

A Study on Small And Marginal Farmers' Awareness on Crop Insurance

Tripuram Bhasker Reddy

Assistant Professor of Economics Government Degree College for Women(A) Nalgonda

INTRODUCTION

India's agricultural sector is vital to the country's economy, accounting for 18 per cent of GDP and employing 50 per cent of the workforce. However, farming is highly vulnerable to climate change, droughts, floods and other uncertainties. Agriculture, heavily reliant on natural factors, faces production risks and post-harvest price volatility. To transform it into a profitable venture, implementing comprehensive risk management strategies is crucial. Effective risk management minimizes production and income losses. Indian agriculture, vulnerable to droughts, floods and other weather-related risks, necessitates protection for farmers and preservation of credit eligibility. To mitigate these risks, the government introduced crop insurance schemes. These programs provide financial support to farmers, stabilize their income and encourage sustainable agricultural practices. Crop insurance protects farmers from crop failures and yield losses due to natural calamities, pests and diseases. Key initiatives include the Pradhan Mantri Fasal Bima Yojana (PMFBY), National Crop Insurance Programme (NCIP), Weather-Based Crop Insurance Scheme (WBCIS) and Coconut Palm Insurance Scheme (CPIS). These schemes offer comprehensive coverage, including prevented sowing, post-harvest losses, mid-season payments and localized risks. By providing financial security, crop insurance promotes agricultural resilience, food security and rural development. This safeguard enables farmers to invest in innovative practices, enhancing productivity and competitiveness. Crop insurance plays a critical role in supporting India's agricultural growth and sustainability.

Crop insurance encourages farmers to transition to higher-yielding, albeit riskier, crops, promoting resilience and profitability. Crop insurance serves as a vital financial safety net for farmers, shielding them from agricultural risks. It provides compensation for crop losses due to adverse weather conditions like drought, excessive rain, extreme temperatures and more. By covering losses and encouraging future investments, crop insurance ensures farmers' financial stability and promotes continued agricultural production.

India's crop insurance evolution began in 1972 with traditional insurance, followed by the Comprehensive Crop Insurance Scheme (1985), National Agricultural Crop Insurance Scheme (1999), Weather-Based Crop Insurance Schemes (2007), Modified NAIS (2010), and culminating in the revolutionary Pradhan Mantri Fasal Bima Yojana (PMFBY) in 2016. PMFBY provides comprehensive coverage throughout the crop cycle, protecting against multiple risks like deficient/excess rainfall, temperature fluctuations, pests and diseases, and offers timely claim settlements (Murthy, 2018).

Pradhan Mantri Fasal Bima Yojana (PMFBY)

The Government of India has introduced several crop insurance schemes over the past three decades. The Comprehensive Crop Insurance Scheme (CCIS) launched in 1985, was the first nationwide initiative. This was followed by the National Agricultural Insurance Scheme (NAIS) in 1999, addressing CCIS operational issues. Subsequently, Modified NAIS (MNAIS) was implemented in 50 districts from 2010-11, alongside Weather-Based Crop Insurance launched in 2007-08 through public-private partnerships. Pradhan Mantri Fasal Bima Yojana (PMFBY), launched in 2016, provides affordable crop insurance covering non-preventable natural risks from pre-sowing to post-harvest stages. Completing 16 crop seasons, PMFBY is now implemented across India, featuring comprehensive risk cover, uniform premium rates (2 per cent for Kharif, 1.5 per cent for Rabi), technology-driven loss assessment, and transparency through a common portal for stakeholders. Pradhan Mantri Fasal Bima Yojana (PMFBY) aims to support sustainable agricultural production by providing financial support to farmers affected by unforeseen events, stabilizing their income, encouraging innovative practices, ensuring creditworthiness and crop diversification, enhancing agricultural growth and competitiveness, and promoting insurance innovation and research.

Pradhan Mantri Fasal Bima Yojana (PMFBY) provides comprehensive coverage for Indian farmers, addressing systemic and localized risks from widespread calamities, hailstorms, landslides, and inundation. It also covers losses due to early-season adverse weather conditions, such as delayed monsoon arrival, preventing sowing or planting. This affordable

scheme, despite being costly for state governments (Poddar, 2018), effectively mitigates production risks throughout the crop cycle, suiting India's small land-holding landscape.

