

Telangana Growth Analysis

By Abhishek Mankar

Content



About Telangana

- Telangana became India's 29th state on June 2, 2014. It covers an area of 1,14,840 square kilometers and is home to a population of 3,52,86,757. Before this, it was part of the Hyderabad state from September 17th, 1948, to November 1st, 1956, when it merged with Andhra state to form Andhra Pradesh.
- Geographically, Telangana is on the Deccan plateau and enjoys a pleasant climate. It's rich in natural resources, including water, and is known as the seed capital of India. It's also the gateway to the Krishna and Godavari Rivers in South India.
- Telangana is among India's rapidly growing states, with an average annual growth rate of 13.90% over the past five years. In the year 2020-21, its nominal Gross State Domestic Product (GSDP) reached 11.05 lakh crore (or US\$150 billion).
- Telangana is one of India's top states for IT exports, There are 68 Special economic zones in the state.
- Moreover, the state is abundant in mineral resources and is particularly known for its coal reserves, which span an impressive 350 kilometers along the Pranahita river in the Godavari Valley of Telangana.



GOALS AND OBJECTIVES



OBJECTIVE:



**OBJECTIVE 1: ANALYZE TRENDS
AND PATTERNS WITHIN EACH
DEPARTMENT.**



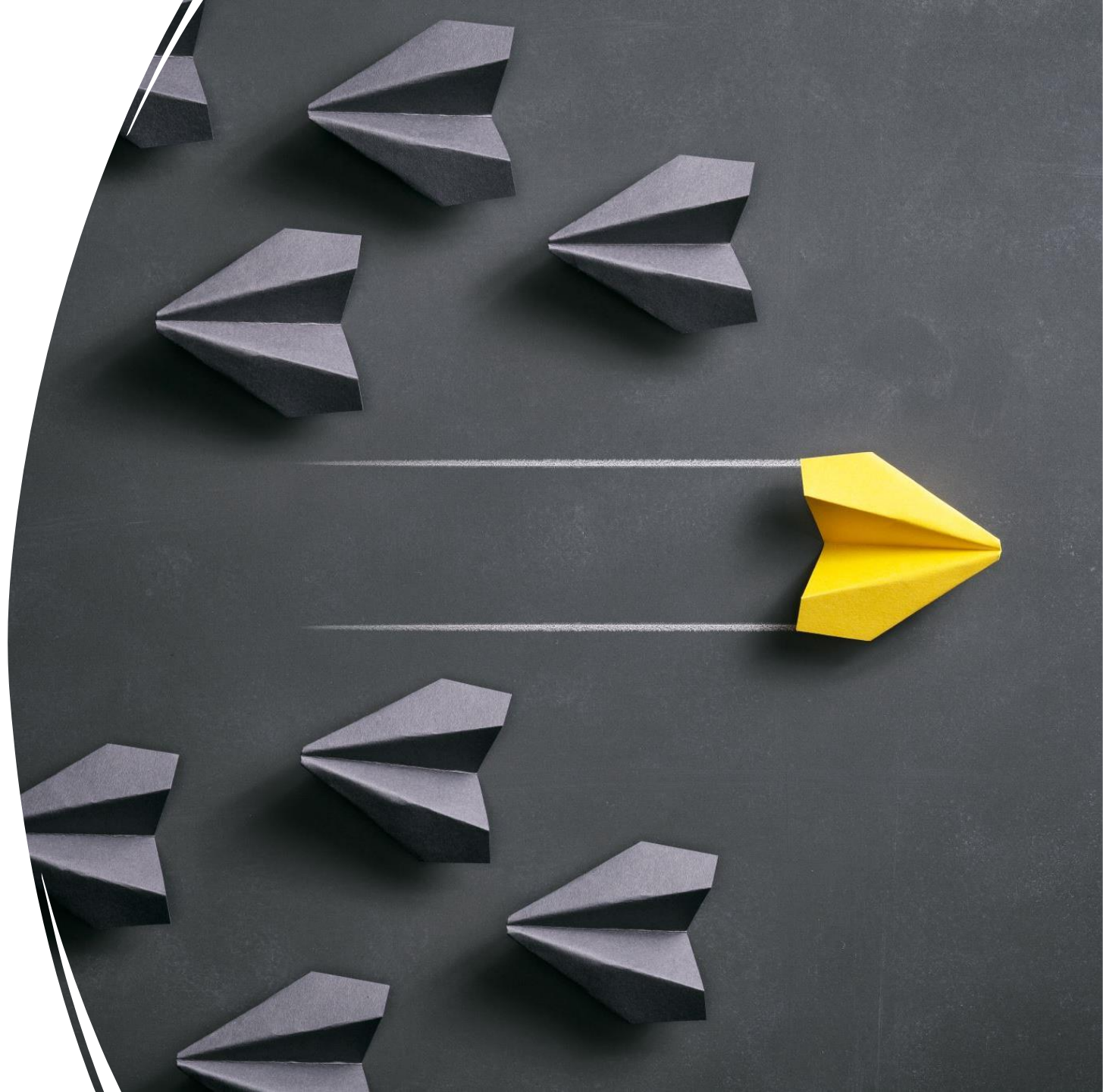
**OBJECTIVE 2: IDENTIFY GROWTH
OPPORTUNITIES AND AREAS
NEEDING ATTENTION.**



**OBJECTIVE 3: FIND CORRELATION
AMONG THESE DEPARTMENTS
AND REPORT THE OVERALL
GROWTH OF THE STATE THROUGH
INSIGHTS AND RELEVANT VISUALS
SUCH AS SHAPE MAPS**

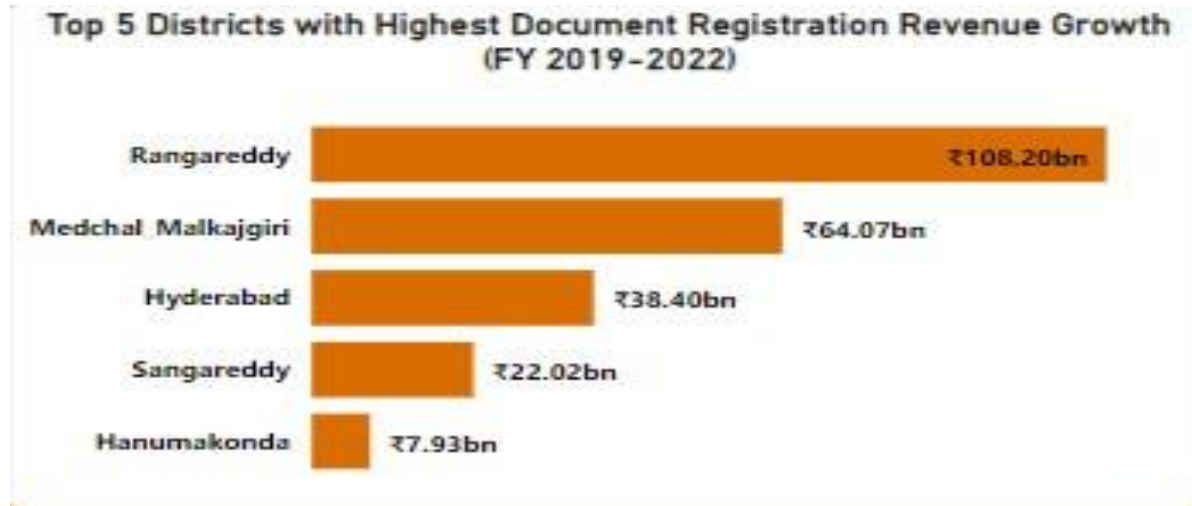
PRIMARY RESEARCH

- Stamp Registration
- Transportation
- Ts-IPASS (Telangana State Industrial Project Approval and Self Certification System)



STAMP REGISTRATION

How does the revenue generated from document registration vary across districts in Telangana?
List down the top 5 districts that showed the highest document registration revenue growth between FY 2019 and 2022.

