

# Examine The Perceptive Of Farmers Regarding Agricultural Insurance In Risk Management Of Food Crops

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## **ABSTRACT**

Crop insurance (CI) is a powerful instrument of agricultural risk management that safeguards farmers' financial well-being. As a consequence of CI's efforts, farmers are more likely to have consistent revenue, they are more likely to embrace new technology, and credit organizations face less risk when extending loans to farmers. The advantages of CI are well publicized; nonetheless, voluntary involvement from farmers is quite low. Commercial hazards come in many forms, and farmers everywhere must learn to assess and mitigate them. Globalization, growing commerce in agricultural goods, and climate change are only a few of the reasons that are increasing these risks, putting at risk agricultural companies and compelling farmers to modify their production and management techniques. We found a discrepancy between the perceived dangers and the solutions put in place to deal with them, underscoring the need to better understand the motivations behind these management choices. This analysis provides direction for future studies to better understand how farmers perceive risk and to aid in the management and reduction of that risk.

**KEYWORDS** Agriculture, Crop Insurance, National Agricultural Insurance Scheme, Risk Management

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## **INTRODUCTION**

Droughts, floods, cyclones, storms, landslides, and earthquakes often disrupt agricultural output and farm earnings in India. The vulnerability of agriculture to these catastrophes is exacerbated by the occurrence of pandemics and man-made catastrophes like fire, the selling of bogus seeds, fertilizers, and pesticides, price falls, etc. It is out of the farmers' hands, yet all of these things have a major impact on their livelihoods by reducing productivity and farm revenue. As agriculture becomes more industrialized, so does the degree of loss caused by unlucky circumstances. To protect themselves from the potentially ruinous effects of losses brought on by natural disasters or poor market prices, many farmers turn to agricultural insurance. With the aid of crop insurance, farmers can rest certain that their revenue will remain steady even if the growing season is less than ideal. By offering some insurance against crop failure, it eases the financial burden on farmers. One of the things that can have an effect on farmers is risk, and when there isn't a good system in place to protect them from it, it can have a number of unfavorable effects on things like crop yields, farmer income and stability, new technology adoption, and the like. Due to agricultural depression, more and more farmers

have taken their own lives in recent years. In order to reduce the double risk of yield and price, farmers are shifting to a low-risk, low-yield cropping strategy. Farmer suicides should be seen as a symptom of our poor risk management in the agricultural sector. The unfavorable results of biological, climatic, and pricing uncertainties are what we call "agricultural risk."

Natural, societal, economic, and individual hazards all play a role in crop production. Because of its unique relationship to the elements, crop production stands apart from other human endeavors. It must deal with ongoing risks stemming from a wide range of environmental and societal factors. The largest impact of all these factors is on agricultural output. Thus, the unpredictability of agricultural output is one of the fundamental hazards that every farmer must confront, more or less, in all nations. However, these dangers are magnified in emerging nations like India. India's agricultural success hinges on the unpredictable monsoon. It creates operational risk in growing a variety of crops. The agriculture industry might be negatively impacted by natural disasters. The only way to protect agricultural productivity is via crop insurance. In order to address this issue, the Indian government has introduced a number of crop insurance programs.

#### LITERATURE REVIEW

**Dr. Apeksha Bhatnagar (2018)** Agriculture insurance is a kind of risk management that protects farmers against financial ruin in the event of unforeseen events. It's a necessary evil in the agricultural world. Since agriculture relies so much on favorable weather conditions, it is particularly vulnerable to these kinds of disturbances. If output drops, the industry's bottom line will take a hit. As a result, many farmers are forced to go elsewhere for work, which has a negative impact on the economy as a whole. Additionally, the agricultural sector's share of GDP is falling, which slows progress in the field and contributes to issues like high unemployment and poverty in India. Since the agricultural sector employs a sizable percentage of the population and accounts for a third of India's GDP, its growth is crucial to the country's overall economic success. No matter how optimistic the growth forecast, it will be impossible to meet those goals without investing in agriculture. Loss of output as a result of unfavorable weather conditions is one such problem that cannot be entirely eradicated in the growth of the business. Revenue from the industry cannot be steady because of the influence of weather changes; this is especially true in India, where there is such a wide range of climatic conditions across various locations. Agriculture insurance programs were established to mitigate the monetary impact of these disasters and keep farmers invested in the industry. Since independence, the government has made efforts in this area, but due to the unpredictability and uncertainty of these dangers, these efforts have not been effective. In 1972, India established its first agricultural insurance program. Since then, many agricultural insurance programs have been put into place across India. It was hoped that these programs would make up for any declines in agricultural output, but so far, that has not been possible, and the industry is struggling to expand. The study's goal is to learn how farmers feel about these types of insurance programs and why they haven't been successful so far. Researchers spoke with several farmers and insurance brokers to get their perspectives. The purpose of this article is to investigate how farmers see agricultural insurance and what they attribute the scheme's previous failures to. This study relied on interviews with farmers and others involved in the

