



# A Study Assess The Cognizance Of Paddy Farmers About Agricultural Schemes And Cultivation Practices With Special Reference To Chittur Taluk , Palakkad.

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## ABBREVIATIONS

IYR - International Year of Rice

PKVY- Paramparagat Krishi Vikas Yojana

PMKSY- Pradhan Mantri Krishi Sinchai Yojana

SHC- Soil Health Card

PMFBY- Pradhan Mantri Fasal Bima Yojana

NAIS- National Agricultural Insurance Scheme

MNAIS- Modified National Agricultural Insurance Scheme

KCC- Kisan Credit Card

NABARD- National Bank for Agriculture and Rural Development

GDP- Gross Domestic Product

MPS- Minimum Support Price

GSDP- Global gross domestic product

PAP- Parambikulam Aliyar Project

## CHAPTER 1

### INTRODUCTION

#### AGRICULTURE

Agriculture is the backbone of an Indian economy. The Indian economy is dominated by the agricultural sector. Agriculture is the primary source of the nation's economic expansion and development. Most of its population depends on agriculture for a living either directly or indirectly. One of the most important improvements in our nation has been the development of agriculture. In our nation, farmers play a crucial role. The economies of the majority of emerging countries primarily depend on agriculture for their national income. Government has

implemented different measures to protect the farmers from agricultural problems. Rice is a nutritious staple food that gives you immediate energy because its primary ingredient is a carbohydrate (starch). Adversely, rice has a low nitrogenous substance content, with an average composition of these substances of only 8% and 1% in the form of fat or lipids. Starch-rich rice flour is used to make a variety of edible products. Rice straw is also combined with other materials to make glass, pottery, and ceramics. By offering various programmes, the government plays a significant role in achieving the desired results, benefits for farmers, and also economic development for their sustainable growth. The Government launched a number of plans. Due to lack of information the farmers are facing difficulties in their agricultural sector. And farmers are not getting various programmes and benefits at the appropriate time. Information use in the agricultural sector has a number of positive effects on farming output. Agricultural development is Important for the development of our country. The most significant food crop in India is rice. It accounts for about one-fourth of all cultivated land and feeds almost half of the country's population. Almost 4,000 of the approximately 10,000 different rice kinds produced worldwide are in India. For thousands of millions of people depend on rice for their livelihood. One of India's staple cereals is rice. The United Nations General Assembly proclaimed 2004 to be the "International Year of Rice" in recognition of the significance of this crop (IYR). The IYR theme, Rice is life emphasizes the value of rice as a staple food and originates from the knowledge that rice-based systems are crucial for enhanced livelihood, food security, and poverty alleviation. Rice is also considered a major food crop. High yielding plant varieties, improved planting techniques, the guaranteed availability of irrigation water, and increasing fertilizer use have all combined to provide favorable and rapid outcomes. The average yields per hectare are decreased by rain-fed areas. Rice is the main food consumed by the people of Kerala, and its cultivation has historically held a prominent position in the state's agrarian economy. The state's major food crop is paddy. Throughout the state, there are three main growing seasons for rice, Virippu season -also known as the first crop season, runs from April to May to September to October -Mundakan season: also known as the second crop season, runs from September to October to December to January. Puncha season- also known as the harvest season. Kerala's rice production has changed over the years. Production of rice is generally declining. The acreage, output, and productivity of paddy cultivation decreased in the state. Kerala is experiencing a food deficit and threats to its food security as a result of the downward trend in rice output, area, and productivity. As a result, Kerala depends on nearby states or nations for food grains. Climate, irrigation, and other factors all affect productivity. In Palakkad, an area known as Kerala's "rice bowl," paddy farmers are now exhibiting a renewed sense of purpose and pleasure. The Palakkad district engages in a variety of activities in the agricultural sector and is one of the causes of paddy production in Kerala. Due to a number of factors, agricultural production is generally dramatically declining when compared to population expansion. Hence, identifying the issues in the farmers can live off of their agricultural products for a very long period. 39% of the state's total rice production is produced in Palakkad. Most of the people of Chittur Taluk depend on agriculture for their livelihood. In agriculture, they mostly depend on paddy cultivation. Paddy cultivation is the main source for the economic growth and development of their socio-economic status. Now they are facing various issues like seasonal shortage of labor supply, changing climatic conditions, high incidence of crop failure, lack of proper marketing system, soil infertility etc in their paddy field. Due to this lack of profit from cultivation and decreasing yield production affect their growth.

## **ABOUT AGRICULTURAL SCHEMES**

### **PARAPMPARAGAT KRISHI VIKAS YOJANA (PKVY)**

The Paramparagat Krishi Vikas Yojana (PKVY) was launched in 2015, it is an expanded aspect of the National Mission on Sustainable Agriculture's Centrally Sponsored Scheme (CSS), Soil Health Management (SHM). The goal of PKVY is to encourage and support organic farming, which will enhance the health of the soil. Financing pattern under the scheme is in the ratio of 60:40 by the Central and State Governments correspondingly. By 2017-18, the Plan aims to convert over two lakh hectares of agricultural land to organic farming by forming 10,000 clusters of 20 ha each. By using eco-friendly, inexpensive methods, the goal is to create agricultural products free of chemical and pesticide residues. Educate rural youth, farmers, consumers, and traders about organic farming. Beneficiaries are farmers in this scheme. The goal of PKVY is to encourage and promote organic farming, which will enhance soil health.

## **PRADHAN MANTRI KRISHI SINCHAI YOJANA (PMKSY)**

The Pradhan Mantri Krishi Sinchai Yojana (PMKSY), which was introduced on July 1<sup>st</sup>, 2015, and whose slogan is “Har Khet Ko Paani,” aims to extend cultivated land with guaranteed irrigation, minimize water waste, and enhance water usage efficiency. By using “Jal Sanchay” and “Jal Sinchan” PMKSY not only focuses on developing sources for assured irrigation, but also on developing protective irrigation. Subsidies are used to encourage micro watering so that “per drop-more crop” is achieved. Under the leadership of the Vice Chairman of NITI Aayog, a National Executive Committee (NEC) will be established to manage the execution of the programme, resource allocation, inter-ministerial coordination, monitoring & performance assessment, handling of administrative difficulties, etc. Encourage farmers and local field workers to participate in extension programmes on water harvesting, water management, and crop alignment. Water source, delivery, and efficient usage are all integrated to maximize water consumption through appropriate technology and procedures.

## **SOIL HEALTH CARD SCHEME**

The Ministry of Agriculture and Farmers’ Welfare’s Department of Agriculture & Cooperation promotes the Soil Health Card (SHC), a programme of the Government of India. Every State and Union Territory Governments Department of Agriculture are in charge of carrying it out. The Soil Health Card Program is a great programme for farmers. In India, there are a lot of farmers. Additionally, they are unaware of the best crops to grow for a high yield. In fact, they are unaware of the nature and quality of their soil. They may have direct knowledge of the successful and unsuccessful crops. A soil health card is used to evaluate the state of the soil’s health right now and, over time, to identify changes brought on by changes in land use. The indicators of soil health and the related descriptive terms are shown on a soil health card. The indicators are frequently based on farmers firsthand knowledge of the region’s natural resources and practical experience. A guidance based on a farmer’s holding’s soil nutrient status will be included on the card. Benefits of this soil card the farmers will have a clear understanding of which nutrients are deficient in their soil. Which crops they should invest in as a result. They can also advise on the fertilizers they require. So the crop yield would eventually increase. The scheme’s primary goal was to identify the specific soil type and then suggest ideas to make it better.

## **PRADHAN MANTRI FASAL BIMA YOJANA**

The Pradhan Mantri Fasal Bima Yojana (PMFBY), an extensive crop subsidy insurance programme, was introduced in 2016 with the intention of protecting farmers. The National Agricultural Insurance Scheme (NAIS), the Weather-based Crop Insurance Scheme, and the Modified National Agricultural Insurance Scheme (MNAIS) were three earlier initiatives that were replaced by this flagship programme, which was created in accordance with the One Nation-One Scheme. It improved the insurance services available to farmers by combining their best qualities and removing their Inherent weaknesses. By extending coverage, it protects farmers from monetary losses brought on by unexpected events such crop failure owing to localized risk, post-harvest losses, natural disasters, excessive rain, crop diseases, and pest infestations. The initiative’s main objectives are to reduce farmers’ financial burden from insurance premiums and require immediate claim resolution. Eligible farmers are Loanee farmers and non- loanee farmers. One Country, One Crop, One Premium is the guiding principle of the Pradhan Mantri Fasal Bima Yojana. Provide a cost-effective, comprehensive insurance policy that covers crop failure, damage, and loss and also protects farmers from risk factors.

## **KISAN CREDIT CARD**

The Kisan Credit Card (KCC) Programme was introduced by the Indian government in 1998. The main aim is to provide financial support to the farmers. The National Bank for Agriculture and Rural Development (NABARD) developed this programme, also known as the PM Kisan credit card Yojana, to give farmers credit cards. Farmers can use the credit cards to make short term credit purchases of seeds, insecticides, fertilizers, and other items Not only that. Also, they can use it to obtain loans and withdraw cash from ATMs to manage their agricultural needs. The PM Kisan Samman Nidhi Plan was also introduced by the Indian government in the 2019 Interim Union Budget, in addition to the Kisan Credit Card programme. Farmers can take advantage of income support with this programme up to 6,000 every year. The Kisan Samman Nidhi Scheme and the Kisan Credit

Card Scheme were combined by the Indian government in Budget 2020 to guarantee that all farmers have access to income support. All beneficiaries of the Kisan Samman Nidhi Scheme are now qualified to submit an application for a Kisan Card.

## **MAJOR PROBLEMS FACED BY PADDY FARMERS IN INDIA**

### **Chemical fertilizers**

Chemical fertilizers are expensive and frequently out of the price range of small-scale farmers. So, the fertilizer issue is both serious and complex. The use of chemical fertilizers can affect the body. Organic manures are thought to be crucial for maintaining healthy soil.

### **Biocides**

To protect the crops and prevent losses, biocides- pesticides, herbicides, and weedicides are introduced. Increased usage of these types will prevent excessive loss of many crops particularly food crops. Yet, the widespread use of biocides has led to environmental pollution.

### **Soil erosion**

Soil erosion is one of the major problems faced by farmers. Vast areas of productive land are subject to wind and water-induced soil erosion. It is necessary to properly treat this area and bring it back to fertility. Soil erosion adversely affects the production of crops.

### **Unavailability of good quality of seeds and manures**

Lack of availability of the good quality seeds and manures affect the crop production. Seeds are the basic raw material for the farmers to grow crops. And also good quality of seeds are expensive so that the poor and marginal farmers are not able to afford them. The certified production of seeds are introduced mainly by private companies. The government provides subsidies for the farmers so it will always help the farmers to get the best quality of seeds for production. Lack of good quality manure decreases the quality and health of the crop. Majority of the farmers mainly depend on inorganic manures for better production and for increasing yield. It can also cause health problems for the people due to the increasing content of inorganic manures. The best manure for soils is cow dung. However, its use as such is limited because a significant amount of cow dung is utilized as cooking fuel in the form of dung cakes. The issue has been made more difficult by a decrease in the quantity of firewood and a rise in the demand for fuel in rural areas as a result of population growth.

### **Irrigation**

One of the best essential steps for a crop to grow properly is irrigation. India has the second largest irrigated land in the world. Now in India, farmers are facing poor irrigation facilities. Unpredictable climate change affects the irrigation process and decreases the yield production and crop failure. The availability of water throughout the year from rivers and dams are reduced. Farmers frequently rely on rainfall for irrigation since they either don't obtain the right amount of water in a timely manner due to a variety of factors.

### **Transportation problems**

In India's agricultural sector there is a lack of accessible, affordable transportation. It is a major issue that small farmers still use bullock carts to deliver their goods. Furthermore, temporary roads that connect lakhs of villages to market centers and highways become muddy and worthless during rainy seasons. Farmers are unable to get their produce to the central market as a result, and they are forced to sell it at a loss in the local market.

### **Inadequate storage facilities**

Storage facilities are either unavailable or insufficient in rural locations. Farmers in this scenario typically have no choice except to sell their crop as soon as it is ready, frequently at extremely low market prices. They are far from having a reliable source of income. The lack of storage facilities will affect the farmers who sell crops. The

traders have dominated and exploited the farmers in the market place. The situation of poor farmers is even dangerous. The consumers and middlemen are creating a problem for farmers to sell the crops at a huge price after purchasing it from farmers.

### **Lack of mechanization**

Although there is extensive agricultural mechanization in various regions of the nation, most of the larger portions of agricultural operations are carried out manually by humans utilizing basic and traditional tools and utensils like wooden ploughs and sickles. Ploughing, seeding, irrigating, thinning and weeding, harvesting, threshing, and transporting the crops all need little to no usage of machinery. Agriculture must be mechanized immediately in order to reduce labor waste and improve farming's practicality and effectiveness. Agricultural machinery and implements are an essential component of timely and effective agricultural operations, enabling multiple crops and consequently improving yield.

### **Seasonal shortage of labour supply.**

The cultivation of paddy required a lot of labour. The development of agricultural labourers was made possible by the implementation of several government measures. As a result, they relocated to new locations to perform different tasks. The distribution of land ownership is incredibly unequal. Large areas of land are held by a limited number of minorities mainly moneylenders and wealthy business people. Thus, they do not profit from agriculture. The cost of cultivating paddy increased as a result of the lack of agricultural labourers. Farmers were pushed into debt by improper government policies such as the lack of a fair price for rice production during the growing season. This is the primary cause of many farmers ceasing to cultivate their land, leaving it uncultivated. The production of paddy is affected by a number of variables. These include weed growth, pest assault, bund disruption, plant disease, etc. The yield of rice was also affected by the unfavorable weather. When it starts to rain the paddy, fields fill with water. Unpredictable rains harm the bund and hinder paddy development. If rain occurs during the latter stage, harvesting with a machine is not feasible since the fields are wet. The expense of the paddy farming infrastructure is a significant component in the high cost of production. Weed growth is increasing. The increase of weeds lowers farmers profits. The engaging agricultural labourers are highly expensive. Every harvesting season has a different cost for fertilizers and herbicides. The final cost component is transportation. The profitability is little. Paddy cultivation is declining as a result of farmers avoidance or reduction of paddy farming. The number of young people working in agriculture has decreased due to the abundance of career opportunities in the private sector.

## **MAJOR CAUSES FOR THE DECLINE IN PADDY CULTIVATION**

### **High demand for land**

Kerala has a significant demand for land for infrastructure, housing, and other non-agricultural uses. For agricultural use due to the increasing demand for land and the high land price that resulted, Paddy fields are converted for non-agricultural and real estate uses. AS the population has grown and the socioeconomic circumstances of the population have changed, so too have the activities in trade, industry and transportation etc. Due to this rise in demand more land is needed to build for homes, businesses, and infrastructure like roads etc.

### **Increasing land pressure**

As a result of population growth, agricultural farms are fragmented into relatively tiny farms. So Small scale farms are not profitable, thus their owners must find alternative sources of income. Some cultivators merely engage in farming as a supplementary activity. They favour using the land for non-cultivation activities. There is no adequate regulation of construction activities in Kerala which leads to the conversion of paddy land, overexploitation of natural resources and illogical sand mining.

### **Non profitability of paddy cultivation**

Due to the climate change and other factors also affect the profitability of paddy cultivation. Shortage of labour supply, increasing use of land for non agricultural activities. Loss of agricultural land and lack of infrastructure in the agricultural sector can cause non profitability of paddy cultivation.

## CONCLUSION

In terms of employment, it is the most important sector. Agriculture development is one of the essential developments of our country. Paddy cultivation is Kerala State's major food crop. Kerala depends on nearby states or nations for food grains. Palakkad is also known as Kerala's rice bowl. The economical, ecological and social development has been significantly impacted by the steep decline in paddy growing area and rice production. The government introduced various schemes and programs for the welfare of paddy farmers. The major problems faced by paddy farmers are unavailability of good quality of seeds and manures, shortage of labour supply, inadequate storage facilities, high incidence of crop failure and changing climatic conditions. Non profitability of paddy cultivation, high demand for land and increasing land pressure are the major causes for the decline in Paddy cultivation.

## CHAPTER 2

### REVIEW OF LITERATURE

#### INTRODUCTION

Review of literature comprises the review of important studies related to the problem. It will help to know more about the problem and its importance in the present study. It is the tool to develop theoretical as well as practical knowledge.