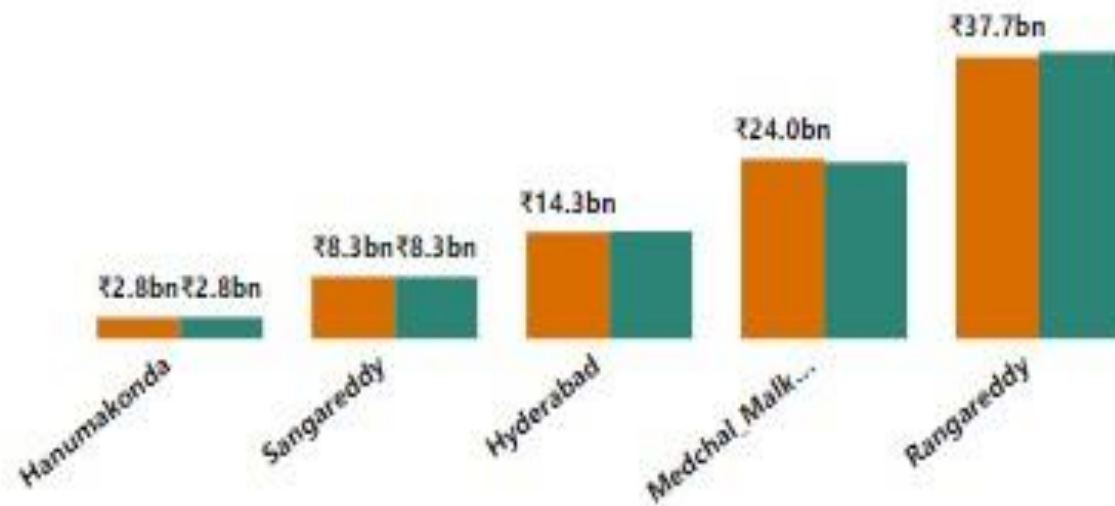


- From FY 2019 to 2022, Rangareddy district in Telangana exhibited the most substantial growth in document registration revenue, outpacing others. Medchal Malkajgiri and Hyderabad also reported significant increases, indicating robust economic development.
- These top-performing districts play pivotal roles in the state's revenue generation, reflecting their importance in Telangana's overall economic landscape. Further examination of the factors contributing to this growth can inform strategic planning for sustained economic progress in the region.

How does the revenue generated from document registration compare to the revenue generated from e-stamp challans across districts? List down the top 5 districts where e-stamps revenue contributes significantly more to the revenue than the documents in FY 2022?

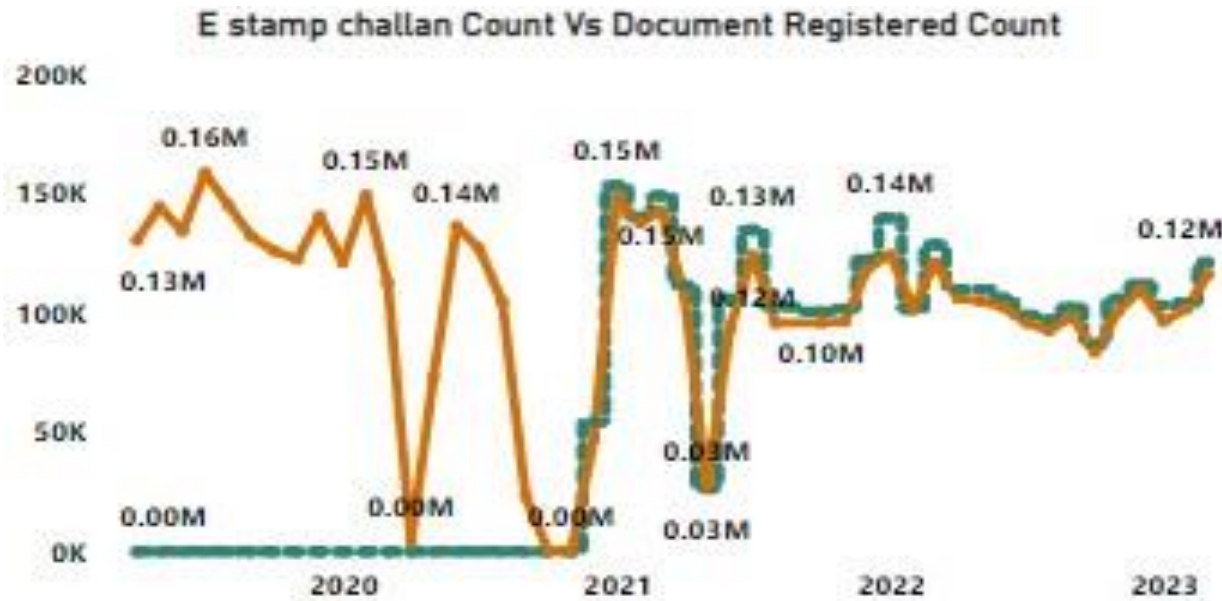
Comparison of Document Registration Revenue vs. E-Stamp Challan Revenue (FY 2022)

● Total Document Registered Rev ● E stamp Challan Rev



In FY 2022, e-stamp revenue in the top 5 districts significantly exceeded document registration revenue, mainly because of urbanization and higher document transactions. This shift is a positive sign, as e-stamps simplify fee payments, enhance transparency, and contribute to reducing corruption. It reflects the modernization of financial processes, making it more convenient for people to pay stamp duty and registration fees, ultimately fostering economic growth and efficiency in Telangana's economy.

Is there any alteration of e-Stamp challan count and document registration count pattern since the implementation of e-Stamp challan? If so, what suggestions would you propose to the government?



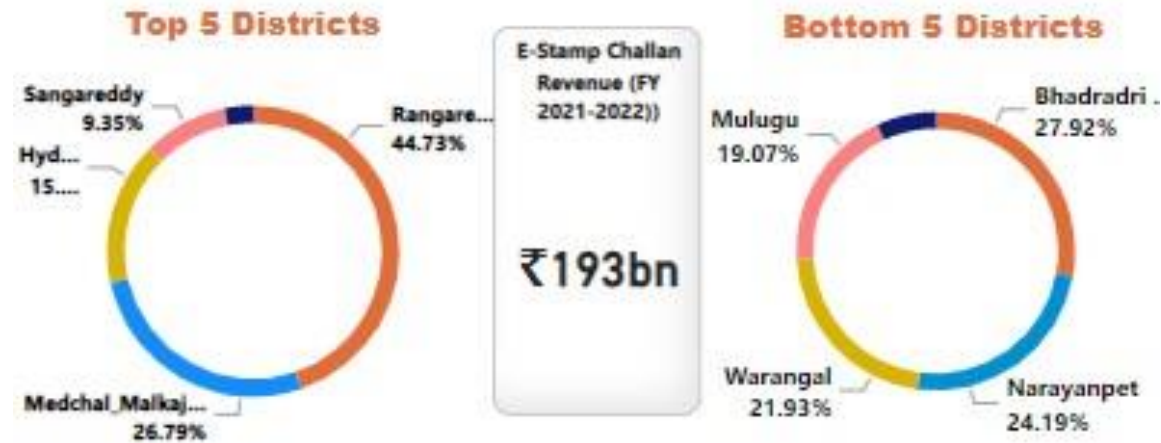
Since the implementation of e-Stamp challans, there has been a substantial increase in their issuance, surpassing document registration counts. While document registrations have also risen, the growth rate is comparatively lower. Notably, the average value of e-Stamp challans has increased.

Suggestions:

To further enhance this positive trend, the government may consider on these Points.

- Promote e-Stamp benefits through awareness campaigns.
- Invest in robust digital infrastructure for seamless transactions.
- Streamline registration procedures to encourage e-Stamp adoption.
- Offer incentives like rewards or discounts for e-Stamp usage.
- Monitor and enforce compliance with e-Stamp regulations effectively.
- Provide online training resources to educate users on e-Stamp processes.
- Implement robust security measures to safeguard e-Stamp transactions.
- Explore integration with other government services for convenience.
- Offer user support services to assist with e-Stamp-related issues.
- Maintain transparency in revenue collection and utilization for citizen trust.

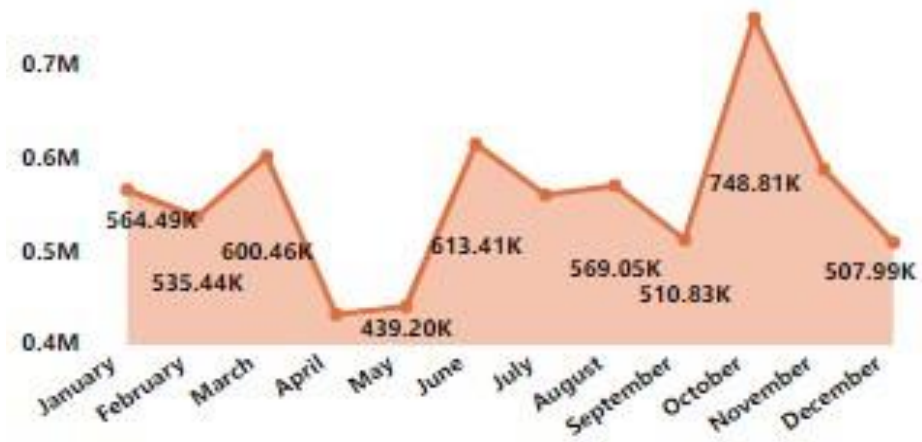
Categorize districts into three segments based on their stamp registration revenue generation during the fiscal year 2021 to 2022.