management of agricultural insurance in Udaipur. Qualitative research was used to assess the responses from farmers and insurance agents and make conclusions. Farmers' opinions were collected on a variety of topics, including the schemes' overall effect, the farmers' contentment with each of the three existing schemes, and the farmers' knowledge of and willingness to acquire the scheme's claim settlement, and weather stations.

**Piotr SULEWSKI (2014)** Risks associated with agriculture's biological production processes are only one of several that plague the industry. There will be a greater emphasis on risk in agriculture as a result of climate change, the liberalization of international agricultural commerce, and adjustments to the agricultural support system. This indicates that managing risks on farms will get more focus in the future, despite the fact that doing so depends on how farmers feel about and react to risk. This analysis combines these three forms of agricultural risk using information from over 600 farms in Poland that are members of the FADN network. Farmers in Poland see dryness as the most significant threat to their harvests, according to the research. Polish farmers tend to be risk-averse, but more so when it comes to their own well-being than their farms. An increase in risk aversion was shown to be associated with the following variables among Polish farmers: debt ratio, production losses in preceding years, soil quality, and a focus on financial independence. Crop insurance was the primary method for reducing exposure to risk. In order to build legislative tools to aid in agricultural risk management and to design training programs specifically for farmers, it is crucial to have a firm grasp of farmers' views on risk, their level of risk tolerance, and the methods they choose to use to mitigate risk.

**Uvaneswaran S M et.al (2014)** The Indian economy relies heavily on agriculture. To help mitigate agricultural risk, the government has established a number of programs, such as the National Agricultural Scheme and weather index-based crop insurance programs. Farmers are resorting to extreme measures like attempted suicide and property sales as a result of the high risk of financial loss inherent in the agricultural industry. This is because farmers often have a poor understanding of risk management strategies. The purpose of the study was to determine how 150 farmers in Erode District understand different aspects of crop insurance.

**Bindiya Kunal Soni (2013)** The agricultural industry has a worldwide reputation for being fraught with peril. Farmers may hedge their bets against yield loss using crop insurance. As a result, farmers' incomes and output are more secure. In this context, the term "premium" refers to the expense involved in shifting the risk of production to another entity. As millions of Indian farmers' incomes are directly tied to the seasonal pattern and distribution of monsoon rain, the ongoing National Agricultural Insurance Scheme is a positive development. However, crop insurance is barely scratching the surface. The purpose of this research was to examine the current state of crop insurance in India, with a focus on the state of Gujarat. This research takes a hard look at how knowledgeable farmers in the Anand area really are about this crop. The perspectives of persons in Anand district's rural communities who have and have not purchased crop insurance are also explored in this article. The research ends with a number of recommendations meant to raise farmers' awareness and facilitate greater uptake of crop insurance in Anand area.

