

Level of Awareness of the Farmers Adopting Agricultural Rice Insurance: Basis for Risk Mitigation

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Abstract

This study examined the awareness and adoption of rice crop insurance among 260 farmers in Balanga City, Bataan—130 insured and 130 uninsured. It analyzed their socio-demographic profiles, farm characteristics, and levels of insurance awareness. A mixed-method approach was used: the quantitative component involved a survey-descriptive design with descriptive statistics and hypothesis testing (Mann-Whitney U-test, Kruskal-Wallis H-test) to explore the relationship between awareness and demographic factors. The qualitative part involved in-depth interviews with ten purposively selected farmers, analyzed using MAXQDA software to understand reasons for non-adoption.

Findings showed that 72% of respondents were male, 45% were aged 56 or older, and 35% had completed technical or vocational education. About 30% had been farming for 21–30 years, and 81% were members of farming organizations. Overall awareness of rice insurance was low, with no significant differences by age, sex, education, or experience. However, organizational membership was associated with higher awareness. Key barriers to adoption included limited access, low awareness, and doubts about reliability.

The study proposed strategies like streamlining claims, offering targeted training, using social media, providing incentives, and integrating insurance into advisory services to improve adoption and resilience in agriculture.

Keywords: Rice Insurance, Risk Mitigation, Farmer's Association, Level Of Awareness

Introduction

Agriculture plays a crucial role in the global economy by ensuring food security and providing employment for millions of people, including farmers, laborers, and suppliers. This interconnectedness underscores the significance of stable agricultural systems in building community resilience (World Bank, 2020). Furthermore, agriculture drives economic and rural development. As we face the complexities of the 21st century, it is essential to acknowledge the vital role of agriculture (Delzeit et al., 2019).

The contribution of agriculture accounts for about 4% of GDP and over 25% in least developed countries (The World Bank, 2023). Investing in agricultural resilience and innovation is essential for achieving sustainable development goals and ensuring future food security.

In the Philippines, agriculture is the third-largest sector by GDP, accounting for 10.18% in 2020. It includes vital products like coffee, Cavendish bananas, and staple crops such as rice and corn. The sector employs approximately 24% of the workforce, generating 8.9% of GDP in 2022 (PSA, 2021). The agriculture industry faces numerous significant challenges. World Risk Index 2023 ranks the country as the most vulnerable to natural disasters, scoring 46.86 out of 100 (DOF, 2023). Additionally, pricing volatility and operational difficulties threaten production and financial stability (Komarek et al., 2020). Agricultural insurance, particularly rice insurance, is crucial for effective risk management in farming. The Philippine Crop Insurance Corporation (PCIC) supervises these programs and focuses on promoting agricultural insurance as a critical risk management tool and increasing farmer participation. Currently, the PCIC offers two programs: a regular program, where premiums can be shared among farmers, the government, and financial institutions, and self-financing options for farmers (Mina et al., 2015).

Crop insurance has been available since 1980, but many farmers have not adopted it (Bordey & Arida, 2015). This lack of adoption is particularly alarming because there is a significant gap in research regarding farmers' awareness of available crop insurance options. Without crop insurance, farmers are vulnerable, facing different risks on the farm that could affect their income and farm productivity.

These pressing issue highlights the necessity of this research. By focusing on the adoption of rice farmers to insurance, their socio-demographic profiles, levels of awareness, and reasons for non-participation, we can identify these factors and propose effective strategies to enhance agricultural insurance adoption and promote resilience in the farming sector (Wirtz, 2018).

Objectives of the Study

The following are the objectives of the study:

1. To determine the socio-demographic profile of the respondents in terms of:
 - a. Sex;
 - b. age;
 - c. educational attainment;
 - d. farming experience;
 - e. membership in an organization/association; and
 - f. status of insurance.
- g. To describe the level of awareness of rice insurance among rice farmers.
2. To identify the reasons why some rice farmers do not avail themselves of rice insurance.
3. To propose a mitigation program aimed at increasing the uptake of rice insurance among farmers.

