

# **Project Report: Tender Dashboard Analysis in Assam (2021–2022)**

## **INT217 Project Report**

(Project Semester January–April 2025)

Submitted by:

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Program and Section: B. Tech CSE K23GW

Course Code: INT217

Under the Guidance of:

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**Discipline of CSE/IT**

**Lovely School of Computer Science and Engineering**

**Lovely Professional University, Phagwara**

## **CERTIFICATE**

This is to certify that Jubin Mazumdar, bearing Registration No. 12316322, has completed the INT217 project titled “Tender Dashboard Analysis in Assam (2021–2022)” under my guidance and supervision. To the best of my knowledge, the present work is the result of his/her original development, effort, and study.

Name of the Supervisor:

Lovely Professional University

School of Computer Science and Engineering

Phagwara, Punjab

Date:

## **DECLARATION**

I, Jubin Mazumdar, a student of LPU under the CSE/IT Discipline at Lovely Professional University, Punjab, hereby declare that all the information furnished in this project report is based on my own intensive work and is genuine.

**Date:** 13-05-2025

**Signature:**

**Registration No.:** 12316322

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## 1. Introduction

India's public procurement system is a critical driver of infrastructure and socio-economic development. This project analyzes tender data from Assam for 2021–2022, focusing on tender types, values, departments, and procurement trends. Using an interactive Excel dashboard titled “Tender Dashboard Analysis in Assam,” the analysis highlights key departments, high-value projects, and procurement challenges. The dashboard aids policymakers, researchers, and procurement officials in optimizing resource allocation and addressing inefficiencies.

## 2. Links

**Source:** <https://www.data.gov.in/resource/assam-public-procurement-data-2021-22>

**LinkedIn:** [https://www.linkedin.com/posts/jubin2003\\_excel-publicprocurement-dataanalysis-activity-7317450256466464768-1KEN?utm\\_source=share&utm\\_medium=member\\_desktop&rcm=ACoAAEiHhHUB9zcQww4mFK0dHU0T6iA7y3zQmc4](https://www.linkedin.com/posts/jubin2003_excel-publicprocurement-dataanalysis-activity-7317450256466464768-1KEN?utm_source=share&utm_medium=member_desktop&rcm=ACoAAEiHhHUB9zcQww4mFK0dHU0T6iA7y3zQmc4)

## 3. Analysis on Dataset

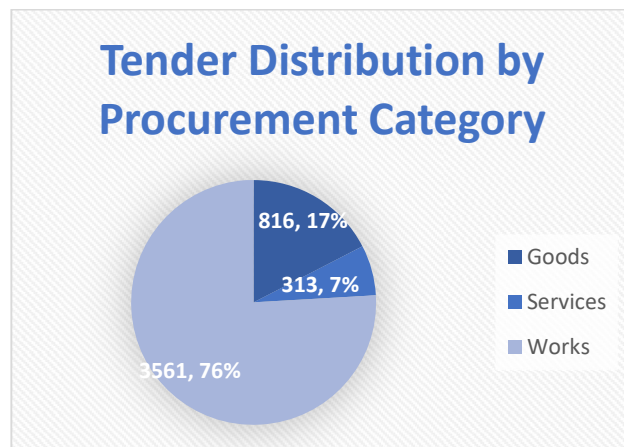
The analysis is structured into five objectives, each addressing a specific aspect of the tender data. Visualizations were created using Excel's PivotTables, charts, and slicers to ensure interactivity and clarity.

### Objective 1: Distribution of Tender Categories

- **Chart:** Pie chart showing the percentage distribution of tender types (Works, Goods, Services) across the dataset.
- **Finding:** Works tenders dominate (76%), followed by Goods (17%) and Services (7%). Works include road construction and public facilities, Goods