**Kumar, D. Suresh (2011)** Government programs like the National Agricultural Insurance Scheme and crop insurance programs tied to weather indices aim to protect farmers from financial loss due to agricultural hazards. However, it seems that their reach among farmers is limited, mostly owing to a lack of complete information. In this research, we provide the findings of a survey that asked 600 farmers about their thoughts on several aspects of crop insurance programs. The variables influencing farmers' awareness have been analyzed using the Probit and Tobit models. In order to better understand how farmers cope with uncertainty, the crop diversification index has been utilized. According to the results of the poll, the vast majority of farmers (65%) are familiar with the safety precautions taken by the government. However, research has shown that only around half of farmers are really familiar with crop insurance. Because of this, it's crucial that the intended audiences learn about available insurance options. Furthermore, it has been shown that factors like gross cropped area, income from non-agricultural sources, the presence of risk in farming, the number of workers in the farm family, the farm family's satisfaction with the premium rate, and the affordability of the insurance premium amount significantly and positively influence the adoption of insurance and the premium paid by the farmers. The research has shed light on how urgent it is to create new goods that need less human inputs.

#### **CROPPING PATTERN IN KERALA**

Kerala's household method of farming is widespread across the state, making it distinct from other agricultural systems. The land directly next to and including the farmhouse is known as the "homestead." This kind of farming primarily distinguishes itself via its intensive focus on the production of all possible crops. Farms often grow a wide variety of plants, from strictly seasonal to perennial, depending on the farmer's needs. The coconut is the foundational crop in almost all backyard gardens, and it is grown alongside seasonal, annual, and perennial plants. People from Kerala eat mostly rice. Tapioca is a supplemental food crop. There has been a shift in farming practices since Kerala became an independent state. More food for the state has been produced thanks to the increased cultivation of garden land crops. Kerala agriculture is distinct from that of the rest of the country in a number of ways, including the prevalence of cash crops and plantation crops, the house stead farming system, significant rainfall, etc.

#### **RISK MANAGEMENT**

Using the foundation of the current NAIS, the pilot MNAIS should continue implementing changes to the system. Progressive action, in collaboration with states, should be taken to address the high expense of reducing the insurance unit. In the short-term, the center may chip in on the price of experimental crop cutting, but eventually, it will be in everyone's best interest to switch to more modern methods of crop monitoring, such as satellite surveillance. Creative solutions exist for the problem of private-sector participation in agriculture insurance, such as a coinsurance system in which the AIC operates as lead insurer (with underwriting duties and relationships with other agencies). Establishing an insurance culture may be aided by other novel policies such as community-based cooperative insurance, savings-linked insurance, a well-thought-out product for contract farming arrangements, and so on, particularly if they are related to the establishment of FPOs. The government may propose

"Catastrophe Protection" as a means to shield uninsured farmers from ruinous financial hardship. In the case of their untimely demise, small and marginal farmers (including tenant farmers) may need financial help for funeral expenses and to settle debts owed to financial institutions (RFIs). Central and state governments, as well as financing institutions, might contribute to the premium costs of such group or blanket insurance.

### **THE ROLE OF AGRICULTURAL INSURANCE IN RISK MANAGEMENT IN THE FARMERS' PERCEPTIVE**

Farmers rely on farming for their daily survival and to provide for their families. Therefore, agriculture is crucial not just to individual households but also to the growth of a nation's economy. However, in recent years, the agricultural industry has become increasingly susceptible to danger from a variety of sources. The socioeconomic life of farmers for fulfilling their living and the economic growth of the country were both impacted by the risk in the agriculture sector. This chapter makes an effort to examine farmers' economic lives, including such factors as farmers' access to financing and their views on the importance of agricultural insurance in risk management, as well as their attitudes regarding agricultural risk and its management. To do this, we took representative samples of 25 farmers from 19 Grama Panchayats from 3 districts in Kerala. The current study's sample size is therefore 475 farmers. Farmers' views on agricultural risk are strongly influenced by their socioeconomic standing. As a result, this analysis enhances the significance of the research.

#### **Farmers Perception Towards Agricultural Risk Management**

Since the vast majority of farmers in Kerala face some kind of agricultural risk, discussions of risk management and farmers' attitudes toward it are unnecessary. Details of farmers' responses about their ability to handle agricultural risk are provided in Table 1.

