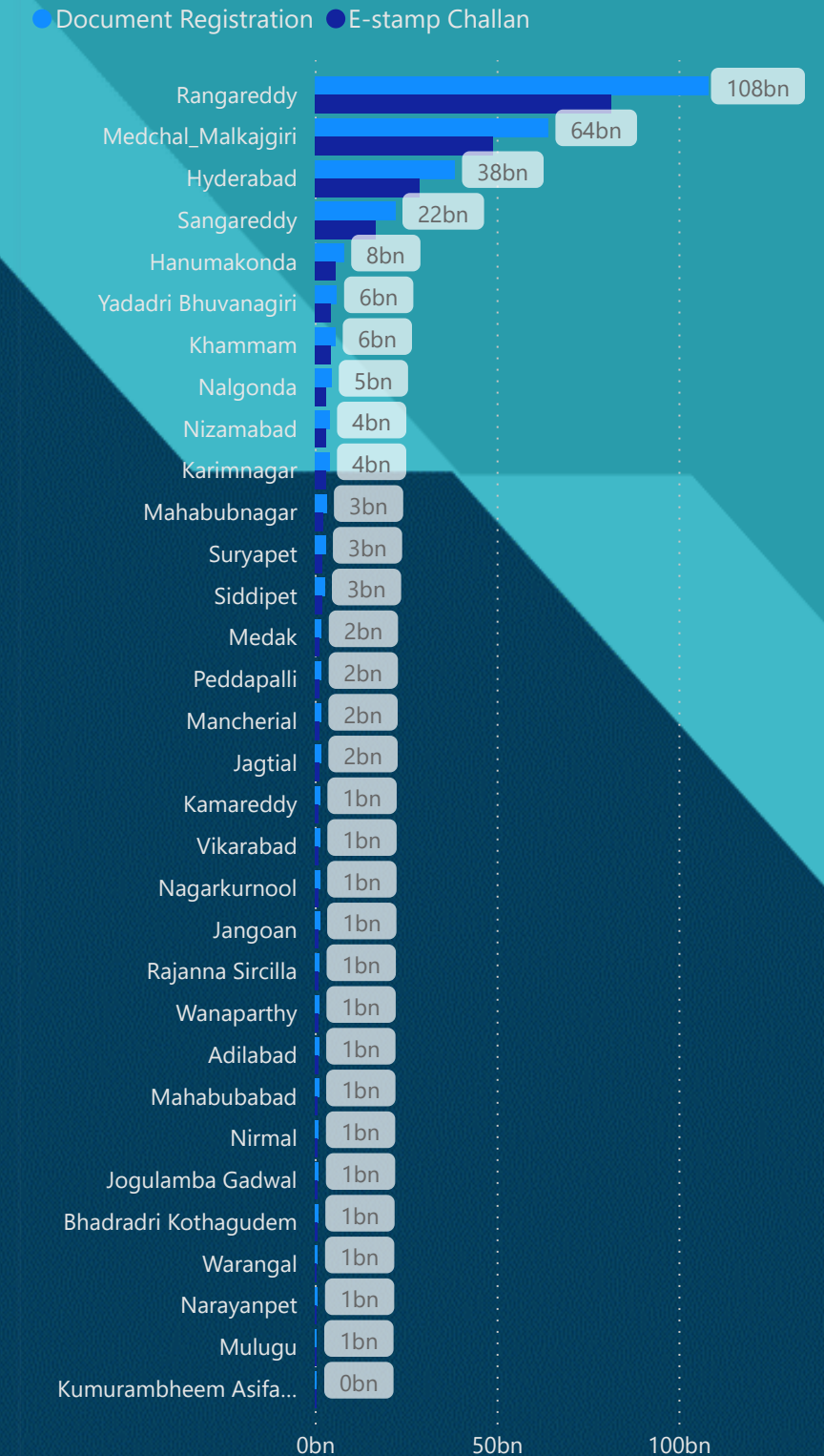


Top 5 districts with highest revenue growth rate from 2019 to 2022.