Under PMFBY, crop insurance significantly expanded, with an 18 per cent increase in farmer coverage and 30 per cent penetration of Gross Cropped Area (GCA) in 2016-17. The sum insured per hectare rose over 70 per cent after shifting from threshold yield value to scale of finance. The scheme now offers comprehensive coverage, including add-ons like prevented sowing, post-harvest losses, mid-season payments and localized risks, enhancing support for Indian farmers (Azad Mishra, 2018).

The Pradhan Mantri Fasal Bima Yojana (PMFBY) has witnessed declining farmer participation in both Kharif and Rabi seasons from 2018-2021, contradicting initial expectations. States, UTs and districts also showed decreased participation, indicating operational challenges. Key concerns include a high cumulative claim ratio (80 per cent, Kharif 2016-Rabi 2018-19) and uneven subsidy distribution (over 60 per cent to Maharashtra, Gujarat, Madhya Pradesh and Rajasthan). Notably, Maharashtra and Gujarat receive disproportionate benefits, with 22 per cent and 12 per cent of subsidies, respectively, despite accounting for only 12 per cent and 6 per cent of the sum insured.

REVIEW OF LITERATURE

Kumar et al. (2011) conducted a comprehensive survey of 600 farmers to assess perceptions regarding crop insurance schemes. The study revealed a significant awareness gap, with 65 per cent of farmers aware of government risk mitigation measures, but only 50 per cent knowledgeable about crop insurance schemes. The study emphasized the need for information dissemination and innovative, low-intervention products tailored to farmers' specific needs.

Murthy (2018) noted that India has a rich history of developing and refining crop insurance schemes to protect farmers from cultivation risks. However, accurately assessing crop yields in insurance units remains a significant challenge, crucial for determining indemnity payouts. Effective implementation of area-yield insurance schemes hinges on objective yield-loss assessment mechanisms utilizing reliable, up-to-date, and historical crop yield data.

Mishra (2018) highlighted that crop insurance compensates farmers for losses due to climatic factors like deficient/excess rainfall, temperature fluctuations, and more. This compensation covers losses and encourages future investments. To achieve 50 per cent penetration under PM Fasal Bima Yojana, stakeholders must collaborate within operational guidelines, adhering to seasonality discipline, ensuring transparency, timely claim settlements, and bolstering farmer confidence, especially during distress.

Pazhanivelan (2018) highlighted that the Pradhan Mantri Fasal Bima Yojana (PMFBY) aims to stabilize farmers' income and encourage modern agricultural practices by providing insurance coverage against crop failures, natural calamities, pests and diseases. Although remote sensing offers cost-effective crop area estimates, its effectiveness is hindered by technical challenges, including cloud cover, diverse environments, small land holdings and mixed cropping systems.

Arumugam (2018) assessed crop insurance awareness and perceptions among 100 farmers in Ramanathapuram District, Tamil Nadu. Despite government initiatives like National Agriculture Insurance Scheme and Weather Index-based crop insurance, adoption remains limited. The study revealed that 64 per cent of respondents lacked awareness, and 69 per cent had never purchased crop insurance products, highlighting the need for enhanced education and awareness initiatives.

Mukherjee and Pal (2019) examined factors influencing crop insurance awareness among Indian farmers. Their study found that farmers receiving technical advice or agricultural training were more likely to be aware, while financial inclusion had no significant impact. The results suggest strengthening agricultural extension services to improve crop insurance awareness and coverage.

Statement of the Problem

India's agricultural sector accounts for approximately 24 percent of the nation's GDP, making its stability crucial for the overall economy. The interconnected nature of agricultural and economic growth presents policymakers and researchers with the significant challenge of mitigating risks in this sector. Failure to manage these risks can lead to underinvestment, resulting in inefficiencies. Implementing crop insurance programs helps stabilize agricultural production and farmer income, facilitating the optimal allocation of resources and promoting efficiency in the production process.

India's economic transformation has yet to translate into proportional shifts in employment, with agriculture's GDP share declining from 50 per cent in 1950-51 to 16 per cent in 2016-17, yet still accounting for nearly half of the workforce.