A STUDY ASSESS THE COGNIZANCE OF PADDY FARMERS ABOUT AGRICULTURAL SCHEMES AND CULTIVATION PRACTICES WITH SPECIAL REFERENCE TO CHITTUR TALUK, PALAKKAD.

**1.(Manas Kumar Sethi et al, 2023)** In this study mainly focus on the Indian economy's expansion and progress are measured by its agricultural development. The state and the federal governments have both developed numerous programmes for the welfare and livelihood of farmers in an effort to promote agriculture. Yet, some farmers are unable to take advantage of such government programmes because they are not aware of them. Therefore, it is essential that farmers are properly informed in order to benefit from various government programmes. This study attempts to explain farmers' awareness of the federal and state governments' agricultural programmes and to find the causes of that awareness. Primary data are acquired using the Random Sampling technique, and a structured questionnaire. In the study area during the period October 2022- December 2022. Out of the total respondents 55.6% of farmers are aware of the available government schemes. Television, newspapers, and radio are the most common sources of information for farmers. For farmers to profit from social programmes and advance generally, proper education and training are necessary.

**2.(Thomas et al,2023)** In this article focus on the primary staple food of the people of Kerala is rice, which has historically played a vital role in the agricultural economy of the region. In terms of acreage, productivity, and rice production in Kerala, Alappuzha comes in second. The area known as the "Rice Bowl of Kerala" is Kuttanad, where submerged rice fields are used for farming. In order to better understand the difficulties experienced by the local farmers, a survey was carried out in Kainakary, a village located inside the Kuttanad Taluk. The study included interviews with fifty farmers. Kerala's two primary rice-producing areas are Kuttanad and Palakkad. Kuttanad is distinguished by rivers, countless paddy fields, backwaters, swamplands, ponds, and coconut trees that make up the landscape's fragments. Groves, as well as a system of waterways. Kuttanad has a lengthy history of paddy agriculture that dates back many generations.

**3. (Dananjay P K V S, 2022)** Said that two of the most frequently discussed subjects in recent studies are variability and climate change. The majority of scientists investigate how climate change will affect the global agriculture industry. Because climatic change has a direct impact on the agricultural sector. Paddy farming is one of the agricultural practices that is most susceptible to changes in climate factors like precipitation and rainfall. Three billion people worldwide use rice as their primary source of nutrition, including individuals from Sri Lanka. Therefore, it is essential to research how climate variability affects paddy agriculture in order to protect the nation's food needs. The articles that have been published on the subjects of climate change and paddy cultivation have been reviewed for this study.

**4.(Anishkumar et al, 2022)** In this article mainly focus on the regions where rice is grown, there has been a noticeable increase in temperature. Over time, there has been a yearly rise in rainfall during the rice-growing season. Future rice yields will be reduced due to significant climate change. Adopting crops, irrigation techniques, and technologies that are climate-resilient is required to lessen the effects of climate change. Burning issues like climate change and global warming pose a serious threat to agriculture and the world's food supply. Finding long-term adaptation options for the paddy industry has proven challenging due to recent changes in climatic conditions and the frequency of severe calamities.

**5.(Dr. Mahesh et al, 2021)** The main goal of this study paper is to raise awareness of the many programmes for the agricultural sector's productive sector. Through this study, the effectiveness of these agricultural programmes and schemes that will help people achieve financial inclusion was evaluated. To connect the beneficiaries, it is therefore essential to understand the various schemes and how they are created. Food production, distribution, processing, and supply all start with agriculture. Agriculture generates employment in rural regions and adds to the Gross Domestic Product (G.D.P). The lives of farmers in contemporary society are transformed by them. The Minimum Support Price (MPS), PMKSY, PMFBY, PM-KISAN, and MGNREGS have all been introduced by the Indian government. This study focuses exclusively on theoretical ideas derived through an examination of multiple sources and connections. This study examines the advantages and recipients of these plans, as well as the efficacy of various agricultural programmes. Numerous financial services, subsidies, funds released, an online marketplace for agricultural goods, funds for micro-irrigation, and other benefits offered by the Indian government were examined as part of this research. Originality studied the various programmes, examined the beneficiaries, and developed a contemporary approach to achieve financial inclusion and economic progress.

**6.(Krishnankutty et al, 2021)** In this study, 401 farmers of traditional rice varieties in Kerala, South West India, were surveyed to see how well this policy promotes agricultural innovation. According to the survey, farmers were either uninformed of the law or were unclear of its purposes. They haven't contributed much to the registration of farmers' varieties and haven't asserted any claims for benefit-sharing in connection with the registered varieties. They frequently conflate the registration of farmers' varieties and the registration of geographical designations. This implies that educating Indian farmers on the goals of both pieces of legislation is necessary as a first step. The cultivation of traditional rice varieties in Kerala, South West India, is the subject of this chapter. By reporting on a study of 300 farmers of traditional rice varieties in Kerala, it aims to evaluate how well the Protection of Plant Varieties and Farmers' Rights Act, 2001, and the Geographical Indications of Goods (Registration and Protection) Act, 1999, promote agricultural innovation. According to the survey, farmers were either uninformed of the law or were unclear of its purposes. The dynamics of conventional rice farming in Kerala, India, were investigated in this study. It looked into the sociodemographic, institutional, and economic aspects of growing and selling conventional rice. To identify the critical variables influencing farmers' marketing behavior. We also used a variety of cost indicators to analyze the economics of rice operations. Utilizing descriptive statistical methods, the socio-demographic characteristics were examined. The two key elements influencing how farmers behaved in terms of marketing were holding size and institutional backing.

**7.(Praveen Kumar Jain, 2021)** In this study the Indian government places a high priority on the well-being of farmers. To revive the agricultural industry and improve farmers' economic circumstances, the government has created a number of programmes or schemes. Farmers benefit greatly from agricultural schemes, and they must be aware of these yojanas in order to take use of them. Ever since the 1990s, when the economy was liberalized in an effort to benefit from globalization, the Indian agricultural industry has seen its financial situation improve. The Indian Government encourages farmers to take up various projects in a chosen area by financing a portion of the project's overall cost. All of these initiatives aim to increase investment, sustain profits, and employ crucial domestic components.

**8.(Vijayan et al, 2021)** The aim of this study is the basis of the Indian economy is agriculture. The government has started a number of programmes to protect farmers against agricultural dangers. Yet, it appears that their reach among farmers is restricted, mostly as a result of incomplete information. The descriptive research design method was used to conduct this study, and both primary and secondary data were gathered from sources. The study's primary data are gathered using the questionnaire method, with a sample size of 140. The study has included employees. Simple percentage analysis and the Chi-Square test are used to evaluate and interpret the data. Graphs are used to illustrate the data analysis and interpretation that has been done. Farmers should use methods like ongoing farming, the use of fertilizers and pesticides, among others. Farmers ought to practice organic agriculture. Seeds should be lent to small farmers. Commercial banks should be told to give small farmers

easy-to-repay loans. In India, agriculture is the primary occupation. Hence, the agriculture sector will always be a major contributor to India's annual GDP. The Tamil Nadu government is making every effort to boost agricultural yield and farmer revenue by using agricultural technology for various crops grown in Tamil Nadu to a greater level.

**9. (Udaiyan M et al, 2021)** The study States that agriculture is the foundation of the Indian economy, other developing sectors have reduced the potential for it to thrive to the degree that is expected in India. This essay explores the difficulties farmers in the Cauvery delta region experience in growing and selling paddy while also shedding some light on issues of land ownership and other agricultural concerns. One of the most significant problems facing agriculture in India and other emerging economies is the issue of land ownership and reform. Owning land could be a significant incentive for investment in agricultural output.

**10. (Narayanamoorthi, 2021)** In this news, even though the monsoon season in northern India is nearing its end, the trend of declining paddy seeding has persisted. According to the information made public by the Union Agriculture Ministry, the area used for paddy cultivation has decreased in 2021. Paddy has been grown on 383.99 lakh hectares as of right now, compared to 406.89 lakh hectares during the same time period last year. States like Uttar Pradesh (2.61 million hectares), Madhya Pradesh (6.32 million hectares), West Bengal (4.45 million hectares), Chhattisgarh (3.91 million hectares), and Jharkhand (down 9.80 lakh hectares). Meanwhile, the area used for paddy production increased in states like Telangana (up 4.71 lakh hectares), Haryana (up 0.94 lakh hectares), Nagaland (up 0.78 lakh hectares), and Gujarat (up 0.55 lakh hectares).

**11. (Dr. Sheeba V, T 2018)** In this article mainly focus on Kerala has always been an example of human growth and a leader in health and education for the rest of India. Despite having a per capita income that is roughly 1.6 times higher than the national average, the state has frequently come under fire for being a backwards producer in both manufacturing and agriculture. Any economy's foundation and the basis for food security is agriculture. Nevertheless, the proportion of agriculture and related activities in the GDP fell from over 56% in 1960–1961 to roughly 10.38% in 2015–16. Kerala has historically experienced a food shortage due to a discrepancy between rice output and demand. From 50% in 1960–1961 to more than 85% in 2014, this difference has grown. Kerala's population increased almost twofold between 1971 and 2015, while the amount of paddy produced fell by more than half. Climate catastrophes like floods and landslides have made the situation with regard to food security even worse. Kerala's economy is seen primarily as a consumer economy, with manufacturing and agriculture as its two weakest sectors of production. The need for rice, the country's main food crop, has increased due to the country's population growth. The state only contributes around 15% of the state's overall demand, so the state has to rely on the other states and the PDS share from the federal government to meet this rising demand.

**12. (Kala N, 2018)** In this study an agrarian economy dominates Kerala. Their primary source of employment and income is agriculture. According to recent studies, agricultural production has been declining rapidly over the past 25 years, which has led to a decline in its contribution to the global gross domestic product (GSDP). The agricultural sector in Kerala is underperforming, and it is contributing less to the state's overall gross domestic product (GSDP). Kerala's staple meal is rice. Kerala is experiencing a food deficit and threats to its food security as a result of the downward trend in rice output, area, and productivity. As a result, Kerala depends on nearby states or nations for food grains. The study looks at the growth in rice acreage, output, and productivity in Kerala, with particular attention to the rice-producing districts of Palakkad and Alappuzha. The analysis clearly demonstrated the downward trend in rice area, production, and productivity and showed that Kerala's demand for rice will rise over the future years relative to supply. This would cause the supply-demand imbalance for rice in Kerala to increase over the coming years, signifying a decline in agricultural stability, self-sufficiency, and dependence and highlighting the need for additional growth in rice production in a sustainable manner. This essay studies the causes influencing the shifting of rice farming as well as the evolving trends in rice cultivation's area, production, and productivity over time.

**13. (Har Singh, 2017)** The aim of this article Kerala's paddy production has steadily decreased since the 1980s. Kerala's economic, ecological, and social development has been significantly impacted by the steep decline in the state's paddy-growing area and rice production. However, there have been encouraging signs of a rebound in Kerala's rice production over the past five years. In Palakkad, an area known as Kerala's "rice bowl," paddy farmers are now exhibiting a renewed sense of meaning and enthusiasm. This field report details some of the long-term difficulties Kerala's paddy agriculture faces. It is based in part on interviews with farmers, government



representatives, and leaders of mass organizations in Palakkad. It also makes an effort to evaluate the recent state and local government policy efforts that have aided Kerala's rice farming economy.

**14.(Akshay Kumar et al, 2017)** This article focuses on how Kerala's paddy production has steadily decreased since the 1980s. Kerala's economic, ecological, and social development has been significantly impacted by the steep decline in the state's paddy-growing area and rice production. However, there have been encouraging signs of a rebound in Kerala's rice production over the past five years. In Palakkad, an area known as Kerala's "rice bowl," paddy farmers are now exhibiting a renewed sense of meaning and enthusiasm. This field report details some of the long-term difficulties Kerala's paddy agriculture faces. It is based in part on interviews with farmers, government representatives, and leaders of mass organizations in Palakkad. It also makes an effort to evaluate the recent state and local government policy efforts that have aided Kerala's rice farming economy.

**15.(Kumar G, 2017)** The purpose of this paper in accordance with the inter-state Parambikulam Aliyar Project (PAP) agreement between Kerala and Tamil Nadu, the paddy farmers in Chittur, the district's "rice bowl," are compelled to stop growing paddy in the absence of the southwest monsoon and water from Aliyar dam. Due to a water scarcity in the dam that is having an impact on the standing crop, Tamil Nadu has stopped releasing water from the Aliyar dam for the territories covered by the Chittur Puzha irrigation project as of August 1. Due to a lack of both rain and irrigation water, only 20,000 of the 25,000 hectares at Chittur were planted with paddy by the farmers. Already, 25% has been lost. In the Palakkad district, where more than half of the state's paddy is produced, paddy farming has been impacted on almost 50,000 hectares of land due to the lack of rain and access to dam water. There is less water in all of the district's reservoirs and those that are a part of the Parambikulam group than there was the previous year.

**16.(Hari A et al, 2016)** Said that Kerala's primary food crop is rice. Only 12% of the state's total gross cultivated land is now covered by paddy. In Kerala, the paddy fields are frequently used for other things. From the 1980s onward, the area used for rice production gradually decreased. This essay examines the altering patterns in rice farming and identifies the causes of these changes. Kerala, one of the states that make up India, has a long history and culture of rice farming. When we think of Kerala, the first thing that springs to mind is its lush vegetation and paddy fields. Today, though, things are different. Kerala's paddy fields are rapidly disappearing. Previously associated with expansion and prosperity, lush green fields are now barren.

**17.(Cheeran et al, 2015)** Said that Kerala's primary agricultural sector is paddy cultivation. Despite the fact that Kuttanad in (Alappuzha District) and Chittur in (Palakkad District) are the principal locations for paddy production, small and large paddy fields are dispersed throughout the state. The paddy fields are now covered in grass and used for construction and other activities because the younger generation has little interest in agriculture. This essay aims to investigate the causes behind Kerala's declining paddy cropping. The entire nation is covered with rice fields. Kuttanad and Palakkad are the state's major rice-producing regions. Over the previous ten years, rice production has been constant at roughly one lakh tonnes. Because their paddy hasn't been selling for a fair price across the nation, paddy farmers have been dealing with a variety of issues. Farmers commit suicide as a result of the rising cost of agriculture brought on by the price decline. Farmers are committing suicide in greater numbers as a result of unfavourable weather conditions, low prices, and hefty cultivation costs. The number of paddy farmers in Palakkad is declining at the moment. In this study, the socioeconomic circumstances of the paddy farmers in a sample of Palakkad district villages were examined, as well as the farmers' issues. The social scientist has determined that a lack of labour and a low price for paddy are the main contributing factors. The focus of this study is on group management for enhancing the economics of paddy farming through improved management based on low-cost technologies, increased productivity, and cost-cutting. In the current investigation, this assertion has been demonstrated.

**18.(Richard et al, 2015)** The analysis states that Kerala's paddy fields are an example of a typical ecosystem; nevertheless, since the mid-1970s, this wetland ecosystem has been in danger due to a substantial drop in the area under paddy concentration, which has had various detrimental repercussions on social and environmental functions. If the necessary steps are not taken to stop the conversion of paddy fields into plantation crops and non-agricultural uses, future generations will not see any paddy cultivation practices or this typical ecosystem. With this in mind, the Palakkad district, Kerala's rice bowl, is chosen for investigation. The objective of the current inquiry was to comprehend changes in the paddy planting pattern, rice production, and productivity of the Palakkad district.

**19.(Mukesh K et al, 2015)** Said that Kerala's agricultural production has decreased in recent years, yet this could pose a threat to the state's ability to feed itself. For a healthy food balance, the Kerala economy depends on contributions from the federal government as well as other nearby states like Tamil Nadu, Karnataka, and Andhra Pradesh. It provides us with an annual deficit in the economy of Kerala. Due to Kerala's high standard of life in comparison to other Indian states, the state's portion of the food security law passed by Lok Sabha in 2014 may be reduced. Kerala's rice production has been trending downward by 6% from 2012 to 2013. Low prices paid to farmers for their output and a lack of profitability due to Kerala's variable environment were the two main factors contributing to the state's diminishing rice production. The government has not seriously intervened in the cultivation of rice. The state of Kerala was proud of its culture, which included paddy agriculture. The most significant crop and staple food produced and eaten in Kerala is rice. You can observe a lot of green paddy fields in Kerala. Due to its extensive rice farming, Kuttanad is referred to as Kerala's "rice bowl. The other two locations in Kerala where extensive farming is carried out are Thrissur and Palakkad. The state planning board estimates that Kerala lost more than 5,000 hectares of paddy crops. The Kerala government has launched cutting-edge programmes under food security programmes. In the past, Kerala's three seasons were employed to harvest rice in practically all areas of the state. Mundakan, Virippu, and Puncha were their names. Since Kerala's economy heavily depends on agriculture. The land used for paddy agriculture has been steadily decreasing at an alarming rate over the years, despite the fact that Kerala just produces enough rice annually to meet its needs, staying a deficit state. Most of them don't look closely at the true issues. Since the middle of the 1970s, little effort has been put into identifying the main causes of the paddy fields' low performance.