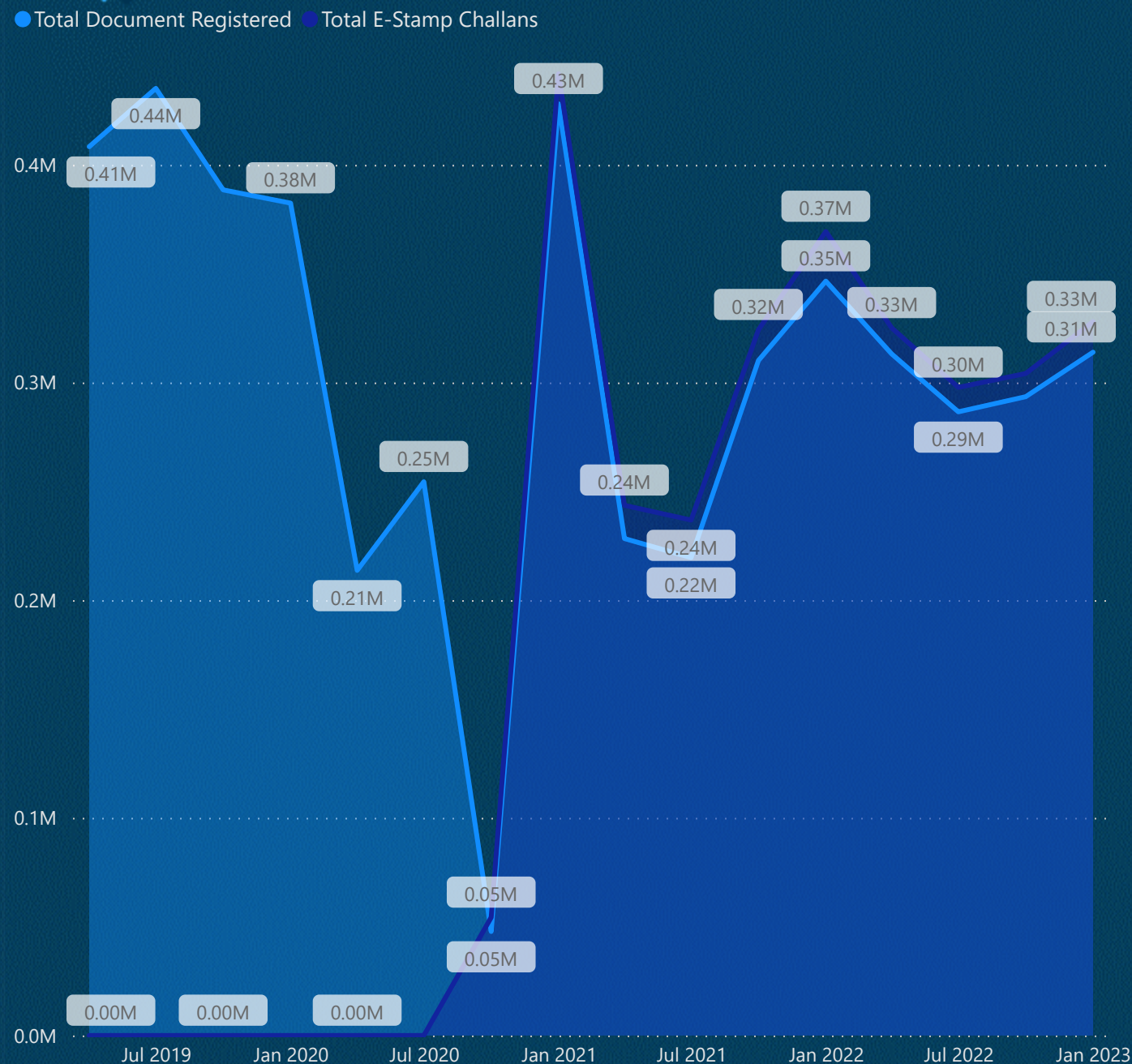
- Mulugu with 171 % growth in revenue
- Adilabad with 123% growth in revenue
- Karim Nagar, Mancheria, and Medchal Malkajgiri with 92%, 91.75% and 91.68% growth in revenue respectively

2.1 Revenue Generated Comparison

How does the revenue generated from document registration compare to the revenue generated from e-stamp challans across districts?

