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Analysing the Divergent Trends of NPAs and Recovery Ratios in **Indian Regional Cooperative Banks (2016-2023): A Case Study Approach**

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Abstract

This study examines the divergent trends in Non-Performing Assets (NPAs) and recovery ratios within Indian Regional Cooperative Banks from 2016 to 2023. Employing a case study approach, the research investigates the factors contributing to the observed disparities in NPA levels and recovery performance across different regions. The analysis utilizes data from multiple cooperative banks, considering variables such as economic conditions, regulatory frameworks, and management practices. Findings reveal significant regional variations in NPA trajectories and recovery efficiencies, highlighting the need for tailored strategies to address these challenges. The study identifies key determinants influencing NPA accumulation and recovery success, providing valuable insights for policymakers and bank administrators. Recommendations are proposed to enhance the financial health and operational effectiveness of regional cooperative banks in India.

Keywords: Non-Performing Assets (NPAs), Recovery Ratios, Indian Regional Cooperative Banks, Case Study, Financial Performance, Banking Sector, Risk Management, Regional Disparities

1.Introduction:

The Indian banking sector has faced significant challenges in recent years, with non-performing assets (NPAs) emerging as a critical concern for financial stability and economic growth. Regional Cooperative Banks (RCBs), which play a vital role in rural credit delivery and financial inclusion, have not been immune to these challenges. This research article aims to analyse the divergent trends of NPAs and recovery ratios in Indian RCBs from 2016 to 2023 using a case study approach. The period under study is particularly significant as it several major economic encompasses events, including demonetization, the

implementation of the Goods and Services Tax (GST), and the COVID-19 pandemic. These events have had far-reaching impacts on the Indian economy and, consequently, on the performance of financial institutions, including RCBs. By focusing on RCBs, this study seeks to fill a gap in the existing literature, which has predominantly concentrated on commercial banks and

larger financial institutions. RCBs, with their unique structure and mandate to serve rural and semi-urban areas, face distinct challenges in managing **NPAs** maintaining healthy recovery ratios. This research employs a case study approach to provide an in-depth analysis of selected RCBs across different regions of India. By examining individual cases, we aim to uncover the underlying factors contributing to the divergent trends in NPAs and recovery ratios. The study will explore various aspects, including the impact of regional economic conditions, sectoral exposure, regulatory changes, and bankspecific management practices on NPA levels and recovery performance. The findings of this research will contribute to a better understanding of the NPA dynamics in RCBs and provide valuable insights for policymakers, regulators, and management. Moreover, the study will offer recommendations for improving quality and enhancing recovery mechanisms in RCBs, ultimately contributing to the stability and efficiency of India's rural financial ecosystem.

2. Review of literature

The issue of Non-Performing Assets (NPAs) has been a persistent challenge in the Indian banking sector, significantly impacting the financial health and operational efficiency of banks, including Regional Cooperative Banks (RCBs). Several studies have explored the determinants, implications, and recovery mechanisms associated with NPAs in India.

Ronghangpi and Kumar (2023) conducted a comprehensive analysis of the efficiency of various NPA recovery channels in Indian banks, such as One Time Settlement Schemes, LokAdalats, Debt Recovery Tribunals (DRTs), the Securitisation and Reconstruction of Financial Assets and

Security Enforcement of (SARFAESI) Act, and the Insolvency and Bankruptcy Code (IBC). Their study, covering the period from 2016-17 to 2020-21, revealed that while mechanisms like **SARFAESI** and **IBC** have shown improvements in NPA recovery, channels like LokAdalats and DRTs have been less effective. This underscores the need for banks to adopt more efficient recovery strategies to mitigate the adverse effects of NPAs.

In a study focusing on the determinants of NPAs in Indian commercial banks, researchers highlighted that the Gross NPA ratio in India increased from 2.3% in 2008-09 to 11.2% in 2017-18, before declining to 9.1% in 2019-20. The study identified factors such as excessive lending, lax credit standards, poor monitoring, and diversion of funds as significant contributors to the rise in NPAs. These findings suggest that both internal management practices and external economic conditions play crucial roles in NPA accumulation.