Agricultural incomes remain relatively low, with farm households relying solely on agriculture earning only 58 percent above the rural poverty line, and facing substantial income uncertainty due to economic and climatic shocks. To cope, farmers employ various informal risk-sharing mechanisms, including diversifying income streams, borrowing, maintaining grain buffer stocks, sharecropping, informal insurance, and receiving remittances. However, these strategies often fall short of effective risk management, and farmers face significant covariate risks that require more comprehensive solutions, highlighting the need for improved support systems to enhance the sector's resilience and productivity.

One of the primary reasons for the low adoption of crop insurance is the limited awareness among farmers about its benefits, provisions, and procedures. Many farmers are unaware of the available insurance schemes, their eligibility criteria, and the application process. Even among those who are aware, there is often a lack of understanding about the coverage, premium payments, and claim settlement processes. This knowledge gap is further exacerbated by factors such as low literacy levels, limited access to information, and inadequate outreach efforts by insurance providers. As a result, farmers continue to rely on traditional coping mechanisms, such as borrowing from informal sources or relying on family support, which can exacerbate their vulnerability to risks.

The consequences of limited awareness and low adoption of crop insurance are far-reaching and detrimental to farmers, the agricultural sector, and the broader economy. Without adequate insurance coverage, farmers are exposed to significant financial risks, which can lead to debt traps, reduced investment in agriculture, and decreased productivity. This, in turn, can affect food security, rural livelihoods, and the overall economic growth of the country. Moreover, the lack of effective risk management mechanisms can perpetuate poverty and inequality among farming communities, undermining efforts to achieve sustainable development goals. Therefore, it is essential to investigate the factors influencing farmers' awareness and adoption of crop insurance and identify strategies to enhance their knowledge and participation.

Despite the critical importance of crop insurance in Indian agriculture, there is a significant research gap in understanding farmers' awareness and adoption of these schemes. This study aims to address this gap by investigating the current state of farmers' awareness about crop insurance, identifying the factors influencing their knowledge and participation, and exploring strategies to enhance awareness and uptake. Specifically, the study will examine the socio-economic and demographic factors associated with farmers' awareness, assess the effectiveness of existing outreach efforts, and identify barriers to adoption.

Significance of the Study

Agriculture is the backbone of the Indian economy, employing nearly 50 per cent of the country's workforce and contributing significantly to its GDP. However, the sector is plagued by uncertainties and risks, including crop failures, natural disasters, and market fluctuations. To mitigate these risks, crop insurance has emerged as a vital tool, providing financial protection to farmers and enhancing their resilience. The Indian government has launched several initiatives, including the Pradhan Mantri Fasal Bima Yojana (PMFBY), to promote crop insurance among farmers. Despite these efforts, crop insurance penetration remains low, with only a fraction of eligible farmers participating in these schemes.

The study on farmers' awareness of crop insurance in India holds significant importance for various stakeholders. By investigating the current state of farmers' awareness, this study informs policymakers about the effectiveness of existing schemes and identifies areas for improvement. This enables policymakers to design better policies, enhance risk management, and promote financial inclusion for rural households. Moreover, the study's findings contribute to agricultural productivity, poverty alleviation, and food security by supporting farmers' ability to manage risks and invest in improved farming practices.

The study's outcomes also benefit insurance providers by providing insights to develop tailored products and outreach strategies, increasing market penetration. Furthermore, the research contributes to the academic discourse on agricultural risk management and crop insurance dynamics in developing countries. By addressing the knowledge gap in farmers' awareness, this study has far-reaching implications for sustainable agricultural growth, rural development, and economic stability in India. Ultimately, the study's findings pave the way for evidence-based interventions, enhancing the resilience of farming communities and promoting a more secure and prosperous agricultural sector.

Objectives of the Study

The objectives of this study are to assess the level of awareness among small and marginal farmers regarding crop insurance under the Pradhan Mantri Fasal Bima Yojana (PMFBY), specifically examining their awareness about crops covered, types of risks covered, sum assured, premium rates, claim procedure, documentation, loss assessment, and online registration. Additionally, the study aims to gauge their perception regarding the effectiveness of government machinery

and banks in disseminating information on crop insurance and ultimately providing recommendations for improving awareness and effectiveness of the scheme among this vulnerable group.