Methods

Research Design

This study employed a mixed-method survey-descriptive research design to assess rice farmers' awareness and its influence on their adoption of rice insurance in Balanga, Bataan. The design integrated

both quantitative and qualitative approaches to provide a comprehensive understanding of the issue. The quantitative component utilized structured surveys and statistical analysis to determine awareness levels and socio-demographic correlations, while the qualitative component explored farmers' experiences and reasons for non-adoption through in-depth interviews.

Participants and Sampling

The study population comprised 685 registered rice farmers in Balanga, Bataan. Using Yamane's simplified sampling formula at a 5% margin of error, a minimum of 253 rice farmers were selected to participate in the quantitative survey. The sample was divided into two groups: (1) insured farmers listed in the Philippine Crop Insurance Corporation (PCIC) 2022 registry and (2) non-insured farmers. For the qualitative part, ten farmers were purposively selected from this sample to represent diverse backgrounds and provide deeper insights into their experiences with rice insurance.

Data Collection Procedures

Primary data were collected from May to December 2023 through face-to-face interviews, ensuring adherence to health protocols. Informed consent was obtained from respondents, and confidentiality was maintained throughout the process. Quantitative data were gathered using a structured questionnaire divided into five sections: (1) socio-demographic profile, (2) awareness of rice insurance, (3) analysis of awareness level by demographic factors, (4) reasons for non-adoption, and (5) proposed mitigation programs. The questionnaire was developed using relevant literature and expert consultation and translated into the local language by a Filipino instructor to ensure clarity. For the qualitative aspect, semi-structured interviews were conducted with ten purposively selected farmers. The interviews were recorded using voice recorders with participants' permission and later transcribed for analysis. These interviews provided insights into barriers to rice insurance uptake.

Instrument Validation

The questionnaire was reviewed by expert validators, and feedback was incorporated to improve reliability and clarity. A Filipino instructor assisted in translating and refining the instrument to suit the local dialect, ensuring effective communication and accurate data collection.

Data Analysis

Quantitative data were analyzed using IBM SPSS Statistics version 21. Descriptive statistics such as frequency, percentage, and weighted mean were used to summarize the respondents' profiles and awareness levels. Inferential analysis was conducted to determine the significance of differences in awareness levels across demographic groups. Qualitative data were analyzed using thematic analysis facilitated by MAXQDA software. Interview transcripts were coded, and themes such as "economic barriers" and "knowledge gaps" were identified. Direct quotations were used to illustrate key points and ensure authenticity.

Ethical Considerations

Ethical standards were strictly observed. Letter of permission to conduct the investigation was obtained from research adviser, the City Agriculturist and barangay leaders before data collection. Participants were informed of the personal rights objectives of the study and the confidentiality of their

data. Data were stored securely and discarded after the study. The researcher maintained professional conduct and followed all ethical guidelines for research involving human subjects.

Results and Discussions

Socio-demographic Profile of the Rice Farmers

Table 1. Socio-demographic Profile of the Rice Farmers

Profile	Frequency	Percentage
Sex		
Male	187	72
Female	73	28
Total	260	100
Age		
18–25yearsold		
26–35yearsold	11	
36–45yearsold	18	
46–55yearsold	111	43
56yearsoldandabove	118	45
Total	260	100
EducationalAttainment		
ElementaryGraduate	49	19
HighSchoolGraduate	73	28
Technical/Vocational	92	35
CollegeGraduate	22	
Post-graduateStudies	24	
Total	260	100

The gender distribution reveals that a significant majority of the farmers are male (72%), with women comprising only 28% of the sample. This reflects longstanding structural and cultural barriers faced by women in agriculture, such as limited land rights, reduced access to training and capital, and exclusion from decision-making processes (Doss, 2018; FAO, 2011). Furthermore, studies by Khan and Hossain (2020) and Aguilar and Gonzalez (2020) emphasize that women often lack equal access to agricultural resources and support services, including insurance programs. Meyer and Apgar (2019) also note that agricultural insurance is often shaped by gendered access, which may leave women underinformed or underserved.