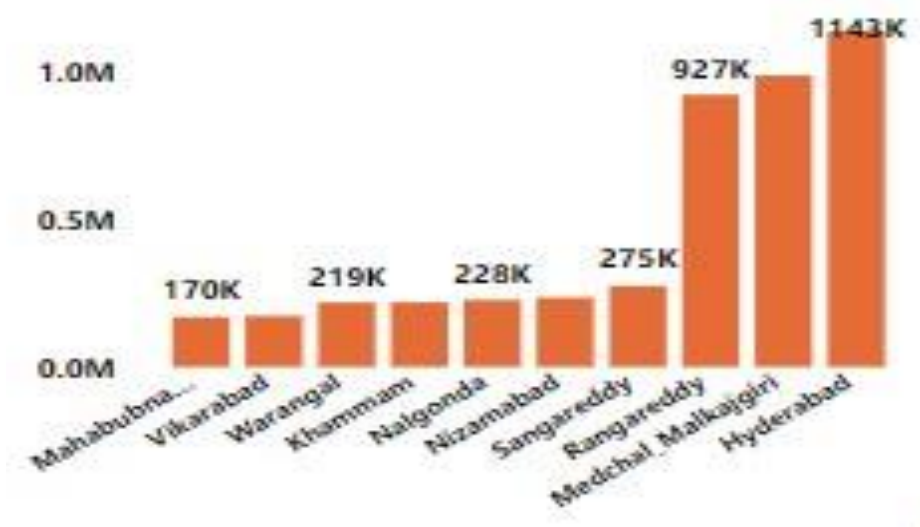
In fiscal year 2021-2022, we categorized Telangana districts into three segments based on stamp registration revenue. The top 5 districts, including Rangareddy (44.73%) and Medchal (26.79%), led in revenue generation. Hyderabad and Sangareddy also performed well. In contrast, the bottom 5 districts, including Mulugu and Warangal, exhibited lower revenue. Interestingly, e-stamp challan revenue for the year 2021-2022 reached an impressive 193 bn, signaling growing digital adoption in the region.

TRANSPORTATION ANALYSIS

Total Fuel type sales by Month



Total Fuel type sales by district (Top 10)

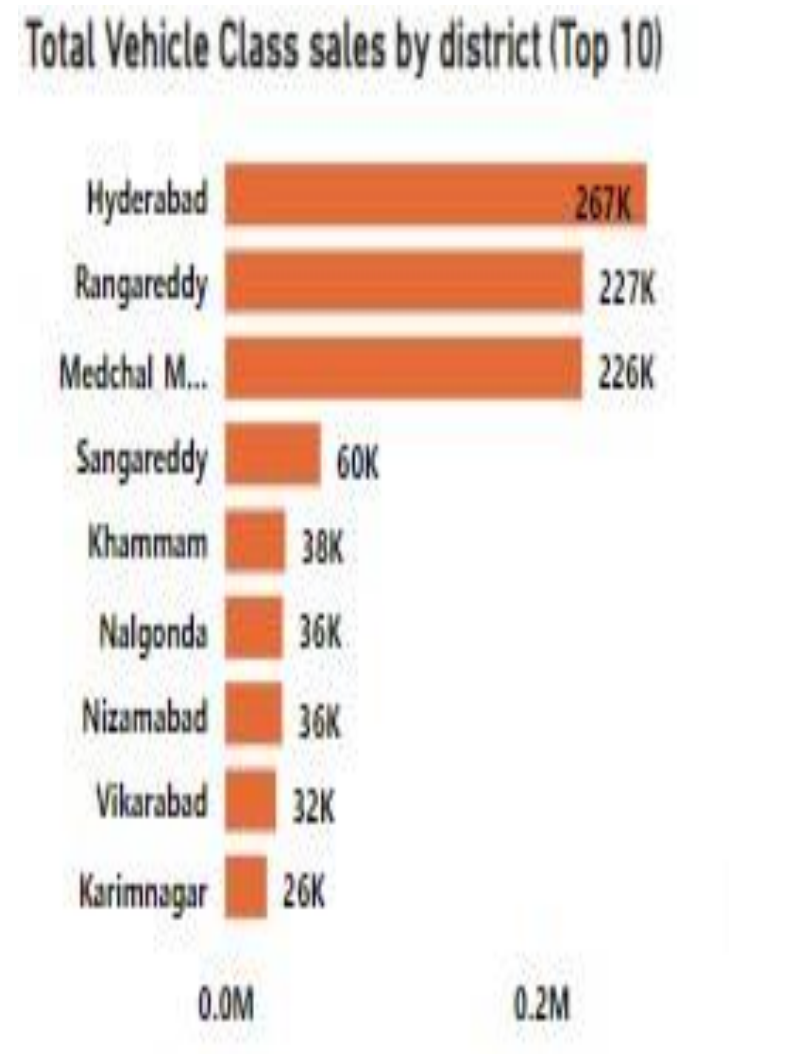
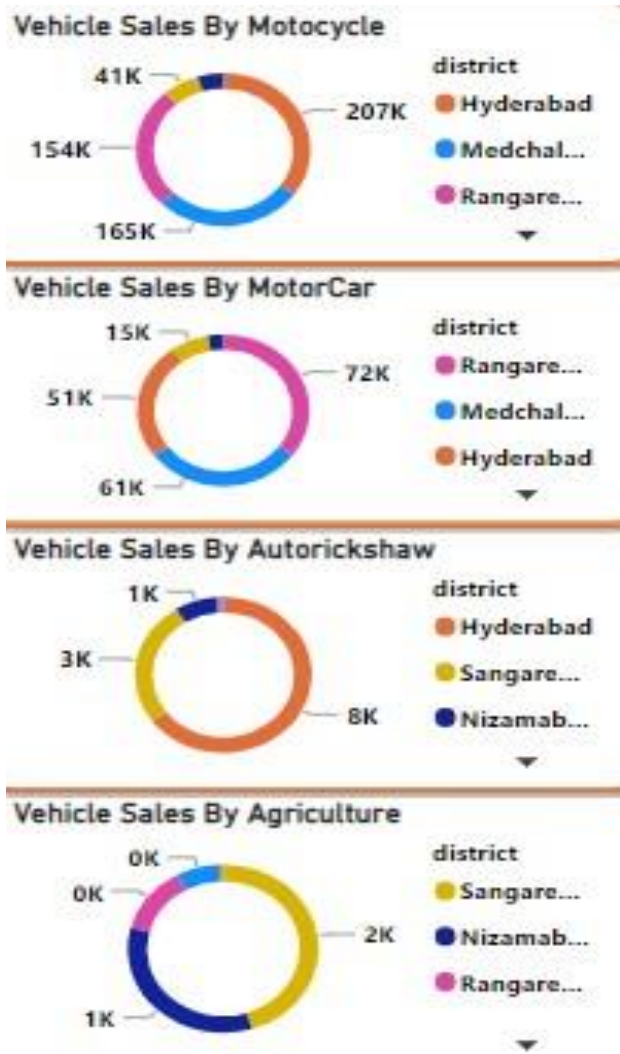


Investigate whether there is any correlation between vehicle sales and specific months or seasons in different districts. Are there any months or seasons that consistently show higher or lower sales rate, and if yes, what could be the driving factors? (Consider Fuel-Type category only)