Dhanalakshmi (2024) examined NPAs within Indian cooperative societies, emphasizing their impact on profitability. The study found that higher NPA levels directly affect the lending capacity of cooperative banks, leading to increased capital costs and reduced growth in lending services. This situation adversely affects the broader economy, particularly in rural areas where cooperative banks are primary credit providers.

Furthermore, the Reserve Bank of India (RBI) has issued guidelines on the classification and management of NPAs, defining an asset as non-performing when it ceases to generate income for the bank. The RBI emphasizes the importance of timely identification and proactive management of NPAs to maintain the financial stability of banks.

These studies collectively highlight the multifaceted nature of NPAs in the Indian banking sector, particularly within Regional Cooperative Banks. They underscore the importance of effective management practices, robust regulatory frameworks, and efficient recovery mechanisms in addressing the challenges posed by NPAs. The period from 2016 to 2023 has seen significant developments in NPA trends and recovery necessitating strategies, a nuanced understanding of regional disparities and the factors influencing NPA accumulation and recovery success.

3. Objectives of the study

- To analyse the trends in Non-Performing Assets (NPAs) among Indian Regional Cooperative Banks from 2016 to 2023.
- To investigate the regional disparities in recovery ratios of NPAs across different Indian cooperative banks.
- To identify and evaluate the factors influencing NPA accumulation, including economic conditions, regulatory frameworks, and management practices.

4. Scope of the Study

This study examines trends in Non-Performing Assets (NPAs) and recovery ratios in Indian Regional Cooperative Banks over a temporal span from 2016 to 2023. Geographically, it focuses on banks across diverse regions of India, highlighting the regional disparities in NPA levels and recovery performance. Analytically, the research delves into the divergent trends in NPAs and recovery ratios, identifying the factors contributing to these variations. It further investigates the role of economic conditions, regulatory frameworks, and management practices in shaping NPA

accumulation and recovery success. The study also aims to determine the key determinants influencing financial performance. On a practical level, the research provides valuable insights for policymakers and bank administrators, offering actionable recommendations to enhance the financial health and operational effectiveness of regional cooperative banks.

5.Research Methodology

The study employs a case study approach to explore the dynamics of NPAs and recovery ratios in regional cooperative banks. Data collection spans multiple cooperative banks across different regions in India, covering the time period from 2016 to 2023. Key under consideration include variables economic conditions, regulatory frameworks, management practices, NPA levels, and recovery ratios. The analysis involves a comparative examination of NPA trends and recovery ratios across regions, identifying the factors contributing to regional disparities. Furthermore, the study assesses the impact of these variables on NPA accumulation and recovery interpretation performance. The phase evaluates regional variations in NPA trajectories and recovery efficiencies, while the synthesis stage develops actionable insights based on the findings.

6.Data Analysis and Interpretation

Table1: NPAs to Loans Ratio (%) and Recovery Ratio (%) of Primary Co-Agriculture operative and Rural Development Banks (PCARDBs) in India This table provides a detailed analysis of two critical financial indicators—NPAs to Loans Ratio (%) and Recovery Ratio (%) across various states and regions of India from 2016 to 2023. The data highlights the non-performing trends in assets efficiency, recovery essential for

understanding the operational performance of PCARDBs.

Table1

NPAs to Loans Ratio (%) of Primary Co-operative Agriculture and Rural Development Banks