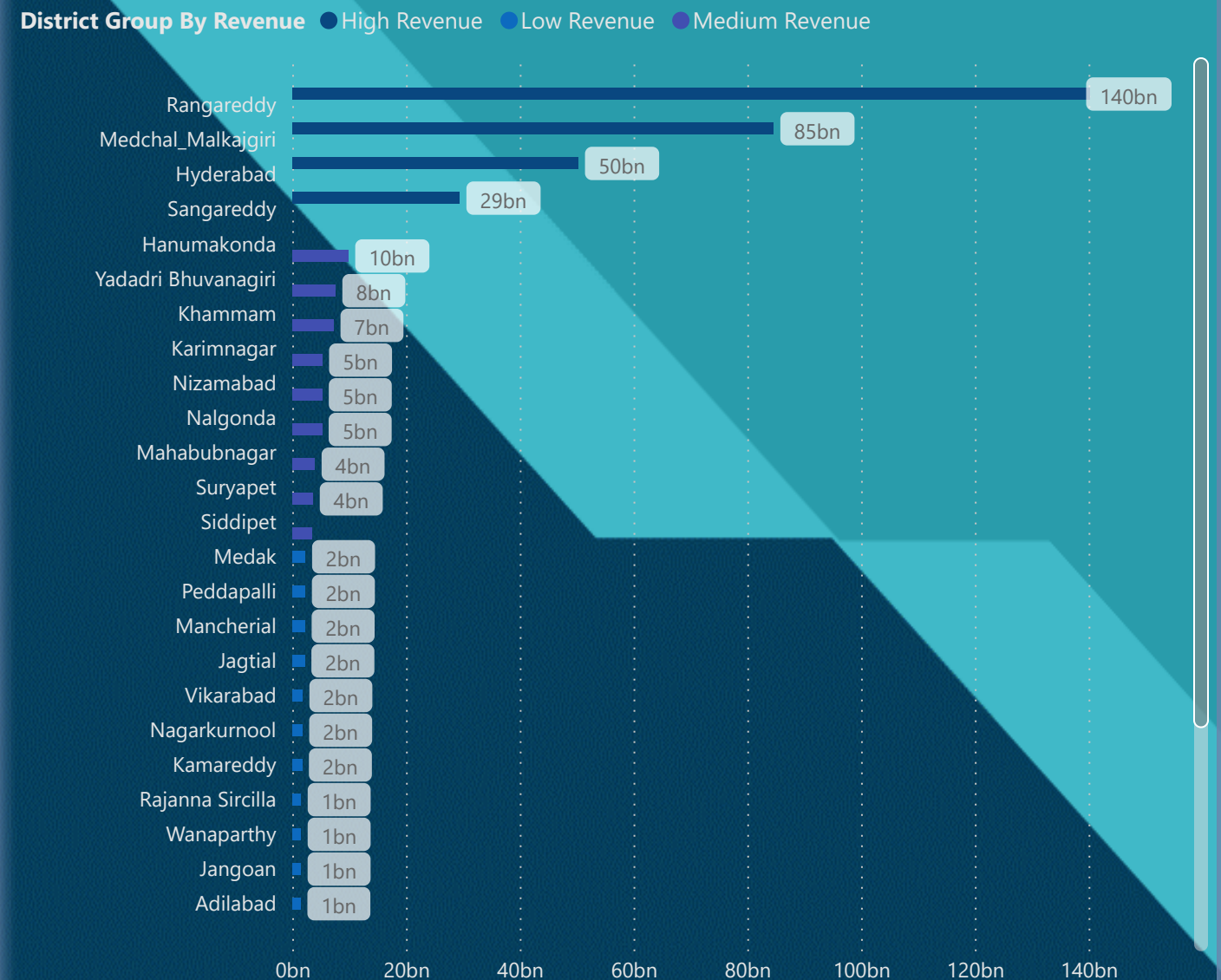


3. e-Stamp challan count Vs. document registration count pattern



We can see that there is alteration of Document registration count and E-stamp Challans count after 2021, this may be due to increased internet access to users. E-stamp Challans being easy to file than the conventional document registered way. Government should focus on promoting E-stamp Count to process faster processing

4. District Segementation by Revenue FY 2021 - 2022



2.2 Top 5 districts e-stamps revenue > documents reg revenue

District	Total E-Stamp Revenue	Total Doc Registration Revenue	Difference	Percentage Difference
Kamareddy	479194188	471629404	7564784	1.58
Rangareddy	38349357618	37697750946	651606672	1.70
Mancheri	661727175	648893681	12833494	1.94
Nirmal	345679061	338583662	7095399	2.05
Jangoan	485770112	473726459	12043653	2.48

Telangana State Transportation Insights from FY-2019 to FY-2022

Q. How does the distribution of vehicles vary by vehicle class (MotorCycle, MotorCar, AutoRickshaw, Agriculture) across different districts? Are there any districts with a predominant preference for a specific vehicle class? Consider FY 2022 for analysis.

- From the graph on the left we can clearly say that for FY 2022, almost all districts have preference for Motorcycle Vehicle Class
- Only Rangareddy District has Motor Car over 30 % of total vehicles
- Hyderabad has no vehicles related to Agriculture
- Rangareddy & Medchal Malkajgiri has no Auto Rickshaw Vehicle Class