**20. (Karunakaran N, 2014)** Said that the statistical profile of Kerala's agricultural sector since 1960 made it abundantly obvious that the state's paddy-growing area has shrunk. The performance of this crop in terms of increase of area, production, and productivity was revealed by time series analysis of acreage, production, and productivity data of rice in Kerala throughout the five decades from 1960–1961 to 2009–2010. Due to the area's falling tendency, output of the principal food crop, rice, achieved negative growth rates. Agro-climatic conditions, labor availability, irrigation capabilities, soil fertility, cost of cultivation, price levels, profitability, mechanization, etc. are only a few examples of price and non-price elements that have contributed to the diversification of crops in terms of variation in acreage allocation. Generally speaking, the transition has favored non-food crops. Since 1960–1961, the actual growth of agricultural crop output has steadily decreased in comparison to monetary growth, or the increase in the value of agricultural crop output. The most important issue facing Kerala right now is the availability of food, particularly rice. According to the data, Kerala experienced rice scarcity in 1960–1961, which climbed to 83.45 percent in 2009–2010. The study unmistakably demonstrated Kerala's rising rice demand relative to current supplies in the coming years. This will cause the supply-demand gap for rice in Kerala to widen in the next few years, posing a danger to food security and highlighting the need for continued, sustainable growth in rice production.

**21.(Ravikumar et al, 2013)** The aim of this article is that the primary food consumed by the people of Kerala is rice. The entire nation is covered with rice fields. Kuttanad and Palakkad are the state's major rice-producing regions. Over the previous ten years, rice production has been constant at roughly one lakh tonnes. Because their paddy hasn't been selling for a fair price across the nation, paddy farmers have been dealing with a variety of issues. The social scientist has determined that a lack of labour and a low price for paddy are the main contributing factors. The focus of this study is on group management for enhancing the economics of paddy farming through improved management based on low-cost technologies, increased productivity, and cost-cutting. In the current investigation, this assertion has been demonstrated.

**22.(Goudappa et al, 2012)** The study brought about a number of concerns regarding farmers' knowledge of the elements of a recently introduced insurance programme known as PMFBY (Pradhan Mantri Fasal Bima Yojana). Due to the lack of knowledge about various components, it is evident that all parties involved, including the service provider, should actively participate in a public awareness and farmer capacity building campaign through bank employees, the agricultural department, and village administrative offices. The study identified the issues of the farmers. Many of the farmers are not aware of this scheme. They are not getting benefits at an appropriate time because of lack of awareness about this scheme.

**23.(Raja Mohammed, 2011)** Said that In the Tamil Nadu district of Thanjavur, evaluated the employment and income of farmers in connection to the adoption of paddy growing technique. In the study area, the agriculture industry has significant issues with water scarcity, low output prices, and high input prices, including Fertilizer,

insecticides, seeds, etc. Weak agricultural extension initiatives support large-scale landowners and farmers. Many farmers are also unaware of crop insurance programmes.

**24.(Wassmann R et al, 2009)** This purpose of this paper is to analyze non-climatic factors that have a delicate impact on agriculture while also taking into account climatic variables. In this study, many adaptation tactics have been identified, including altering planting dates, water-saving methods, and strategic fertilizer management. In the meantime, we're trying to ignore the fact that most farmers are ignorant of climate-resilient agriculture techniques. In this climate change scenario, farmers alter their practices, though, to promote sustainable output. The application of these adaptation techniques lowers susceptibility, enhancing "quality of life" and "socio-economic status". To gather first-hand information, a cross-sectional study with questionnaires was carried out. There were 7 sections and 51 questions in the pre-tested interviewing questionnaire. For the poll, 90 paddy-growing farmers from the area were chosen as responders. The data that had been gathered was examined using descriptive statistics. (76.67%) of farmers increased the intensity of their agricultural operations on irrigated land. To save time and money, over half of them (47.78%) were paddy growers who used zero tillage techniques.

**25.(Naeem k et al, 2008)** The study reveals that Kuttanad and Palakkad are the state's major rice-producing regions. The previous ten years have seen a stagnation in rice production at 10 to 11 lakh tonnes. Because their paddy hasn't been selling for a fair price across the nation, paddy farmers have been dealing with a variety of issues. Farmers commit suicide as a result of the rising cost of agriculture brought on by the price decline. Farmers are committing suicide in greater numbers as a result of unfavourable weather conditions, low prices, and hefty cultivation costs. The number of paddy farmers in Palakkad is declining at the moment. In this study, the socioeconomic circumstances of the paddy farmers in a sample of Palakkad district villages were examined, as well as the farmers' issues. The social scientist has determined that a lack of labor and a low price for paddy are the main contributing factors. The focus of this study is on group management for enhancing the economics of paddy farming through improved management based on low-cost technologies, increased productivity, and reducing expenses.

**26.(Mahesh Kumar et al, 2007)** This study reveals that the Indian economy's largest and most significant sector is agriculture. The Government of India has always placed the greatest importance on the welfare of farmers. By offering various programmes, the government plays a significant role in achieving the desired results, benefits for farmers, and economic development. The study evaluated farmers' awareness of and response to government programmes in Coimbatore, Tamil Nadu, India. 100 people were chosen using the convince sampling technique. The study also aims to ascertain farmers' understanding, degree of satisfaction, opinions, and concerns with regard to agricultural government programmes. According to the study's findings, all farmers need to be aware of the government's programmes, and the government should work more to increase awareness of these programmes so that all farmers may easily take advantage of them and benefit from the schemes.

**27.(Thomas P M, 1996)** said that it is a state-level analysis of paddy cultivation's present issues, production, and area. The data was collected from Alappuzha and Kottayam. Aversion of the younger generation and a fall in the number of full-time, dedicated farmers are significant issues with rice farming. Farmer resistance to taking a second crop, the land leasing system, a labor shortage, and poor income wages, farmers' economic situation, the type of job done, and unusual increases in input costs, non-institutional borrowing, a poor marketing strategy, and a lack of research-based guidance institutions, inadequately developed infrastructure, etc.

**28.(Dhian Singh Bhan, 1990)** The aim of this journal is to analyze non-climatic factors that have a delicate impact on agriculture while also taking into account climatic variables. In this study, many adaptation tactics have been identified, including altering planting dates, water-saving methods, and strategic fertilizer management. In the meantime, we're trying to ignore the fact that most farmers are ignorant of climate-resilient agriculture techniques. In this climate change scenario, farmers alter their practices, though, to promote sustainable output. The application of these adaptation techniques decreases susceptibility, enhancing "quality of life" and "socio-economic status".

## CONCLUSION

The researcher reviewed books, journals, articles and studies related to agricultural schemes and cultivation practices. This chapter deals with different reviews related to the cognizance of paddy farmers about agricultural schemes and cultivation practices.

## CHAPTER 3

### RESEARCH METHODOLOGY

#### INTRODUCTION

Research Methodology is a systematic and scientific description of how research is scientifically conducted. This is a way to solve problems. Provides a clear picture of research being conducted. This chapter describes the title of the study, significance of the study, objectives, definitions, universe and unit of study, inclusion and exclusion criteria, sampling methods, tool and method of data collection.

#### TITLE OF THE STUDY

A STUDY ASSESS THE COGNIZANCE OF PADDY FARMERS ABOUT AGRICULTURAL SCHEMES AND CULTIVATION PRACTICES WITH SPECIAL REFERENCE TO CHITTUR TALUK, PALAKKAD.

#### SIGNIFICANCE OF THE STUDY

There is a lack of cognizance among paddy farmers about various agricultural schemes. They did not get appropriate schemes for their improvement of crops and prevention of unpredictable risk factors in the agricultural sector. They are facing serious crop loss. Due to this the paddy farmers are facing various socio-economic problems. The main schemes for paddy farmers are Pradhan Mantri Fasal Bima Yojana, Pradhan Mantri Krishi Sinchai Yojana, Paramparakat Krishi Vikas Yojana, Soil Health Card and PM kisan Credit Card Scheme. Lack of cognizance and availability of these schemes are the main reasons for their socio-economic problems and failure of crop loss. In their paddy field they face a lot of issues in cultivation practices such as seasonal shortage of labour supply, lack of irrigation purpose, use of fertilizers, pesticides etc affect their production of yield. Most of the paddy farmers are depending on agriculture for their livelihood. So there is a need for the cognizance of agricultural schemes for the welfare of paddy farmers as its prevalence to improve the economic status of the paddy farmers in Chittur Taluk.

#### GENERAL OBJECTIVE

To understand the cognizance of paddy farmers about agricultural schemes and cultivation practices.

#### SPECIFIC OBJECTIVES

- 1) To understand the socio- economic status of the respondents.
- 2) To know about the various methods and measures taken for paddy cultivation.
- 3) To know about the awareness and availability of various agricultural schemes and policies of the respondents.
- 4) To know about the issues of paddy farmers towards agricultural schemes.

#### DEFINITION OF CONCEPTS

##### 1. Cognizance

###### Conceptual Definition

According to the Britannica Dictionary “Cognizance” is knowledge or awareness about something.

###### Operational Definition

Cognizance: In this study, it refers to the basic knowledge or awareness regarding various agricultural schemes among paddy farmers.

## 2. Paddy Farmer

### Conceptual Definition

According to Merriam- Webster “Paddy” is wet land in which rice is grown, “Farmer” is a person who cultivates land or crops or raises animals.

### Operational Definition

Paddy farmer: In this study, it refers to a person who owns or manages a paddy farm.

## 3. Agriculture

### Conceptual Definition

Zimmerman (1966), defines “Agriculture” as “those productive efforts by which man settled on the land, seeks to make use of land and if possible, accelerate and improve upon the natural genetic processes of plants and animal life to the end that these processes which yield the vegetable and animal products.

According to vikaspedia “Schemes” is a Government programme set up to help farmers manage their land in an environmentally friendly way.

### Operational Definition

Agricultural schemes: In this study, agricultural schemes help the paddy farmers to obtain various services and improve the standard of living of all farmers.

## 4. Cultivation

### Conceptual Definition

According to A. Baldini “Cultivation” is carried out to improve soil physical conditions, to allow improved root growth and therefore tree anchorage, to improve root access to soil nutrients and moisture, and to improve the quality of planting.

### Operational Definition

Cultivation: In this study, it refers to preparing land for the raising of paddy crops.

## PILOT STUDY

A pilot study is a research study conducted before the intended study. Its finds out the scope and feasibility of the study and interacted with the Agricultural Officer and talked about the research topic and the feasibility of the study. In Nallepilly panchayat there are 30 padasekharams and the Polpully panchayat consists of 14 padasekharam. Researcher interacted with few paddy farmers from the area under Nallepilly and Polpully panchayath and asked questions related to the Agricultural schemes and cultivation practices.

## RESEARCH DESIGN

It is quantitative research and uses descriptive design.

The process of gathering and analyzing numerical data is known as quantitative research. In this study descriptive research design is adopted to describe the research problem. The researcher has studied the present situation of the study.

## UNIVERSE OF THE STUDY

The universe comprises the paddy farmers who were getting various agricultural schemes and knew about the various methods and measures they had taken in their paddy field at Chittur Taluk.

## UNIT OF THE STUDY

A paddy farmer who was getting various government agricultural schemes and use of various methods and measures in appropriate time for their crop improvement.

## INCLUSION CRITERIA

The researcher included only the paddy farmers from Chittur Taluk

## EXCLUSION CRITERIA

The researcher excluded other farmers rather than paddy farmers.

## **SAMPLING METHOD**

Sampling is a process of selecting a few from a bigger group to become the basis for predicting the prevalence of the unknown piece of information, situation or outcome regarding the better group. The researcher selected a random selection of two panchayats (Nallepilly and Polpully). The probability sampling method contains simple random sampling. The researcher had used simple random sampling. Sample size constitutes 60 samples in Chittur Taluk.

## **TOOL OF THE STUDY**

For the study researcher made use of interview schedule which was self prepared and consists of 53 closed ended questions.

## **PRE -TEST**

The Pre-test was conducted on 20<sup>th</sup> January, 2023 to check the feasibility of the tool. Then the Pre-test researcher selected 5 respondents from the Nallepilly Grama Panchayat. The Pre-test tool consists of 59 questions. The respondents contain 1 female and 4 males. Researcher could edit and modify some questions in the interview schedule after completing this Pre-test.

## **DATA COLLECTION OF THE STUDY**

The data collection was done on 20-25 April, 2023. Data collected from the Nallepilly and Polpully grama panchayat, Chittur Taluk.

The researcher uses both primary and secondary data for data collection. The primary method of data collection used in this study is an interview method with a structured interview. Secondary data have been collected from magazines, research studies, articles, journals, websites etc.

## **DATA ANALYSIS AND INTERPRETATION**

The data for the study will be analyzed using excel. To easily understand the data, it is represented in the form of tables, bar diagrams and pie charts for data analysis.

## **CHAPTERISATION**

### **Chapter 1- Introduction**

The introduction part includes about the agriculture, paddy cultivation in India, paddy cultivation in Kerala, Paddy cultivation in Palakkad, paddy cultivation in Chittur Taluk, About Krishi Bhavan, cultivated practices of paddy, about central government agricultural schemes, major problems faced by paddy farmers in India, social factors, economic factors, decline of paddy cultivation in India.

### **Chapter 2- Review of literature**

This chapter includes abstraction of earlier research and articles which have been helpful for gaining knowledge on the topic.

### **Chapter 3- Research Methodology**

This chapter deals with the details about design of the study, sampling technique, pilot study, exclusion and inclusion criteria, objectives of the study, limitations, ethical consideration and tool of the study.

### **Chapter 4- Data Analysis and Interpretation**

In this chapter, the researcher analyzed the data which were collected through the interview Schedule.

### **Chapter 5- Findings, Suggestions and Conclusion of the study.**

#### **LIMITATIONS**

The respondents will be limited their opinions

The sample size is limited to 60 respondents so the result may not be accurate since the responses of entire paddy farmers is not taken into consideration.

## ETHICAL CONSIDERATION

The researcher firstly obtained a consent letter from the Department Of Social Work, Mercy College, Palakkad for data collection. The researcher had informed and got consent from the Nallepilly and Polpully Grama Panchayat Agricultural Officer. And also informed the respondents regarding the study and their consent had obtained before collecting the data. The collected data will be using only for the academic purpose. Confidentiality and privacy had been followed and maintained throughout the study.

## CONCLUSION

In this methodology the researcher understands the significance of the problem. And also conducted pilot study before the intended study. It helps to find out the scope and feasibility of the study. The researcher mentioned the research design, unit of the study, inclusion and exclusion criteria, sampling design and sample size, tool. The pretest was helpful for the researcher to check the feasibility of the tool. The primary and secondary data are used for data collection. Data analysis and chapterisation, limitations and ethical consideration are included in the methodology. It helps the researcher to understand more about the study.

## CHAPTER 4

### DATA ANALYSIS AND INTERPRETATION

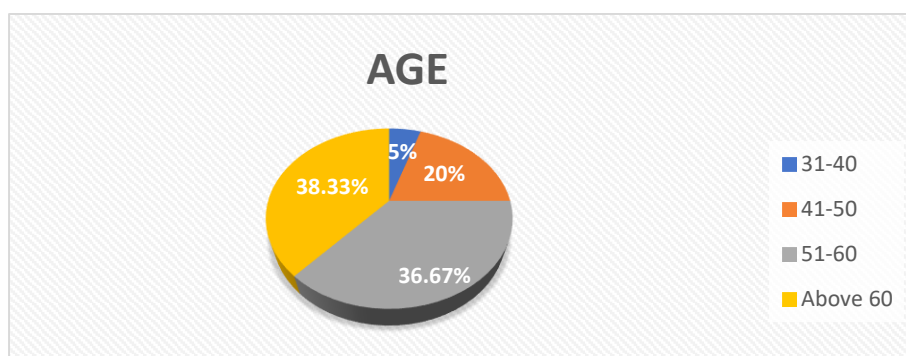
Data analysis is the most valuable part of any research and it summarizes collected data. It is the practice of working with data to obtain useful information, which can then be used to make decisions based on facts. It makes sense that the data analysis process helps to reduce huge amounts of data into smaller units.