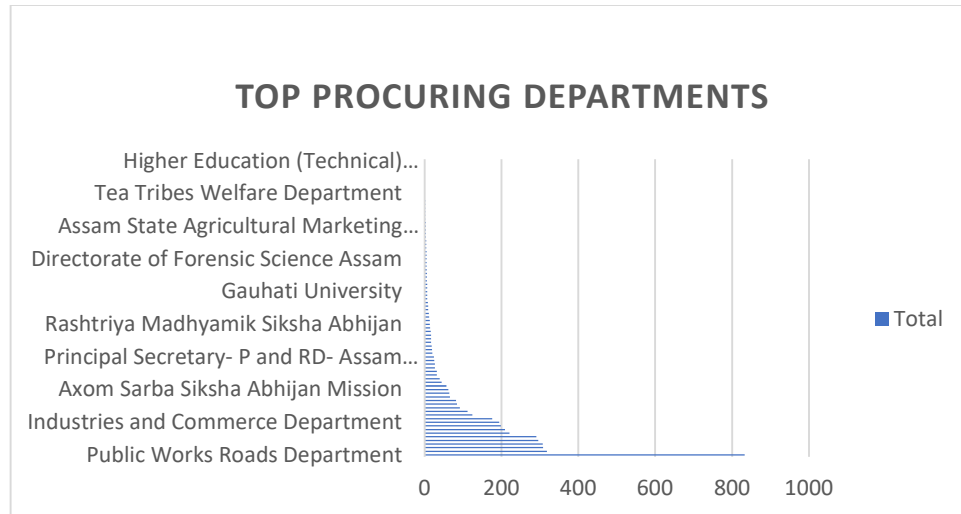
cover educational and medical supplies, and Services include healthcare and IT solutions.

- **Insight:** The prevalence of Works tenders underscores infrastructure as a priority, while Goods and Services support education and health sectors. Diversifying Services tenders could enhance specialized procurement.



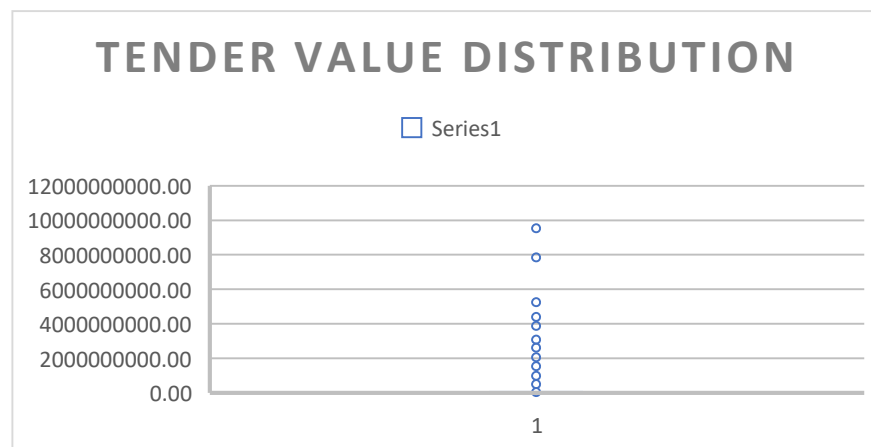
## Objective 2: Top Procuring Departments by Tender Count

- **Chart:** Bar chart displaying the top departments by the number of tenders issued, with horizontal bars sorted in descending order.
- **Finding:** The Public Works Roads Department leads (833 tenders) , followed by the Assam Power Distribution Company Ltd (313 tenders) and Department of Water Resources (308).
- **Insight:** The dominance of the Public Works Roads Department reflects Assam's focus on road infrastructure.