It is important to implement gender-sensitive interventions to address these disparities. For example, targeted training programs can improve women's understanding of farming practices, risk management, and financial tools (Kumar & Singh, 2019). Moreover, expanding their access to networks, information, and support services can empower them to take on greater roles in agricultural decision-making (Madhavan & Smit, 2019). By addressing gender-related constraints, the sector can benefit from

women's unique insights and capacities, promoting sustainability, resilience, and inclusive agricultural development.

In terms of age, the majority of rice farmers are older: 45% are aged 56 and above, and 43% are between 46 and 55. Only a small percentage (12%) are under 45 years old. According to Sufyadi and Apriadi (2020), age is a significant factor in technology adoption and participation in agricultural insurance. Older farmers are more likely to rely on traditional farming methods and may be resistant to adopting new tools like insurance schemes. In contrast, younger farmers are often more open to innovation and external support systems.

This age structure suggests that outreach efforts should be age-specific. Educational programs targeting younger farmers can build awareness about the benefits of rice insurance, while tailored support for older farmers can help ease their transition to modern farming practices. Understanding age-related motivations and learning preferences is essential in designing inclusive programs that encourage widespread adoption of agricultural innovations.

Regarding educational attainment, 35% of farmers had completed technical or vocational education, followed by 28% with high school education, 19% with elementary education, 8% college graduates, and 9% with postgraduate studies. Education plays a key role in shaping farmers' capacity to understand risk, financial planning, and insurance mechanisms. Research by Li et al. (2022) underscores that farmers with higher education levels tend to have better risk perception and are more likely to adopt agricultural insurance as part of their risk management strategy.

This finding highlights the importance of expanding access to education, particularly in rural areas. Empowering farmers through formal and informal learning opportunities can enhance their decision-making capabilities and promote sustainable agricultural practices. Educational campaigns focusing on financial literacy, insurance awareness, and agricultural innovations can help bridge the knowledge gap and strengthen farmers' resilience to climate and market-related risks.

In summary, the socio-demographic characteristics of rice farmers in Balanga City are important in shaping their attitudes and behaviors toward agricultural insurance. Addressing gender inequalities, tailoring programs to specific age groups, and enhancing educational access can support more inclusive and effective agricultural insurance initiatives. These insights are essential for policymakers, agricultural extension workers, and development organizations aiming to boost insurance participation and enhance the overall resilience of the farming sector.

FarmingProfileoftheRiceFarmers

As shown in Table 2, the distribution of farming experience among rice farmers in Balanga City varies significantly. The largest group (29%) has been farming for 21 to 30 years, followed closely by those with 11 to 20 years of experience (26%). Farmers with 31 to 40 years of experience make up 23%, while 10% have been farming for 6 to 10 years. A smaller portion—7%—have more than 40 years of experience, and only 6% have been farming for 1 to 5 years.

Table 2. FarmingProfileoftheRiceFarmers

Profile	Frequency	Percentage
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Farming Experience		
1–5 years	15	6
6–10 years	25	10
11–20 years	68	26
21–30 years	75	29
31–40 years	59	23
More than 40 years	18	7
Total	260	100
Membership in an Organization/Association		
Yes, I am a member of an organization/association.	210	81
No, I am not a member of an organization/association.	50	19
Total	260	100
Status on Insurance		
I have rice insurance.	130	50
I don't have rice insurance.	130	50
Total	260	100

Number of cases = 260

This range of experience plays a crucial role in shaping farmers' perceptions of agricultural risks and their willingness to adopt insurance. According to Coble and Barnett (2013), experienced farmers generally possess a deeper understanding of farming uncertainties and are more familiar with risk management strategies, including insurance products. However, this assumption is challenged by findings from Fatmawaty et al. (2022), who observed an inverse relationship between farming experience and insurance uptake. Their study suggests that as farmers accumulate more years in agriculture, they often become less inclined to participate in insurance schemes. This may be due to a heightened sense of self-reliance or the perception that their experience equips them to handle risks without formal risk transfer mechanisms.