### SPECIFIC OBJECTIVES

- 1) To understand the socio- economic status of the respondents.
- 2) To know about the various methods and measures taken for paddy cultivation.
- 3) To know about the awareness and availability of various agricultural schemes and policies of the respondents.
- 4) To know about the issues of paddy farmers towards agricultural schemes.

**TABLE 4.1: DISTRIBUTION OF THE RESPONDENTS BASED ON AGE**

SL.NO	AGE	FREQUENCY	PERCENT
1	31-40	3	5.00
2	41-50	12	20.00
3	51-60	22	36.67
4	Above 60	23	38.33
	Total	60	100

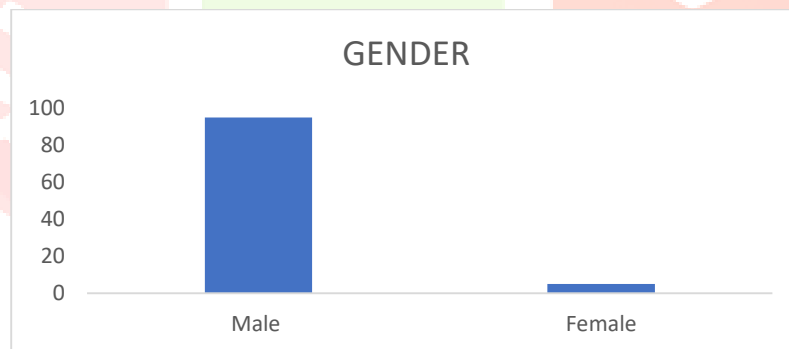


**FIGURE 4.1: DISTRIBUTION OF THE RESPONDENTS BASED ON AGE**

The above figure (4.1) shows the age group of respondents. 38.33% of respondents age group is 60 above, 36.67% are under 51-60 category, 20% of the respondents in 41-50 and 5% of the respondents in the 31-40 age group. So it shows that most of the respondent age group is 60 above.

**TABLE 4.2: DISTRIBUTION OF THE RESPONDENTS BASED ON GENDER**

SL.NO	GENDER	FREQUENCY	PERCENT
1	Male	57	95.00
2	Female	3	5.00
	Total	60	100



**FIGURE 4.2: DISTRIBUTION OF THE RESPONDENTS BASED ON GENDER**

The above figure (4.2) indicates the gender of respondents. Out of the 60 respondents, 95.00% of the respondents are male, then 5.00% of the respondents are female. So here the figure shows that most of the respondents are males.



TABLE 4.3: DISTRIBUTION OF THE RESPONDENTS BASED ON EDUCATIONAL QUALIFICATION

SL.NO	EDUCATIONAL QUALIFICATION	FREQUENCY	PERCENT
1	Illiterate	1	1.67
2	Lower primary	17	28.33
3	Upper primary	20	33.33
4	Above upper primary	22	36.67
	Total	60	100

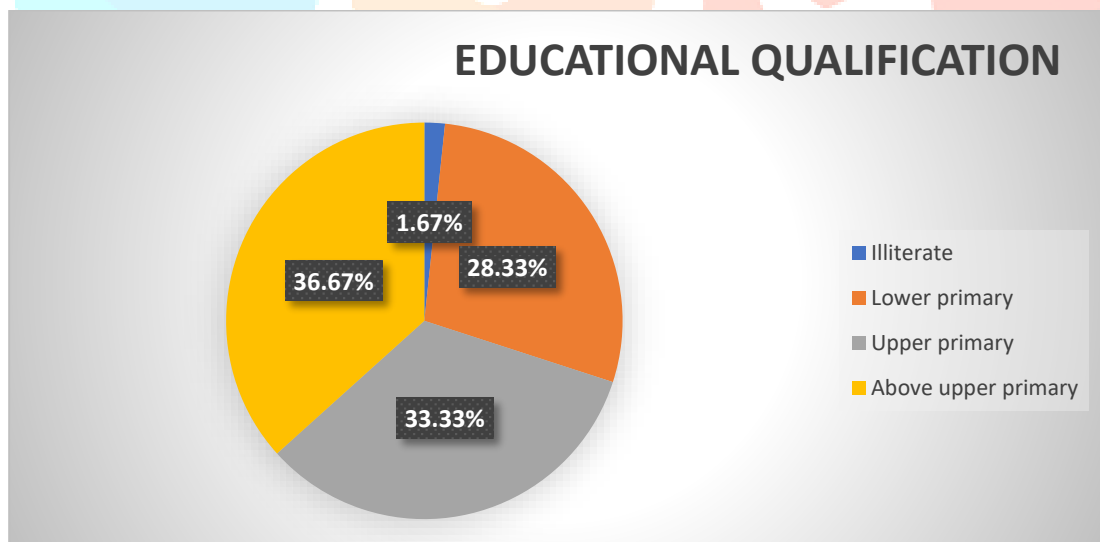


FIGURE 4.3: DISTRIBUTION OF THE RESPONDENTS BASED ON EDUCATIONAL QUALIFICATION

The above figure (4.3) reveals the educational qualification of respondents. 36.67% respondents are above upper primary, 33.33% are under upper primary, 28.33% of the respondents include lower primary and 1.67% of the respondents are illiterate. So it found that most of the respondents are above upper primary.

TABLE 4.4: DISTRIBUTION OF THE RESPONDENTS BASED ON THE AGE OF STARTING PADDY CULTIVATION

SL.NO	AGE OF STARTED PADDY CULTIVATION	FREQUENCY	PERCENT
1	20-30	23	38.33
2	31-40	25	41.67
3	41-50	8	13.33
4	Above 50	4	6.67
	Total	60	100

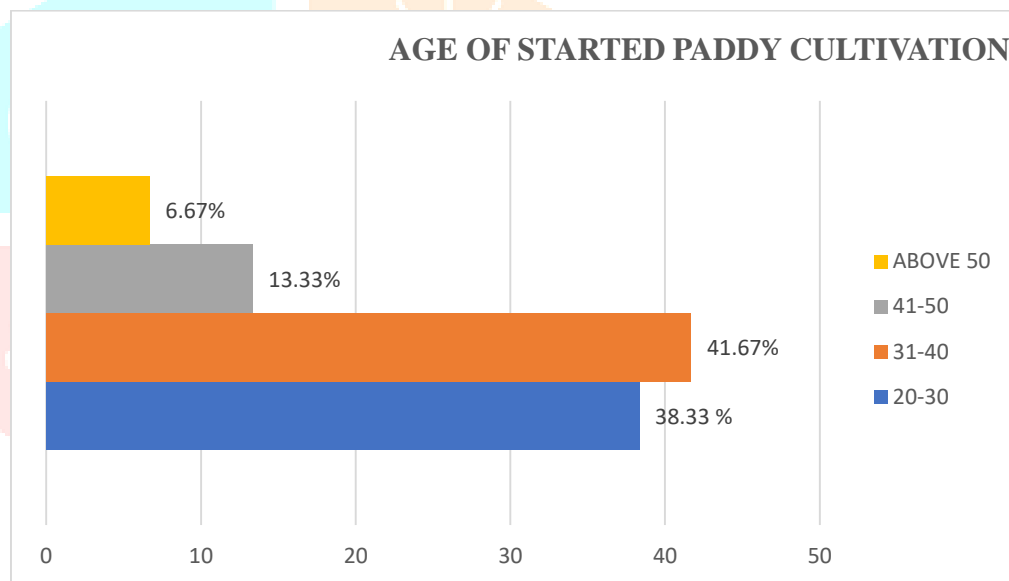


FIGURE 4.4: DISTRIBUTION OF THE RESPONDENTS BASED ON THE AGE OF STARTING PADDY CULTIVATION

The above figure (4.4) indicates the age of starting paddy cultivation of respondents. Out of the 60 respondents, 41.67% of the respondents started paddy cultivation at the age of 31-40, then 38.33% of the respondents are between the age of 20-30, 13.33% of respondents in the 41-50 age category, and 6.67% of respondents are above 50. So here the figure shows that most of the respondents started paddy cultivation at the age of 31-40.

TABLE 4.5: DISTRIBUTION OF THE RESPONDENTS BASED ON THE LAND USED FOR PADDY CULTIVATION

SL.NO	LAND	FREQUENCY	PERCENT
1	5-50 Cent	2	3.33
2	51-1 acre	15	25.00
3	2-5 acre	31	51.67
4	Above 5 acre	12	20.00
	Total	60	100

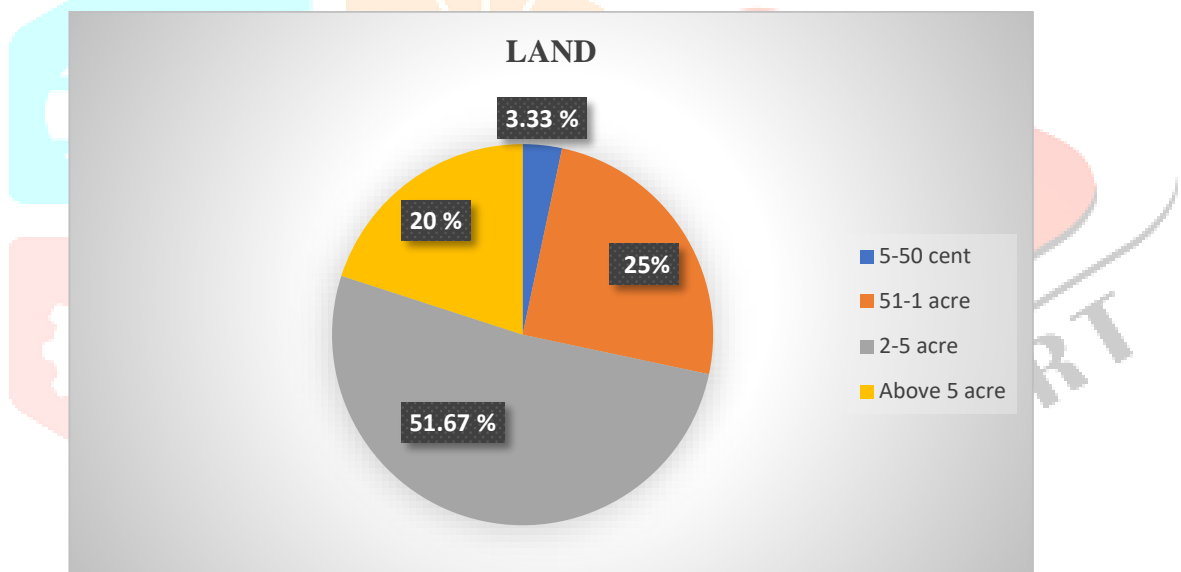


FIGURE 4.5: DISTRIBUTION OF THE RESPONDENTS BASED ON THE LAND USED FOR PADDY CULTIVATION

The above figure (4.5) demonstrated that the land used for the paddy cultivation of 60 respondents. 51.67% respondents are using 2-5 acres of land for paddy cultivation, 25% respondents are using 51-1 acres of land, 20% of respondents are using above 5 acres of land, 3.33% of respondents are using 5-50 cent of land. So the result is most of the respondents are using 2-5 acres of land for paddy cultivation.

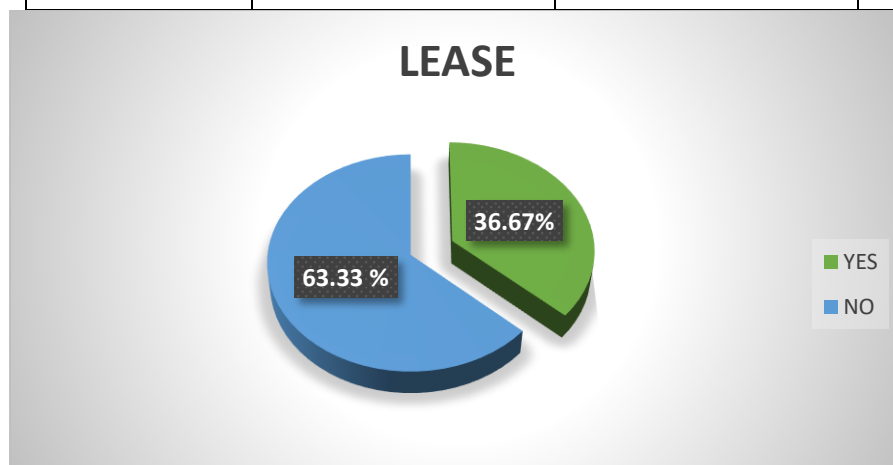
**TABLE 4.6: DISTRIBUTION OF THE RESPONDENTS BASED ON THE SOURCE OF INCOME**

SL.NO	INCOME	FREQUENCY	PERCENT
1	Agricultural activities	17	28.33
2	Non-agricultural activities	0	0.00
3	Agricultural and Non - agricultural activities	43	71.67
	Total	60	100

The above table (4.1) states the source of income of the respondents. The results show that 71.67% of respondents get income from agricultural and non- agricultural activities, 28.33% of respondents depend on agricultural activities for their source of income, 0.00% of respondents are entrusted for non- agricultural activities. It found that most of the respondents depend on agricultural and non- agricultural activities for their livelihood. As they do not get enough profit from paddy cultivation, they depend on other sources of income.

**TABLE 4.7: DISTRIBUTION OF THE RESPONDENTS BASED ON THE PADDY CULTIVATION TAKEN FOR LEASE**

SL.NO	LEASE	FREQUENCY	PERCENT
1	YES	22	36.67
2	No	38	63.33
	Total	60	100

**FIGURE 4.6: DISTRIBUTION OF THE RESPONDENTS BASED ON THE PADDY CULTIVATION TAKEN FOR LEASE**

The above figure (4.6) conveys that the respondents who are taking paddy cultivation for lease. 63.33% of the respondents were taking paddy for lease.36.67% of respondents were using their own land for paddy cultivation.

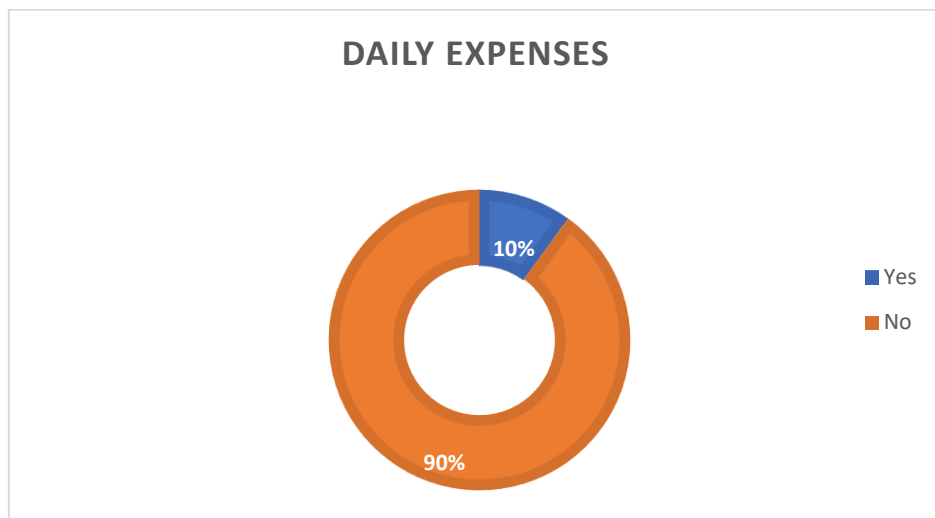
**TABLE 4.8: DISTRIBUTION OF THE RESPONDENTS BASED ON THOSE WHO HAVE TAKEN LOAN FROM THE BANK**

SL.NO	APPROACH BANK	FREQUENCY	PERCENT
1	YES	60	100.00
2	No	0	0
	Total	60	100

The above table (4.8) shows that 100 % of the respondents approached a bank to take a loan for improving their paddy cultivation. So the result is out of 60 respondents facing financial difficulties. Respondents answered that they take loans to finance essential inputs like seeds, fertilizers, and pesticides. These funds help them purchase necessary farming equipment and machinery. Loans also cover labor costs during peak seasons and aid in managing unexpected expenses such as crop damage.

