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A Critical Study of the Issues and Challenges in Crop Insurance Implementation in Haryana

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Abstract

This study critically examines the issues and challenges hindering the effective implementation of crop insurance schemes in Haryana, with a specific focus on the Pradhan Mantri Fasal Bima Yojana (PMFBY). Despite its intent to safeguard farmers against crop losses due to natural calamities, the scheme faces widespread limitations in practice. Using a quantitative, descriptive approach, data was collected from 150 farmers across irrigated and rain-fed districts through structured questionnaires. The findings reveal that the most significant challenges include inadequate bank cooperation, limited accessibility to banking services, complex documentation, low awareness, and delays in claim settlement. A substantial percentage of respondents exhibited neutral responses, indicating knowledge gaps and a lack of active engagement with the scheme. The weighted average analysis ranks infrastructural and service delivery issues as primary barriers, while ANOVA results highlight significant disparities in awareness based on geographic location. The study underscores the need for targeted reforms in communication, infrastructure, and institutional responsiveness to ensure equitable and efficient crop insurance delivery in Haryana.

Keywords: Crop Insurance, Haryana, PMFBY, Banking Barriers, Awareness, ANOVA, Weighted Average, Farmer Perceptions, Agricultural Risk, Institutional Challenges

Introduction

Haryana, a leading agrarian state in India, has witnessed a drastic collapse in the implementation of crop insurance schemes, particularly the Pradhan Mantri Fasal Bima Yojana (PMFBY), with recent data revealing a staggering fall in insurance payouts from ₹2,496.89 crore in 2022–23 to a mere ₹224.43 crore in 2023–24 (Indian Express, 2025). This 90% decline has not only sparked outrage among farmer groups and political leaders but has also exposed deep-seated issues in the administration of agricultural risk coverage. The present study titled "Uncovering the Fault Lines: A Critical Study of the Issues and Challenges in Crop Insurance Implementation in Haryana" seeks to analyze the structural, procedural, and institutional barriers that impede the success of crop insurance in the region. As reports from Bhiwani and Charkhi Dadri show, cotton farmers were initially promised ₹281 crore in claims, which was later arbitrarily reduced to ₹80 crore by insurance firms in coordination with state technical committees, sparking allegations of malpractice and bureaucratic complicity (Tribune India, 2025a). The situation worsens in districts like Karnal, Ambala, Hisar, Sonepat, Mahendragarh, Jind, and Gurugram, where no insurance company stepped forward to cover rabi crops for three consecutive seasons due to high loss-to-premium ratios and institutional apathy (Tribune India, 2025b). ThePrint (2025) and Newsclick (2025) have highlighted how procedural delays in conducting crop-cutting experiments (CCEs), non-payment of state subsidies, and insurer withdrawal have undermined the viability of the scheme. Moreover, a study by AgroInsurance (2025) suggested that newer models like Maharashtra's Beed model—where insurers cap their liability and governments absorb excess losses—could offer a solution to the crisis in Haryana. Farmers have also voiced frustration with delays in claim settlements, lack of awareness, opaque documentation, and challenges in accessing formal financial channels, as banks either refuse to cooperate or are located far from villages. The inconsistencies in yield estimation through manual crop-cutting, minimal technological integration, and lack of a real-time grievance mechanism further alienate small and marginal farmers from the benefits of insurance, even though they are the most vulnerable to climate-related shocks (ThePrint, 2025; Tribune India, 2025c). The research thus aims to uncover the multidimensional challenges—ranging from infrastructural gaps and administrative inefficiencies to trust erosion and policy design flaws—that have turned an essential risk-mitigation tool into a source of farmer discontent. By investigating the perceptions of farmers, analyzing institutional performance, and assessing district-level participation trends, this study aims to develop a comprehensive understanding of why crop insurance has failed to deliver its promised benefits in Haryana, especially between 2023 and 2025. It further intends to propose actionable reforms, including the adoption of AI-based yield assessments, flexible premium models, real-time data integration, and enhanced public-private accountability frameworks. Through a combination of quantitative data analysis, interviews, and policy review, this study positions itself as a timely and essential contribution to reimagining a more resilient and inclusive crop insurance architecture in Haryana, aligning with the broader objectives of sustainable agricultural development and farmer welfare in India.

