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## PM-KISAN AND RURAL DEVELOPMENT: EXAMINING CHALLENGES, TRENDS, AND POLICY RECOMMENDATIONS FOR AGRICULTURAL WELFARE IN INDIA

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### ABSTRACT

India is one of the fastest-growing economies in the world, with agriculture playing a pivotal role in economic development. Agriculture remains the backbone of both the industry and service sectors by providing employment to nearly half of the country's workforce and ensuring food security. The sector's vast productive capacity has made India one of the leading global producers and exporters of key agricultural commodities. Recognizing the importance of agriculture, the Indian government has introduced various policy measures to enhance productivity and improve farmers' welfare. One such initiative is the Pradhan Mantri Kisan Samman Nidhi (PM-Kisan) scheme, launched in December 2018 and operational from February 2019. Initially targeting small and marginal farmers, the scheme was later expanded to cover all farmers, except those falling under certain exclusion criteria. Under PM-Kisan, eligible farmers receive ₹6,000 annually in three equal instalments through direct benefit transfer, ensuring transparency and timely disbursements. The scheme has had a substantial financial impact, transferring over ₹115,638.87 crore to more than 10.75 crore beneficiaries as of March 2021. By stabilizing incomes and addressing rural distress, PM-Kisan has significantly contributed to agricultural development and economic growth in India. This study examines the impact, effectiveness, and future implications of the PM-Kisan scheme in enhancing farmers' welfare and rural development.

**Keywords:** Agriculture, Economic Development, PM-Kisan, Financial Inclusion, Rural Welfare, Direct Benefit Transfer, India.

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## I. INTRODUCTION

### 1.1 Eligibility and Benefits

The Pradhan Mantri Kisan Samman Nidhi (PM-Kisan) scheme is designed to provide financial assistance to eligible farmers in India. Initially, the scheme targeted small and marginal farmers with landholdings of up to 2 hectares. However, in May 2019, the policy was revised, and the eligibility was extended to all landowning farmers, removing the landholding size limit. The eligibility criteria are based on land ownership, and farmers with cultivated land are the primary beneficiaries.

Certain exclusion categories are specified under the scheme to ensure that the benefits reach the deserving individuals. Excluded categories include institutional landholders, farmers who hold constitutional posts, serving or retired government employees, members of the legislature, and professionals such as doctors, engineers, lawyers, and accountants who have paid income tax in the last assessment year. These exclusion criteria ensure that the financial support is directed toward those who truly need assistance.

### 1.2 Objectives of the scheme:

The PM-KISAN scheme seeks to support the financial requirements of small and marginal farmers (SMFs) by facilitating access to essential inputs, thereby promoting optimal crop health and achieving expected yields aligned with anticipated farm income at the conclusion of each crop cycle.

Additionally, the scheme aims to shield farmers from reliance on moneylenders for such expenses, ensuring their sustained participation in agricultural activities.

### 1.3 Enrolment Process and Special Provisions

The enrolment process for the Pradhan Mantri Kisan Samman Nidhi (PM-Kisan) scheme is designed to ensure that only eligible farmers benefit from the scheme. The responsibility of identifying and enrolling beneficiaries lies with the state governments, which prepare and maintain databases of eligible landholding farmer families. To ensure comprehensive coverage, the registration process is continuous, and farmers can register at any time

through the PM-Kisan portal. The scheme has specific provisions for states with unique land ownership systems, such as Manipur and Nagaland, where community-based land ownership is prevalent. In these regions, special identification procedures have been devised to accommodate the local land tenure systems and ensure that rightful beneficiaries are included. Additionally, the scheme has been extended to forest-dwelling tribal communities who have been granted land rights under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006. These communities, who often face challenges in land ownership formalities, are eligible to receive the benefits of the PM-Kisan scheme.

#### **1.4 Impact and Outreach**

The Pradhan Mantri Kisan Samman Nidhi (PM-Kisan) scheme has had a significant impact on India's agricultural sector by providing financial assistance to millions of farmers. FY 2019-20, the scheme has reached over 9 crore beneficiaries across the country. The scheme's wide outreach has helped alleviate some of the financial pressures faced by farmers, especially in rural areas. Among the states with the highest participation, Uttar Pradesh stands out, with approximately 20 million farmers receiving benefits. Other states like Maharashtra, Madhya Pradesh, and Gujarat also contribute significantly to the total number of beneficiaries. These regions, which have large agrarian populations, have witnessed a notable improvement in farmers' economic stability as a result of the scheme.

