

### Overview

This project aims to analyze and visualize the National Rural Employment Guarantee—Act (NREGA) dataset to extract meaningful insights. The focus is on understanding—the implementation patterns, trends, and disparities across different states and districts in India. The key steps in this analysis include data preprocessing, exploratory data analysis (EDA), and data visualization to present the findings effectively. The ultimate goal is to provide actionable insights by making a POWER BI dashboard that can help policymakers and administrators understand optimize the—NREGA program.

### **Problem Statement**

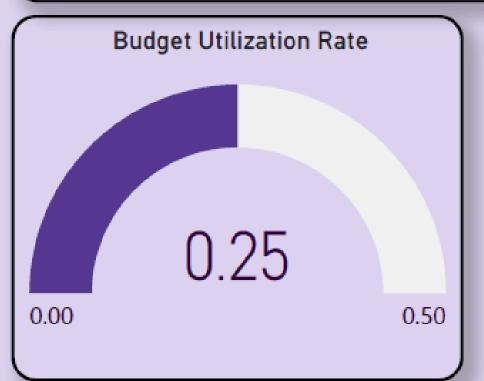
NREGA is a vital initiative to alleviate rural unemployment and poverty. This project seeks to address several key questions and challenges associated with NREGA:

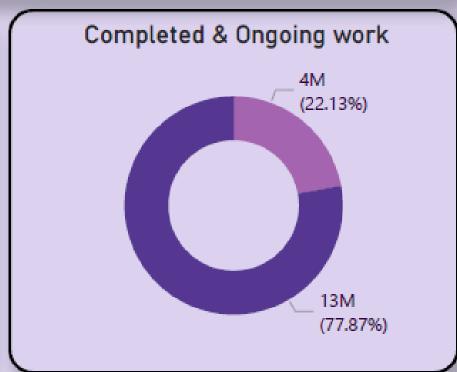
- How effective is NREGA in providing employment opportunities to rural households?
- Are there regional disparities in the implementation and outcomes of the scheme?
- What is the utilization of the allocated budget, and how does it correlate with employment generation?
- What are the key factors contributing to the completion of NREGA works, and are there any roadblocks to its success?
- Can data-driven insights guide policymakers and administrators in optimizing the scheme's impact?