In terms of organizational involvement, 81% of the farmers reported being members of agricultural organizations or associations, while the remaining 19% are not affiliated with any such groups. Membership in these organizations is significantly linked to increased access to agricultural information and services, including insurance. Bordey and Arida (2015) point out that farmer cooperatives and associations play a pivotal role in improving awareness and understanding of rice insurance. These organizations serve as platforms for information dissemination, enabling farmers to make more informed decisions about enrolling in insurance programs. Cajucom (2017) further reinforces this point, noting that farmer associations in the Philippines often serve as intermediaries that facilitate access to government-supported insurance schemes. Additionally, Yorobe et al. (2017) highlight that targeting organized groups can significantly increase insurance adoption, as these groups help build trust and provide peer support for trying new risk management tools.

When it comes to insurance status, the data shows an even split: 50% of the farmers have rice insurance, while the other 50% do not. This balanced distribution underscores the need to understand the barriers and motivators that influence insurance uptake. For those with insurance, organizational membership, education, and exposure to risk information may have played a role in their decision. Conversely, those without insurance may lack adequate information, hold misconceptions about the benefits, or rely on informal strategies to cope with farming risks.

Overall, the data on farming experience, organizational membership, and insurance status provides valuable insights into how social and experiential factors affect farmers' risk behavior and insurance decisions. Programs aiming to increase rice insurance adoption should consider not only individual experience but also the power of collective engagement through farmer associations. Outreach and education tailored to both new and seasoned farmers—leveraging organizational networks—can foster a broader and more sustainable uptake of agricultural insurance in the region.

Level of Awareness of Rice Insurance Among Rice Farmers

Table 3 presents the overall level of awareness of rice insurance among rice farmers, highlighting the varying degrees of familiarity with insurance programs. This variation underscores the need for more targeted information dissemination and educational efforts to bridge the knowledge gap. By understanding farmers' awareness levels, stakeholders can better tailor interventions to improve knowledge, correct misconceptions, and increase engagement with rice insurance as a risk management strategy.

The table further breaks down awareness levels by comparing farmers with and without rice insurance. Among farmers with insurance, the indicator that received the highest rating was “Inclination to understand the key components of crop insurance” with a mean score of 2.90 (SD=0.33), classified as “Fully Aware.” This suggests that insured farmers are generally well-informed and actively engaged in understanding the intricacies of their insurance coverage. Such awareness is crucial in ensuring they can make informed decisions and effectively use the protection insurance provides against agricultural risks.

On the other hand, the lowest-rated indicator among insured farmers was “Agricultural insurance is only for a specific group of farmers (e.g., large only, small/marginal only, etc.)”, which received a mean score of 1.00 (SD=0.00), interpreted as “Not at All Aware.” This finding points to a significant misconception—suggesting that some farmers still believe insurance is limited to specific farmer categories, even among those who are already covered. This misunderstanding may deter broader community-level engagement and should be addressed in awareness campaigns.