#### **1.5 Direct Benefit Transfer and Transparency**

The Direct Benefit Transfer (DBT) system plays a central role in the implementation of the Pradhan Mantri Kisan Samman Nidhi (PM-Kisan) scheme, ensuring that financial assistance reaches eligible farmers in a transparent, efficient, and timely manner. Under this system, the ₹6,000 annual support provided to beneficiaries is transferred directly to their bank accounts in three instalments of ₹2,000 each, based on the specified timelines: April to July, August to November, and December to March. The DBT system eliminates the need for intermediaries, reducing the risk of corruption or mismanagement of funds. By transferring the funds directly to the beneficiaries' bank accounts, the scheme ensures that the support reaches the intended farmers without delays or diversion. This mechanism has increased the accountability of the scheme, as every transaction is traceable, making it easier to monitor and address discrepancies.

## **II. LITERATURE REVIEW**

### **1980s-1990s:**

**Feder et al. (1985)** conducted a broad analysis of agricultural innovation adoption in developing countries, providing insights into the factors influencing farmers' decisions.

**Heckman et al. (1997)** discussed matching as an econometric evaluation estimator, particularly in the context of job training programs, laying the groundwork for empirical policy evaluations.

### **2000-2010:**

**Sadoulet et al. (2001)** analysed income multipliers associated with cash transfer programs, particularly focusing on PROCAMPO in Mexico.

**Gertler (2004)** examined the impact of conditional cash transfers on child health using evidence from PR

**Caliendo and Kopeinig (2008)** provided guidance on implementing propensity score matching, a crucial econometric tool for policy evaluation

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**Fiszbein and Schady (2009)** provided a comprehensive analysis of conditional cash transfer (CCT) programs and their effectiveness in reducing present and future poverty.

**Maluccio (2010)** assessed the impact of conditional cash transfers on consumption and investment in Nicaragua, highlighting positive long-term economic benefits.

### **2011-2015:**

**Galiani and McEwan (2013)** analysed the heterogeneous effects of conditional cash transfers, showing varied impacts across different socio-economic groups.

**Zimmermann (2015)** explored the rationale behind employment guarantee schemes in India, demonstrating their impact on economic stability and poverty alleviation.

**2016-2020:**

**Haushofer and Shapiro (2016)** provided experimental evidence from Kenya, showing the significant short-term benefits of unconditional cash transfers in poverty alleviation.

**Tirivayi et al. (2016)** reviewed interactions between social protection and agriculture, emphasizing how cash transfers impact agricultural productivity.

**Banerjee et al. (2017)** examined constraints posed by limited credit access on entrepreneurship, emphasizing the importance of microfinance.

**Handa et al. (2018)** investigated whether unconditional cash transfers could improve long-term living standards, with evidence from Zambia.

**Gulati et al. (2018)** reviewed India's agricultural extension system and suggested pathways for improvement.

**Kumar et al. (2019)** evaluated the impact of India's Krishi Vigyan Kendras (Farm Science Centres) on farm households' economic welfare, demonstrating positive effects.

**Recent Years (2021-Present):**

Adato and Bassett (n.d.) explored the potential of cash transfers in supporting vulnerable children and families, highlighting their effectiveness in improving education and health outcomes.

Adesina (n.d.) examined factors influencing fertilizer adoption among rice farmers in Côte d'Ivoire, offering insights into agricultural policy effectiveness.

This systematic literature review highlights the evolution of research in social protection, financial inclusion, agricultural innovation, and employment schemes over the past decades. The studies provide a strong foundation for analysing policy impacts and designing effective interventions to enhance economic welfare.

**III. DATA AND METHODOLOGY**

This study adopts a descriptive and exploratory approach. It relies on secondary data to analyse the PM-Kisan scheme in India, sourced from various secondary materials such as government reports, published journals. Descriptive statistical tools, including percentages, tables, charts, and growth rate analysis, were employed to interpret the data.

**IV. ANALYSIS OF KISAN SAMMAN NIDHI BENEFICIARIES: GENDER AND REGIONAL TRENDS**

The data on Kisan Samman Nidhi (PM-KISAN) beneficiaries reveals important trends about the distribution of benefits, particularly focusing on gender disparities and regional variations in participation. These insights are essential for understanding the scheme's outreach and growth trajectory, especially in terms of empowering women farmers and ensuring inclusive welfare.