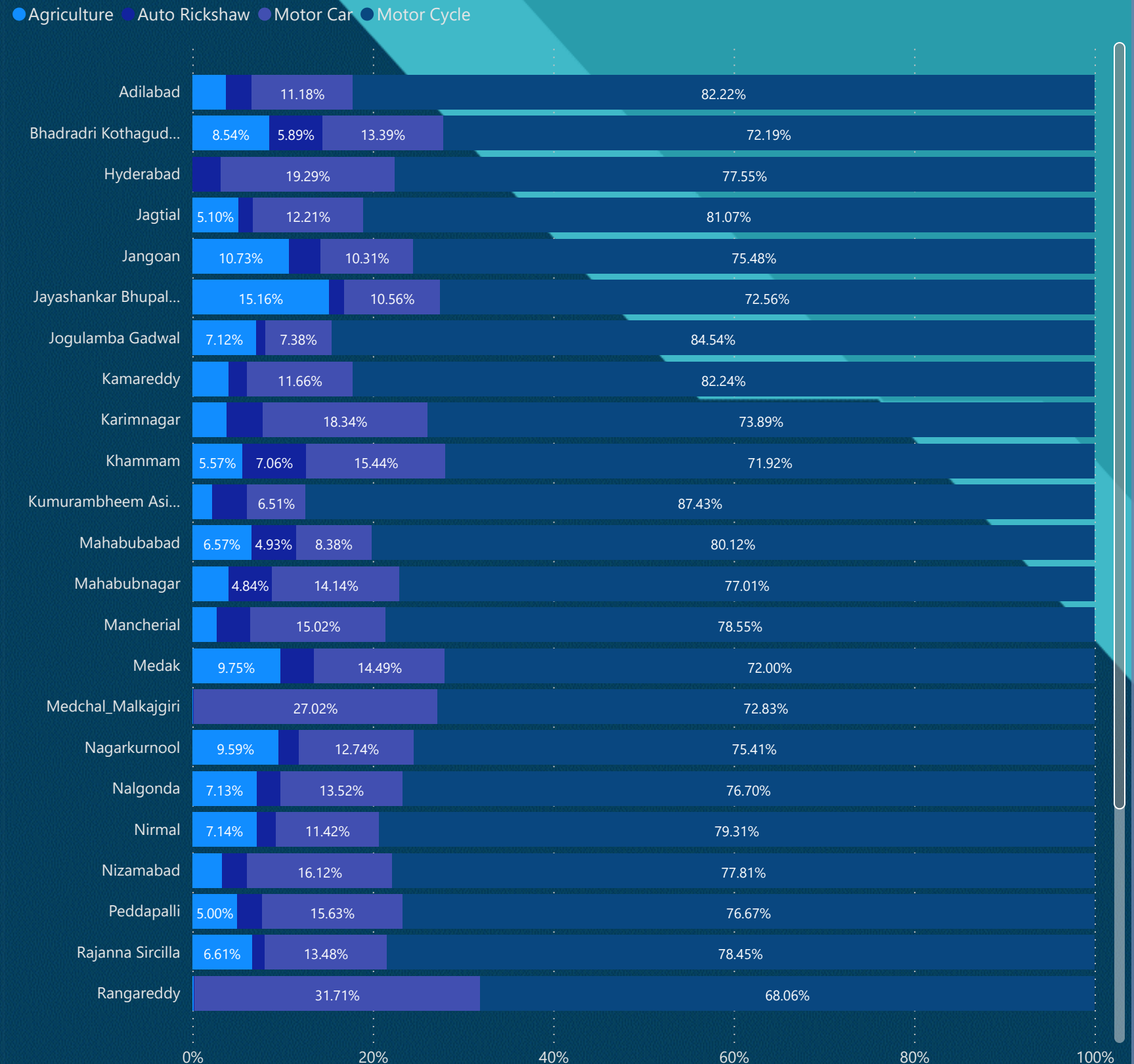
Top 3 Vehicle Sales Growth

District	Total Vehicle Sale 2022	Total Vehicle Sale 2021	Sale Growth Rate
Hyderabad	271211	258941	4.74
Rangareddy	241738	214833	12.52
Karimnagar	36350	34812	4.42

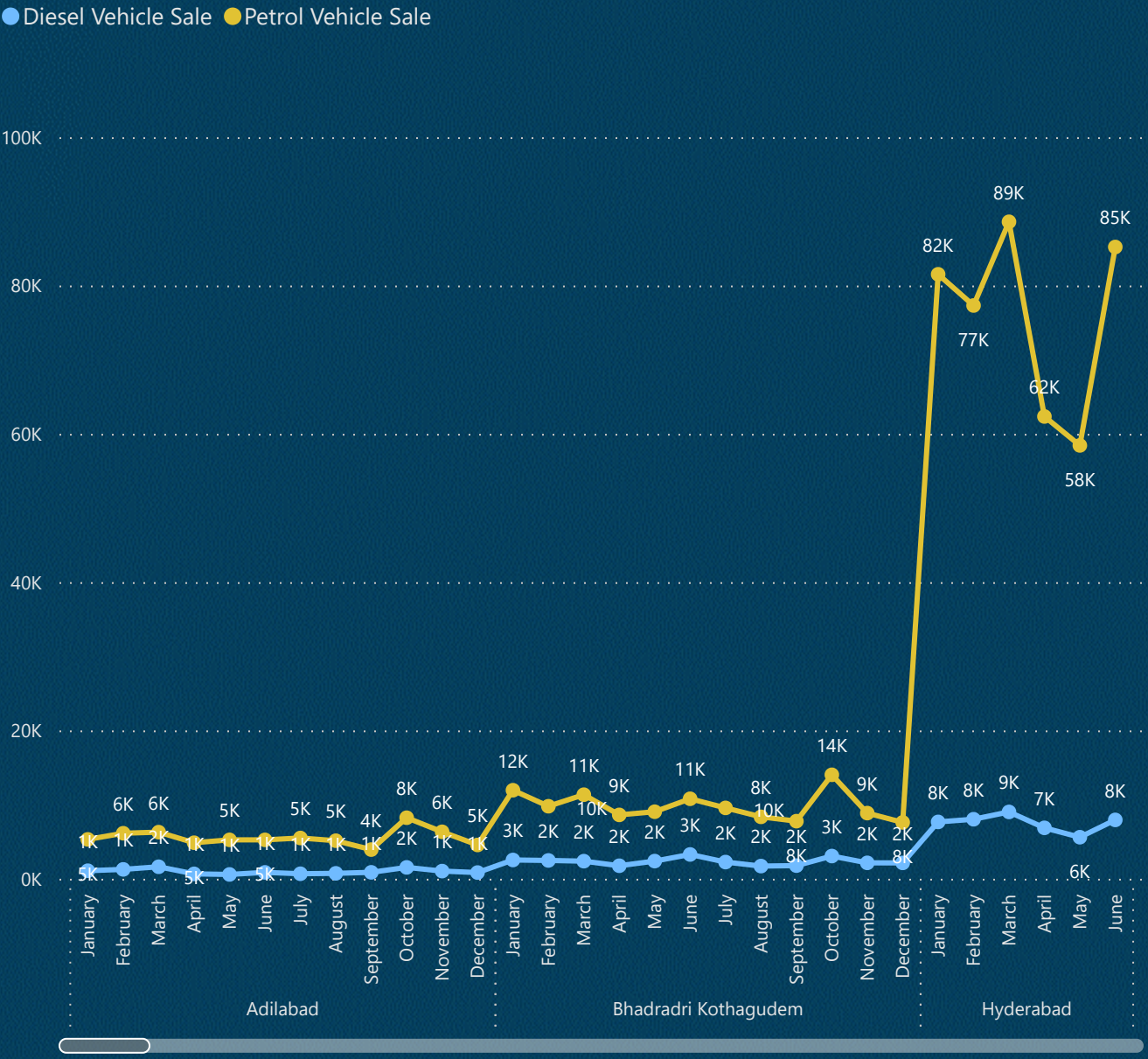
Bottom 3 Vehicle Sales Growth

District	Total Vehicle Sale 2022	Total Vehicle Sale 2021	Sale Growth Rate
Warangal	23324	42171	-44.69
Jagtial	17739	28226	-37.15
Nirmal	14888	22714	-34.45