Table 3. Level of Awareness of Rice Insurance Among Rice Farmers

Indicator	WithRiceInsurance			WithoutRiceInsurance		
	Mean	SD	DE	Mean	SD	DE
1. Heard about crop insurance	2.61	0.51	Fully Aware	1.88	0.60	Slightly Aware
2. Knowledge that the crops could be insured	2.51	0.52	Fully Aware	1.80	0.64	Slightly Aware

3. Relevance of crops Insurance	2.25	0.56	Slightly Aware	1.35	0.53	Not at All Aware
4. Knowledge about crop insurance schemes	2.12	0.62	Slightly Aware	1.35	0.54	Not at All Aware
5. Having crop insurance in the past	2.65	0.57	Fully Aware	1.23	0.49	Not at All Aware
6. Having any crop insurance at present	2.62	0.50	Fully Aware	1.67	0.66	Not at All Aware
7. Willingness to go for crop insurance	2.70	0.52	Fully Aware	1.18	0.53	Not at All Aware
8. Inclination to understand the critical components of crop insurance	2.90	0.33	Fully Aware	2.72	0.57	Fully Aware
9. Agricultural insurance is only for a specific group of farmers (e.g., large only, small/marginal only, etc.)	1.00	0.00	Not at All Aware	1.00	0.00	Not at All Aware
Composite	2.37	0.30	Fully Aware	1.58	0.29	Not at All Aware

The average rating of 2.37 (SD=0.30) for this group indicates that farmers with rice insurance are, on the whole, "Fully Aware" of their insurance coverage. This level of understanding empowers them to use their insurance effectively and make risk-informed farming decisions.

In contrast, farmers without insurance demonstrated lower overall awareness. Still, the highest-rated indicator for this group was also "Inclination to understand the key components of crop insurance", with a mean of 2.72 (SD=0.57), categorized as "Fully Aware." This indicates a strong interest among uninsured farmers in learning about rice insurance, even though they have not yet enrolled. This openness presents an opportunity for stakeholders to engage and educate these farmers, potentially increasing participation in insurance schemes.

However, like the insured group, the lowest-rated indicator among uninsured farmers was "Agricultural insurance is only for a specific group of farmers", which again scored 1.00 (SD=0.00; Not at All Aware). This persistent misconception points to a broader issue in how agricultural insurance is perceived, particularly in terms of accessibility and eligibility.

Overall, the mean rating of 1.58 (SD=0.29) among farmers without insurance falls into the "Not at All Aware" category. This stark contrast in awareness levels between insured and uninsured farmers clearly highlights the critical need for well-targeted awareness programs and capacity-building initiatives. Addressing knowledge gaps—especially misconceptions about eligibility—can significantly influence the willingness of farmers to adopt rice insurance and enhance the overall resilience of the

agricultural sector.

Qualitative Findings on Reasons for Non-Participation in Rice Insurance

A qualitative inquiry involving interviews with ten rice farmers revealed key themes explaining their reluctance to engage with rice insurance programs. These insights, grouped into three major themes, are supported by both participant responses and relevant literature.

Theme 1: Barriers to Access

Code 1: Burdensome Insurance Claim Requirements

Seven farmers cited the complexity of claim procedures as a deterrent. Participant II described ineffective inspections leading to denied claims, while Participant V highlighted the inconvenience of returning to the DA office. Participants VI, IX, and X noted tedious paperwork and processing delays. These experiences echo Bordey and Arida (2015) and Cebuano et al. (2019), who identified administrative hurdles and poor communication as major barriers to enrollment.

Code 2: Incompetent Insurance Staff

Five participants reported frustrations with unresponsive or disorganized insurance personnel. Participant VIII shared how their application was mishandled and not forwarded to the head office. This fosters distrust and discourages participation. Supporting literature (Bordey & Arida, 2015; Cajucom, 2017) calls for better staff training to improve access and service quality.

Theme 2: Lack of Awareness and Understanding

Code 1: Low Priority Given to Insurance

Six farmers admitted deprioritizing insurance in favor of immediate needs like inputs. Participant III stated, "We allocate our money for purchasing products." This short-term focus aligns with findings from Llanto (2015) and Komarek et al. (2020), who note that insurance is often seen as a non-essential expense.