METHODOLOGY

The study employs a descriptive and analytical research design to examine the awareness of small and marginal farmers regarding crop insurance in Nalgonda district of Telangana state, specifically in Kangal Mandal. A total sample size of 180 farmers (90 small and 90 marginal) is selected from two randomly chosen villages (GaddamvariYadavslly and Regatla) within Kangal Mandal with 45 small and 45 marginal farmers from each village selected through simple random sampling. Primary data is collected through a structured interview schedule, personally administered to the selected farmers. Data analysis is conducted using IBM SPSS Statistics software, employing cross-tabulation to examine relationships between farmers' characteristics and awareness levels, and descriptive statistics to summarize the data.

RESULTS AND DISCUSSION

Awareness about Crops Covered

Table 1 presents the awareness of farmers about the crops covered under the study. From the data presented in Table 1, a total of 180 farmers were surveyed, with 105 farmers (58.33 per cent) being aware of the crops covered and 75 farmers (41.67 per cent) unaware. The overall awareness among farmers is relatively moderate, with more than half (58.33 per cent) being aware of the crops. The results indicate that awareness levels vary when considering different farmer categories, with small farmers showing a higher rate of awareness compared to marginal farmers.

Among small farmers, 60 out of 90 (66.67 per cent) are aware of the crops covered, while 30 (33.33 per cent) are unaware. This group shows a relatively high level of awareness, indicating that small farmers are generally more informed about the crops in question than marginal farmers. In contrast, marginal farmers display a lower awareness level, with 45 out of 90 (50 per cent) aware of the crops and 45 (50 per cent) unaware. This suggests that marginal farmers have a more balanced distribution between those who are informed and those who are not, highlighting a possible gap in awareness within this group.

In conclusion, the study reveals a moderate level of awareness regarding the crops covered, with small farmers showing higher awareness than marginal farmers.

Table – 1: Awareness about Crops Covered

Category of Farmers	Aware	Unaware	Total
Small Farmers	60 (66.67)	30 (33.33)	90 (100.00)
Marginal Farmers	45 (50.00)	45 (50.00)	90 (100.00)
Total	105 (58.33)	75 (41.67)	180 (100.00)

Note: Figures in the parenthesis represent row percentages to total.

Source: Computed from Primary Data.

Awareness about Types of Risks Covered

Table 2 presents data on farmer awareness about the types of risks covered in the study. From the data in Table 2, the overall awareness level of farmers regarding the types of risks covered is 47.22 per cent, with 85 out of 180 farmers aware of the risks, and 95 farmers (52.78 per cent) unaware. This indicates that a significant portion of farmers, more than half, are unaware of the types of risks that may affect their crops or livelihoods, highlighting a potential gap in risk awareness within the farming community.

Among small farmers, 50 out of 90 (55.56 per cent) are aware of the types of risks covered, while 40 (44.44 per cent) remain unaware. Marginal farmers show a lower awareness level, with only 35 out of 90 (38.89 per cent) aware of the risks, and 55 (61.11 per cent) unaware. This highlights a significant gap in risk awareness among marginal farmers, which could be due to various factors such as limited access to agricultural extension services, financial constraints, or a lack of targeted communication on risk-related issues.

In conclusion, the findings from Table 2 show a moderate level of awareness about the types of risks covered, with small farmers demonstrating higher awareness compared to marginal farmers.

Table – 2: Awareness about Types of Risks Covered

Category of Farmers	Aware	Unaware	Total
Small Farmers	50 (55.56)	40 (44.44)	90 (100.00)
Marginal Farmers	35 (38.89)	55 (61.11)	90 (100.00)
Total	85 (47.22)	95 (52.78)	180 (100.00)

Note: Figures in the parenthesis represent row percentages to total.

Source: Computed from Primary Data.

Awareness about Sum Assured

Table 3 presents data on farmer awareness regarding the sum assured, which refers to the amount of coverage or financial compensation provided in the event of a claim (for example, in crop insurance). From Table 3, it can be seen that the overall awareness level of farmers about the sum assured is 52.78 per cent, with 95 out of 180 farmers aware of it, and 85 (47.22 per cent) unaware. This indicates that while there is a reasonable level of awareness about the sum assured, almost half of the farmers are still uninformed about the specific amount of coverage available to them. This could be a key area of concern, especially in terms of financial protection for farmers in case of crop failure or other adverse conditions.