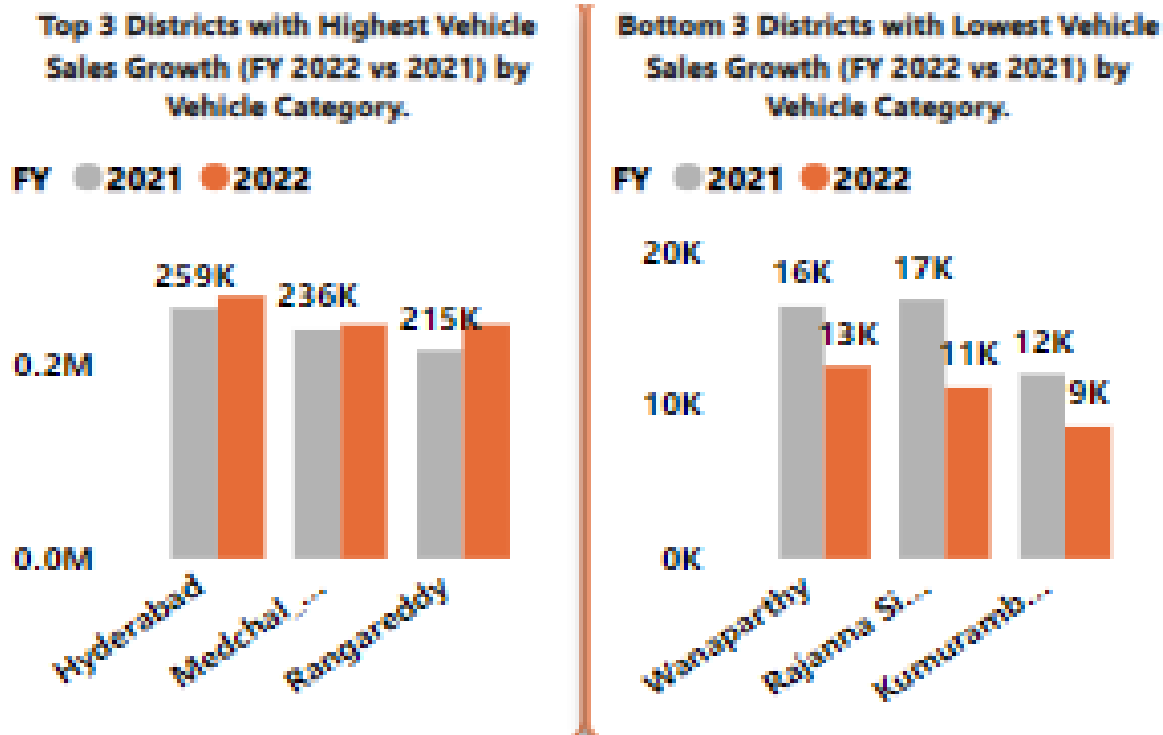
- The investigation reveals a positive correlation between vehicle sales and specific months or seasons across different districts. Higher sales consistently occur in March, June, and October, attributed to financial incentives, increased demand, and favorable weather conditions. Conversely, December, April, May, July, and September consistently exhibit lower sales rates due to holiday seasons, financial constraints, and adverse weather conditions.
- Furthermore, in districts like Hyderabad, Medchal Malkajgiri, Rangareddy, Sangareddy, and Nizamabad, higher in Sales. Understanding these trends can aid in strategic planning for the automotive industry in each district.

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.

In FY 2022, our analysis of vehicle distribution by class across districts highlights Hyderabad as the district with the highest number of registered vehicles across all four classes (Motorcycle, Motorcar, Autorickshaw, Agriculture). This can be attributed to Hyderabad's status as the most populous and developed district in Telangana. Following Hyderabad, Rangareddy and Medchal Malkajgiri also report substantial numbers of registered vehicles, showcasing the influence of urbanization and economic development in these areas on vehicle preferences.



List down the top 3 and bottom 3 districts that have shown the highest and lowest vehicle sales growth during FY 2022 compared to FY 2021? (Consider and compare categories: Petrol, Diesel and Electric)

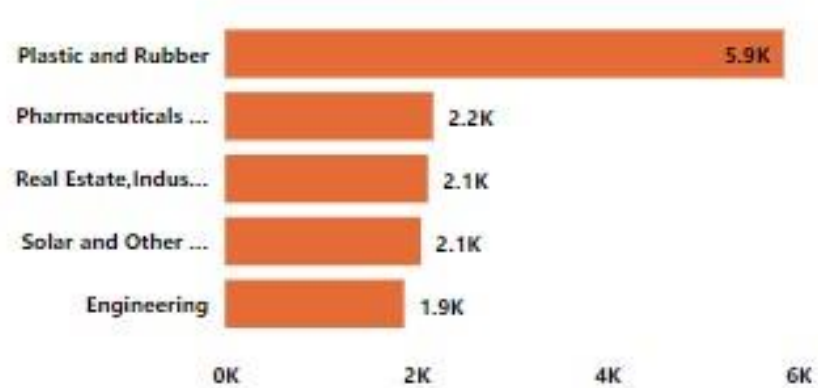


- In FY 2022, the top 3 districts with the highest vehicle sales growth compared to FY 2021 for Petrol, Diesel, and Electric categories are Hyderabad, Medchal Malkajgiri, and Rangareddy. Hyderabad saw sales growth from 259k to 271k, Medchal Malkajgiri from 236k to 241k, and Rangareddy from 215k to 242k. On the other hand, the bottom 3 districts with the lowest vehicle sales growth are Wanaparthy, Rajanna Sircilla, and Kumurambheem Asifabad, with declines in sales during this period.

List down the top 5 sectors that have witnessed the most significant investments in FY 2022.

In FY 2022, the most exciting investments in Telangana were in industries like plastic and rubber, pharmaceuticals, real estate, solar energy, and engineering. These sectors attracted a lot of money, showing that they are growing and creating opportunities for the state's economy.

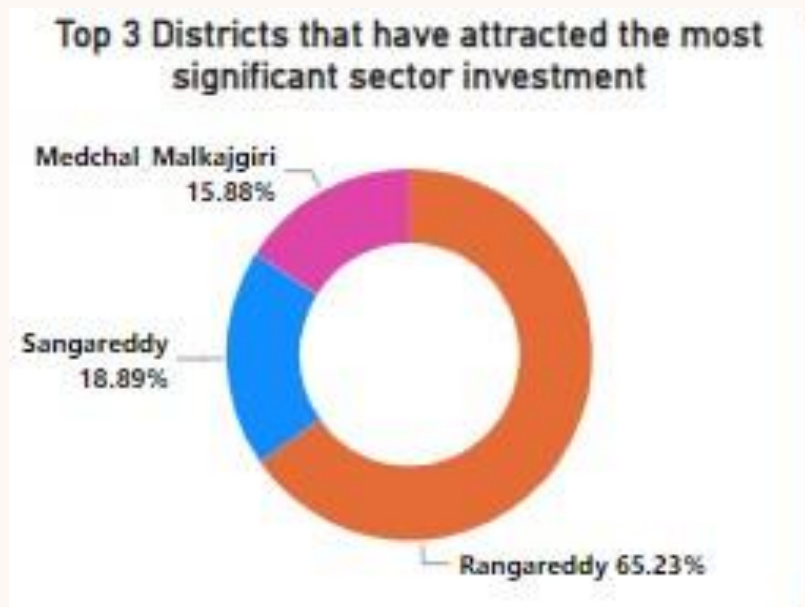
Top 5 Sectors with the Most Significant Investments in FY 2022 (investment in cr)



sector	Sum of investment in cr
Plastic and Rubber	5,855.61
Pharmaceuticals and Chemicals	2,181.83
Real Estate, Industrial Parks and IT Buildings	2,127.30
Solar and Other Renewable Energy	2,052.94
Engineering	1,877.45
Total	14,094.98

List down the top 3 districts that have attracted the most significant sector investments during FY 2019 to 2022? What factors could have led to the substantial investments in these particular districts?

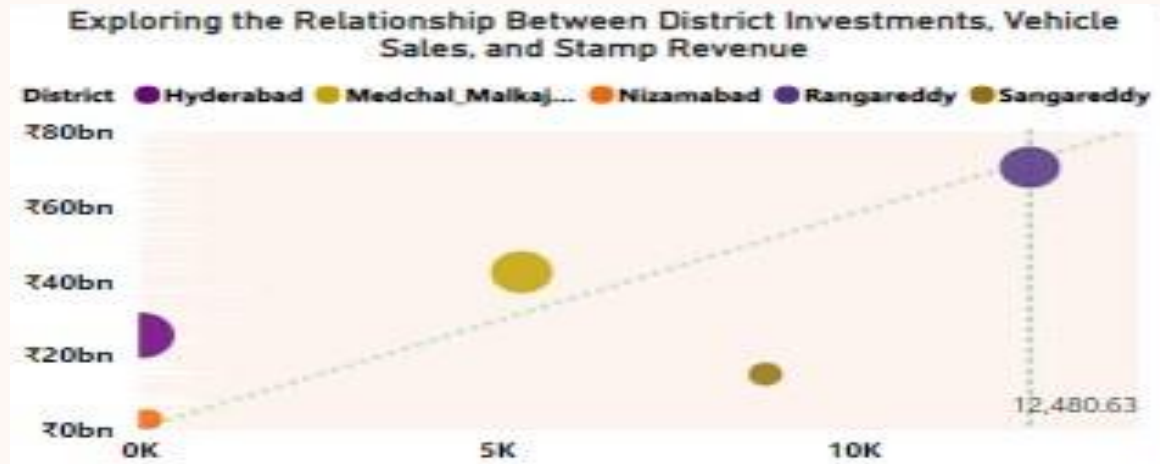
During FY 2019 to 2022, Rangareddy, Sangareddy, and Medchal Malkajgiri emerged as the top three districts attracting substantial sector investments. Rangareddy dominated with 65.23% of these investments, followed by Sangareddy at 18.89%, and Medchal Malkajgiri at 15.88%.



Factors:

- Proximity to major cities and transportation hubs.
- Well-developed roads, utilities, and facilities.
- Supportive government incentives and regulations.
- Availability of a skilled labor pool.
- Diverse economic opportunities and industries.
- Easy access to target markets and consumers.
- Attractive living conditions for employees and investors.