**TABLE 4.9: DISTRIBUTION OF THE RESPONDENTS BASED ON THE DAILY EXPENSES OF AGRICULTURAL INCOME**

SL.NO	DAILY EXPENSES	FREQUENCY	PERCENT
1	YES	6	10.00
2	No	54	90.00
	Total	60	100

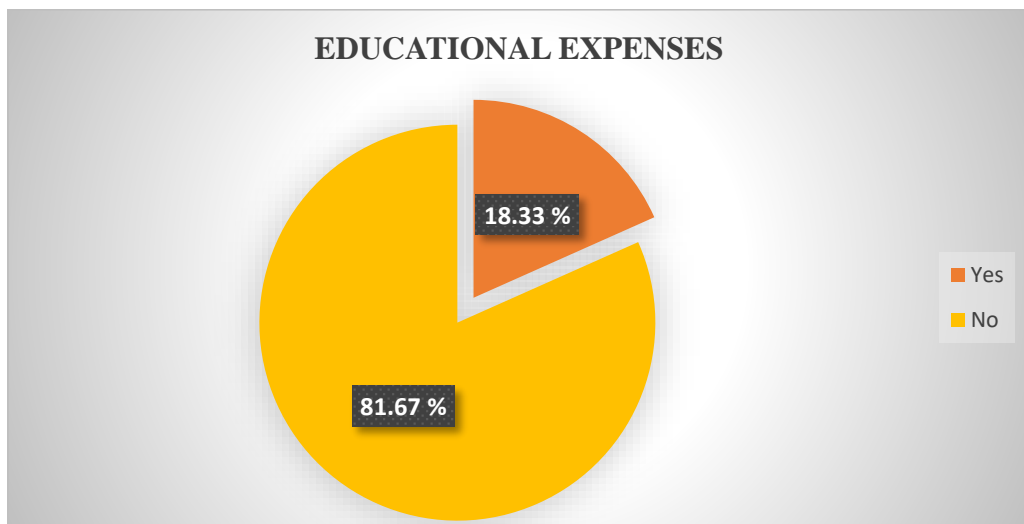


**FIGURE 4.7: DISTRIBUTION OF THE RESPONDENTS BASED ON THE ABILITY TO MEET DAILY EXPENSES OF AGRICULTURAL INCOME**

The above figure (4.7) indicates that the respondents depend on agricultural income for their daily expenses. Out of the 60 respondents, 90.00% of the respondents mostly depend on paddy cultivation for their daily expenses, then 10.00% of the respondents do not depend on paddy cultivation for their daily expenses. So the figure represents 90.00% of respondents' main source of income is from paddy cultivation.

**TABLE 4.10: DISTRIBUTION OF THE RESPONDENTS BASED ON EDUCATIONAL EXPENSES OF CHILDREN**

SL.NO	EDUCATIONAL EXPENSES	FREQUENCY	PERCENT
1	YES	11	18.33
2	No	49	81.67
	Total	60	100



**FIGURE 4.8: DISTRIBUTION OF THE RESPONDENTS BASED ON EDUCATIONAL EXPENSES OF CHILDREN**

The above figure (4.8) states that the educational expenses of respondents children. 81.67 % of respondents were not able to meet their children's educational expenses from the income of paddy cultivation. Out of 60 respondents 18.33 % of respondents are able to attain their children's educational expenses from the income of paddy cultivation. It found that most of the respondents face difficulties for their education of children.

**TABLE 4.11: DISTRIBUTION OF THE RESPONDENTS BASED ON THE DEBT**

SL.NO	DEBT	FREQUENCY	PERCENT
1	YES	60	100.00
2	No	0	0.00
	Total	60	100

The table (4.11) reveals that debt from paddy cultivation. 100% of the respondents answered that debt is a major problem for doing paddy cultivation. Taking time to get benefits leads to debt. It is a major problem faced by respondents. They often accumulate debt from paddy cultivation due to high initial investment costs, unpredictable weather conditions, market price fluctuations and inadequate agricultural infrastructure and support services, failure to get timely benefits from the government also leads respondents into debt.

TABLE 4.12: DISTRIBUTION OF THE RESPONDENTS BASED ON THE SAVINGS ACCOUNT IN BANK

SL.NO	SAVINGS ACCOUNT	FREQUENCY	PERCENT
1	YES	60	100.00
2	No	0	0.00
	Total	60	100

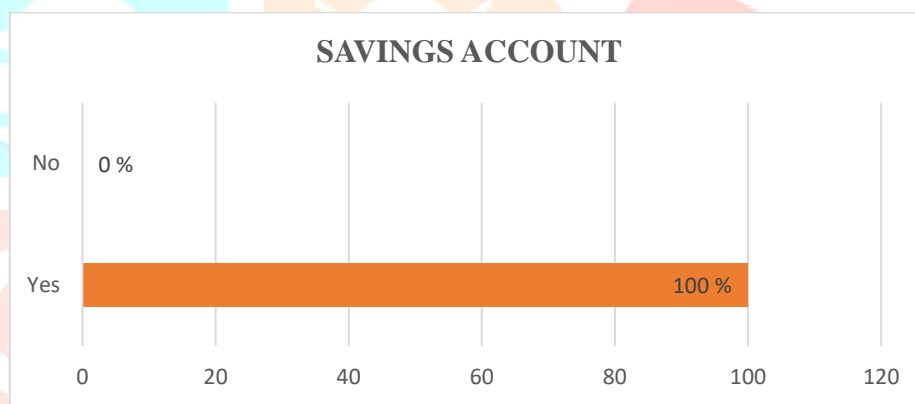


FIGURE 4.9: DISTRIBUTION OF THE RESPONDENTS BASED ON THE SAVINGS ACCOUNT IN BANK

The above figure (4.9) conveys that respondents have savings accounts in bank. 100.00 % of the respondents have savings accounts with financial institutions for agricultural benefits and other insurance.



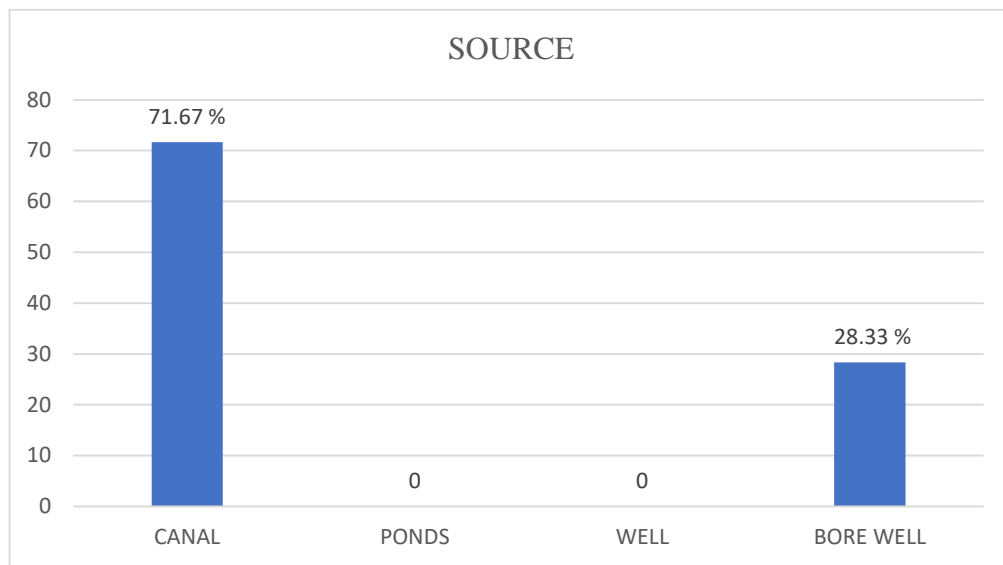
**TABLE 4.13: DISTRIBUTION OF THE RESPONDENTS BASED ON THE TYPE OF TOOLS**

SL.NO	TOOLS	FREQUENCY	PERCENT
1	TRADITIONAL TOOLS	0	0.00
2	NON-TRADITIONAL TOOLS	60	100.00
	Total	60	100

The above table (4.13) indicates the kinds of tools used for paddy cultivation. 100% of the respondents said non-traditional methods are the best choice for paddy cultivation, and cultivation practices can be done within a short period of time. The results state that nowadays non-traditional methods are effective for cultivation practices.

**TABLE 4.14: DISTRIBUTION OF THE RESPONDENTS BASED ON THE SOURCE OF IRRIGATION**

SL.NO	SOURCE	FREQUENCY	PERCENT
1	CANAL	43	71.67
2	PONDS	0	0.00
3	WELL	0	0.00
4	BORE WELL	17	28.33
	Total	60	100



**FIGURE 4.10: DISTRIBUTION OF THE RESPONDENTS BASED ON THE SOURCE OF IRRIGATION**

The above figure (4.10) conveys that the respondents used different sources for irrigation. 71.67% of the respondents used canal for irrigation purposes. 28.33% of respondents used borewell. Out of 60 respondents the ponds and wells are not used for irrigation.

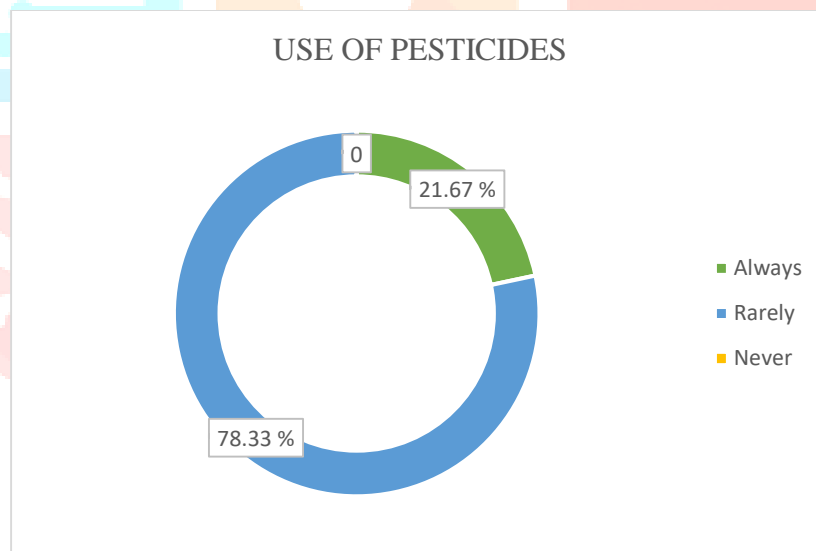
**TABLE 4.15: DISTRIBUTION OF THE RESPONDENTS BASED ON CULTIVATION PER YEAR**

SL.NO	PER YEAR	FREQUENCY	PERCENT
1	ONCE	9	15.00
2	TWICE	51	85.00
	Total	60	100

The table (4.15) shows that the times a year they cultivate paddy. Here 85% of the respondents answered that they cultivate paddy twice in a year. 15.00% of the respondents cultivate paddy only once in a year. They said that paddy requires a specific climate and growing conditions, and regions with favorable climates can support two crops per year. Cultivating paddy twice in a year allows respondents to increase their income.

**TABLE 4.16: DISTRIBUTION OF THE RESPONDENTS BASED ON THE USE OF PESTICIDES**

SL.NO	USE OF PESTICIDES	FREQUENCY	PERCENT
1	ALWAYS	13	21.67
2	RARELY	47	78.33
3	NEVER	0	0.00
	TOTAL	60	100

**FIGURE 4.11: DISTRIBUTION OF THE RESPONDENTS BASED ON THE USE OF PESTICIDES**

The above figure (4.11) indicated that the respondents use pesticides for the protection from pest attack and better yield of production. Out of the 60 respondents, 78.33% of the respondents always use pesticides, then 21.67% of the respondents rarely use pesticides in their paddy field. so the figure represents the majority of the respondents uses pesticides.

TABLE 4.17: DISTRIBUTION OF THE RESPONDENTS BASED ON GETTING SUBSIDIES

SL.NO	SUBSIDIES	FREQUENCY	PERCENT
1	YES	21	35.00
2	No	39	65.00
	Total	60	100

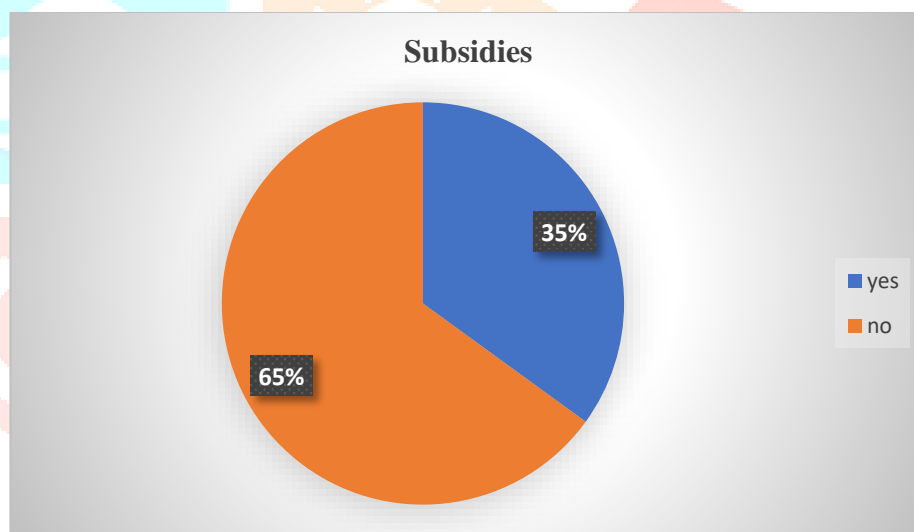


FIGURE 4.12: DISTRIBUTION OF THE RESPONDENTS BASED ON GETTING SUBSIDIES

The above graph (4.12) is related to getting subsidies to the respondents. 65% of respondents are said not to be getting subsidies at the correct time and 35% of respondents are getting subsidies at the right time. Respondents experience delays in receiving subsidies from the government due to administrative processes and bureaucratic inefficiencies. Limited financial resources within the government can further delay in getting subsidies.

TABLE 4.18: DISTRIBUTION OF THE RESPONDENTS BASED ON STORAGE FACILITIES

SL.NO	STORAGE	FREQUENCY	PERCENT
1	YES	13	21.67
2	No	47	78.33
	Total	60	100

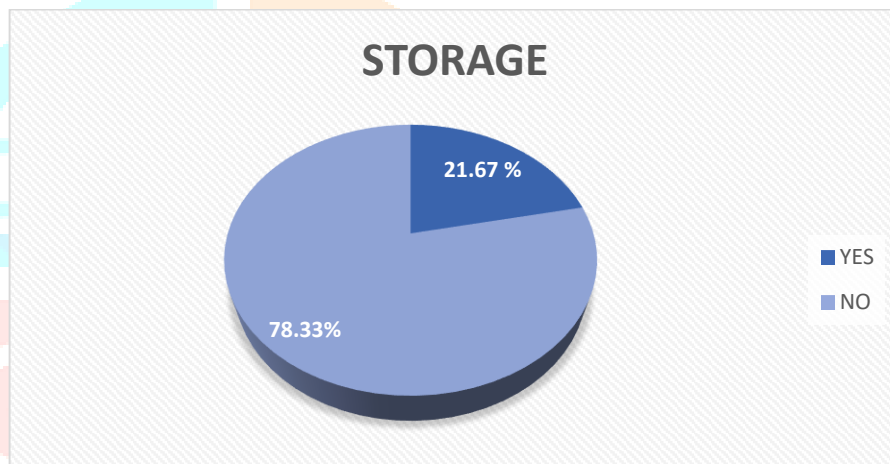


FIGURE 4.13: DISTRIBUTION OF THE RESPONDENTS BASED ON STORAGE FACILITIES

The above figure (4.13) indicates that the storage facilities for storing paddy are in place. Here, 78.33 % of respondents said they don't have storage facilities in their own land and depend on others' land for storing paddy for a long period of time. Out of 60 respondents 21.67% of respondents have storage facilities.