(PCARDBs) in India

| State | NPAs to Loans ratio (%) | | | | | | | | | |
|------------------------|-------------------------|-----|------|-----|-----|------|------|------|------|------|
| year | 20 | 16 | 2017 | 201 | 18 | 2019 | 2020 | 2021 | 2022 | 2023 |
| Northern Region | 43 | 3.2 | 50.4 | 4 | 57 | 63 | 68 | 72 | 70 | 70.8 |
| Haryana | 67 | 7.1 | 69.2 | 74 | .8 | 79 | 82 | 84 | 85 | 86.5 |
| Himachal Pradesh | 5 | 5.5 | 29.9 | 37 | .3 | 33 | 51 | 31 | 35 | 31.8 |
| Punjab | 28 | 3.8 | 45 | 56 | 5.3 | 65 | 73 | 80 | 79 | 84 |
| Rajasthan | , | 43 | 42.5 | 40 | .4 | 41 | 45 | 45 | 40 | 35.8 |
| Central Region | 68 | 3.4 | - | - | | - | - | - | - | - |
| Chhattisgarh | - | | - | - | | - | - | - | - | - |
| Madhya Pradesh | - | | - | - | | - | - | - | - | - |
| Eastern Region | 43 | 3.4 | 40.6 | 32 | .9 | 35 | 34 | 35 | 35 | 34.2 |
| Odisha | - | | 1 | - | | - | - | - | - | - |
| West Bengal | 43 | 3.4 | 40.6 | 32 | .9 | 35 | 34 | 35 | 35 | 34.2 |
| Western Region | - | | - | - | | - | - | - | - | - |
| Maharashtra | - | | 1 | - | | - | - | - | - | - |
| Southern Region | | 22 | 27.1 | 27 | .3 | 26 | 32 | 34 | 34 | 30 |
| Karnataka | 16 | 5.6 | 54.4 | 19 | .3 | 25 | 25 | 21 | 20 | 19.9 |
| Kerala | 26 | 5.5 | 26.5 | 31 | .1 | 28 | 37 | 40 | 38 | 34.8 |
| Tamil Nadu | 14 | 1.3 | 14.6 | 14 | .6 | 14 | 10 | 9 | 29 | 12.5 |
| All India | | 37 | 33 | 38 | .4 | 39 | 43 | 44 | 43 | 40.4 |

Source: NABARD

Table 2

Recovery Ratio (%) of Primary Co-operative Agriculture and Rural Development Banks

(PCARDBs) in India

| State | Recovery ratio (%) (At end-June) | | | | | | | | |
|------------------------|----------------------------------|------|------|------|------|------|------|------|--|
| year | 2016 | 2017 | 2018 | 2019 | 2020 | 2020 | 2021 | 2022 | |
| Northern Region | 41.4 | 22.1 | 21.4 | 22.5 | 25 | 18 | 16 | 16.5 | |
| Haryana | 29.3 | 15.5 | 16.4 | 10.2 | 22 | 10 | 10 | 12.2 | |
| Himachal Pradesh | 60 | 58.7 | 51.6 | 57.6 | 49 | 55 | 52 | 53.6 | |
| Punjab | 61.7 | 19.6 | 19.6 | 25.3 | 25 | 18 | 14 | 13.5 | |
| Rajasthan | 35.3 | 33.9 | 30.1 | 33.9 | 30 | 29 | 33 | 31.3 | |
| Central Region | 1 | - | - | - | 1 | - | 1 | - | |
| Chhattisgarh | 1 | - | - | - | - | - | - | - | |
| Madhya Pradesh | - | - | - | - | - | - | - | - | |
| Eastern Region | 38.5 | 36.7 | 40 | 40 | 36 | 39 | 38 | 36.2 | |
| Odisha | 1 | - | - | - | - | - | - | - | |
| West Bengal | 38.5 | 36.7 | 40 | 40 | 36 | 39 | 38 | 36.2 | |