Literature Review

The implementation of crop insurance schemes like the Pradhan Mantri Fasal Bima Yojana (PMFBY) has attracted substantial scholarly attention due to persistent gaps in outreach, accessibility, and impact among Indian farmers. Studies between 2019 and 2025 reveal recurring challenges including insurer withdrawal, bureaucratic delays, lack of awareness, and financial exclusion. Researchers have explored socio-economic determinants, infrastructural deficits, and policy misalignment through quantitative, qualitative, and mixed-method approaches. The literature consistently highlights the disjunction between policy design and grassroots realities, urging for technological integration, localized communication strategies, and stronger institutional accountability to enhance insurance uptake, claim processing, and farmer satisfaction.

Kumar and Choudhary (2024) examined the influence of awareness on farmer participation in the Pradhan Mantri Fasal Bima Yojana (PMFBY) in Haryana. Using a quantitative survey across ten districts, they found that farmers' awareness significantly affected enrollment, with those better informed being more likely to join the scheme. However, most farmers relied on informal sources like bank agents or fellow villagers, leading to misconceptions and incomplete understanding. The study suggests targeted awareness campaigns using local languages and involving Panchayati Raj institutions. It emphasizes the need for credible, decentralized communication channels to enhance understanding and bridge the awareness gap.

Sinha and Dey (2024) focused on agricultural insurance uptake among women farmers in rural Bihar and Uttar Pradesh. Using a gender-sensitive lens, they revealed that socio-cultural norms, land ownership issues, and limited digital literacy severely constrained women’s access to PMFBY. Many women were unaware of their eligibility or were excluded from policy documents registered in male relatives' names. The study called for gender-targeted awareness drives, female-led CSC kiosks, and inclusive documentation processes. It concluded that gender equity in crop insurance delivery is not just a social imperative but also essential for household-level financial resilience.

In their farmer-centric evaluation of PMFBY, **Rajan and Rao (2024)** conducted extensive fieldwork in Haryana and Punjab. They identified procedural delays, yield manipulation during crop-cutting experiments, and widespread mistrust as key deterrents to effective implementation. Farmers reported difficulties in claim processing, non-transparent assessments, and limited institutional support. Many respondents were unaware of grievance redress mechanisms or policy details. The study concluded that decentralization of claim monitoring, increased transparency in data collection, and active involvement of local governance units are essential to restore farmer confidence and ensure the fair and timely delivery of insurance benefits.

Sharma and Verma (2023) analyzed the institutional gaps affecting crop insurance implementation in Haryana using a district-level comparative study. They discovered fragmented coordination between banks, insurers, and agricultural departments, resulting in confusion among farmers regarding deductions, policy terms, and claim status. Limited training and low motivation among field agents were also cited as barriers. The authors suggest integrating crop insurance with broader rural development schemes, conducting regular training for frontline staff, and instituting joint accountability frameworks among stakeholders to bridge institutional divides and streamline scheme delivery.

Reddy and Devi (2023) investigated whether PMFBY helps reduce smallholder farmers' dependency on debt in Andhra Pradesh and Telangana. Employing structured interviews and regression analysis, they found that although insurance provided some financial confidence, delayed and partial claim settlements often forced farmers to continue relying on informal loans. The study highlights a mismatch between policy design and implementation, where insurance fails to fulfill its role as a debt-alleviating mechanism. The authors recommend linking crop insurance with timely credit relief and introducing faster, tech-driven claim settlement processes to make insurance a more effective tool for reducing rural indebtedness.

Joshi and Kaur (2023) assessed whether PMFBY reduces agrarian distress in Punjab using household-level surveys and a farmer stress index. While insured farmers reported marginal benefits, most still experienced uncertainty over claim timing and amount. Procedural opacity and inflexible rules limited the scheme's protective potential. The study recommends adopting user-friendly tools like SMS updates on claims, real-time support via mobile apps, and involvement of local officials in monitoring. The findings stress the need for farmer-centered processes to enhance accessibility, accountability, and confidence in crop insurance as a reliable safety net.