### NREGA Analysis Report







97M

Total Active Job Cards

175M

**Total Active Workers** 

13M

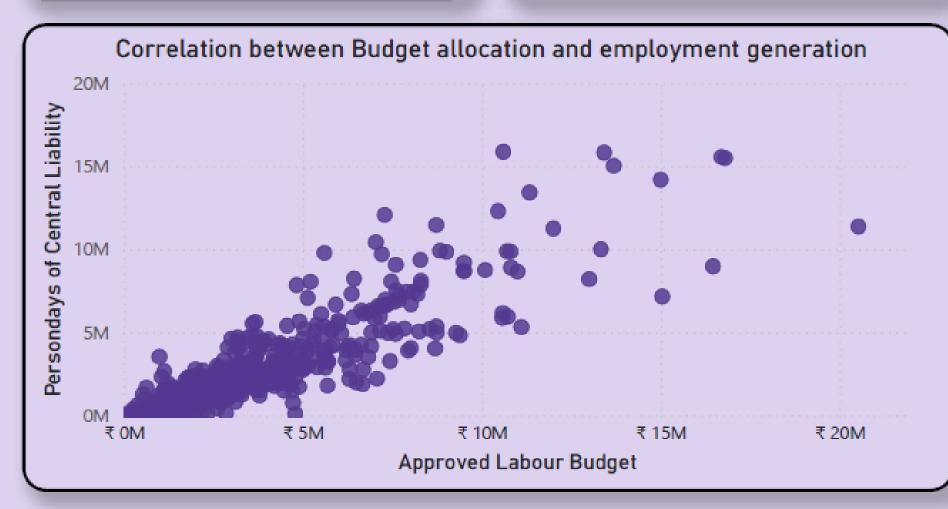
**Ongoing Works** 

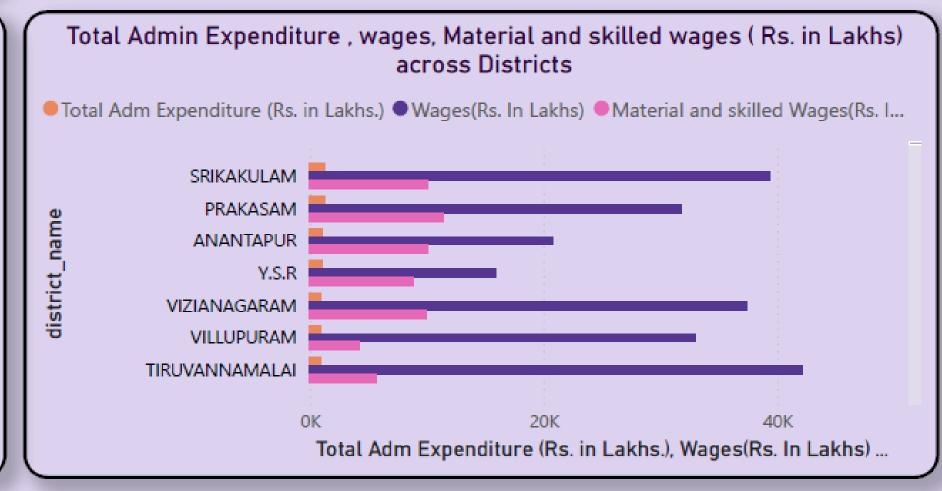
1.65bn

**Total Persondays of Central Liability** 

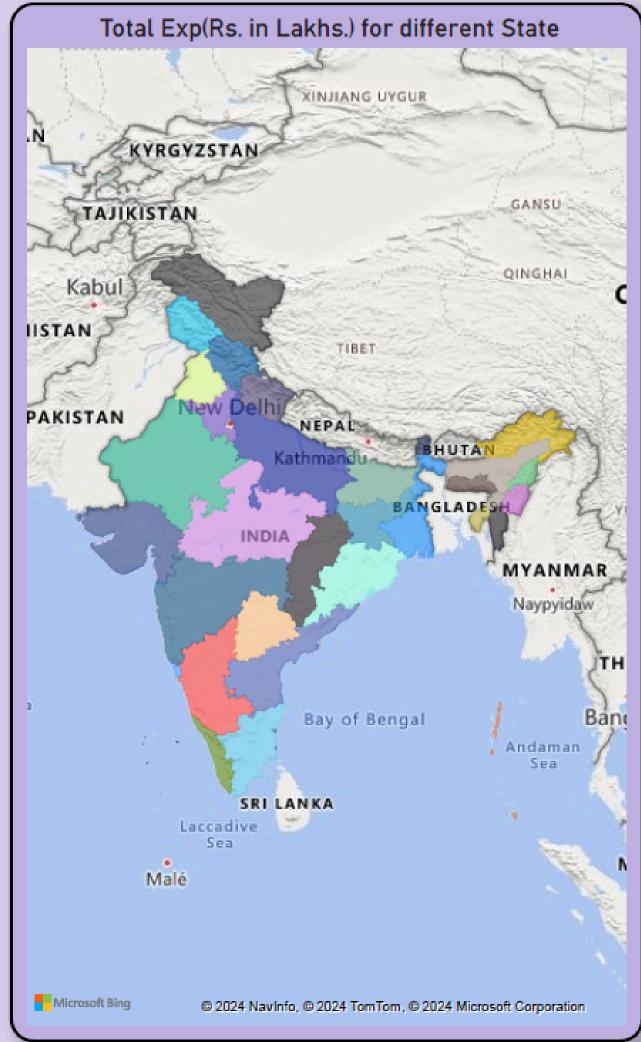
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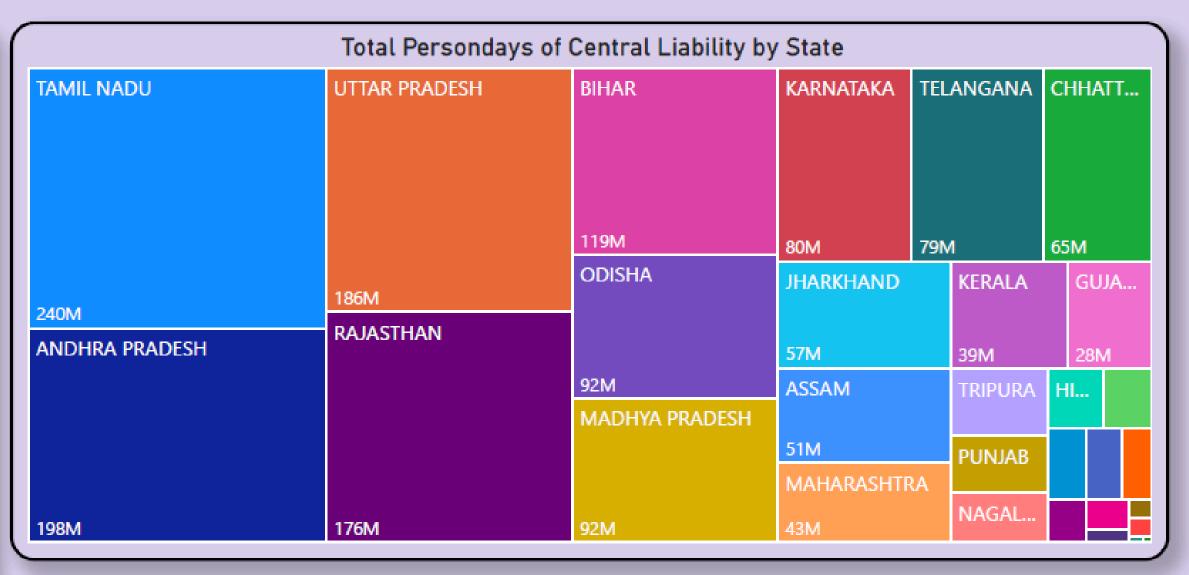
**Total Approved Labour Budget** 