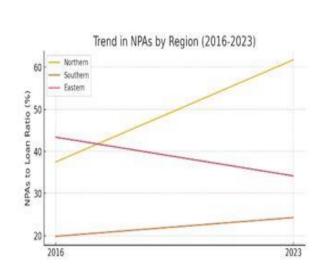
| Western Region | - | - | - | - | - | - | - | _ | | |
|---|----------------------------------|------|------|------|------|------|------|------|--|--|
| Maharashtra | - | - | - | - | - | - | - | _ | | |
| Southern Region | 69 | 74.2 | 66.1 | 64.9 | 67 | 65 | 64 | 64.4 | | |
| Karnataka | 67.5 | 50.9 | 48.9 | 43.4 | 40 | 70 | 58 | 58.5 | | |
| Kerala | 76.3 | 76.3 | 62.2 | 64.8 | 64 | 56 | 58 | 63.6 | | |
| Tamil Nadu | 32.1 | 85.3 | ı | 87 | 93 | 81 | 86 | 80.5 | | |
| State | Recovery ratio (%) (At end-June) | | | | | | | | | |
| year | 2016 | 2017 | 2018 | 2019 | 2020 | 2020 | 2021 | 2022 | | |
| Northern Region | 41.4 | 22.1 | 21.4 | 22.5 | 25 | 18 | 16 | 16.5 | | |
| Haryana | 29.3 | 15.5 | 16.4 | 10.2 | 22 | 10 | 10 | 12.2 | | |
| Himachal Pradesh | 60 | 58.7 | 51.6 | 57.6 | 49 | 55 | 52 | 53.6 | | |
| Punjab | 61.7 | 19.6 | 19.6 | 25.3 | 25 | 18 | 14 | 13.5 | | |
| Rajasthan | 35.3 | 33.9 | 30.1 | 33.9 | 30 | 29 | 33 | 31.3 | | |
| Central Region | - | - | - | - | - | - | - | - | | |
| Chhattisgarh | - | - | 1 | 1 | - | 1 | - | - | | |
| Madhya Pradesh | - | - | 1 | 1 | - | 1 | - | - | | |
| Eastern Region | 38.5 | 36.7 | 40 | 40 | 36 | 39 | 38 | 36.2 | | |
| Odisha | - | 1 | 1 | 1 | - | - | - | _ | | |
| West Bengal | 38.5 | 36.7 | 40 | 40 | 36 | 39 | 38 | 36.2 | | |
| Western Region | 1 | 1 | | 1 | - | | 1 | - | | |
| Maharashtra | ı | - | ı | 1 | - | 1 | 1 | - | | |
| Southern Region | 69 | 74.2 | 66.1 | 64.9 | 67 | 65 | 64 | 64.4 | | |
| Karnataka | 67.5 | 50.9 | 48.9 | 43.4 | 40 | 70 | 58 | 58.5 | | |
| Kerala | 76.3 | 76.3 | 62.2 | 64.8 | 64 | 56 | 58 | 63.6 | | |
| Tamil Nadu | 32.1 | 85.3 | - | 87 | 93 | 81 | 86 | 80.5 | | |
| Source: NARAPD NDAs to Loans Potio (%) | | | | | | | | | | |

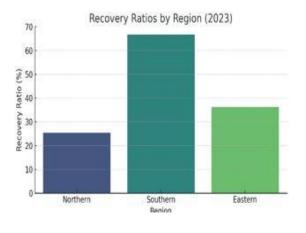
Source: NABARD

NPAs to Loans Ratio (%)

Loan Recovery Ratio

Graph 1 Graph 2





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Findings of the Study on NPAs and Recovery Ratios of PCARDBs in India

1. Trends in Non-Performing Assets (NPAs) from 2016 to 2023

The analysis of NPAs to loans ratio among Indian Primary Co-operative Agriculture and Rural Development Banks (PCARDBs) reveals a concerning upward trend over the period from 2016 to 2023.

- Northern Region: The NPAs to loans ratio increased significantly from 43.2% in 2016 to 70.8% in 2023, indicating a deterioration in asset quality. Notably, Haryana exhibited the highest NPAs ratio, escalating from 67.1% in 2016 to 86.5% by 2023.
- Himachal Pradesh showed fluctuations, peaking at 51% in 2020, but ended at 31.8% in 2023.
- Punjab also experienced a rise, with NPAs increasing from 28.8% in 2016 to 84% in 2023.
- The Central Region data is unavailable, while the Eastern Region saw a decline from 43.4% in 2016 to 34.2% in 2023, suggesting some improvement.
- The Southern Region displayed a more stable trend, with the ratio fluctuating around the mid-20s to low-30s, ending at 30% in 2023.