Arora and Singh (2022) studied farmer perceptions of crop insurance in northern India, focusing on Punjab, Haryana, and Uttar Pradesh. Through mixed methods, including surveys and focus group discussions, they found widespread misinformation, dependency on village middlemen, and minimal institutional support. Many farmers enrolled without understanding policy terms, often misled by bank deductions. The study highlighted the urgent need for standardized training of Common Service Centre (CSC) operators and agricultural extension officers. It concluded that empowering frontline service providers and simplifying policy language could improve comprehension, reduce dependency on informal channels, and promote informed participation.

Mohapatra and Senapati (2022) assessed farmer satisfaction with PMFBY in Odisha through field-level analysis of 150 farmers across four districts. Their findings indicated widespread dissatisfaction, particularly related to delays in claim settlement and lack of transparency in yield estimation. Many farmers complained about the inaccessibility of insurance agents and limited clarity about policy clauses. Despite government promotion, actual awareness levels remained low. The study concluded that satisfaction with the scheme could be improved through better last-mile delivery, improved communication tools, and formal monitoring mechanisms involving local governance and civil society stakeholders.

Deshpande and Jha (2022) examined whether PMFBY truly serves as a comprehensive risk mitigation tool. Conducting qualitative interviews in Rajasthan and Karnataka, they revealed that many farmers experienced long claim delays, confusion over exclusions, and inadequate guidance from local officials. They also noted poor performance in manual crop-cutting experiments and documentation errors. The authors assert that unless procedural inefficiencies and technical bottlenecks are resolved, the insurance scheme cannot fulfill its objective. They recommend digitization of assessments, capacity building for field staff, and simplifying procedures to make insurance access more equitable and responsive to local realities.

Chakrabarti and Mehta (2020) focused on the efficiency of service delivery under PMFBY across five major agricultural states. By interviewing farmers, insurance agents, and agricultural officials, they identified multiple implementation challenges, including inconsistent interdepartmental coordination, low staffing, and yield data delays. Many farmers experienced uncertainty in claim outcomes and lacked support throughout the process. The authors concluded that while PMFBY has a strong policy framework, it suffers from operational flaws that hinder its success. They recommended introducing strict processing timelines, digital yield monitoring, and increased manpower to improve claim resolution and build institutional trust.

Singh and Bhardwaj (2020) explored the level of awareness and satisfaction among Haryana farmers regarding PMFBY. Using surveys across rural areas, they discovered that less than 40% of farmers were aware of how to enroll or file claims. Most information came through informal networks rather than official sources. Although those who received payouts expressed moderate satisfaction, many had claims delayed or rejected without clear reasons. The study emphasized the importance of formal awareness programs using regional dialects, pictorial content, and village-level meetings to build trust and ensure that farmers can fully benefit from crop insurance provisions.

Mahajan and Bansal (2020) investigated the banking-related challenges in the disbursement of crop insurance funds in Haryana. Through interviews with bank officials and insured farmers, they found that limited staffing, lack of scheme-specific training, and excessive paperwork often delayed policy enrollment and claim settlements. Farmers reported confusion regarding deductions and premium payments. The study emphasized the need for improving digital banking infrastructure and conducting regular training programs for rural bank staff. It concluded that banking institutions, as key intermediaries in the PMFBY delivery chain, require systemic support to facilitate timely and transparent transactions for rural beneficiaries.

Chander, Kumar, and Sharma (2020) conducted a sociological study on factors influencing participation in crop insurance schemes in Haryana. They found that variables such as landholding size, caste, education level, and institutional trust significantly affected enrollment rates. Using a structured questionnaire and statistical correlation analysis, they noted that marginal farmers and socio-economically disadvantaged groups were least likely to benefit from the scheme due to structural exclusion. The authors recommended targeted outreach programs, affirmative action for low-literacy farmers, and the inclusion of community-based organizations to promote equitable participation and awareness among all farming communities.

Jodha (2020) provided an insightful critique of risk and uncertainty in rain-fed agriculture, arguing that crop insurance, in its current form, fails to accommodate the complexities of non-irrigated farming systems. Based on secondary data and historical yield patterns, the paper highlighted that risk in dryland regions is multifactorial ranging from erratic rainfall and soil degradation to market failures. PMFBY’s standard thresholds do not account for these variables, leading to under-compensation or claim rejection. Jodha recommended a region-specific parametric insurance model and integration with agro-advisories to align policy tools more closely with real-world farming conditions.

Research Objective

1. To critically examine the key issues and challenges hindering the effective implementation of crop insurance schemes in Haryana.