**Table 1:** State-wise number of eligible beneficiaries, women beneficiaries under PM-KISAN

Sr. No.	State/UT	Total eligible Beneficiaries	Women Beneficiaries	Percentage of women beneficiaries (%)
1	Andaman and Nicobar Islands	12,043	4,412	36.64
2	Andhra Pradesh	41,46,792	14,21,859	34.29
3	Arunachal Pradesh	62,677	32,889	52.47
4	Assam	14,48,043	3,01,041	20.79
5	Bihar	74,62,817	23,13,551	31
6	Chandigarh	333	43	12.91
7	Chhattisgarh	22,73,415	4,18,228	18.4
8	Delhi	9,454	1,547	16.36

9	Goa	6,186	825	13.34
10	Gujarat	44,73,391	11,58,633	25.9
11	Haryana	14,72,847	2,31,263	15.7
12	Himachal Pradesh	7,50,480	1,21,629	16.21
13	Jammu and Kashmir	8,08,426	78,742	9.74
14	Jharkhand	15,67,806	4,18,747	26.71
15	Karnataka	45,98,444	10,79,504	23.48
16	Kerala	25,40,528	11,07,106	43.58
17	Ladakh	16,708	2,504	14.99
18	Lakshadweep	1,757	859	48.89
19	Madhya Pradesh	78,02,023	15,42,845	19.77
20	Maharashtra	87,60,874	16,37,296	18.69
21	Manipur	2,35,397	1,32,810	56.42
22	Meghalaya	84,056	58,732	69.87
23	Mizoram	77,134	30,441	39.47
24	Nagaland	1,33,084	74,397	55.9
25	Odisha	27,65,444	6,45,771	23.35
26	Puducherry	8,649	3,168	36.63
27	Punjab	6,42,043	2,189	0.34
28	Rajasthan	55,57,942	17,10,833	30.78
29	Sikkim	18,600	3,746	20.14
30	Tamil Nadu	21,34,544	4,76,785	22.34
31	Telangana	30,02,292	8,35,485	27.83
32	Dadra and Nagar Haveli and Daman and Diu	11,212	2,510	22.39
33	Tripura	2,07,111	44,217	21.35
34	Uttar Pradesh	1,89,64,158	32,12,836	16.94
35	Uttarakhand	7,20,647	1,18,381	16.43
36	West Bengal	42,35,044	7,61,845	17.99
Grand Total		8,70,12,401	1,99,87,669	22.97

**Source: MINISTRY OF AGRICULTURE AND FARMERS WELFARE**

#### 4.1. States with the Highest Total Beneficiaries

Uttar Pradesh: With 18.96 million beneficiaries, Uttar Pradesh ranks the highest in terms of total beneficiaries. However, the proportion of female beneficiaries is relatively low at 16.94% (3.21 million). This suggests a large pool of male beneficiaries, indicating potential gender imbalances in the scheme's outreach.

Maharashtra: The second highest, with 8.76 million beneficiaries, also shows a low female participation at 18.69% (1.64 million). Despite large-scale distribution, gender gaps remain evident, potentially reflecting challenges in ensuring that women farmers benefit equally from the scheme.

Bihar: With 7.46 million beneficiaries and 31% female beneficiaries (2.31 million), Bihar stands out as a state with relatively better female beneficiary inclusion, although there is still room for improvement in addressing gender disparities.

#### 4.2. States with the Highest Percentage of Female Beneficiaries

Meghalaya: A standout with 69.87% female beneficiaries. This high percentage suggests effective gender-targeted policies and perhaps local outreach efforts that prioritize female farmers in the welfare scheme.

Manipur: With 56.42% female beneficiaries, Manipur reflects another example of gender inclusivity in welfare distribution, where women are central to the program's expansion.

Nagaland: 55.9% of beneficiaries in Nagaland are women, showing strong gender-focused outreach in welfare schemes.

Arunachal Pradesh: 52.47% female beneficiaries indicate a relatively high percentage of women in the state's welfare programs, reinforcing the importance of inclusive policy design in rural areas.

#### 4.3. States with the Lowest Percentage of Female Beneficiaries

Punjab: With only 0.34% female beneficiaries, Punjab shows a severe gender disparity, which may point to administrative gaps or cultural challenges in ensuring women's participation in the scheme.

Chandigarh: At 12.91% female beneficiaries, Chandigarh exhibits a relatively low female representation, despite its smaller population. This could indicate gender-related challenges in reaching women farmers.

Assam: Only 20.79% of beneficiaries are women, suggesting a significant gender gap that needs further investigation to ensure equal access to welfare programs.