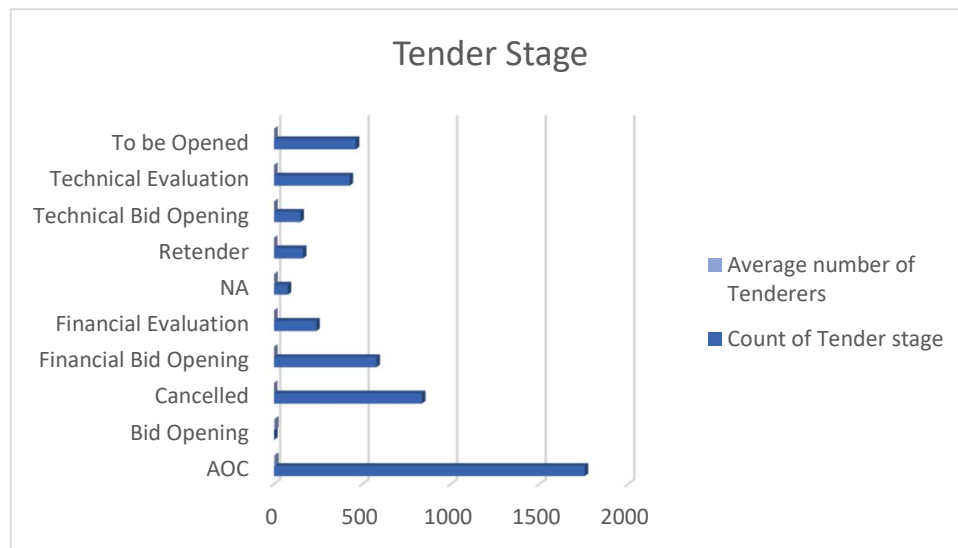
### Objective 3: Top High-Value Tenders

- Chart:** Point Plot illustrating the top tenders by value, with vertical bars representing tender amounts in INR.
- Finding:** The highest tender is valued at ₹9,542,100,000, followed by ₹4,406,369,000, ₹3,885,629,677, ₹3,148,840,000, and ₹3,088,000,000. These are primarily infrastructure projects under departments like Public Works and Water Resources.
- Insight:** High-value tenders indicate significant investments in large-scale infrastructure, likely for disaster recovery or urban development. Monitoring these projects is critical to ensure timely execution and cost efficiency.



#### Objective 4: Tender Stages and Bidder Participation

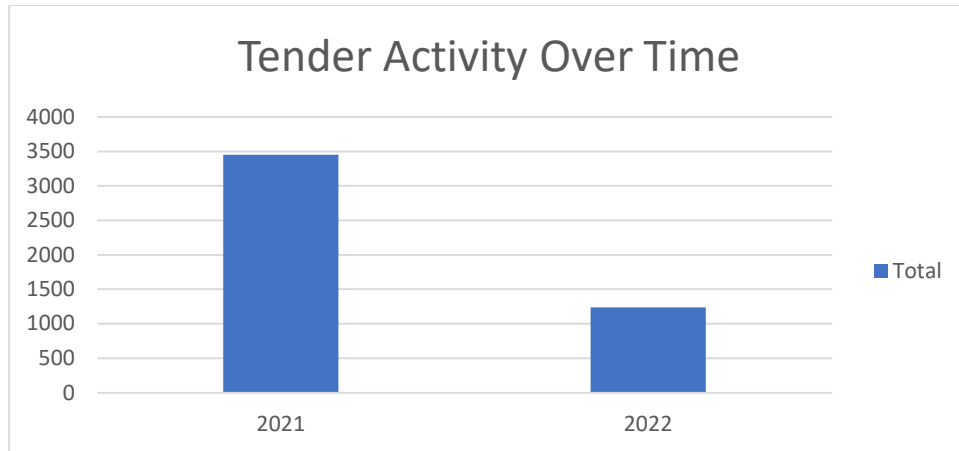
- **Chart:** Stacked bar chart showing the count of tenders by stage (e.g., AOC, Cancelled) and the average number of tenderers per stage.
- **Finding:** AOC stage has the most tenders (1,755) with an average of 6.16 tenderers, while 836 tenders were cancelled . Financial and Technical stages have low bidder counts.
- **Insight:** High bidder participation in AOC tenders suggests competitive procurement, but the high cancellation rate (836 tenders) indicates planning or execution issues, requiring process improvements.