Statement of the Problem

Despite being a pivotal agricultural state, Haryana faces growing challenges in executing crop insurance schemes like the Pradhan Mantri Fasal Bima Yojana (PMFBY), which were designed to provide financial protection against crop failure. In recent years, the state's farmers have increasingly reported dissatisfaction with delayed claim settlements, lack of transparency, and limited awareness of policy provisions. The withdrawal of insurance providers from high-risk districts and bureaucratic hurdles in conducting crop-cutting experiments have further exacerbated farmer vulnerability. Additionally, logistical barriers such as distant bank branches, procedural complexity, and poor grievance redressal mechanisms have led to declining participation. The core problem lies in the disconnect between policy design and grassroots realities, where institutional inefficiencies and inadequate communication hinder the intended objectives of risk mitigation and income security. Without urgent intervention, Haryana's farmers risk being excluded from vital safety nets, undermining their resilience in the face of climate shocks, market volatility, and increasing agrarian distress.

Research Methodology

The present study adopts a quantitative research methodology to investigate the prevailing issues and challenges related to crop insurance implementation in Haryana. The study is descriptive in nature, aiming to gather measurable insights from a representative sample of farmers across various districts. A structured questionnaire was employed as the primary data collection tool, designed to capture farmer perceptions on key variables such as awareness, accessibility, procedural barriers, banking support, claim settlement, and satisfaction with subsidy and crop coverage. The questionnaire used a 5-point Likert scale ranging from “Strongly Agree” to “Strongly Disagree.” A total of 150 respondents were selected using stratified random sampling, ensuring proportional representation from both irrigated and rain-fed districts to account for geographic disparities. The collected data were subjected to descriptive statistical analysis, including frequency distribution and percentage calculations, to summarize the responses. Further, weighted average scores were computed to rank the severity of challenges, and Analysis of Variance (ANOVA) was applied to test for significant differences in awareness between district categories. The analysis was carried out using SPSS and Excel, ensuring reliability and accuracy in statistical computations. Ethical considerations such as respondent consent, confidentiality, and voluntary participation were strictly adhered to during the study. This methodology enables a data-driven understanding of the practical limitations of crop insurance schemes and provides an empirical foundation for targeted policy interventions.

Data Analysis and Interpretation

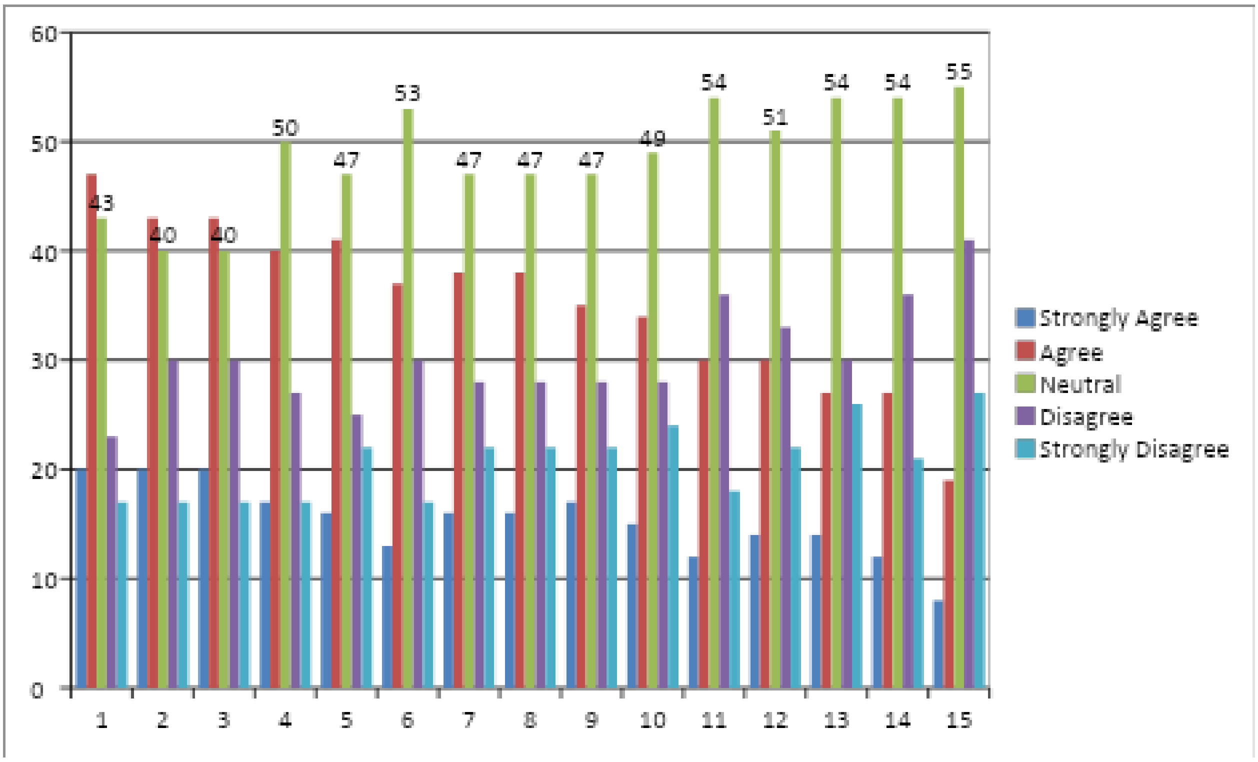
The data analysis and interpretation section present a systematic evaluation of the primary data collected from 150 farmers across various districts of Haryana. The objective is to identify and understand the key issues and challenges faced by farmers in accessing and utilizing crop insurance schemes, particularly the Pradhan Mantri Fasal Bima Yojana (PMFBY). Statistical tools such as frequency distribution, percentages, weighted average scores, and ANOVA have been employed to derive meaningful insights. The findings aim to uncover trends, patterns, and disparities in farmer perceptions, enabling a data-driven understanding of barriers that hinder effective insurance implementation in the state.