Is there any relationship between district investments, vehicles sales and stamps revenue within the same district between FY 2021 and 2022?



Indeed, there exists a potential correlation between district investments, vehicle sales, and stamps revenue within the same districts for FY 2021 to 2022. Several key relationships can be observed:

1. Investments: Increased investments often stimulate economic activity, resulting in higher vehicle sales. As the economy thrives, more people can afford vehicles, and there's an elevated demand for transportation-dependent goods and services.



2. Vehicle Sales: Greater vehicle sales can contribute to increased demand for stamps. This is because vehicles are subject to registration fees, which are typically paid using stamps.



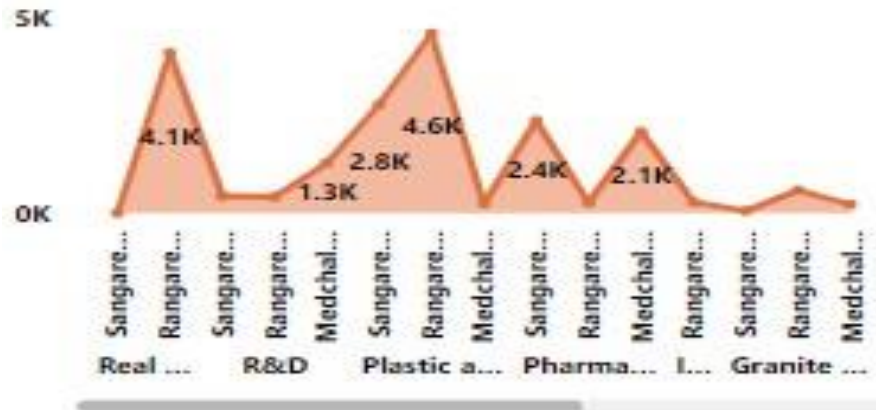
3. Stamps Revenue: A rise in stamps revenue can, in turn, drive increased investments within a district. Government-generated stamp revenue can be allocated to fund projects that attract investments, such as infrastructure development and educational initiatives.



However, it's crucial to acknowledge that these relationships are complex and multifaceted. Various external factors, including overall economic conditions, state government policies, and the availability of infrastructure, can also significantly impact vehicle sales, stamps revenue, and investment levels. Thus, while these connections are plausible, they may not always hold true under every circumstance.

Are there any particular sectors that have shown substantial investment in multiple districts between FY 2021 and 2022?

Cross-District Investment Trends: Sectors with Substantial Investments Across Multiple Districts from FY 2021 to 2022

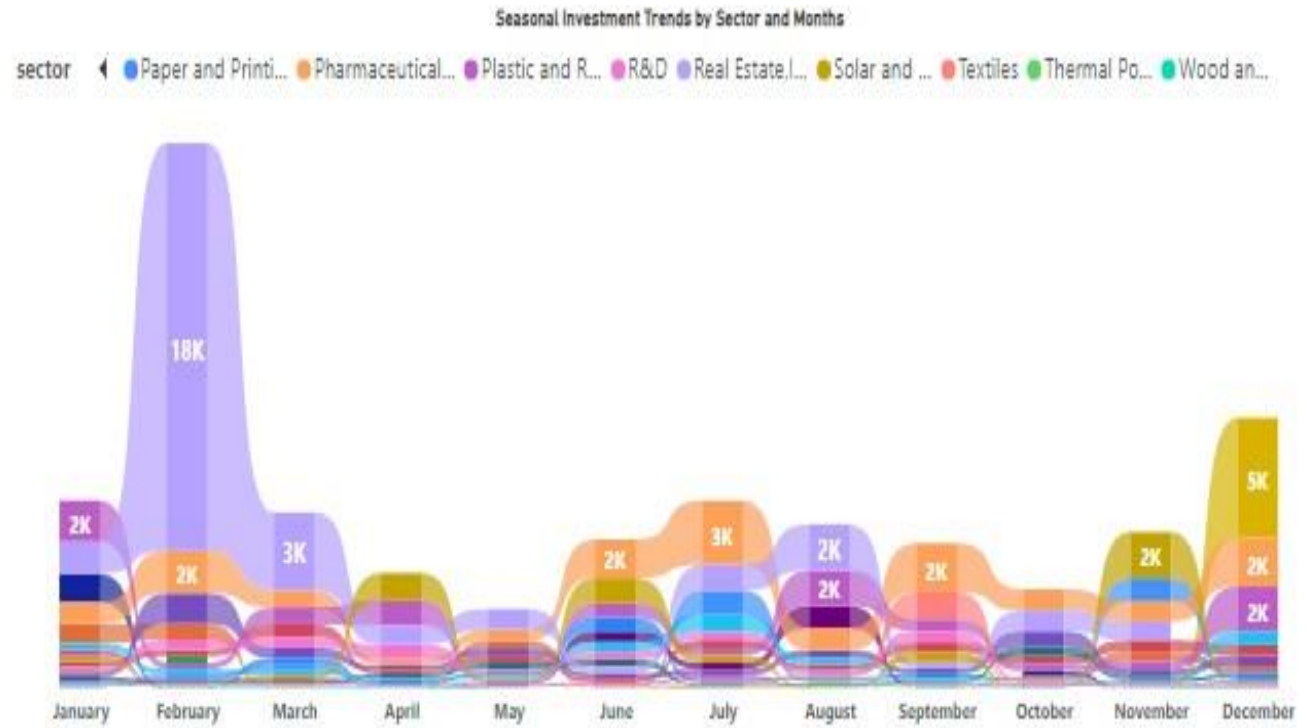


Indeed, several sectors have demonstrated substantial investments in multiple districts between FY 2021 and 2022:

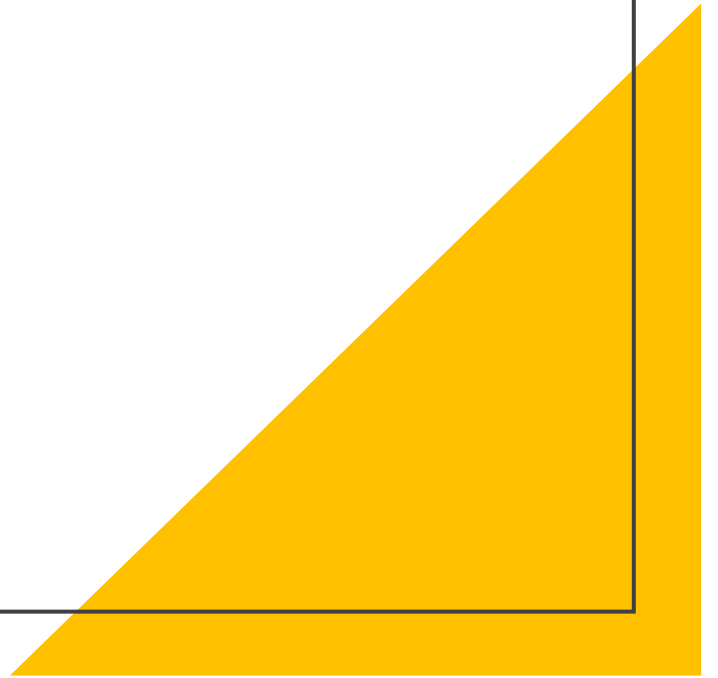
- 1. Plastic and Rubber Sector: Rangareddy district attracted the highest investment, totaling 4,633 cr, followed by Sangareddy with 2,807 cr .
- 2. Real Estate, Industrial Parks, and IT Buildings: Rangareddy district led with 4,131 cr, while Sangareddy also witnessed significant investment in this sector.
- 3. Pharmaceuticals and Chemicals Sector: Sangareddy garnered substantial investment of 2,387 cr, while Medchal Malkajgiri followed closely with 2,098 cr.
- 4. Research and Development (R&D): Medchal Malkajgiri district attracted noteworthy investment totaling 1,291 cr.
- These sectors' ability to draw substantial investments in multiple districts underscores their significance in contributing to the region's economic growth and development.

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

Yes, some sectors get more investments during specific times of the year. For example, real estate and industrial parks tend to get higher investment in February and Highest in a seasonal pattern. Pharmaceuticals and chemicals see higher investments in July, and the fertilizer and pesticide sector gets more funds in December. These patterns suggest that investments in these sectors follow certain seasonal trends, likely due to factors related to each industry and the time of the year.



Secondary Research





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

The top 5 districts to consider for buying commercial properties in Telangana, including Rangareddy, Medchal Malkajgiri, Sangareddy, Yadadri Bhuvanagiri, and Karimnagar can be justified based on several factors:

These districts have experienced substantial economic growth, making them attractive for businesses seeking commercial properties.

They offer well-developed infrastructure, including roads, utilities, and connectivity, which is crucial for commercial activities.