TABLE 4.19: DISTRIBUTION OF THE RESPONDENTS BASED ON SELLING AFTER CROP PRODUCTION

SL.NO	AFTER CROP PRODUCTION	FREQUENCY	PERCENT
1	SUPPLYCO	47	78.33
2	DIRECT	9	15.00
3	OTHERS	4	6.67
	TOTAL	60	100

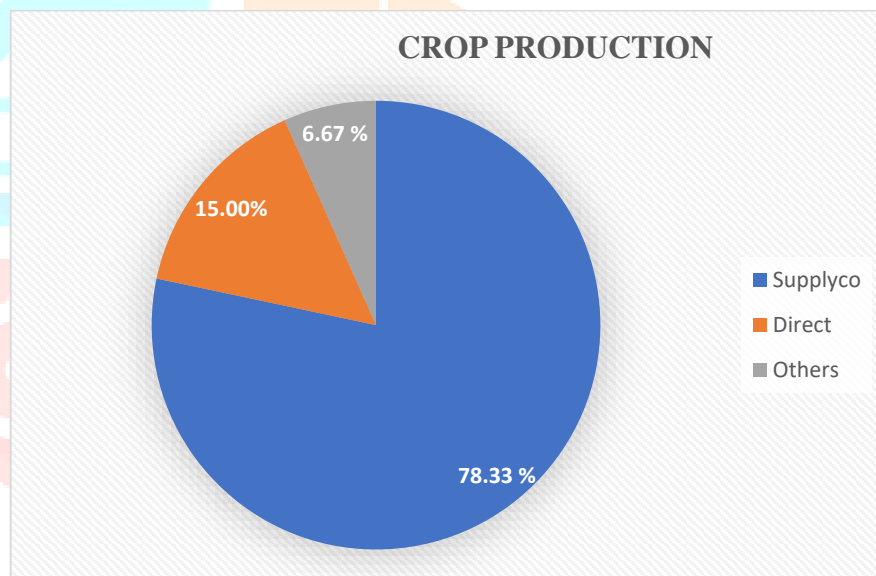
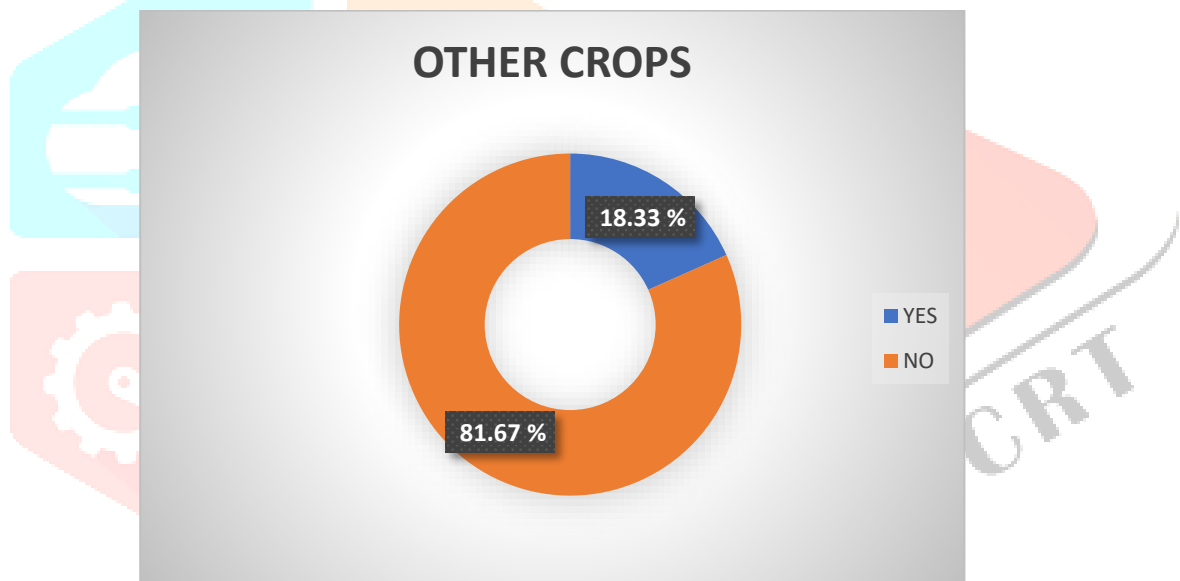


FIGURE 4.14: DISTRIBUTION OF THE RESPONDENTS BASED ON SELLING AFTER CROP PRODUCTION

The above figure (4.14) shows that selling of paddy.78.33% of respondents are selling the paddy to Supplyco, then 15.00% of respondents are selling the paddy to direct persons and 6.67% of respondents selling crops to others. Respondents give their paddy to Supplyco because it offers a reliable market. Supplyco is a government-owned organization with procurement centers that ensure fair purchasing. Respondents said that they avoid risks by selling to Supplyco. Supplyco also provides support services to improve their productivity.

**TABLE 4.20: DISTRIBUTION OF THE RESPONDENTS BASED ON CULTIVATING CROPS OTHER THAN PADDY**

SL.NO	OTHER CROPS	FREQUENCY	PERCENT
1	YES	11	18.33
2	No	49	81.67
	Total	60	100

**FIGURE 4.15: DISTRIBUTION OF THE RESPONDENTS BASED ON CULTIVATING CROPS OTHER THAN PADDY**

The above figure (5.15) indicated that the respondents cultivating other than paddy. 81.67 % of respondents without cultivating different types of crops other than paddy cultivation for their livelihood.18.33 % of respondents mainly cultivating different types of crops rather than paddy.

**TABLE 4.21: DISTRIBUTION OF THE RESPONDENTS BASED ON THE AWARENESS ABOUT NEW AGRICULTURAL SCHEMES**

SL.NO	AWARENESS	FREQUENCY	PERCENT
1	YES	22	36.67
2	No	38	63.33
	Total	60	100

The above table (4.21) shows that aware about agricultural schemes. 63.33% of the respondents are aware about the new agricultural schemes and 36.67 % of the respondents have no idea about agricultural schemes. The schemes are Pradhan Mantri Fasal Bima Yojana, Pradhan Mantri Krishi Sinchai Yojana, Paramparakat Krishi Vikas Yojana, Soil health card and Pradhan Manthri kisan Credit Scheme.

**TABLE 4.22: DISTRIBUTION OF THE RESPONDENTS BASED ON GETTING GOVERNMENT AGRICULTURAL SCHEMES**

SL.NO	ACCESSIBILITY TO SCHEMES	FREQUENCY	PERCENT
1	YES	23	38.33
2	No	37	61.67
	Total	60	100

The above table shows getting government agricultural schemes for the respondents. Here 61.67% of the respondents said that they are not getting agricultural schemes at an appropriate time.



TABLE 4.23: DISTRIBUTION OF THE RESPONDENTS BASED ON PARTICIPATING IN AWARENESS CLASS

SL.NO	PARTICIPATING IN AWARENESS CLASS	FREQUENCY	PERCENT
1	YES	17	28.33
2	No	43	71.67
	Total	60	100

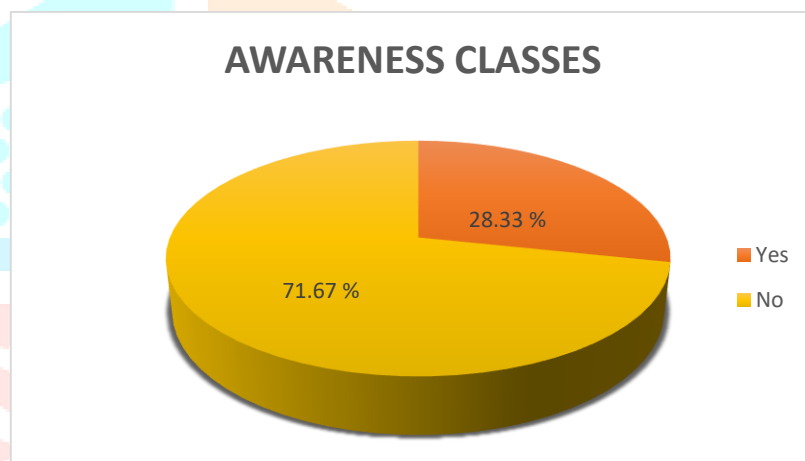


FIGURE 4.16: DISTRIBUTION OF THE RESPONDENTS BASED ON PARTICIPATING IN AWARENESS CLASSES

The above figure (4.16) shows participation of respondents in awareness classes about cultivation practices and problems faced by the respondents in their own paddy field. 71.67% of respondents are not willing to attend the awareness classes and 28.33 % of respondents are attending the awareness classes.

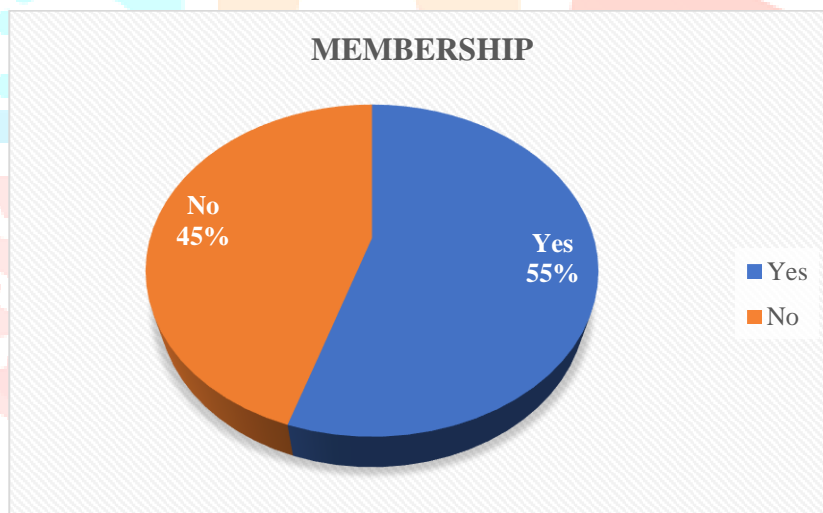
TABLE 4.24: DISTRIBUTION OF THE RESPONDENTS BASED ON THE AWARENESS ABOUT PRADHAN MANTRI FASAL BIMA YOJANA

SL.NO	AWARENESS	FREQUENCY	PERCENT
1	YES	44	73.33
2	No	16	26.67
	Total	60	100

The above table (4.24) indicated that awareness about Pradhan Mantri Fasal Bima Yojana. Here 73.33% of the respondents are aware about the scheme, and 26.67% of respondents were not aware of the Pradhan Mantri Fasal Bima Yojana scheme.

**TABLE 4.25: DISTRIBUTION OF THE RESPONDENTS BASED ON THE MEMBERSHIP OF PRADHAN MANTRI FASAL BIMA YOJANA**

SL.NO	MEMBERSHIP	FREQUENCY	PERCENT
1	YES	33	55.00
2	No	27	45.00
	Total	60	100



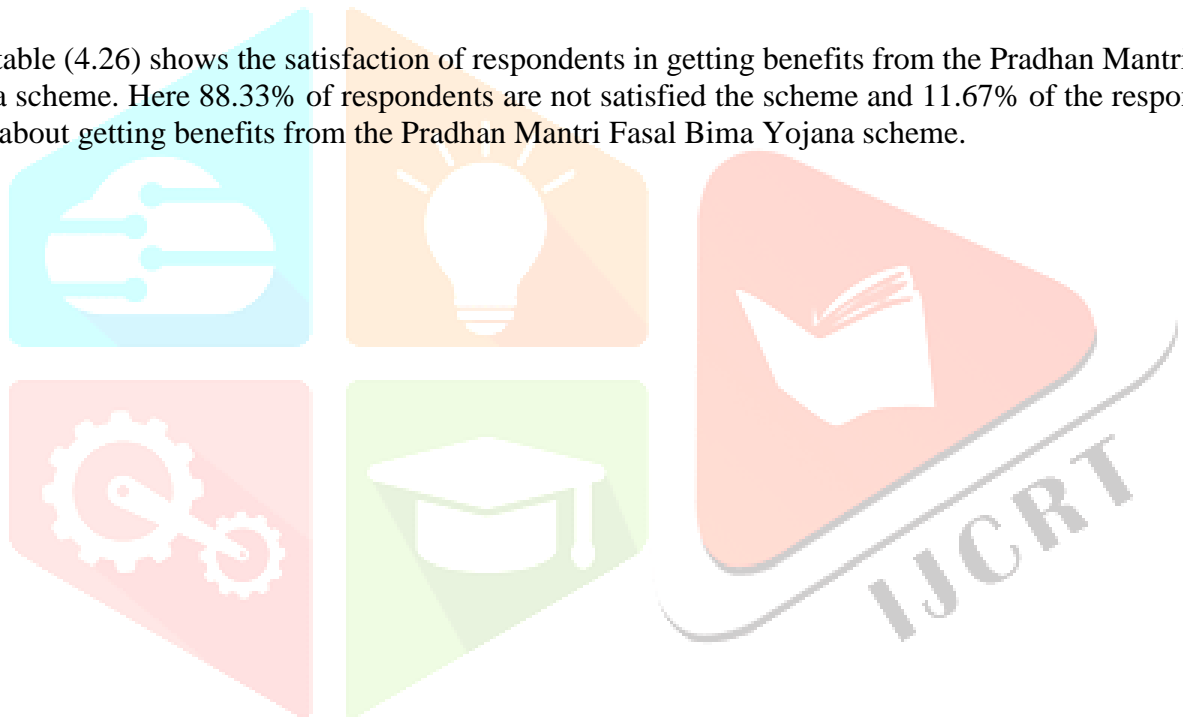
**FIGURE 4.17: DISTRIBUTION OF THE RESPONDENTS BASED ON THE MEMBERSHIP OF PRADHAN MANTRI FASAL BIMA YOJANA**

The above figure (4.17) reveals the membership of respondents in the Pradhan Mantri Fasal Bima Yojana scheme. 55 % of respondents are members of Pradhan Mantri Fasal Bima Yojana. And 45.00% of respondents are not members of this scheme.

**TABLE 4.26: DISTRIBUTION OF THE RESPONDENTS BASED ON THE SATISFACTION OF PRADHAN MANTRI FASAL BIMA YOJANA**

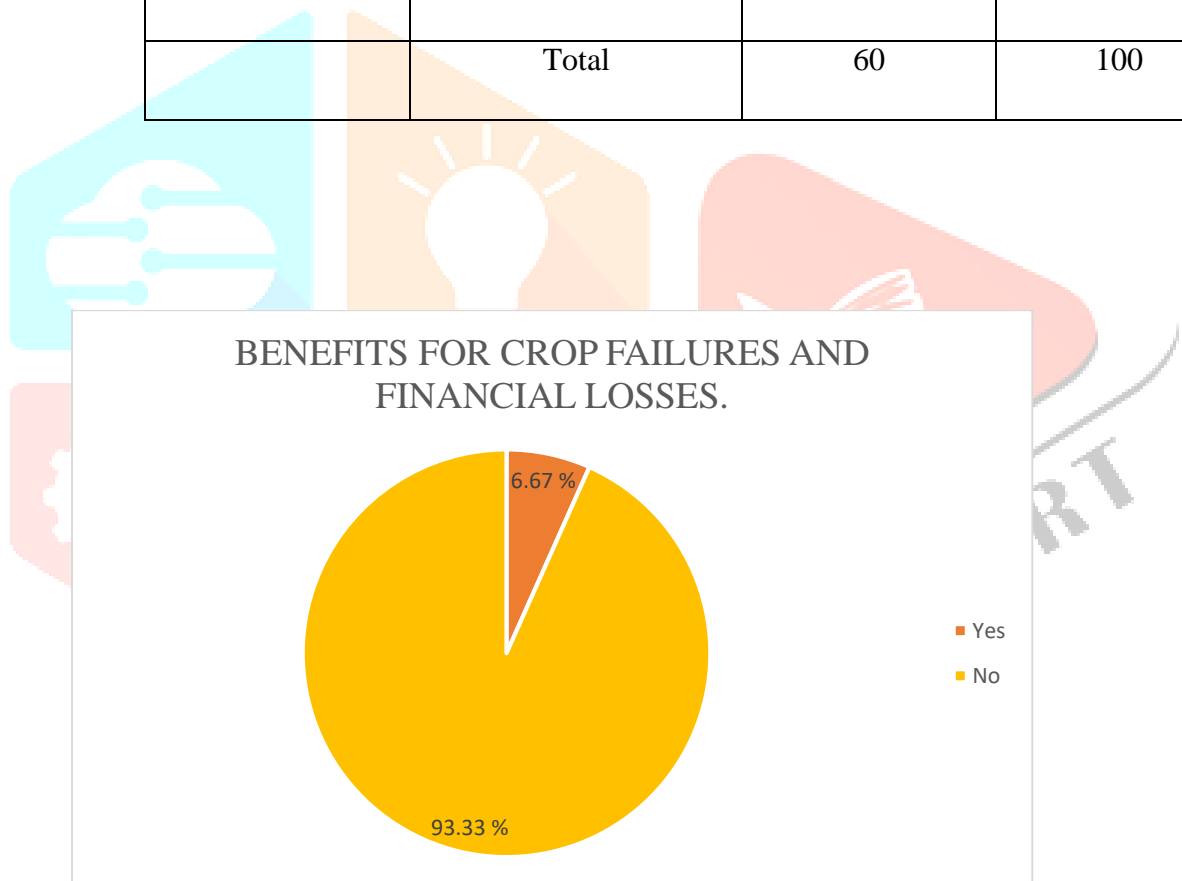
SL.NO	SATISFACTION	FREQUENCY	PERCENT
1	YES	7	11.67
2	No	53	88.33
	Total	60	100

The above table (4.26) shows the satisfaction of respondents in getting benefits from the Pradhan Mantri Fasal Bima Yojana scheme. Here 88.33% of respondents are not satisfied the scheme and 11.67% of the respondents are satisfied about getting benefits from the Pradhan Mantri Fasal Bima Yojana scheme.