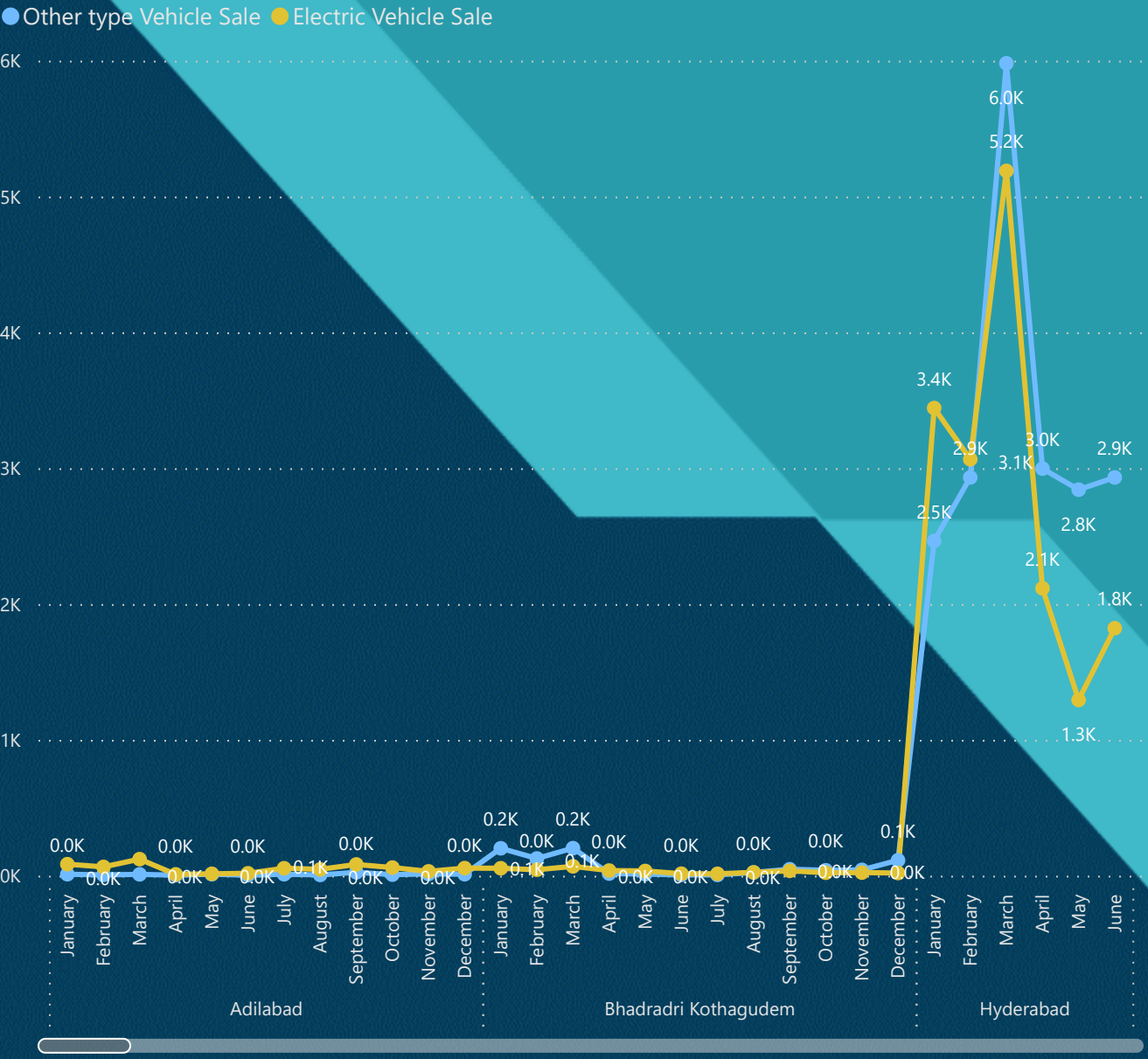
Agriculture, Auto Rickshaw, Motor Car and Motor Cycle Percentage by district



Diesel Vehicle Sale and Petrol Vehicle Sale by District and Month



Other type Vehicle Sale and Electric Vehicle Sale by district and Month



Q. Investigate whether there is any correlation between vehicle sales and specific months or seasons in different districts. Are there any months or seasons that consistently show higher or lower sales rate, and if yes, what could be the driving factors? (Consider Fuel-Type category only)

Electric and Other Fuel Type-
In high revenue districts like Hyderabad, Medchal Malkajgiri, Rangareddy, Yadadri Bhuvangiri we see sale spike in January due to new year March due to festivals and from August to October- November due to festivals

Petrol and Diesel Fuel Tye-
Warangal, Rangareddy, Medchal Malkajgiri, Hyderabad i.e high revenue districts show spike in vehicle sales in January due to new year March due to festivals and from August to October- November due to festivals