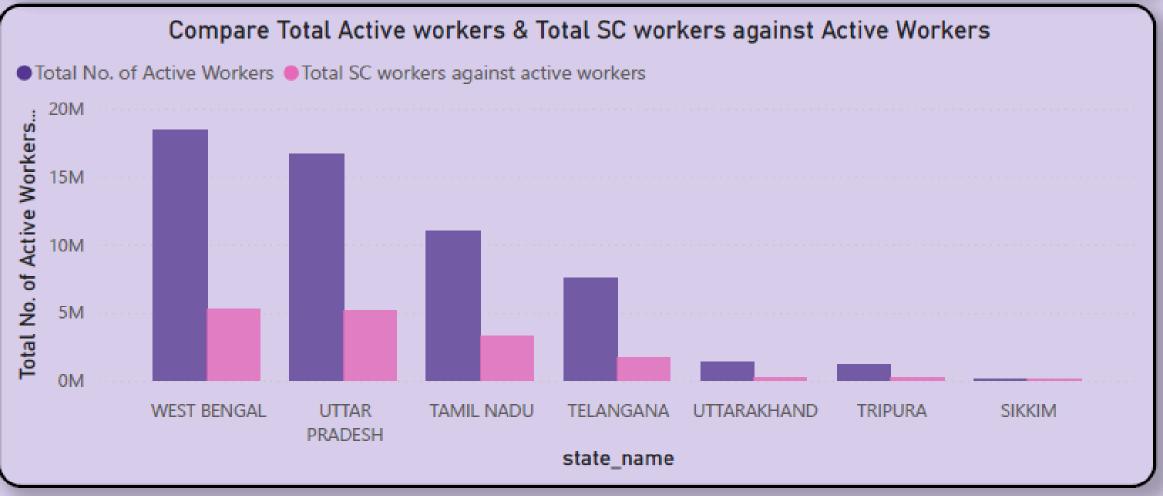
















#### Significant Divergence in Expenditures in Tamil Nadu

- In Tamil Nadu, the Sum of Total Expenditure (Rs. in Lakhs) exceeded the Sum of Material and Skilled Wages (Rs. in Lakhs) by 625,761.91 lakhs.
- This significant divergence indicates potential inefficiencies or discrepancies in fund allocation and utilization within the state.