Rapid urbanization in these districts has led to increased demand for commercial spaces, offering potential for high returns on investment.

Proximity to major cities and transportation hubs enhances accessibility and market reach for businesses.

Government policies and incentives to promote business and industrial growth in these districts further contribute to their appeal for commercial property investments.

These districts provide a favorable environment for businesses and investors, making them prime choices for purchasing commercial properties in Telangana.

What significant policies or initiatives were put into effect to enhance economic growth, investments, and employment in Telangana by the current government? Can we quantify the impact of these policies using available data?

- **Industrial Policy:** Telangana introduced an investor-friendly Industrial Policy in 2015, offering incentives, subsidies, and ease of doing business measures to attract investments across sectors.
- **TS-IPASS:** The Telangana State Industrial Project Approval and Self-Certification System (TS-IPASS) aimed to streamline the approval process for industries, reducing bureaucratic hurdles.
- **T-Hub:** T-Hub is a startup incubator and innovation center that fosters entrepreneurship and innovation, contributing to job creation and economic growth.
- **Mission Kakatiya:** This initiative aimed to rejuvenate and restore rural tanks, promoting agricultural growth and employment in rural areas.
- **TS-IPASS and TSiPASS (T-Consultancy Services):** These initiatives provide single-window clearance for industrial and investment proposals, making it easier for businesses to set up operations in the state.
- **Textile and Apparel Policy:** Telangana launched a policy to promote the textile and apparel sector, with a focus on job creation and export growth.

Quantifying the impact of these policies typically requires access to data and comprehensive economic analyses. The government and relevant research institutions may periodically release reports and studies assessing the impact of these initiatives on economic growth, investments, and employment. To obtain the most up-to-date and accurate information, it is advisable to refer to recent government reports, economic surveys, and studies conducted by academic institutions or think tanks specializing in economic development and policy analysis.





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

Insights:

- **1. Progress and Potential:** Telangana has made significant strides in the last five years but still has untapped potential for further development.
- **2. Investment Gap:** There is a noticeable lack of investment in both Research & Development (R&D) and critical infrastructure projects.
- **3. Sectoral Opportunities:** Telangana is well-positioned to leverage increasing demand in sectors like IT, manufacturing, and healthcare services.
- **4. Agricultural Focus:** The state should prioritize efforts to enhance the agricultural sector's productivity and tackle poverty.
- **5. Balanced Regional Development:** While Hyderabad is vital, the government should also prioritize the growth of tier-2 and tier-3 cities for a more balanced and inclusive development strategy.
- These insights offer a fresh perspective on Telangana's current status and highlight key areas for targeted actions to ensure sustained growth.

Recommendations:

- 1.Infrastructure Development:** Invest in critical infrastructure like roads, transportation, and utilities to support urbanization and industrial growth.
- 2.Skill Development:** Establish skill development programs aligned with industry needs to enhance the employability of the workforce and attract more businesses.
- 3.Diversify Economy:** Encourage diversification by promoting emerging sectors beyond IT, such as renewable energy, manufacturing, and healthcare services.
- 4.Agricultural Revitalization:** Focus on improving the agricultural sector through modernization, irrigation, and farmer support programs to enhance yields and reduce poverty.
- 5.Regional Development:** Ensure equitable development by not only concentrating efforts in Hyderabad but also fostering the growth of tier-2 and tier-3 cities, promoting regional economic balance.
- 6.Invest in Research and Development (R&D):** Allocate resources to foster innovation and research, enhancing competitiveness across sectors.
- 7.Digital Governance:** Embrace data-driven governance to optimize public services, resource allocation, and policy formulation for efficient administration.

These insights and recommendations can serve as a foundation for the Telangana government to plan for sustainable growth in the coming years. However, it is crucial to consider the evolving economic landscape, emerging challenges, and the specific needs of the state's diverse districts while formulating strategies for sustained development.





Sri. K. Chandrashekar Rao
The Hon'ble Chief Minister



Sri. K.T Rama Rao
The Hon'ble IT Minister

[Stamp Analysis](#)[Transportation Analysis](#)[Ts-iPASS Analysis](#)[Insights and Recommendations](#)

About Telangana:

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Moreover, the state is abundant in mineral resources and is particularly known for its coal reserves, which span an impressive 350 kilometers along the Pranahita river in the Godavari Valley of Telangana.

Goals And Objective of the Project:

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 GROWTH ANALYSIS DASHBOARD



Project Challenge

Total District

33

Documents Registered

4.87M

Documents Registered Rev

₹295.23bn

E-Stamp Challan

2.93M

E-Stamp Challan Rev

₹220.68bn

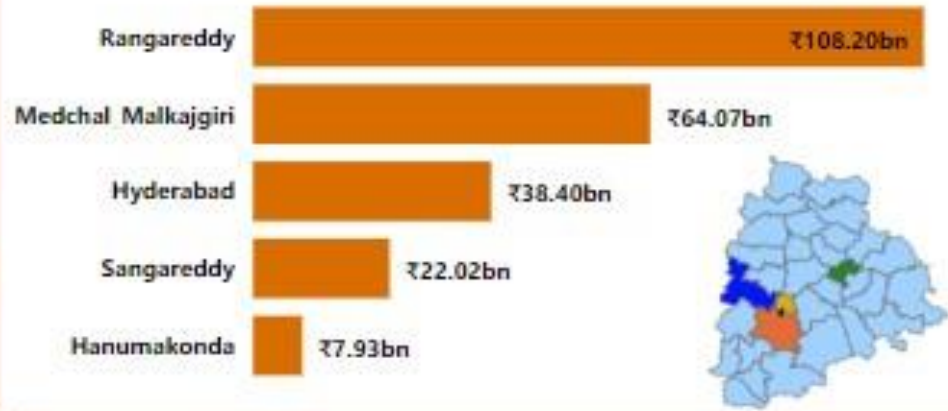
NAVIGATION

Stamp

Transportation

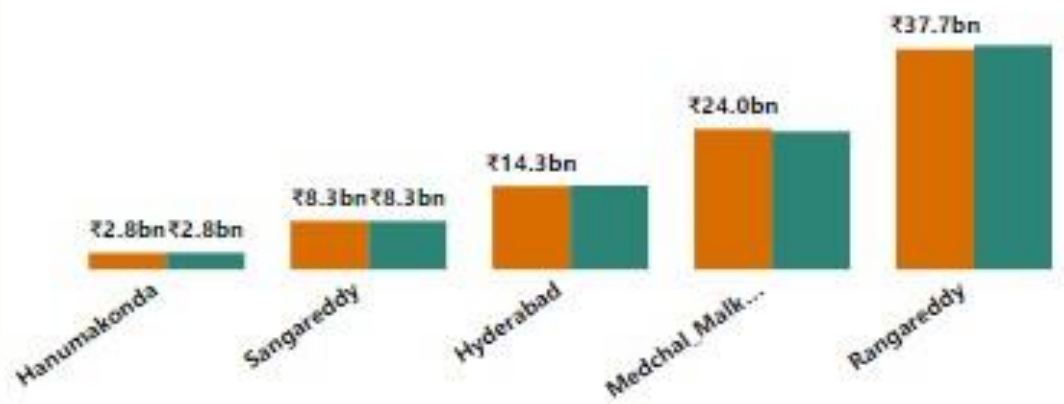
Ts-iPASS

Top 5 Districts with Highest Document Registration Revenue Growth (FY 2019-2022)

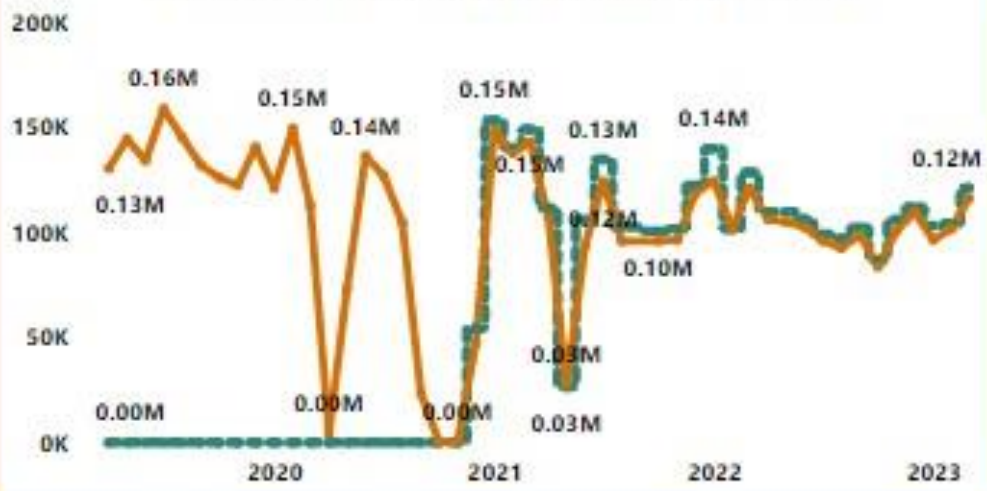


Comparison of Document Registration Revenue vs. E-Stamp Challan Revenue (FY 2022)