Among small farmers, 55 out of 90 (61.11 per cent) are aware of the sum assured, while 35 (38.89 per cent) are unaware. Marginal farmers show lower awareness, with 40 out of 90 (44.44 per cent) aware of the sum assured, and 50 (55.56 per cent) unaware. The data suggests that marginal farmers may face barriers to accessing information about financial protections or insurance coverage, such as a lack of targeted outreach, limited access to agricultural extension services, or insufficient financial literacy programs. This lower awareness could leave them vulnerable in the event of crop loss or other agricultural risks.

In conclusion, the results from Table 3 show that a moderate percentage of farmers (52.78 per cent) are aware of the sum assured, with small farmers exhibiting higher awareness compared to marginal farmers. The relatively lower awareness among marginal farmers (44.44 per cent) points to the need for targeted educational efforts and outreach programs to increase understanding of financial protections available to them.

Table – 3: Awareness about Sum Assured

Category of Farmers	Aware	Unaware	Total
Small Farmers	55 (61.11)	35 (38.89)	90 (100.00)
Marginal Farmers	40 (44.44)	50 (55.56)	90 (100.00)
Total	95 (52.78)	85 (47.22)	180 (100.00)

Note: Figures in the parenthesis represent row percentages to total.

Source: Computed from Primary Data.

Awareness about Premium Rate

Table 4 provides data on farmer awareness regarding the premium rate associated with crop insurance or other agricultural risk protection schemes. From the data in Table 4, the overall awareness about the premium rate among farmers is 41.67 per cent, with 75 out of 180 farmers being aware, while 105 farmers (58.33 per cent) are unaware. This indicates that more than half of the farmers lack knowledge about the premium rates associated with agricultural insurance, which could be an important factor in their decision to participate in such schemes.

Among small farmers, 45 out of 90 (50.00 per cent) are aware of the premium rate, while 45 (50.00 per cent) remain unaware. The split is relatively even in this category, suggesting that while half of small farmers have some understanding of the cost of premiums, the other half may either not know or may not be actively engaged with the details of insurance products. Marginal farmers show a lower awareness level, with only 30 out of 90 (33.33 per cent) aware of the premium rate, and 60 (66.67 per cent) unaware.

In conclusion, the awareness about the premium rate is relatively low, with only 41.67 per cent of farmers aware of it. Small farmers exhibit a moderate level of awareness (50 per cent), while marginal farmers have a significantly lower awareness rate (33.33 per cent). This highlights a critical gap in information, particularly for marginal farmers, who are often the most in need of risk protection mechanisms.

Table – 4: Awareness about Premium Rate

Category of Farmers	Aware	Unaware	Total
Small Farmers	45 (50.00)	45 (50.00)	90 (100.00)
Marginal Farmers	30 (33.33)	60 (66.67)	90 (100.00)
Total	75 (41.67)	105 (58.33)	180 (100.00)

Note: Figures in the parenthesis represent row percentages to total.

Source: Computed from Primary Data.

Awareness about Claim Procedure

Table 5 presents the data on farmer awareness regarding the claim procedure for agricultural insurance or risk mitigation programs. From the data in Table 5, the overall awareness about the claim procedure is 36.11 per cent, with 65 out of 180 farmers aware of the process, and 115 farmers (63.89 per cent) unaware. This indicates that a majority of farmers lack knowledge about how to file a claim, which could hinder their ability to effectively use insurance or other risk mitigation programs when needed. Awareness of the claim procedure is critical, as farmers need to understand the steps involved to receive compensation for their losses in a timely manner.

Among small farmers, 40 out of 90 (44.44 per cent) are aware of the claim procedure, while 50 (55.56 per cent) remain unaware. Marginal farmers show a much lower level of awareness, with only 25 out of 90 (27.78 per cent) aware of the claim procedure and 65 (72.22 per cent) unaware. This is a concerning finding, as it suggests that marginal farmers are not only less informed about the types of risks they face and the sum assured, but they are also poorly informed about the crucial process of claiming compensation when those risks materialize.

In conclusion, the results from Table 5 reveal that awareness about the claim procedure is notably low, with only 36.11 per cent of farmers being aware of the process. Small farmers have a higher level of awareness (44.44 per cent) compared to marginal farmers (27.78 per cent), but there is still a substantial gap in knowledge among both groups. Given the importance of the claim procedure in enabling farmers to recover from losses, improving awareness in this area is crucial.