**TABLE 4.27: DISTRIBUTION OF THE RESPONDENTS BASED ON GETTING BENEFITS FROM PRADHAN MANTRI FASAL BIMA YOJANA**

SL.NO	BENEFITS FOR CROP FAILURES AND FINANCIAL LOSSES	FREQUENCY	PERCENT
1	YES	4	6.67
2	No	56	93.33
	Total	60	100



**FIGURE 4.18: DISTRIBUTION OF THE RESPONDENTS BASED ON GETTING BENEFITS FROM PRADHAN MANTRI FASAL BIMA YOJANA**

The above figure (4.18) indicates that getting benefits from the government in case of crop failures and financial losses. 93.33 % of respondents said they don't get benefits for crop failures and financial losses. Out of 60 respondents only 6.67% of respondents are getting benefits from this scheme.

**TABLE 4.28: DISTRIBUTION OF THE RESPONDENTS BASED ON THE TIME LAG FOR GETTING BENEFITS FROM PRADHAN MANTRI FASAL BIMA YOJANA**

SL.NO	TIME LAG	FREQUENCY	PERCENT
1	YES	58	96.67
2	No	2	3.33
	Total	60	100

The above table (4.28) shows that time taken for getting benefits from Pradhan Mantri Fasal Bima Yojana scheme. 96.67% of the respondents said that time taken for getting benefits and 3.33 % of the respondents said getting benefits at the correct time. So the results found that the majority of respondents face financial difficulties in doing paddy cultivation.

**TABLE 4.29: DISTRIBUTION OF THE RESPONDENTS BASED ON THE AWARENESS ABOUT PRADHAN MANTRI KRISHI SINCHAI YOJANA**

SL.NO	AWARENESS	FREQUENCY	PERCENT
1	YES	0	0.00
2	No	60	100.00
	Total	60	100

The above table (4.29) indicates the awareness about Pradhan Mantri Krishi Sinchai Yojana scheme. Here no one is aware about Pradhan Mantri Krishi Sinchai Yojana. So the 100.00 % of the respondents are not aware of the scheme. Pradhan Mantri Krishi Sinchai Yojana aims to extend cultivated land with guaranteed irrigation, minimize water waste, and enhance water usage efficiency. Encourage farmers and local field workers to participate in extension programmes on water harvesting, water management, and crop alignment. Water source, delivery, and efficient usage are all integrated to maximize water consumption through appropriate technology and procedures.

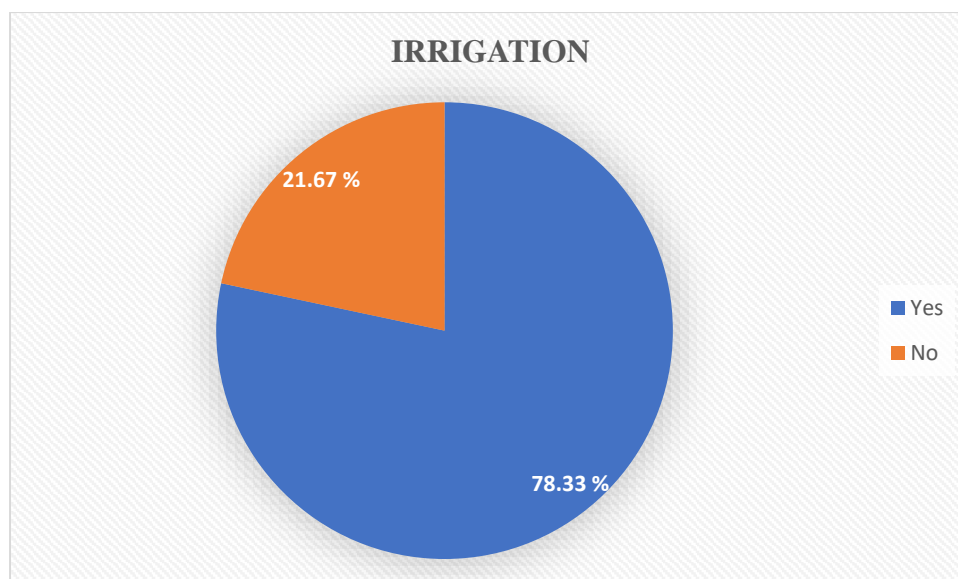
**TABLE 4.30: DISTRIBUTION OF THE RESPONDENTS BASED ON MEMBERSHIP OF PRADHAN MANTRI KRISHI SINCHAI YOJANA**

SL.NO	MEMBERSHIP	FREQUENCY	PERCENT
1	YES	0	0.00
2	No	60	100.00
	Total	60	100

The above table (4.30) shows the membership of respondents in Pradhan Mantri Krishi Sinchai Yojana scheme. 100.00 % of respondents are not in Pradhan Mantri Krishi Sinchai Yojana. The respondents are not aware of this scheme.

**TABLE 4.31: DISTRIBUTION OF THE RESPONDENTS BASED ON DIFFICULTY IN DOING IRRIGATION**

SL.NO	IRRIGATION	FREQUENCY	PERCENT
1	YES	47	78.33
2	No	13	21.67
	Total	60	100



**FIGURE 4.19: DISTRIBUTION OF THE RESPONDENTS BASED ON DIFFICULTY IN DOING IRRIGATION**

The above figure (4.19) conveys that irrigation difficulties faced by the respondents.78.33% of respondents face difficulty in doing irrigation for paddy cultivation. 21.67% of respondents do not face any difficulties for irrigation purposes. So the result shows that the majority of respondents are facing irrigation difficulty due to irregularity in climate change.

**TABLE 4.32: DISTRIBUTION OF THE RESPONDENTS BASED ON THE USAGE OF CHEMICAL PESTICIDES**

SL.NO	CHEMICAL PESTICIDES	FREQUENCY	PERCENT
1	YES	60	100.00
2	No	0	0.00
	Total	60	100

The above table (4.32) shows the use of chemical pesticides in their paddy field. Out of 60 respondents 100 % of respondents use chemical pesticides for prevention, reduction or control pests that damage paddy crops. Respondents said that they use chemical pesticides primarily to control pests, because the pests damage their crops. These pests include insects, weeds, and diseases that can reduce crop yields. Chemical pesticides are chosen for their effectiveness in eliminating or suppressing these pests, ensuring higher productivity. So the chemical pesticides provide quick results, protecting the crops from immediate threats.

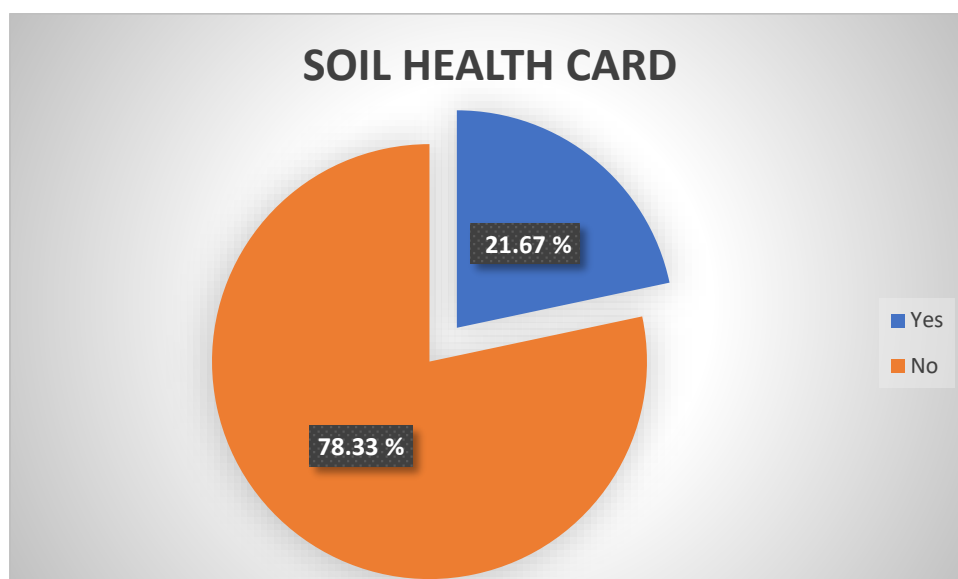
TABLE 4.33: DISTRIBUTION OF THE RESPONDENTS BASED ON AWARENESS OF SOIL HEALTH CARD

SL.NO	AWARENESS	FREQUENCY	PERCENT
1	YES	41	68.33
2	No	19	31.67
	Total	60	100

The above table (4.33) shows awareness of soil health card. Here 68.33% of the respondents are aware about the soil health card. It is also used to assess the present status of soil health, to find out changes in soil health. 31.67 % of the respondents were not aware of soil health card.

TABLE 4.34: DISTRIBUTION OF THE RESPONDENTS BASED ON GETTING SOIL HEALTH CARD

SL.NO	SOIL HEALTH CARD	FREQUENCY	PERCENT
1	YES	13	21.67
2	No	47	78.33
	Total	60	100





**FIGURE 4.20: DISTRIBUTION OF THE RESPONDENTS BASED ON GETTING SOIL HEALTH CARD**

The above figure (4.20) based on getting the importance of soil health card. Here the 78.33% of the respondents are not getting importance of soil health card. 21.67 % of the respondents get the importance of soil health card. 68.33% of respondents are aware about the soil health card but only 21.67 % of the respondents getting the soil health card for testing the soil in their own land.

**TABLE 4.35: DISTRIBUTION OF THE RESPONDENTS BASED ON GETTING BENEFITS FROM SOIL HEALTH CARD**

SL.NO	BENEFITS	FREQUENCY	PERCENT
1	YES	8	13.33
2	No	52	86.67
	Total	60	100

The above table (4.35) shows that getting benefits from soil health card. 86.67 % of respondents said they don't get benefits from soil health card. Out of 60 respondents 13.33% of respondents have benefits from soil health card. Out of 60 respondents 21.67 % of respondents got soil health card. Here 13.33 % of respondents have benefits from soil health card. Majority of respondents do not get benefits from this card.

**TABLE 4.36: DISTRIBUTION OF THE RESPONDENTS BASED ON THE AWARENESS ABOUT PARAMPARAGAT KRISHI VIKAS YOJANA**

SL.NO	AWARENESS	FREQUENCY	PERCENT
1	YES	7	11.67
2	No	53	88.33
	Total	60	100

The above table indicates the awareness about the Paramparagat Krishi Vikas Yojana scheme. Here 88.33 % of the respondents are not aware about the scheme. 11.67 % of the respondents are aware about the scheme.

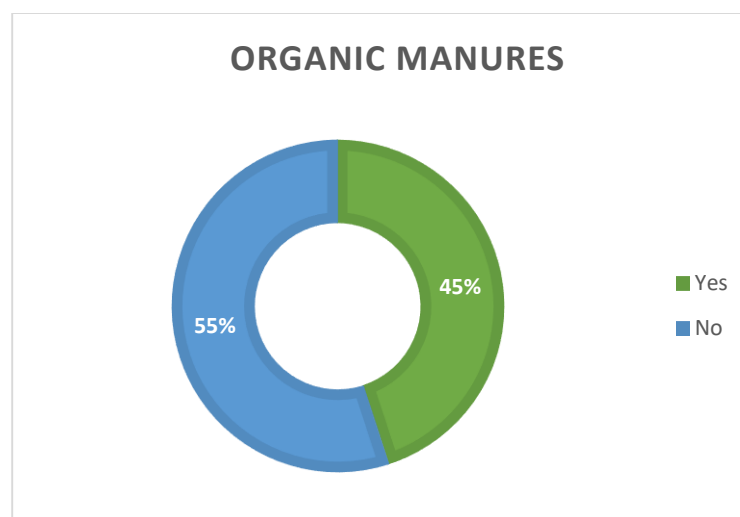
**TABLE 4.37: DISTRIBUTION OF THE RESPONDENTS BASED ON THE MEMBERSHIP OF PARAMPARAGAT KRISHI VIKAS YOJANA**

SL.NO	MEMBERSHIP	FREQUENCY	PERCENT
1	YES	0	0.00
2	No	60	100.00
	Total	60	100

The above table (4.37) conveys the membership of respondents in Paramparagat Krishi Vikas Yojana scheme. 100.00 % of respondents are not members in Pradhan Mantri Krishi Sinchai Yojana. The respondents are not aware of the scheme. Here 11.67 % of respondents are aware about the Paramparagat Krishi Vikas Yojana Scheme. And 100 % of respondents do not have membership in this scheme. They are not much aware about the scheme.

**TABLE 4.38: DISTRIBUTION OF THE RESPONDENTS BASED ON THE USAGE OF ORGANIC MANURES**

SL.NO	ORGANIC MANURES	FREQUENCY	PERCENT
1	YES	27	45.00
2	No	33	55.00
	Total	60	100



**FIGURE 4.21: DISTRIBUTION OF THE RESPONDENTS BASED ON THE USAGE OF ORGANIC MANURES**

The above figure (4.21) shows the usage of organic manures. Out of 60 respondents 55.00% of respondents use organic manures for improving soil fertility and maintaining soil health. 45.00 % of respondents do not use organic manure in their paddy field. The respondents use organic manures because they are rich in nutrients, improve soil fertility, and promote the growth of beneficial microorganisms. Organic manures are environmentally friendly, reducing chemical runoff and protecting water quality. They are also cost-effective alternatives to chemical fertilizers.

**TABLE 4.39: DISTRIBUTION OF THE RESPONDENTS BASED ON THE USAGE OF BIO PESTICIDES**

SL.NO	BIO PESTICIDES	FREQUENCY	PERCENT
1	YES	60	100.00
2	No	0	0.00
	Total	60	100

The above table (4.39) shows the usage of bio pesticides in paddy fields. Out of 60 respondents 100.00 % of respondents use biopesticides for controlling weeds and pests, also protecting the paddy crops from other microorganisms. Respondents said that bio pesticides are derived from natural sources such as plants, bacteria, and fungi, making them environmentally friendly and reducing the risk of harmful chemical substances. Biopesticides generally have a shorter persistence in the environment compared to chemical pesticides, minimizing potential long-term effects on soil, water, and non-target organisms.

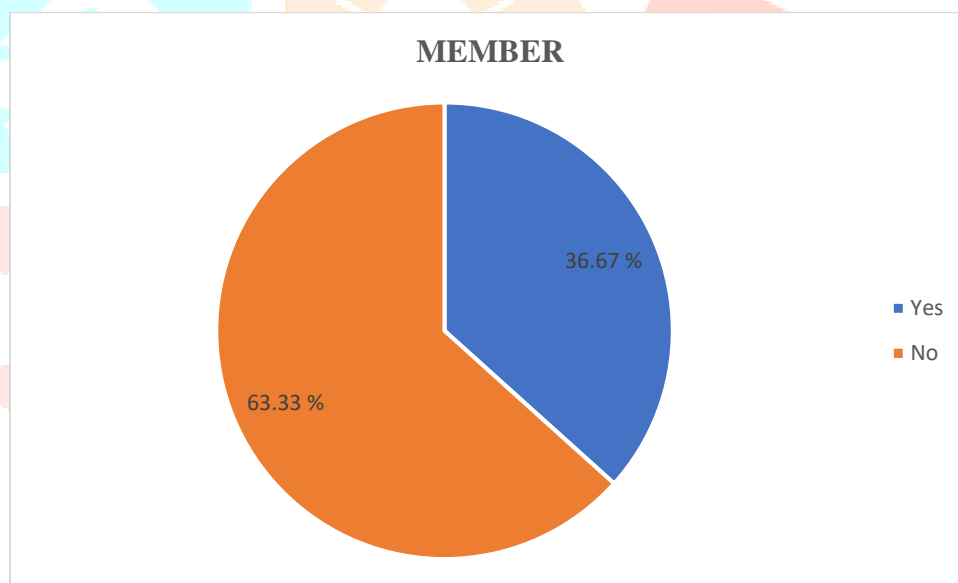
**TABLE 4.40: DISTRIBUTION OF THE RESPONDENTS BASED ON THE AWARENESS OF PRADHAN MANTRI KISAN CREDIT CARD SCHEME**

SL.NO	AWARENESS	FREQUENCY	PERCENT
1	YES	49	81.67
2	No	11	18.33
	Total	60	100

The above table (4.40) indicates the awareness of Pradhan Mantri Kisan Credit Card Scheme. 81.67 % of respondents are aware of the Pradhan Mantri Kisan Credit Card Scheme. Here 18.33 % of respondents are not aware about the scheme. The main aim of Pradhan Mantri Kisan Credit Card Scheme is to provide financial support to the farmers. Farmers can use the credit cards to make short term credit purchases of seeds, insecticides, fertilizers, and other items. Not only that. Also, they can use it to obtain loans and withdraw cash from ATMs to manage their agricultural needs.