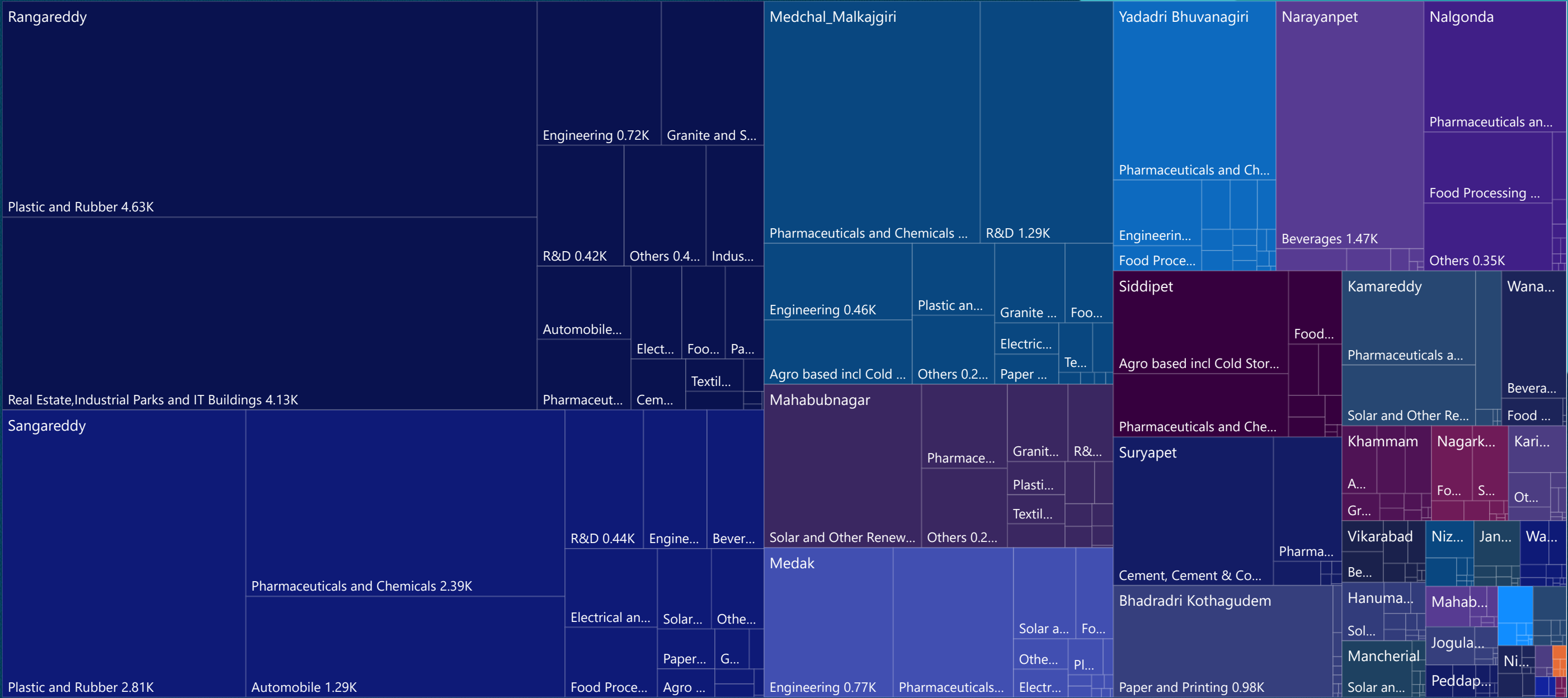
Telangana State

Ts-IPASS Insights

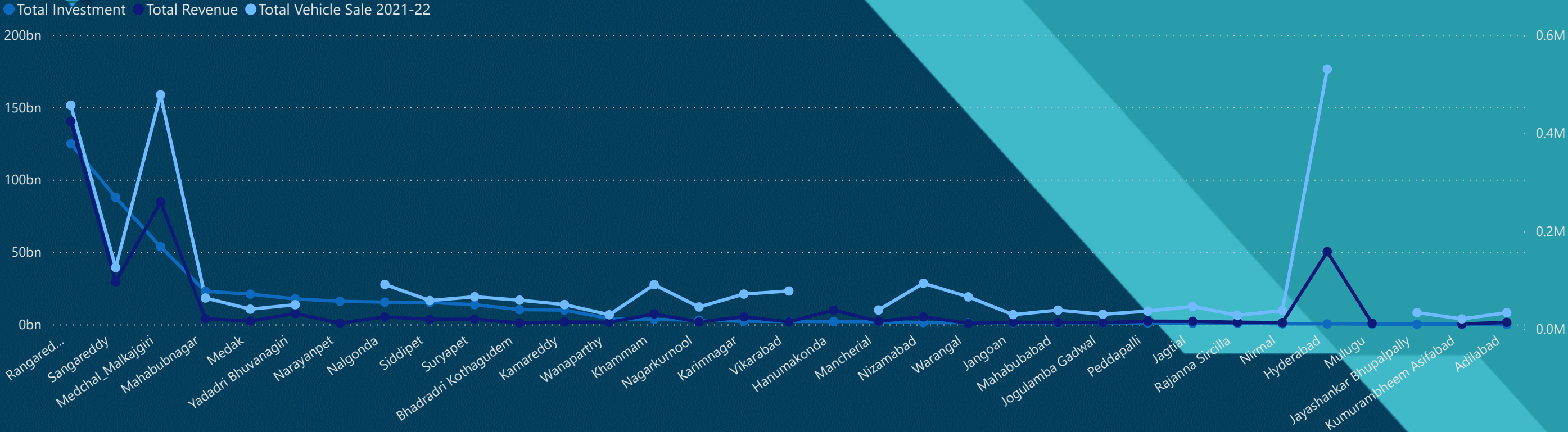
from FY-2019 to FY-2022

- Q. Are there any particular sectors that have shown substantial investment in multiple districts between FY 2021 and 2022?
- Pharmaceutical and Chemical industry has substantial investment in Sangareddy, Medchal Malkajgiri, Yadadri Bhuvangiri.
 - Plastic and Rubber industry has substantial investment in Rangareddy, Sangareddy, Medchal Malkajgiri
 - Engineering Industry has substantial investment in Medak, Rangareddy, Medchal Malkajgiri
 - Food Processing has substantial investment in Nalgonda, Sangareddy, Rangareddy, Siddipet
 - Solar and Other renewable industry has substantial investments in Mahbubnagar, Medak, Sangareddy