Table – 5: Awareness about Claim Procedure

Category of Farmers	Aware	Unaware	Total
Small Farmers	40 (44.44)	50 (55.56)	90 (100.00)
Marginal Farmers	25 (27.78)	65 (72.22)	90 (100.00)
Total	65 (36.11)	115 (63.89)	180 (100.00)

Note: Figures in the parenthesis represent row percentages to total.

Source: Computed from Primary Data.

Awareness about Documentation

Table 6 presents data on farmers' awareness regarding the documentation required for engaging with agricultural insurance or risk management programs. From Table 6, the overall awareness about the documentation required for insurance or risk mitigation programs is 47.22 per cent, with 85 out of 180 farmers aware of the necessary paperwork, and 95 (52.78 per cent) unaware.

Among small farmers, 50 out of 90 (55.56 per cent) are aware of the documentation required, while 40 (44.44 per cent) remain unaware. Marginal farmers show a lower level of awareness, with 35 out of 90 (38.89 per cent) aware of the documentation required, and 55 (61.11 per cent) unaware. This lower level of awareness is concerning, as marginal farmers are often more vulnerable and less likely to have access to formal financial products like crop insurance.

In conclusion, the results from Table 6 indicate that while small farmers generally have a better understanding of the documentation required (55.56 per cent), a significant portion of both small and marginal farmers remain unaware of the necessary paperwork. Overall, 47.22 per cent of farmers are aware of the documentation, suggesting that more than half of the farming population still faces challenges in understanding the paperwork involved in accessing risk protection schemes.

Table - 6: Awareness about Documentation

Category of Farmers	Aware	Unaware	Total
Small Farmers	50 (55.56)	40 (44.44)	90 (100.00)
Marginal Farmers	35 (38.89)	55 (61.11)	90 (100.00)
Total	85 (47.22)	95 (52.78)	180 (100.00)

Note: Figures in the parenthesis represent row percentages to total.

Source: Computed from Primary Data.

Awareness about Loss Assessment

Table 7 presents data on farmers' awareness regarding loss assessment, which is a critical aspect of the claims process in agricultural insurance and risk management schemes. From the data presented in Table 7, the overall awareness about the loss assessment process is 36.11 per cent, with 65 out of 180 farmers aware of it, and 115 farmers (63.89 per cent) unaware.

Among small farmers, 40 out of 90 (44.44 per cent) are aware of the loss assessment process, while 50 (55.56 per cent) are unaware. Marginal farmers exhibit a significantly lower level of awareness, with only 25 out of 90 (27.78 per cent) aware of the loss assessment process, and 65 (72.22 per cent) unaware. This low level of awareness is concerning, as marginal farmers are often the most vulnerable to agricultural risks and are more likely to require insurance or risk mitigation programs. If they are unaware of how losses are assessed, they may face difficulties in ensuring fair compensation, leaving them at financial risk in the event of crop failure or other adversities.

In conclusion, the findings from Table 7 indicate that awareness about the loss assessment process is relatively low, with only 36.11 per cent of farmers aware of how losses are evaluated. Small farmers show a slightly higher level of awareness (44.44 per cent) compared to marginal farmers (27.78 per cent), but both groups demonstrate significant gaps in knowledge.

Table – 7: Awareness about Loss Assessment

Category of Farmers	Aware	Unaware	Total
Small Farmers	40 (44.44)	50 (55.56)	90 (100.00)
Marginal Farmers	25 (27.78)	65 (72.22)	90 (100.00)
Total	65 (36.11)	115 (63.89)	180 (100.00)

Note: Figures in the parenthesis represent row percentages to total.

Source: Computed from Primary Data.

Awareness about Online Registration of PMFBY

Table 8 presents data on farmers' awareness regarding the online registration process for the Pradhan Mantri Fasal Bima Yojana (PMFBY), which is a government-backed crop insurance scheme in India. From the data in Table 8, the overall awareness about the online registration process for PMFBY is 30.56 per cent, with 55 out of 180 farmers aware of the online registration procedure, while 125 farmers (69.44 per cent) are unaware. This highlights a significant knowledge gap, with the majority of farmers unaware of the online registration process for the PMFBY.