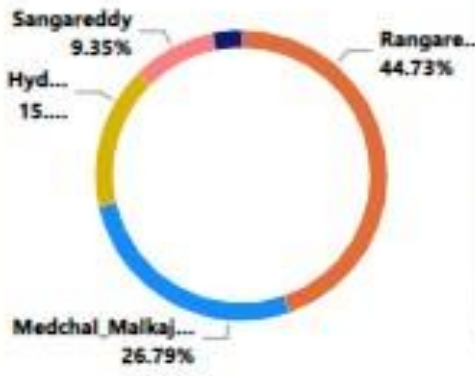
● Total Document Registered Rev ● E stamp Challan Rev



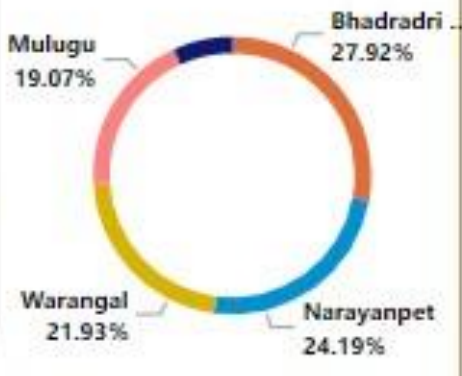
E stamp challan Count Vs Document Registered Count



Top 5 Districts



Bottom 5 Districts



E-Stamp Challan Revenue (FY 2021-2022)
₹193bn



TELANGANA GROWTH ANALYSIS DASHBOARD



Project Challenge

Total District

33

Total Fuel Type Sales

6.67M

Total Vehicle Class Sales

6.18M

Category Transportation

599K

Non Category Transportation

6.07M

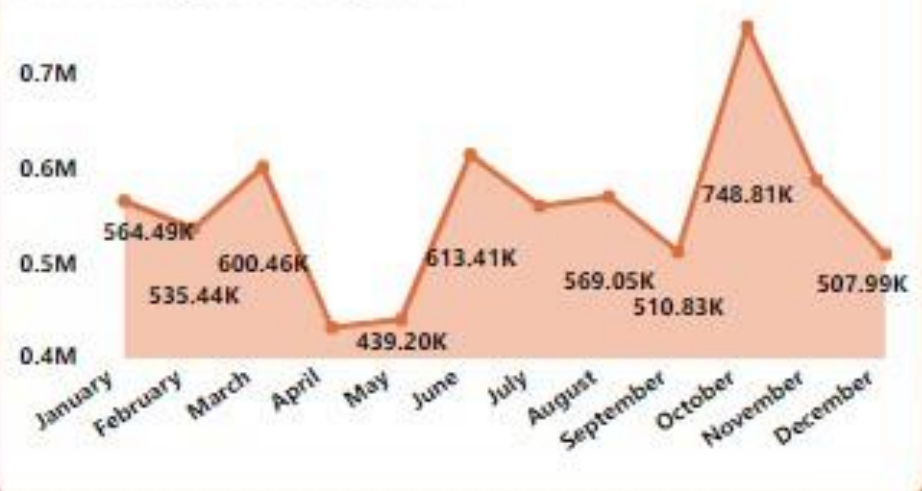
NAVIGATION

Stamp

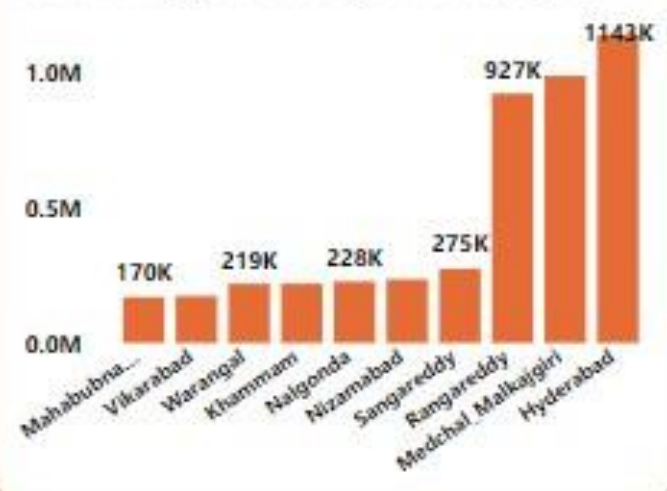
Transportation

Ts-iPASS

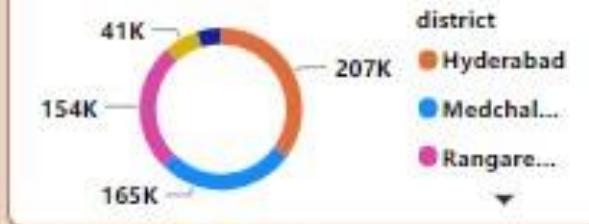
Total Fuel type sales by Month



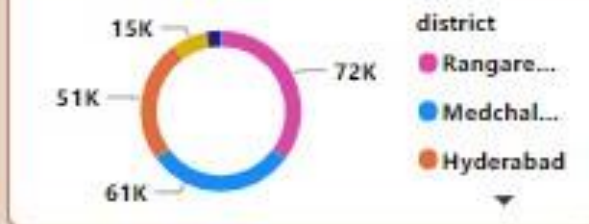
Total Fuel type sales by district (Top 10)



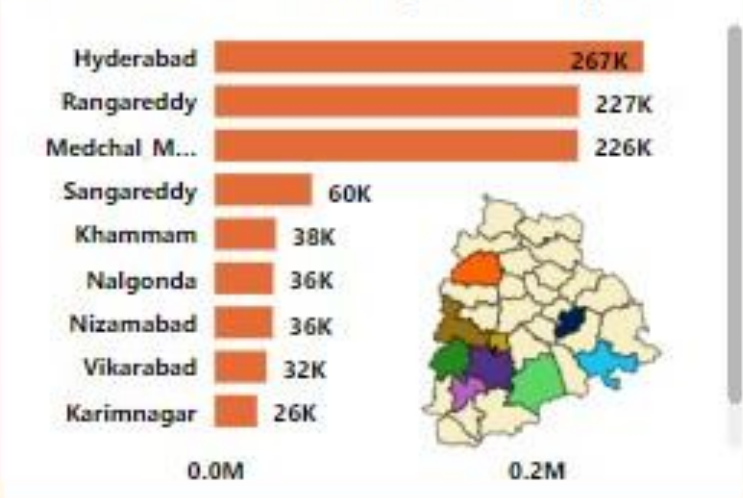
Vehicle Sales By Motorcycle



Vehicle Sales By MotorCar



Total Vehicle Class sales by district (Top 10)



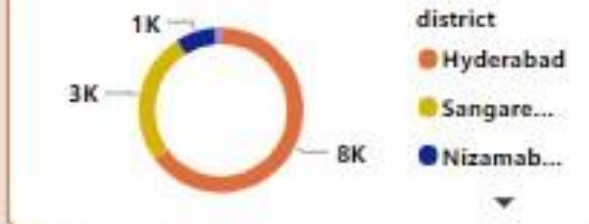
Top 3 Districts with Highest Vehicle Sales Growth (FY 2022 vs 2021) by Vehicle Category.



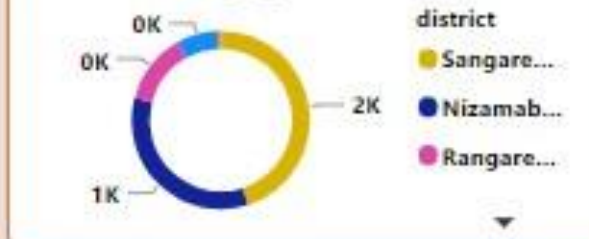
Bottom 3 Districts with Lowest Vehicle Sales Growth (FY 2022 vs 2021) by Vehicle Category.