Total investment in Cr. by District and Sector



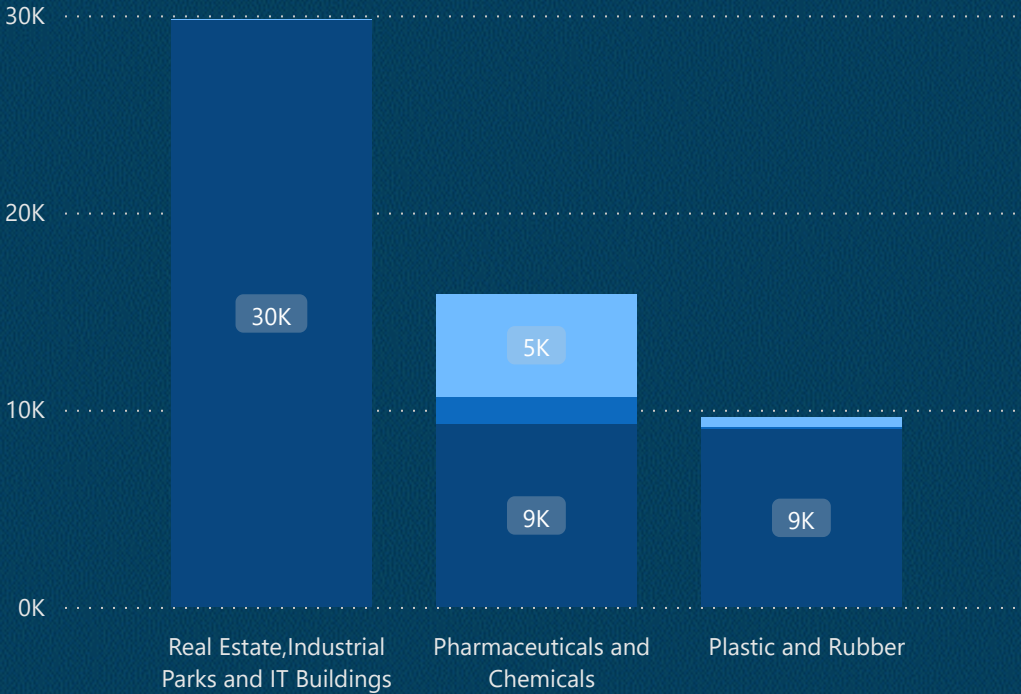
Total Investment, Total Revenue and Total Vehicle Sale 2021-22 by District



- We can see from above graph that there is a good correlation between total stamp revenue of a district and vehicle sold.
- Districts with good revenue collection have higher vehicle sales.
- Although exact correlation cannot be established between investment and other two parameter.

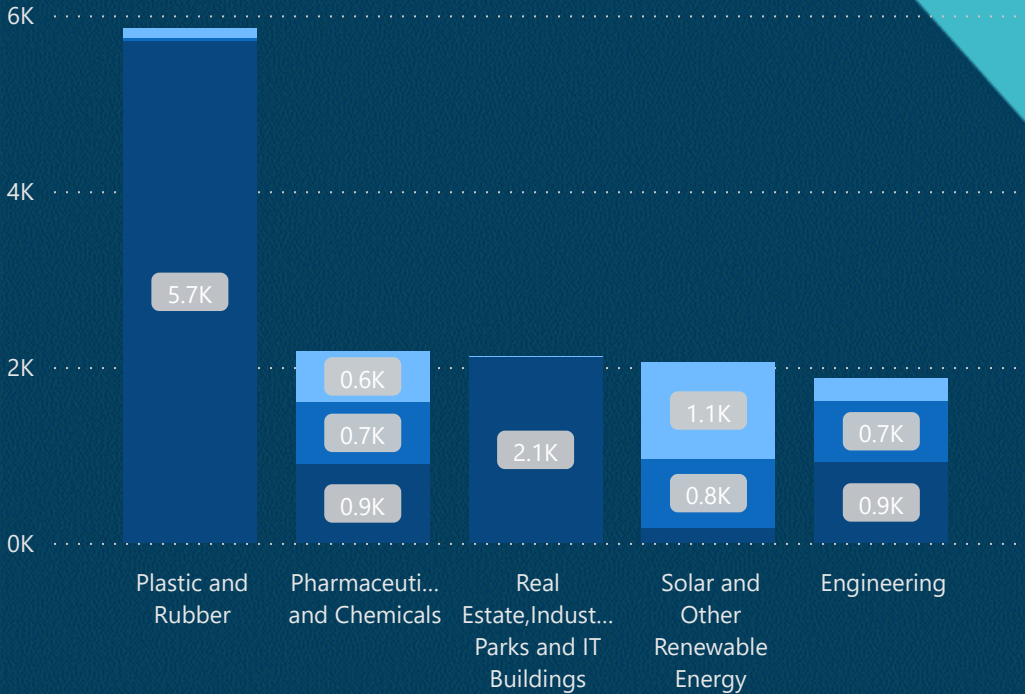
Top 3 Sectors with most Significant Investment during 2019-2022