#### 4.4. Trends in Beneficiary Growth and Decline

Growth: States like Bihar and Madhya Pradesh demonstrate consistent growth in both total and female beneficiaries, with Bihar leading in terms of female participation (31%). This growth can be attributed to improved program outreach, better disbursement mechanisms, and the increasing demand for direct income support.

Decline: Some states, such as Assam, Andhra Pradesh, and Maharashtra, have seen a decline in beneficiaries between fiscal years. The drop could be due to policy changes, economic shifts, or program adjustments that resulted in reduced numbers of eligible beneficiaries, including women.

#### 4.5. Regional Disparities and Gender-Specific Insights

States with large numbers of male beneficiaries, such as Uttar Pradesh and Maharashtra, require targeted gender interventions to ensure that women farmers are not excluded from direct income support. This is critical for empowering women in agriculture and ensuring they benefit equally from government schemes.

In contrast, states like Meghalaya and Nagaland are models for gender parity in welfare schemes, with more than half of the beneficiaries being women. These states could serve as examples for gender-sensitive policy implementation.

Punjab, with a starkly low percentage of female beneficiaries, could benefit from policy adjustments to improve female farmers' participation, possibly by addressing cultural barriers or creating targeted programs for women in rural areas.

#### 4.6 National Trends in Beneficiary Enrolment:

The data reveals a noticeable overall decline in the number of beneficiaries across most states from FY 2022-23 to FY 2023-24. For many states, the number of beneficiaries dropped significantly in FY 2023-24 compared to the previous year, indicating a broader national trend of reduction. Specifically, states like Andhra Pradesh, Assam, Haryana, Jammu & Kashmir, Maharashtra, and Tamil Nadu saw marked decreases in the number of beneficiaries. These states had higher numbers in FY 2022-23, but in FY 2023-24, the figures dropped, suggesting potential factors like changes in policies, demographic shifts, or program adjustments that led to fewer people receiving benefits. On the other hand, states like Bihar and Madhya Pradesh demonstrated a continued upward trajectory in the number of beneficiaries, even into FY 2023-24. Bihar, in particular, showed consistent growth throughout the years, while Madhya Pradesh also maintained positive growth. This growth trend could be attributed to better outreach or increased demand for the program in these states. These two states represent an outlier to the broader trend of decline, showing that there are areas where the program has continued to expand. In some other states, such as Gujarat and Chhattisgarh, we see a mixed trend. These states experienced an increase in beneficiaries through FY 2022-23, but by FY 2023-24, there was a noticeable drop. This fluctuation suggests that while there may have been an initial surge in beneficiary enrolment, certain

factors may have led to a reversal or stagnation in the growth rate in the most recent fiscal year. West Bengal's data is available only from FY 2021-22 onward, but it shows a steady increase in beneficiaries from FY 2021-22 to FY 2023-24. The figures grew from 4.64 million in FY 2021-22 to 4.87 million in FY 2022-23, and then to 4.47 million in FY 2023-24, indicating that West Bengal may be experiencing slight fluctuations, but the numbers have remained relatively stable. Looking at the aggregate data, the total number of beneficiaries across all states and UTs decreased from 107.16 million in FY 2022-23 to 85.66 million in FY 2023-24. This decline in the grand total further emphasizes the reduction in beneficiary numbers, with the combined figures for all regions showing a drop of around 21.5 million in just one year. This suggests a broader national trend where fewer individuals are receiving benefits in the most recent fiscal year, possibly due to policy changes, demographic shifts, or other programmatic adjustments. In conclusion, while some states have seen growth in beneficiaries, the overall picture is one of decline, with a few regions standing out as exceptions to this trend. The national drop in total beneficiaries could be a signal of broader shifts in social welfare programs or the evolving needs and priorities of different regions.

## V. CHALLENGES AND POLICY RECOMMENDATIONS: ADDRESSING THE DECLINE IN PM-KISAN BENEFICIARIES

The Pradhan Mantri Kisan Samman Nidhi (PM-Kisan) scheme has significantly contributed to rural welfare by providing direct income support to farmers. However, recent data indicates a decline in the number of beneficiaries, raising concerns about implementation challenges and policy gaps. Several key factors contribute to this trend, including administrative inefficiencies, technological barriers, and exclusionary eligibility criteria. Addressing these challenges is crucial for ensuring the scheme's continued success and enhancing its impact on India's agrarian economy.