**Table 1 Opinion of respondents about the management of agricultural risk**

<b>Response</b>	<b>Alappuzha No. of respondents</b>	<b>Palakkad No. of respondents</b>	<b>Wayanad No. of respondents</b>	<b>Total respondents</b>
Can manage agricultural risk	20 (11.43)	51 (22.67)	13 (17.33)	84 (17.68)
Can not manage agricultural risk	140 (80)	171 (76)	62 (82.67)	373 (78.53)
<b>Total</b>	<b>160 (100)</b>	<b>222(100)</b>	<b>75 (100)</b>	<b>457(100)</b>

According to the data in the table above, 78.53 percent of respondents are unprepared to deal with agricultural risk. According to the results, the majority of farmers in Alappuzha (80%), Palakkad (76%), and Wayanad (82.67%) were unable to effectively manage agricultural hazards. According to interviews, only a small percentage of farmers really succeed at this.

Natural disasters that cause crop loss have a negative impact on farmers' revenue and productivity. The little farmers can't afford to take that kind of risk.

### **THE FARMER'S ACCESSIBILITY TO FINANCE AND THEIR PERCEPTION ABOUT AGRICULTURAL INSURANCE**

In order to assess farmers' ease of access to capital, we collected information on their preferred loan kinds, financing sources, and input costs. The specifics of their borrowing habits are examined as well, including whether or not the funds were put to good use, the size of the loans they took out, and the frequency with which they were repaid.

#### **Sources of Finance to meet Input Cost**

In Kerala, farmers spend a lot of money on input resources like seeds, fertilizer, paying workers, etc. According to the results, people rely on their own money, loans from banks, and other money lenders for the bulk of their financing needs. In Table 2 you'll find information connected to this.

**Table 2 Opinion of respondents about the sources of finance to meet input cost**

<b>Sources</b>	<b>Alappuzha No. of respondents</b>	<b>Palakkad No. of respondents</b>	<b>Wayanad No. of respondents</b>	<b>Total respondents</b>
Own fund	54 (30.86)	51 (22.67)	41 (54.67)	146 (30.74)
Bank loan	78 (44.57)	158 (70.22)	13 (17.33)	249 (52.42)
Money lenders	43 (24.57)	16 (7.11)	21 (28)	80 (16.84)
Total	175 (100)	225 (100)	75 (100)	475 (100)

The table 2 shows the overall and district level choice of source of finance for meeting costs related to the procurement of input resources. The overall response discloses that 52.42% of respondents depend on bank loan, 30.74% prefer own fund for financing input cost and the remaining 16.84% procure finance from money lenders. The district wise analysis showed, most of the farmers depend on bank loan for meeting their input cost in both Alappuzha (44.57%) and Palakkad (70.22%) districts. In Wayanad district the highest proportion i.e. 54.67% of farmers use their own fund for meeting the input cost. In case of insufficiency of own fund, some of them approach money lenders for the easy availability of fund for doing agricultural activities. In Wayanad the least proportion (17.33%) of farmers have given preference to bank loan for arranging fund for agricultural activities.

From the analysis, it is noticed that bank loan is more popular among farmers for meeting financial requirements for the procurement of inputs. 374 4.4.2 Bor As a result, farmers in Kerala must invest considerable capital in inputs such as seeds, fertilizer, labor, etc. The findings suggest that individuals depend mostly on their personal savings, bank loans, and other forms

of short-term lending to meet their financial obligations. Associated data may be found in Table 2.

## CONCLUSION

Research on how farmers feel about agricultural insurance reveals that many are dissatisfied with the way things are. According to interviews with uninsured farmers, confusion regarding the program's existence is the primary reason why more people don't get crop insurance. It is acknowledged that there is some degree of initiative on the part of agriculture department employees in carrying out the projects as intended. The purpose of this research is to assess the success of farmers in Kerala who raise food crops by looking at their methods of dealing with potential disasters. Key policy actions adopted by the government of India should focus on particular steps to reduce risk and enhance the agriculture industry. Researchers set out to assess how farmers who grow food for human use benefit from agricultural insurance. Farmers may avoid financial ruin in the event of crop failure thanks to agricultural insurance. Natural disasters including floods, droughts, heat waves, and hurricanes are the primary causes of agricultural risk in Kerala. As a result, different crop insurance plans in India are implemented by the Agricultural Insurance Company of India (AIC).

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