District Group ● High Revenue ● Low Revenue ● Medium Revenue



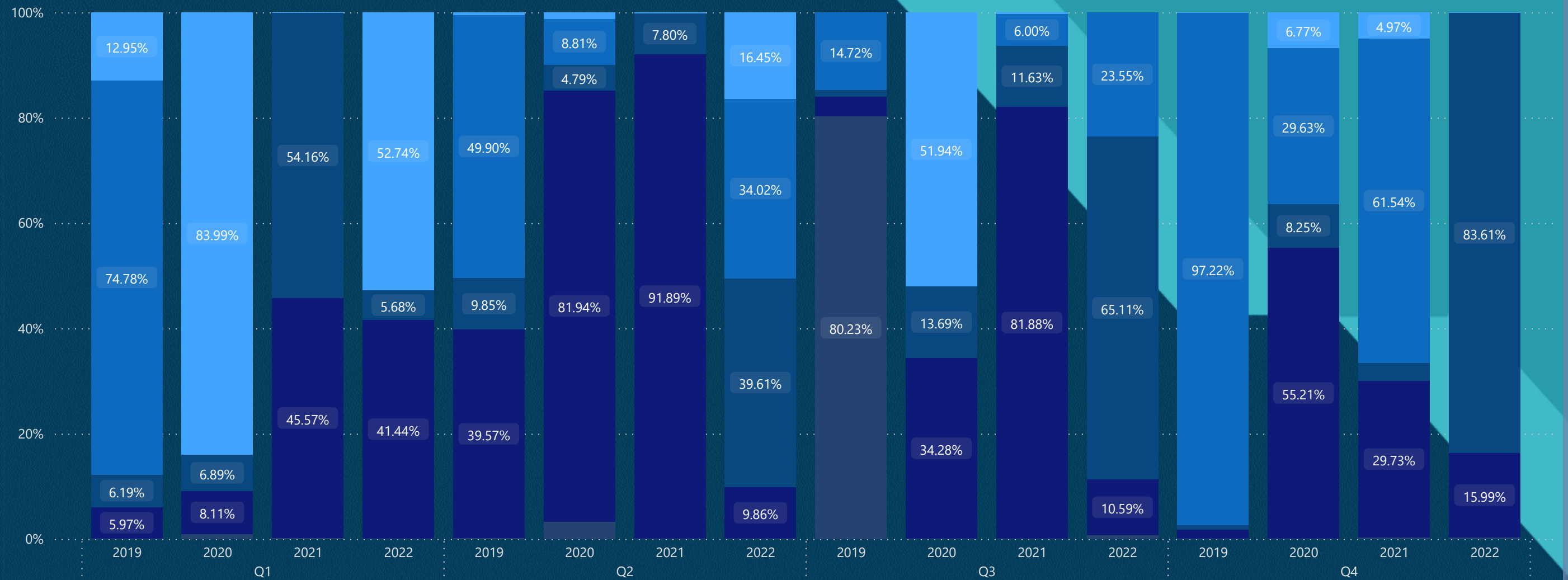
Top 5 Sectors with most Significant Investment in FY 2022

District Group ● High Revenue ● Low Revenue ● Medium Revenue



Total investment in Cr. by Quarter, Fiscal Year and Sector

Sector ● Fertilizers Organic and Inorganic,Pesticides,Insecticides, and Other Related ● Pharmaceuticals and Chemicals ● Plastic and Rubber ● Real Estate,Industrial Parks and IT Buildings ● Solar and Other Renewable Energy



Q. Can we identify any seasonal patterns or cyclicity in the investment trends for specific sectors? Do certain sectors experience higher investments during particular months?

- Above visual shows top 5 sectors by investment amount across different years grouped by Quarters.
- Real Estate, Industrial Parks and IT Buildings investments are done most dominantly in Q4 (Oct- Dec), with intermittent investments in Q1 and Q2 as well, with few times in Q3
- Solar and Renewable Energy sector investments are done significantly in Q1 and scattered investments in Q2, Q3, Q4
- Plastic and Rubber sector are being invested in all 4 Quarters but considering latest FY 2022 - predominant investments are done in Q4, Q3 followed by Q2
- Pharmaceutical and Chemical industry investments are done in all 4 Quarters.

Telangana State

Additional Research

1 What are the top 5 districts to buy commercial properties in Telangana? Justify your answer.

>>Top 5 districts to buy commercial properties-

Hyderabad
Rangareddy
Sangareddy
Medchal Malkajgiri
Karimnagar

These 5 districts are high on revenue generation and investments. These two factors can significantly boost the value of commercial properties in the districts.

2 What significant policies or initiatives were put into effect to enhance economic growth, investments, and employment in Telangana by the current government?

>>Telangana Socio Economic Outlook 2023 published by the Government of Telangana, the state has been recording a steady growth in its economy and has been attracting investments in various sectors. The government's flagship initiative, TS-iPASS, has attracted Rs 20,237 crore of investment in 2022-23 (up to Jan 2023) through 2,518 new industries and created employment for 72,908 people. Economic Survey 2022-23 by IBEF states that the economic growth of Telangana is expected to be boosted by the expansion of public digital platforms and measures to boost manufacturing output.

3 Provide top 5 Insights & 5 recommendations to Telangana government for sustained growth in the next 5 years based on your analysis.

>>TOP 5 Insights

- 1.New policies and technology implementation has significantly boosted revenue growth rate and investments.
- 2.Mulugu, Adilabad and Karimnagar are top 3 districts where revenue growth is significant
- 3.Majority people in districts of Telangana state are using Motorcycle as a preferred way of Vehicle Class
- 4.Plastic and Rubber, Pharmaceutical & chemical and Real Estate, Industrial Parks and IT Buildings are top sectors investing in state
- 5.In general we can see high revenue districts are having more sales of vehicles during festival seasons.

>>TOP 5 Recommendations for sustained growth

- 1.E-stamp challans are increasing compared to document registration, government should focus on promoting E-stamp.
- 2.Government should focus on promoting sales of Electric vehicles to curb down pollution.
- 3.Different incentives can be given to purchase of electric and other non-polluting vehicle class.
- 4.Production linked incentives can be given to industries to promote manufacturing, pharmaceutical and chemical sectors.
- 5.Labour laws can be made flexible and more from perspective of human to attract Multi National Corporations