Vehicle Sales By Autorickshaw



Vehicle Sales By Agriculture



Year

All

district

All



TELANGANA GROWTH ANALYSIS DASHBOARD



Project Challenge

Total District

33

January

February

March

April

May

June

July

August

September

NAVIGATION

Stamp

Transportation

Ts-iPASS

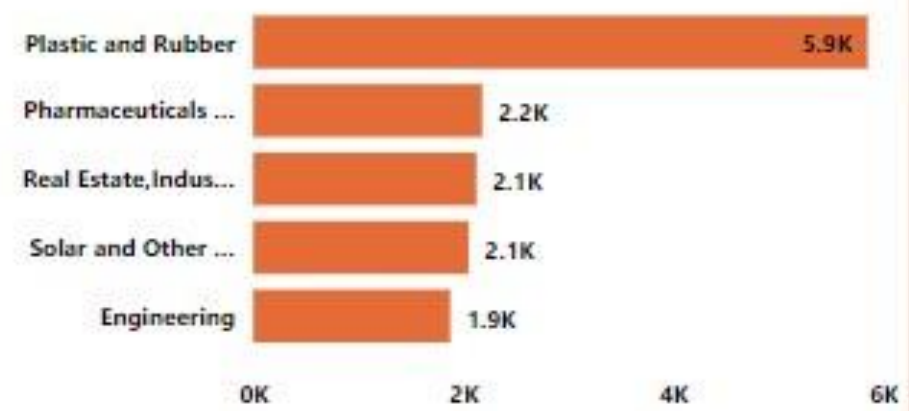
Year

All

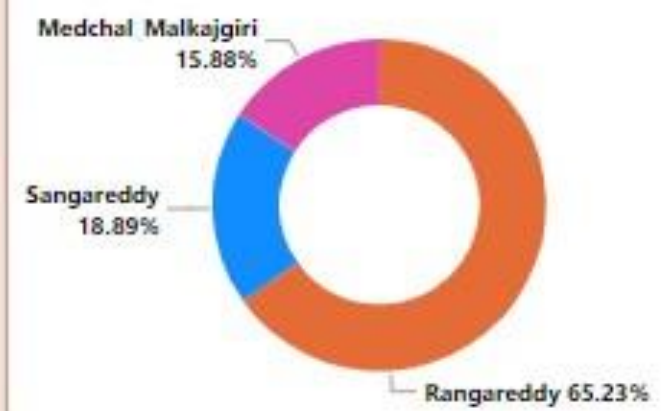
district

All

Top 5 Sectors with the Most Significant Investments in FY 2022 (investment in cr)



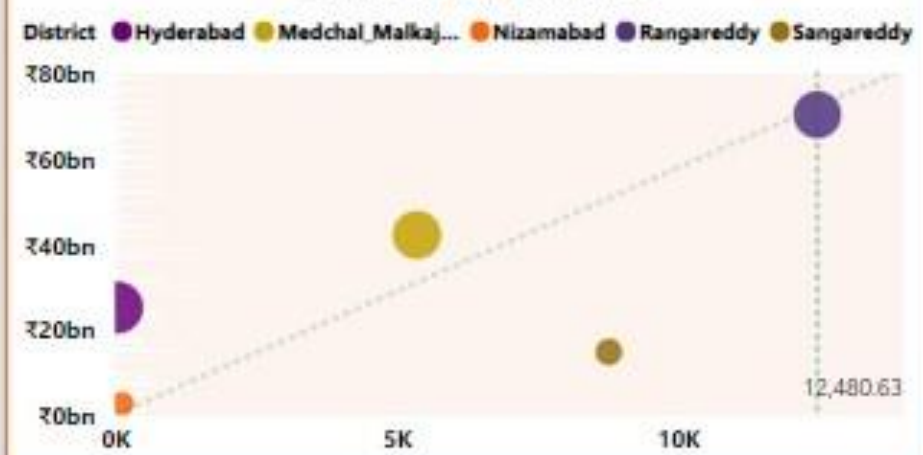
Top 3 Districts that have attracted the most significant sector investment



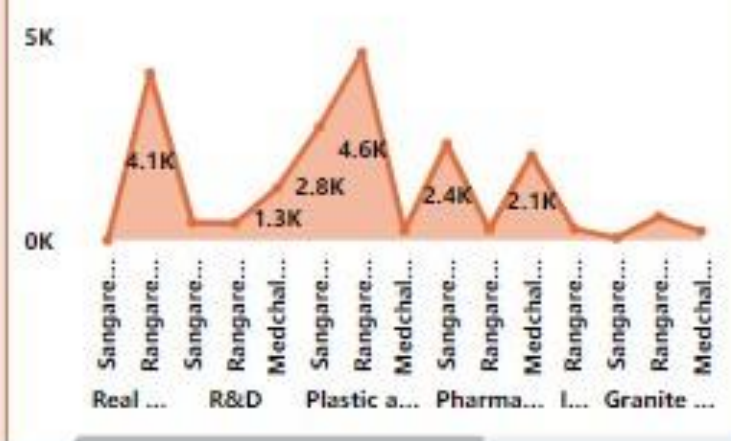
Top 3 Districts that have attracted the most significant sector investment



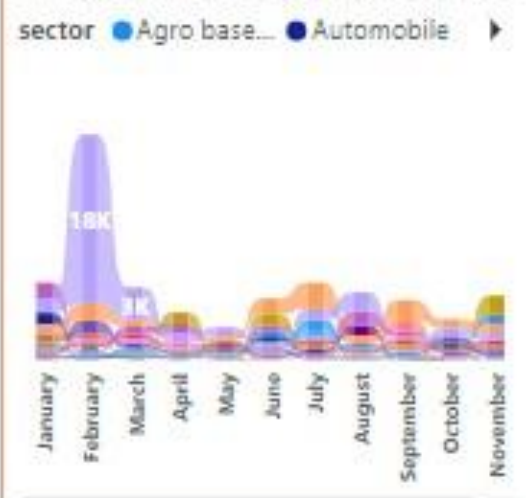
Exploring the Relationship Between District Investments, Vehicle Sales, and Stamp Revenue

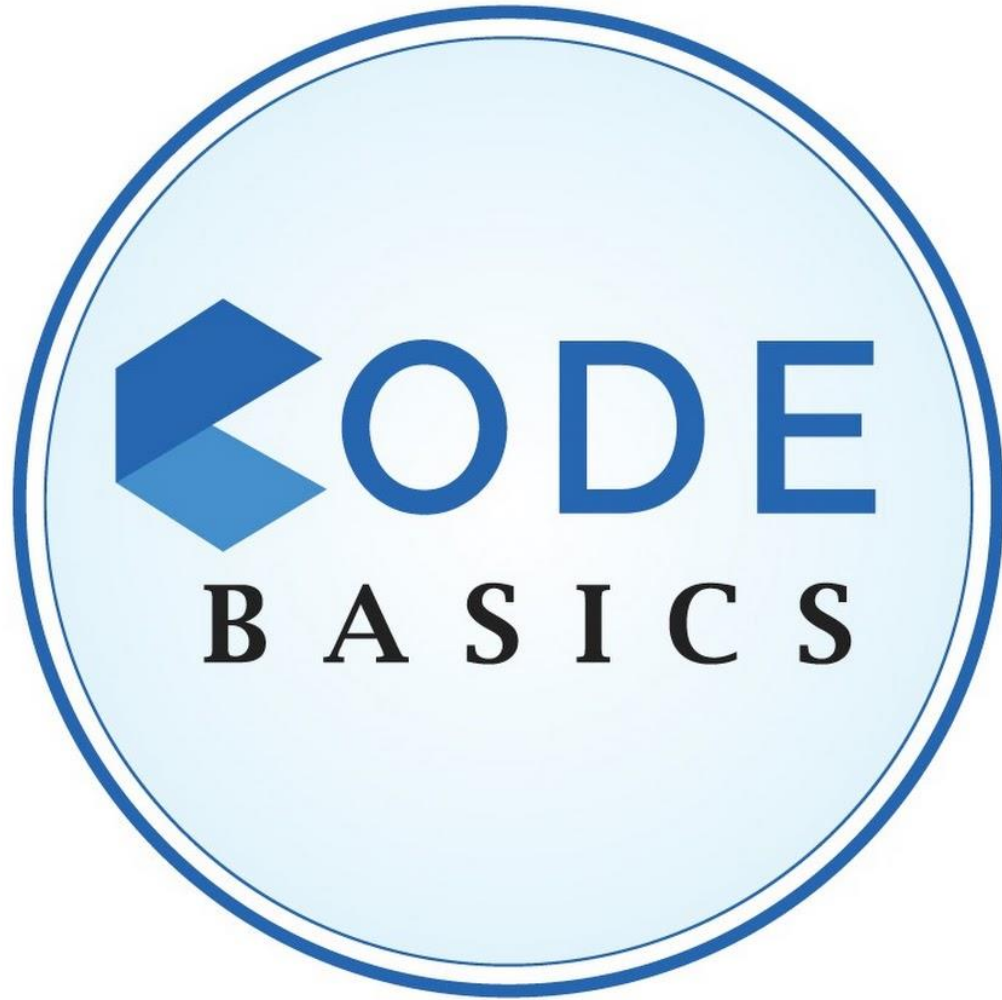


Cross-District Investment Trends: Sectors with Substantial Investments Across Multiple Districts from FY 2021 to 2022



Seasonal Investment Trends by Sector and Months





Thank You