Code 2: Insufficient Awareness of Benefits

Four farmers lacked knowledge about the advantages of rice insurance, including enrollment deadlines and coverage benefits. One participant said they didn't even know what insurance could offer. Similar conclusions by Llanto (2015) and Turvey (2019) stress the need for targeted awareness campaigns to boost understanding and uptake.

Theme 3: Perceptions of Reliability

Code 1: Minimal Insurance Compensation

Five respondents expressed disappointment with small claim payouts. Participant VII remarked that compensation was "minimal" despite severe crop damage. This discouragement reflects studies by Ceballos et al. (2019) and Llanto (2015), which associate low compensation with poor enrollment.

Code 2: Unreliable Insurance Companies

Six farmers voiced distrust in providers. Participant II shared, "You might just tire yourself out... they get paid but do not provide support." This lack of trust, confirmed by Ceballos et al. (2019),

undermines the credibility of the insurance system.

Code 3: Preference for Government Subsidies

Four farmers preferred government support over insurance, citing more reliable and timely aid. Participant IV said, *"We receive support from the government when our crops are damaged."* Studies (Ceballos et al., 2019; Llanto, 2015) support this, noting that farmers often view public subsidies as a better safety net than insurance.

Proposed Mitigation Programs to Enhance Rice Insurance Uptake

To address the identified challenges and improve rice insurance participation, the following strategies are recommended:

Streamlined Claim Procedures

Simplifying the claims process by setting clear submission guidelines and adopting digital platforms can reduce administrative burdens. Digital tools for claim reporting and tracking enhance transparency and efficiency, as supported by Bordey & Arida (2015) and Ceballos et al. (2019). These improvements are expected to build trust and encourage enrollment.

Capacity Building and Training

Providing targeted training through Municipal Agriculture Offices ensures farmers gain the necessary knowledge about insurance processes and benefits. Cajucom (2017) and Llanto (2015) emphasize that well-informed farmers are more confident in engaging with insurance providers, leading to higher adoption rates.

Awareness Campaigns

Social media campaigns that highlight success stories of insured farmers can raise awareness and demonstrate real benefits. Ceballos et al. (2019) affirm that such storytelling fosters trust and encourages wider participation.

Incentive Programs

Offering financial incentives such as first-time buyer subsidies and referral rewards reduces cost-related barriers. Adebayo et al. (2018) and Ceballos et al. (2019) found that these incentives can significantly boost enrollment and promote a culture of insurance within farming communities.

Collaboration with Agricultural Extension Services

Training extension workers to educate farmers about rice insurance creates a reliable support system. According to Odebiyi et al. (2019), such collaboration improves farmer knowledge and decision-making regarding insurance.

Farmer Feedback Mechanisms

Establishing structured feedback channels through surveys and focus groups allows program adjustments based on farmers' experiences. Orozco et al. (2020) emphasize that incorporating farmer feedback makes insurance programs more responsive and user-centered.

Tailored Insurance Products

Developing insurance plans that reflect local needs, offer flexible payment options, and consider smallholder farming conditions can improve relevance and affordability. Arslan et al. (2014) stress the importance of customization in increasing adoption, particularly among financially constrained farmers.

Enhanced Technology Utilization

Mobile apps and digital platforms can provide real-time updates, simplify claims, and deliver educational resources. Valenzuela et al. (2019) and Okeke et al. (2019) highlight the role of technology in improving access and empowering farmers with timely information.

Promotion Through Success Stories

Sharing case studies and testimonials through community events and social media builds credibility and inspires hesitant farmers. Moller et al. (2016) suggest that relatable stories help demystify insurance and highlight its practical value.

Conclusion and Recommendation

This study underscores the multifaceted nature of rice farmers' awareness and participation in agricultural insurance programs. While socio-demographic traits such as age or farming experience did not significantly influence awareness, organizational membership and existing insurance coverage were strong determinants of insurance knowledge. Notably, 81% of the surveyed farmers were members of agricultural organizations, highlighting the vital role these groups play in disseminating information and fostering a culture of risk management through insurance.