Among small farmers, 35 out of 90 (38.89 per cent) are aware of the online registration process for PMFBY, while 55 (61.11 per cent) remain unaware. Marginal farmers show an even lower level of awareness, with only 20 out of 90 (22.22 per cent) aware of the online registration process, and 70 (77.78 per cent) unaware. This is a concerning statistic, as marginal farmers are often the most vulnerable to agricultural risks and could benefit significantly from the PMFBY scheme.

In conclusion, the results from Table 8 reveal that only 30.56 per cent of farmers are aware of the online registration process for PMFBY, with small farmers showing slightly higher awareness (38.89 per cent) compared to marginal farmers (22.22 per cent). This highlights a critical information gap, particularly among marginal farmers, who are likely to face challenges in accessing the benefits of the PMFBY scheme due to their limited awareness of the registration process.

Table -8: Awareness about Online Registration of PMFBY

Category of Farmers	Aware	Unaware	Total
Small Farmers	35 (38.89)	55 (61.11)	90 (100.00)
Marginal Farmers	20 (22.22)	70 (77.78)	90 (100.00)
Total	55 (30.56)	125 (69.44)	180 (100.00)

Note: Figures in the parenthesis represent row percentages to total.

Source: Computed from Primary Data.

Perception about Government Machinery regarding Dissemination of Information on Crop Insurance

Table 9 presents the data on farmers' perceptions of the government machinery regarding the dissemination of information on crop insurance. From Table 9, we observe that overall, 36.11 per cent of farmers are satisfied with the government's efforts in disseminating information about crop insurance, 36.11 per cent are neutral, and 27.78 per cent are dissatisfied. This indicates that while a portion of the farmers are content with the information provided, a significant percentage are either indifferent or dissatisfied with the efforts made by the government to communicate information about crop insurance.

Among small farmers, 44.44 per cent are satisfied with the government's dissemination of crop insurance information, while 33.33 per cent are neutral, and 22.22 per cent are dissatisfied. Among marginal farmers, 27.78 per cent are satisfied, 38.89 per cent are neutral, and 33.33 per cent are dissatisfied with the dissemination of information about crop insurance. This group shows a significantly higher level of dissatisfaction compared to small farmers. The high level of dissatisfaction may reflect barriers such as poor access to information, limited outreach, or less frequent interaction with government programs.

In conclusion, Table 9 reveals that a significant portion of farmers, especially marginal farmers, are dissatisfied with the government's efforts to disseminate information about crop insurance. While 44.44 per cent of small farmers express satisfaction, a substantial 22.22 per cent are dissatisfied, and 33.33 per cent of marginal farmers are dissatisfied. This indicates that while some progress has been made in reaching farmers with crop insurance information, there is still considerable room for improvement, particularly in reaching marginalized groups.

Table - 9: Perception about Government Machinery regarding Dissemination of Information on Crop Insurance

Category of Farmers	Satisfied	Neutral	Dissatisfied	Total
Small Farmers	40 (44.44)	30 (33.33)	20 (22.22)	90 (100.00)
Marginal Farmers	25 (27.78)	35 (38.89)	30 (33.33)	90 (100.00)
Total	65 (36.11)	65 (36.11)	50 (27.78)	180 (100.00)

Note: Figures in the parenthesis represent row percentages to total.

Source: Computed from Primary Data.

Perception about Banks regarding Dissemination of Information on Crop Insurance

Table 10 presents the data on farmers' perceptions about banks' role in disseminating information on crop insurance. From the data in Table 10, overall 27.78 per cent of farmers are satisfied with the banks' efforts to disseminate information about crop insurance, 36.11 per cent are neutral, and 36.11 per cent are dissatisfied. This indicates that while some farmers are content with the information provided by banks, a significant proportion are either indifferent or dissatisfied. The relatively high percentage of dissatisfaction (36.11 per cent) suggests that banks might not be effectively reaching or engaging farmers with the information they need about crop insurance.

Among small farmers, 33.33 per cent are satisfied with the banks' dissemination of information, 38.89 per cent are neutral, and 27.78 per cent are dissatisfied. Among marginal farmers, 22.22 per cent are satisfied, 33.33 per cent are neutral, and 44.44 per cent are dissatisfied. This group shows a higher level of dissatisfaction compared to small farmers, with nearly 44.44 per cent expressing dissatisfaction.