Table 1: Descriptive Statistics on Challenges Faced by Farmers Regarding Crop Insurance Implementation in Haryana (N = 150)

S.No	Problem	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	Inadequate response from the bank	20	47	43	23	17
2	Nearest bank at a distance	20	43	40	30	17
3	Difficulties in opening a bank account	20	43	40	30	17
4	Awareness of crop insurance is less	17	40	50	27	17
5	Lack of service/co-operation from the bank	16	41	47	25	22
6	Lengthy procedure	13	37	53	30	17
7	Delay in getting information about the scheme	16	38	47	28	22
8	Delay in claim settlement	16	38	47	28	22
9	Complex documentation	17	35	47	28	22
10	Not satisfied with crop coverage	15	34	49	28	24
11	Rules and regulations of crop insurance are more	12	30	54	36	18
12	Not satisfied with premium subsidies	14	30	51	33	22

13	Full details of the scheme not explained by insurer	14	27	54	30	26
14	Forcing to repay loan by the bank in case of crop loss	12	27	54	36	21
15	Lack of premium paying capacity	8	19	55	41	27

Source: Researcher calculation through IBM SPSS



The table-1 shows that farmers face several key challenges in accessing and utilizing crop insurance schemes in Haryana, with banking-related issues being the most prominent. The highest levels of agreement were recorded for "Inadequate response from the bank," "Nearest bank at a distance," and "Difficulties in opening a bank account," indicating that the availability and cooperation of financial institutions are critical barriers. A notable number of respondents selected "Neutral" across multiple items, particularly for "Awareness of crop insurance," "Complex documentation," and "Rules and regulations," highlighting widespread uncertainty or lack of engagement. Issues like "Delay in claim settlement" and "Lack of premium paying capacity" also drew attention, though the latter saw more disagreement, suggesting it may be less severe than procedural or institutional barriers. Overall, the descriptive statistics reveal a landscape marked by institutional inefficiency, access challenges, and knowledge gaps that undermine the effectiveness of crop insurance delivery in the region.