Although half of the respondents were already insured, the other half lacked basic knowledge about rice insurance, as indicated by the overall awareness score of 1.58 ("Not at all Aware") among the uninsured group. Conversely, insured farmers demonstrated a substantially higher awareness level, showing a clear link between insurance engagement and informed understanding.

However, qualitative insights revealed substantial barriers preventing wider insurance uptake. Procedural complexities, unresponsive insurance personnel, and negative experiences—such as minimal compensation and unreliable insurance providers—have eroded trust in the system. Additionally, farmers' tendencies to deprioritize insurance in favor of immediate farming needs, coupled with a lack of understanding of its benefits, contribute to their reluctance to participate. A notable number even preferred government subsidies over insurance, further underscoring the perceived inefficacy of current insurance mechanisms.

These findings have critical implications for policy and practice. It is suggested that while awareness campaigns are necessary, they must go hand-in-hand with systemic reforms. Simplifying the claims process, improving staff competence, and ensuring adequate compensation are essential steps toward restoring farmers' trust in the insurance system. Furthermore, strengthening the role of agricultural organizations as conduits for insurance education, and enhancing collaboration with local extension services, can lead to more sustainable adoption of insurance products.

In conclusion, increasing rice insurance participation among farmers requires not only informational outreach but also structural improvements in service delivery and policy integration. A responsive, transparent, and accessible insurance system—supported by targeted education and organizational partnerships—can empower farmers to adopt more proactive risk management strategies, leading to a more resilient and financially secure agricultural sector.

The following strategies are recommended to improve awareness and uptake of rice insurance among farmers:

Promote Membership in Agricultural Organizations. Since affiliation with agricultural groups significantly enhances awareness, efforts should focus on encouraging farmer participation in such organizations. Local government units, agricultural agencies, and NGOs should work together to form and strengthen these groups. These organizations can serve as effective platforms for disseminating information, conducting training, and promoting the benefits of rice insurance.

Intensify Targeted Awareness Campaigns. As current policyholders tend to be more informed, expanding awareness campaigns—especially in underserved rural areas—is essential. These campaigns should highlight the benefits of rice insurance, share compelling success stories, and deliver clear, practical information. Communication channels should include social media, radio broadcasts, local events, and agricultural extension programs to ensure broad and inclusive outreach.

Simplify Enrollment and Claims Procedures. Complex and bureaucratic processes were identified as barriers to adoption. Insurance providers should streamline enrollment and claims processes through the use of digital tools such as mobile apps and web-based platforms. Simplifying paperwork and offering multilingual or visual guides would especially benefit farmers with limited literacy or formal education.

Introduce Incentives for First-Time Enrollees. To attract uninsured farmers, offering financial incentives—such as premium subsidies, discounts for first-time enrollees, or referral bonuses—can enhance the appeal of rice insurance. These incentives lower the entry barrier and can help build a culture of risk management and insurance adoption in farming communities.

Implement Comprehensive Training and Capacity-Building Programs. Farmers with higher levels of agricultural literacy are more inclined to adopt insurance. Partnering with local agricultural offices and insurance providers, structured training should be provided through seminars, workshops, and field demonstrations. These programs should explain the purpose, benefits, processes, and financial protection offered by rice insurance.

Leverage Agricultural Extension Services for Outreach. Extension workers play a pivotal role in transferring knowledge to farmers. Strengthening partnerships between extension services and insurance providers can ensure that farmers receive consistent, accurate, and trustworthy information. Extension workers can also help dispel misconceptions and assist farmers through the insurance process.

Enhance Government Support and Integration. Some farmers express a preference for direct government subsidies over insurance, citing limitations in current insurance offerings. The government should consider reforms that enhance the reliability and compensation levels of the rice insurance

program. Aligning insurance with subsidy programs—such as linking enrollment to subsidy eligibility—can further encourage participation and provide a more comprehensive safety net.

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