In conclusion, Table 10 shows that while banks have a role in disseminating information about crop insurance, the effectiveness of their efforts is limited. With 27.78 per cent of farmers satisfied and 36.11 per cent dissatisfied, there is considerable room for improvement in how banks communicate crop insurance information. Marginal farmers, in particular, show a high level of dissatisfaction (44.44 per cent), suggesting that they face significant barriers to accessing relevant information from banks.

Table – 10: Perception about Banks regarding Dissemination of Information on Crop Insurance

Category of Farmers	Satisfied	Neutral	Dissatisfied	Total
Small Farmers	30 (33.33)	35 (38.89)	25 (27.78)	90 (100.00)
Marginal Farmers	20 (22.22)	30 (33.33)	40 (44.44)	90 (100.00)
Total	50 (27.78)	65 (36.11)	65 (36.11)	180 (100.00)

Note: Figures in the parenthesis represent row percentages to total.

Source: Computed from Primary Data.

CONCLUSION

In conclusion, the study finds that the majority of small farmers (66.67 per cent) are aware of the crops covered under insurance schemes, whereas marginal farmers have a more balanced distribution, with 50 per cent aware and 50 per cent unaware. Small farmers show greater awareness (55.56 per cent) of the types of risks covered by crop insurance, compared to marginal farmers, of whom only 38.89 per cent are aware. Small farmers (61.11 per cent) have higher awareness of the sum assured in crop insurance policies compared to marginal farmers (44.44 per cent). Only 50 per cent of small farmers are aware of the premium rates for crop insurance, with marginal farmers showing even lower awareness (33.33 per cent). Awareness about the crop insurance claim procedure is low, with only 44.44 per cent of small farmers and 27.78 per cent of marginal farmers being informed. While 55.56 per cent of small farmers are aware of the documentation required for crop insurance, only 38.89 per cent of marginal farmers are aware. Awareness of the loss assessment process is low, with 44.44 per cent of small farmers and only 27.78 per cent of marginal farmers aware of how crop loss is evaluated. A significant percentage of farmers (69.44 per cent) are unaware of the online registration process for PMFBY, with small farmers (38.89 per cent) being more aware than marginal farmers (22.22 per cent). While 44.44 per cent of small farmers are satisfied with the government's efforts to disseminate crop insurance information, only 27.78 per cent of marginal farmers share this satisfaction. Farmers show mixed perceptions of banks' role in disseminating crop insurance information, with 33.33 per cent of small farmers satisfied and 44.44 per cent of marginal farmers dissatisfied.

The study provides valuable insights into farmers' awareness and perceptions regarding crop insurance, focusing on key aspects such as the types of risks covered, the sum assured, premium rates, claim procedures, and documentation requirements. The findings highlight a significant gap in awareness, especially among marginal farmers, who demonstrate lower levels of understanding about essential components of crop insurance schemes compared to small farmers. While small farmers tend to have relatively better awareness, particularly regarding the crops covered and the sum assured, both small and marginal farmers show considerable gaps in their understanding of critical areas such as premium rates, the claim procedure, loss assessment, and online registration processes for PMFBY. The study also reveals that farmers' perceptions of the government and banks' efforts to disseminate information are mixed, with many farmers expressing dissatisfaction, especially among marginal farmers. This suggests that the dissemination of information is not reaching farmers effectively, particularly in remote or digitally underserved areas. The overall low levels of satisfaction with government and bank communication efforts underscore the need for improved outreach strategies.

It is suggested that the Government and banks should design targeted awareness campaigns specifically tailored to different farmer categories (small and marginal). These campaigns should focus on providing clear and accessible information about the crops covered, the types of risks insured, the sum assured, premium rates, claim procedures, and documentation. This could be done through local languages, simplified pamphlets, and interactive media such as radio and television programs that reach rural areas. Leveraging the existing network of agricultural extension services can be an effective way to disseminate information. Extension officers can conduct village-level meetings, workshops, and field demonstrations to directly engage with farmers. These officers can serve as trusted intermediaries, helping farmers understand complex insurance processes and guiding them through the registration and claims procedures. Since digital platforms are increasingly being used for crop insurance registration, it is crucial to enhance digital literacy among farmers, especially marginal ones. Addressing gaps in awareness and improving the quality of communication about crop insurance will help farmers make informed decisions, ensuring that they can better protect themselves against agricultural risks and improve their financial resilience in the face of unpredictable weather and market conditions.

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