### 5.1 Causes of Declining Beneficiary Numbers

**Land Record Discrepancies and Ownership Issues:** The scheme is based on state-maintained land records, which are often outdated or incomplete, leading to the exclusion of eligible farmers. Farmers with informal or disputed land ownership face difficulties in claiming benefits. Joint landowners and those without proper documentation struggle to qualify under the current framework.

**Aadhaar Linkage and KYC Verification Barriers:** The Aadhaar-based verification system has led to unintended exclusions due to biometric failures, mismatched details, and connectivity issues in remote areas. Farmers with discrepancies in their names or bank account details linked to Aadhaar often experience delays or rejections in payments.

**Delays in Direct Benefit Transfers (DBT):** Despite its transparency benefits, the DBT system has faced operational delays due to slow approval processes at the state level. Issues such as inactive bank accounts, KYC non-compliance, and administrative inefficiencies contribute to payment failures.

**Exclusion of Tenant Farmers and Landless Agricultural Workers:** Since PM-Kisan benefits are restricted to landowning farmers, tenant farmers, sharecroppers, and landless laborers—who form a significant part of India's agricultural workforce—are left out. Many marginal farmers lease land informally, making them ineligible under current regulations.

**Regional Disparities and Bureaucratic Challenges:** States with efficient digital infrastructure have maintained better beneficiary records, while others lag due to ineffective outreach and cumbersome administrative processes. Political and governance variations across states have led to inconsistent implementation and delays in disbursement.

### 5.2 Policy Recommendations for Strengthening PM-Kisan

To address these challenges and improve the scheme's outreach, the following policy interventions are recommended:

**Streamlining Land Record Management:** Accelerate digitization and real-time updates of land records to reduce exclusions due to documentation issues. Implement flexible eligibility norms for small farmers in informal land arrangements or joint ownership scenarios.

**Enhancing Aadhaar and KYC Accessibility:** Introduce alternative verification mechanisms for farmers facing Aadhaar authentication issues, such as voter ID or ration card validation. Deploy mobile registration units in remote areas to assist farmers in updating KYC and Aadhaar-linked bank details.

**Ensuring Timely DBT Payments and Financial Inclusion:** Improve coordination between state governments and banking institutions to expedite fund transfers. Conduct financial literacy campaigns to help farmers maintain active bank accounts and update KYC details. Establish a dedicated grievance redressal mechanism at the district level to address payment-related issues.

**Expanding Coverage to Tenant Farmers and Landless Laborers:**

Modify the scheme to include tenant farmers through self-declaration or verified tenancy records maintained by village authorities. Integrate landless agricultural workers into a parallel income support scheme or expand MGNREGA benefits for them.

**Promoting Gender Inclusivity in PM-Kisan:** Conduct awareness drives to encourage more women farmers to register, ensuring that female-headed households benefit from direct transfers. Simplify documentation requirements for women, allowing joint or independent applications under the scheme. Provide additional incentives or reserved benefits for women beneficiaries to enhance gender equity in agricultural welfare programs.

**Reducing Bureaucratic Hurdles and Strengthening Awareness Campaigns:** Simplify application processes by reducing paperwork and adopting digital verification where possible. Conduct village-level awareness programs in regional languages to educate farmers about eligibility, enrolment, and grievance resolution. Establishing local facilitation centres to assist farmers in completing documentation and resolving enrolment issues efficiently.

By addressing these structural and operational barriers, PM-Kisan can be made more inclusive, efficient, and impactful. Strengthening the scheme's outreach mechanisms and ensuring that financial support reaches all eligible farmers will enhance its role in securing rural livelihoods and promoting agricultural sustainability.

## VI. CONCLUSION

The analysis of Kisan Samman Nidhi (PM-KISAN) data highlights both positive growth trends and significant gender disparities in welfare distribution. States like Uttar Pradesh, Maharashtra, and Bihar represent areas with large numbers of beneficiaries, but gender inclusion remains a challenge, particularly in Uttar Pradesh and Maharashtra, where female participation is relatively low. On the other hand, Meghalaya, Manipur, and Nagaland exemplify effective gender-targeted outreach, with women beneficiaries constituting a significant portion of total beneficiaries. In these northeastern states, women beneficiaries stand out with higher proportions compared to other regions, showcasing a more inclusive approach in welfare distribution. This highlights the success of gender-sensitive policies in the northeast, where women are better integrated into the welfare framework.

For the program to be truly inclusive and impactful, policymakers should focus on closing the gender gap in other states by targeting female farmers, ensuring equal access to the benefits, and addressing regional disparities in welfare outreach.

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