2. Regional Disparities in Recovery Ratios

The recovery ratios across different regions indicate significant disparities:

- The Southern Region had the highest recovery ratios, starting at 69% in 2016 and maintaining around 64% by 2023, showcasing effective recovery mechanisms.
- In contrast, the Northern Region's recovery ratio plummeted from 41.4% in 2016 to just 16.5% in 2023,

- highlighting severe challenges in recovering NPAs.
- Haryana's recovery ratio was particularly low, declining from 29.3% in 2016 to a mere 12.2% by 2023, which correlates with its high NPA levels.
- The recovery ratios for Himachal Pradesh remained relatively stable but low, fluctuating between 49% and 53.6% over the years.

3. Factors Influencing NPA Accumulation

Several factors contribute to the accumulation of NPAs among PCARDBs:

- Economic Conditions: Economic downturns and external shocks have exacerbated repayment issues, particularly evident during the COVID-19 pandemic which disrupted income and agricultural productivity.
- Regulatory Frameworks: The effectiveness of regulatory measures has varied across states, influencing how quickly banks can address NPAs through legal channels like LokAdalats and DRTs.
- Management Practices: Inefficient credit appraisal processes and poor management practices have been identified as internal factors leading to increased NPAs. For instance, banks that fail to adhere to prudent lending principles often face higher default rates.

7. Suggestions

 Banks should implement robust internal controls to monitor loan disbursement and repayment processes. Regular audits and assessments can help identify potential NPAs early.

- Training for Management: Providing training programs for bank management on risk assessment and credit evaluation can mitigate the accumulation of NPAs. Understanding borrower profiles and market conditions is crucial.
- Develop region-specific strategies to improve recovery ratios, especially in areas with historically low performance. For instance, states like Haryana and Punjab, with high NPAs, may require targeted interventions.
- Community Engagement: Engage local communities in understanding their financial needs and repayment capabilities. This could involve workshops or advisory services that educate borrowers on financial literacy.
- Advocate for policies that stabilize economic conditions affecting borrowers. This includes lobbying for better agricultural pricing, subsidies, or support during adverse weather conditions.
- Encourage regulatory bodies to introduce measures that facilitate easier recovery processes for banks, such as streamlined legal procedures for recovering NPAs.
- Encourage banks to diversify their loan portfolios to reduce dependency on a single sector or borrower type. This can help mitigate risks associated with economic downturns.
- Promote sustainable agricultural practices among borrowers, which can lead to better yields and repayment capabilities.
- Implement technology-driven solutions for real-time monitoring of loans and repayments. This could include mobile apps or online platforms that facilitate

- communication between banks and borrowers. Utilize data analytics to assess borrower risk profiles more accurately, enabling better-informed lending decisions.
- Conduct continuous research on factors influencing NPAs, focusing on both internal bank-specific factors (like operational efficiency) and external factors (such as macroeconomic conditions).
- Study successful models from other regions or countries that have effectively managed NPAs and apply relevant strategies in the Indian context.

8. Conclusion

The analysis of Non-Performing Assets (NPAs) and recovery ratios among Primary Co-operative Agriculture and Rural Development Banks (PCARDBs) in India reveals significant trends and regional disparities that necessitate targeted interventions. The high NPAs observed in several states, particularly in the Northern and Central regions, highlight the urgent for enhanced monitoring need management practices within these banks.

By implementing robust internal controls, providing management training, developing tailored recovery strategies, **PCARDBs** can better address NPAs. accumulation of Furthermore, engaging local communities and advocating for supportive economic policies will foster a more resilient agricultural sector capable of meeting its financial obligations.

The importance of leveraging technology cannot be overstated; digital monitoring tools and data analytics can significantly improve risk assessment and borrower engagement. Additionally, ongoing research into the factors influencing NPAs will

enable banks to adapt their strategies to changing economic conditions

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