Table 2: Weighted Average Scores for Challenges in Crop Insurance Implementation in Haryana

S.No	Problem	Mean	SD	Rank
1	Inadequate response from the bank	3.20	1.19	1
2	Nearest bank at a distance	3.13	1.21	2
3	Difficulties in opening a bank account	3.13	1.21	2
4	Awareness of crop insurance is less	3.09	1.16	4
5	Lack of service/co-operation from the bank	3.03	1.20	5
6	Lengthy procedure	2.99	1.12	7
7	Delay in getting information about the scheme	2.99	1.20	7
8	Delay in claim settlement	2.99	1.20	7
9	Complex documentation	2.98	1.21	9
10	Not satisfied with crop coverage	2.92	1.20	10
11	Rules and regulations of crop insurance are more	2.88	1.11	11
12	Not satisfied with premium subsidies	2.87	1.17	12
13	Full details of the scheme not explained by insurer	2.82	1.19	13
14	Forcing to repay loan by the bank in case of crop loss	2.82	1.13	13
15	Lack of premium paying capacity	2.60	1.08	15

Source: Researcher calculation through IBM SPSS

The table-2 shows that "Inadequate response from the bank" emerged as the most critical issue reported by farmers, with the highest mean score of 3.20. Closely following are other accessibility challenges, such as "Nearest bank at a distance" and "Difficulties in opening a bank account," each with a mean score of 3.13, reflecting the infrastructural and procedural obstacles in reaching financial services. Issues like "Delay in claim settlement," "Lengthy procedure," and "Complex documentation" also scored relatively high, indicating systemic inefficiencies. Interestingly, "Lack of premium paying capacity" scored the lowest, suggesting that financial burden may be comparatively less pressing due to existing subsidies. The minimal variation in standard deviations indicates consistent perceptions across the sample. These rankings provide essential direction for policymakers to streamline service delivery, improve rural banking outreach, and invest in capacity building to enhance the functionality of crop insurance schemes.

Table 3: ANOVA Test for Differences in Awareness Based on Irrigation Type

Source	Sum of Squares	df	Mean Square	F	Sig. (p-value)
Between Groups	5.402	1	5.402	7.802	0.006
Within Groups	55.472	648	0.086	—	—
Total	60.874	649	—	—	—

Source: Researcher calculation through IBM SPSS

The table-3 indicates that there is a statistically significant difference in awareness about crop insurance schemes between farmers from irrigated and rain-fed districts ($F = 7.802$, $p = 0.006$). This finding indicates that irrigation status has a measurable impact on information access and scheme familiarity. Farmers in irrigated areas likely benefit from better infrastructure, access to extension services, and proximity to financial institutions, contributing to greater exposure and awareness. Conversely, rain-fed areas suffer from geographic and institutional disadvantages, limiting scheme engagement. The results emphasize the urgent need for tailored outreach, particularly in underdeveloped regions, and justify region-specific policy interventions to address awareness disparities.

Findings of the Study

The study revealed several critical insights into the issues and challenges faced by farmers in Haryana regarding crop insurance schemes. The most significant problem identified was the inadequate response and lack of cooperation from banks, which ranked highest in both frequency and weighted mean score. Farmers also reported that the distance to the nearest bank and difficulties in opening bank accounts posed major logistical challenges, indicating poor infrastructural support. Furthermore, a substantial proportion of respondents remained neutral on key issues, including awareness of crop insurance, scheme details, and documentation complexity, highlighting widespread informational gaps and limited engagement. Procedural hurdles such as delays in claim settlement, lengthy documentation processes, and lack of clear communication were also commonly cited. Although affordability of premiums was not perceived as the most severe issue, dissatisfaction with subsidy levels and limited crop coverage persisted. The ANOVA results confirmed a statistically significant difference in insurance awareness between irrigated and rain-fed districts, suggesting geographic and infrastructural disparities in access and participation.

Conclusion

In conclusion, the study underscores that while crop insurance is a vital risk-mitigation tool for farmers, its implementation in Haryana is marred by institutional, infrastructural, and informational shortcomings. Banking access issues, including poor service and long distances, are primary barriers, exacerbated by procedural delays and low levels of farmer awareness. The significant neutrality across several response categories indicates a concerning lack of clarity and engagement, particularly in rain-fed districts, as statistically validated by the ANOVA results. Although government initiatives like PMFBY aim to offer inclusive protection, the current model falls short in delivering timely, transparent, and farmer-friendly support. To enhance the scheme’s effectiveness, targeted policy interventions are required such as strengthening rural banking infrastructure, simplifying enrollment and claim procedures, improving awareness campaigns, and customizing solutions for region-specific challenges. Bridging these gaps can build greater trust among farmers, increase participation, and ultimately promote resilience and stability in the agricultural sector of Haryana.

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