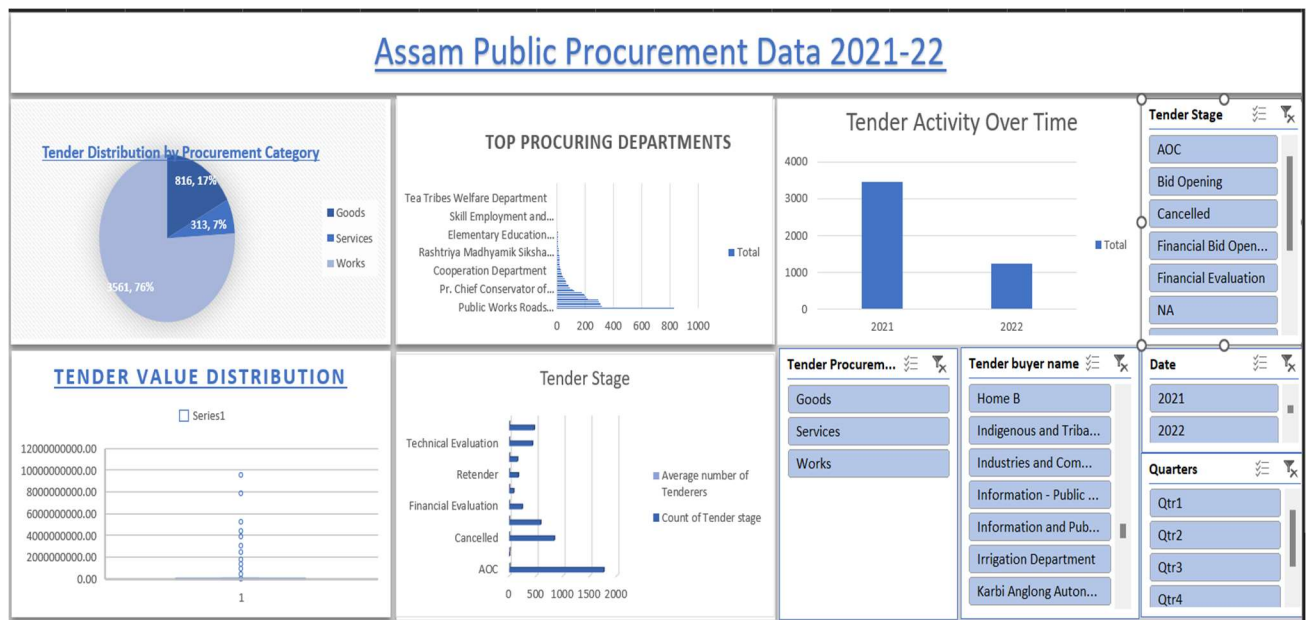
#### Objective 5: Number of Tenders Over Years

- **Chart:** Bar chart showing the number of tenders issued in 2021 and 2022, with vertical bars representing annual counts.
- **Finding:** 2021 recorded 3,451 tenders, while 2022 had 1,239 tenders.
- **Insight:** The significant drop in 2022 suggests reduced procurement activity, possibly due to budget constraints or project completions. Further analysis of funding trends could clarify this decline.





**Interactive Dashboard:** The Excel dashboard includes slicers for filtering by department, tender type, year, quarters, and stage, enabling dynamic exploration of trends and hotspots. PivotTables and charts ensure intuitive navigation for stakeholders.



## 4. Dataset

ocid	initiation	tag	id	date	tender/id	tender/text	tender/txt	tender/ma	tender/prt	tender/coi	tender/clas	tender/sul	tender/pa	tender/all	tender/value	amc	tender/datePublished	tender/mi	tender/mi	tender/mi	tender/mi	tender/mi	tender/ter	tender/all	Payment	tender/sta	tender/sta	tender/mi	tender/mi	tender/mi	tender/mi						
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## 6. Future Scope

The analysis can be extended to deepen insights into Assam's procurement system:

- Trend Analysis: Incorporate multi-year data to identify long-term procurement patterns.
- Regional Analysis: Add district-level data to map tender distribution geographically.
- Cancellation Study: Investigate reasons for tender cancellations to improve procurement planning.
- Predictive Modeling: Use machine learning to forecast tender values or bidder participation.
- Digital Adoption: Analyze e-procurement trends to assess the shift from offline to online submissions.

## 7. References

- Microsoft Excel Documentation (<https://support.microsoft.com/en-us/office/excel-functions-alphabetical-b3944572-255d-4efb-bb96-c6d90033e188>)
- YouTube tutorials on Excel dashboards