#### Highest Expenditure on Agriculture and Allied Works

- District 67 had the highest Sum of Percentage Expenditure on Agriculture & Allied Works at 747.89, which was 9,272.06% higher than District I, which had the lowest at 7.98.
- District 67 accounted for 3.09% of the total Sum of Percentage Expenditure on Agriculture Allied Works.





#### Range of Persondays Metrics Across States

- The Sum of Persondays of Central Liability varied significantly across states, ranging from 27,861 to 240 M. The Sum of Women Persondays ranged from 20.415 to 206 M
- The Sum of ST (Scheduled Tribe) Persondays ranged from 3,692 to 50 M. These variations suggest disparities in the distribution and utilization of workdays among different demographics and regions.

#### Active Workers in Rajasthan vs. Goa

- Rajasthan had the highest Sum of Total Number of Active Workers at 18.127 M, which is 179,535% higher than Goa's lowest count of 10,091,
- Rajasthan accounted for II.10% of the total active workers in the country, highlighting its significant role in NREGA implementation.





#### Correlation Between Active Workers and SC Workers

- There is a positive correlation between the Sum of Total Number of Active Workers and the Sum of SC (Scheduled Caste) workers against active workers,
- Rajasthan exhibited the largest divergence, with the total number of active workers being IH.2 M higher than the number of SC workers, indicating a substantial gap in SC worker representation among active workers.

#### Job Cards and Individual Work Metrics

- The Sum of Total Number of Job Cards issued ranged from 39,407 to 17 M
- The Sum of Total Number of Active Job Cards varied from 7,311 to 12 M
- The Sum of Total Individuals Worked ranged from 1,556 to 7 M.
- These metrics highlight the variability in program participation and implementation efficiency across states.





#### Material and Skilled Wages Disparity

- Uttar Pradesh had the highest Sum of Material and Skilled Wages (Rs. in Lakhs) at 22 M, which was infinitely higher than West Bengal, where the sum was 0.
- There is a positive correlation between the Sum of Material and Skilled Wages and the total Sum of Total Expenditure (Rs in Lakhs)

# Actionable insights

- <u>Addressing Discrepancies in Tamil Nadu</u>: Detailed audits and investigations should be conducted to understand the reasons behind the significant divergence in expenditures. This can help identify areas of misallocation or inefficiency.
- <u>Enhancing Equity in Persondays Distribution</u>: Policies should focus on ensuring a more equitable distribution of workdays among v/omen and ST communities, particularly in states with lower participation rates
- <u>Boosting Participation in Low-Performing States</u>: Strategies to increase active worker participation in states like Goa should be developed. This could include awareness campaigns, ease of access to job cards, and targeted support for marginalized communities.

# Actionable insights

- <u>Improving Representation of SC Workers</u>: Measures should be implemented to bridge the gap between the total number of active workers and the number of SC workers, particularly in states with significant disparities like Rajasthan.
- Optimizing Job Card Issuance and Utilization: Streamlining the process for issuing and activating job cards can enhance program efficiency. Monitoring and evaluation mechanisms should be put in place to track the Exploratory usage and impact of these job cards.
- <u>Balancing Expenditure on Agriculture and Allied Works</u>: Analyze the reasons behind the high expenditure in certain districts and apply best practices to other regions. Ensure that funds are being used effectively to promote agricultural and allied activities
- <u>Standardizing Material and Skilled Wages</u>: Address the disparity in material and skilled wages across states, especially focusing on regions like West Bengal where expenditure is zero, to ensure fair wage distribution and enhance worker satisfaction.

### Conclusion

The NREGA program shows considerable variability in its implementation across different states and districts, with notable disparities in fund allocation, workday distribution, and worker participation. By addressing these issues through targeted priicies and interventions, the program can become more effective and equitable, ensuring that it meets its goal of providing employment and enhancing rural livelihoods. This analysis provides a foundation for informed decision-making and strategic planning to improve the NREGA program's impact across India.