**TABLE 4.41: DISTRIBUTION OF THE RESPONDENTS BASED ON THE MEMBERSHIP OF PRADHAN MANTRI KISAN CREDIT CARD SCHEME**

SL.NO	MEMBERSHIP	FREQUENCY	PERCENT
1	YES	22	36.67
2	No	38	63.33
	Total	60	100



**FIGURE 4.22: DISTRIBUTION OF THE RESPONDENTS BASED ON THE MEMBERSHIP OF PRADHAN MANTRI KISAN CREDIT CARD SCHEME**

The above figure (4.22) shows the membership of respondents in Pradhan Mantri Kisan Credit Card Scheme. 63.33% of respondents are not members in Pradhan Mantri Kisan Scheme. 36.67 % of respondents are members in Pradhan Mantri Kisan Scheme. So the results indicated that the majority of respondents are not members in the scheme.

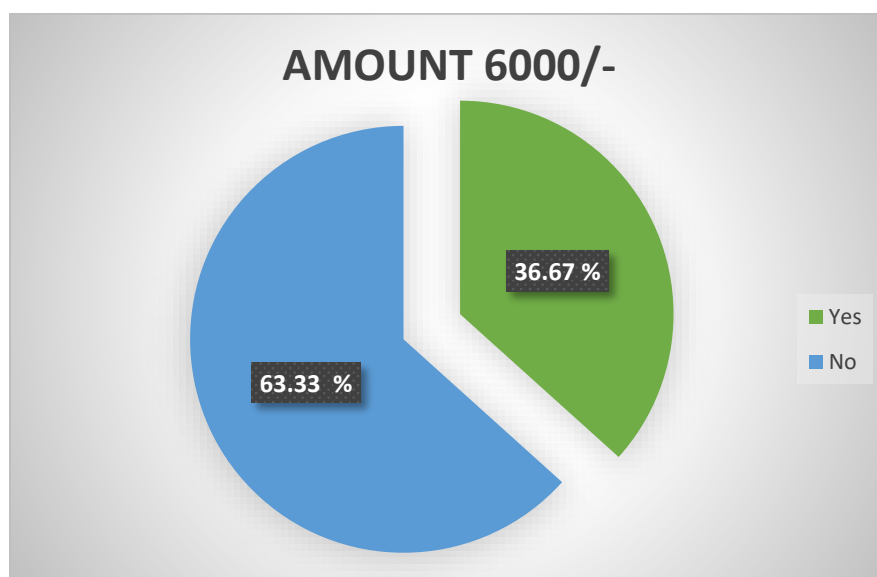
**TABLE 4.42: DISTRIBUTION OF THE RESPONDENTS BASED ON GETTING BENEFITS FROM PRADHAN MANTRI KISAN CREDIT CARD SCHEME**

SL.NO	BENEFITS	FREQUENCY	PERCENT
1	YES	19	31.67
2	No	41	68.33
	Total	60	100

The above table (4.42) shows that getting benefits from Pradhan Mantri Kisan Credit Card Scheme. 68.33 % of respondents said they don't get benefits from Pradhan Mantri Kisan Credit Card Scheme. Out of 60 respondents 31.67% of respondents have benefited from this scheme.

**TABLE 4.43: DISTRIBUTION OF THE RESPONDENTS BASED ON GETTING THE AMOUNT ₹ 6000/-FROM PRADHAN MANTRI KISAN CREDIT CARD SCHEME**

SL.NO	₹ 6000/-	FREQUENCY	PERCENT
1	YES	22	36.67
2	No	38	63.33
	Total	60	100

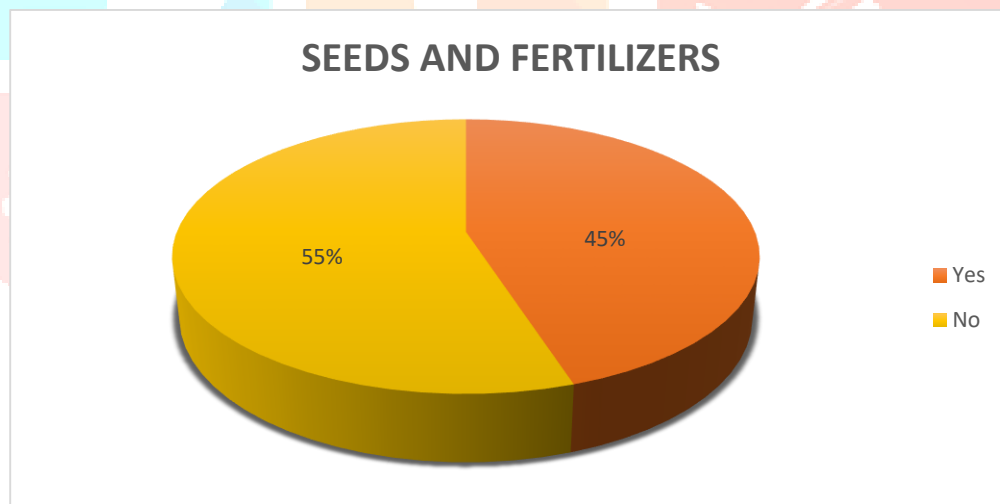


**FIGURE 4.23 DISTRIBUTION OF THE RESPONDENTS BASED ON GETTING THE AMOUNT OF ₹ 6000/- FROM PRADHAN MANTRI KISAN CREDIT CARD SCHEME**

The above figure (4.23) based on getting the amount of Rs 6000/- from Pradhan Mantri Kisan Credit Card Scheme. Out of 60 respondents 63.33 % of respondents said that they were not getting the amount of Rs 6000/- at the correct time. And 36.67% of respondents said that they were getting the amount of Rs 6000/- at the correct time. As a result, the majority of respondents said delay in getting money makes it more difficult for continue cultivation.

**TABLE 4.44: DISTRIBUTION OF THE RESPONDENTS BASED ON THE AVAILABILITY OF SEEDS AND FERTILIZERS FROM KRISHI BHAVAN**

SL.NO	SEEDS AND FERTILIZERS	FREQUENCY	PERCENT
1	YES	27	45.00
2	No	33	55.00
	Total	60	100



**FIGURE 4.24: DISTRIBUTION OF THE RESPONDENTS BASED ON THE AVAILABILITY OF SEEDS AND FERTILIZERS**

The above figure (4.24) shows the availability of seeds and fertilizers from Krishibhavan. Out of 60 respondents 55.00 % of respondents said that seeds and fertilizers are not available at the correct time from Krishi Bhavan. 45.00 % of respondents said that seeds and fertilizers are available at the correct time.

TABLE 4.45: DISTRIBUTION OF THE RESPONDENTS BASED ON THE ACCESSIBILITY OF ELECTRICITY

SL.NO	ELECTRICITY	FREQUENCY	PERCENT
1	YES	100	100.00
2	No	0	0.00
	Total	60	100

The above table (4.45) indicates accessibility of electricity for paddy cultivation. 100% of the respondents said they are getting free electricity from the government for the use of paddy cultivation. The government provides free electricity to the respondents of paddy cultivation.

TABLE 4.46: DISTRIBUTION OF THE RESPONDENTS BASED ON PROFIT FROM PADDY CULTIVATION

SL.NO	PROFIT	FREQUENCY	PERCENT
1	YES	3	5.00
2	No	57	95.00
	Total	60	100

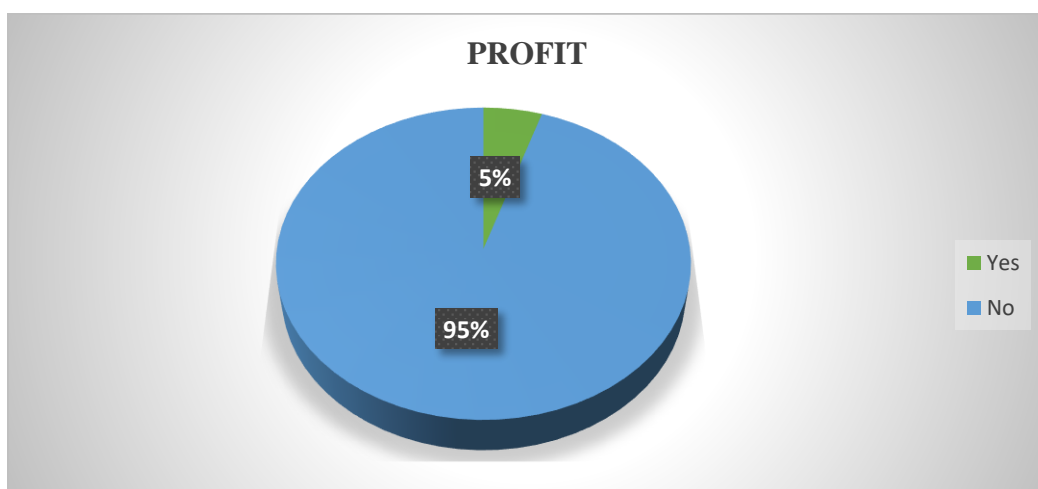


FIGURE 4.25 DISTRIBUTION OF THE RESPONDENTS BASED ON PROFIT FROM PADDY CULTIVATION

The above figure (4.25) conveys about the appropriate profit from paddy cultivation. 95.00% of the respondents said they do not get an appropriate profit. 5.00% of respondents said they got profit from paddy cultivation.

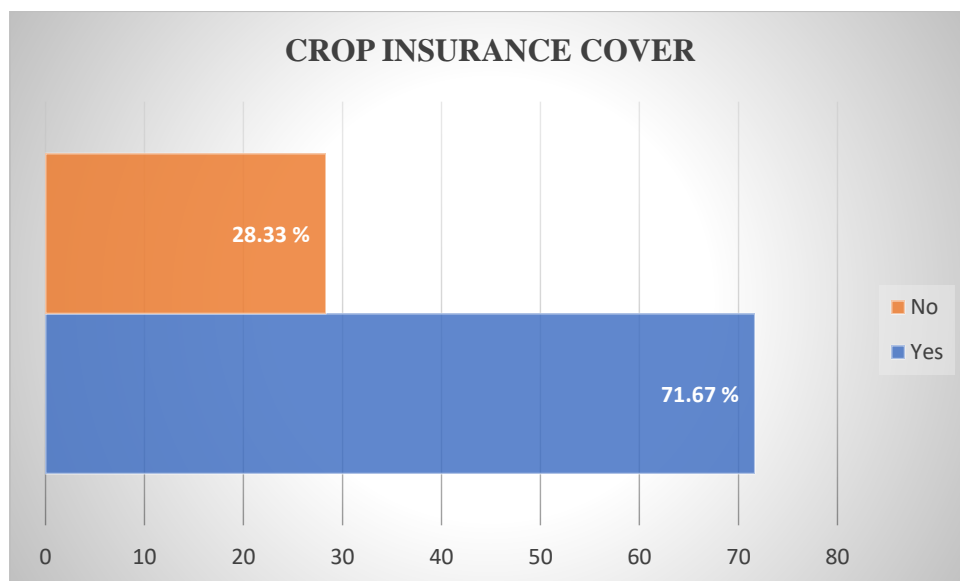
**TABLE 4.47: DISTRIBUTION OF THE RESPONDENTS BASED ON DECREASE IN RICE PRODUCTION, FROM THE PAST 2 YEARS**

SL.NO	LOSS FROM THE PAST 2 YEARS	FREQUENCY	PERCENT
1	YES	60	100.00
2	No	0	0.00
	Total	60	100

The above table (4.47) shows that according to the period of the past 2 years, 100.00% of respondents said that there has been a decrease in rice production. So the result shows that many factors such as wildlife disturbances, decrease in shortage of labour, inadequate marketing facilities, irrigation problems affected the decrease in rice production.

**TABLE 4.48: DISTRIBUTION OF THE RESPONDENTS BASED ON THE CROP INSURANCE COVER**

SL.NO	CROP INSURANCE COVER	FREQUENCY	PERCENT
1	YES	43	71.67
2	No	17	28.33
	Total	60	100



**FIGURE 4.26: DISTRIBUTION OF THE RESPONDENTS BASED ON THE CROP INSURANCE COVER**



The above figure (4.26) indicated that 71.67 % of respondents have taken crop insurance cover. And 28.33% of respondents have not taken crop insurance cover. Crop insurance is a comprehensive, yield-based policy designed to cover losses experienced by farmers as a result of production issues. It covers losses caused by cyclonic rains and a lack of rainfall both before and after harvest.

**TABLE 4.49: DISTRIBUTION OF THE RESPONDENTS BASED ON THE LABOUR SHORTAGE**

SL.NO	LABOUR SHORTAGE	FREQUENCY	PERCENT
1	YES	60	100.00
2	No	0	0.00
	Total	60	100

The above table (4.49) shows that labour shortage is a serious problem. It found that 100.00% of respondents face labour shortage that can affect delay in harvesting, timing of field operations and yield reduction can directly affect profitability and productivity. Labour shortage is one of the serious issues in paddy production.

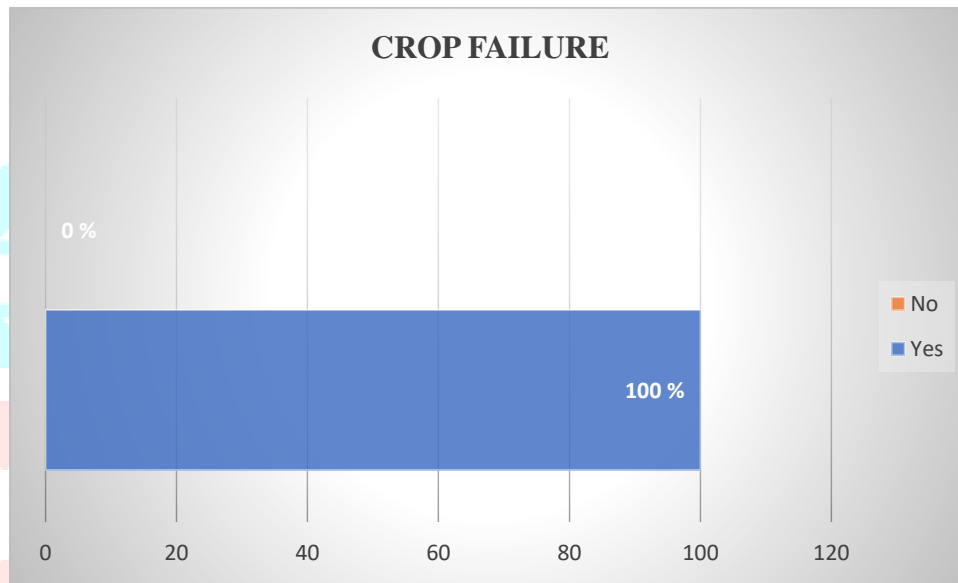
**TABLE 4.50: DISTRIBUTION OF THE RESPONDENTS BASED ON WILD LIFE DISTURBANCES**

SL.NO	WILD LIFE DISTURBANCES	FREQUENCY	PERCENT
1	YES	60	100.00
2	No	0	0.00
	Total	60	100

The above table (4.50) reveals that wild life disturbances are a major problem in paddy cultivation. It found that 100.00% of respondents are facing wildlife disturbances. It destroys the crop production. Respondents said that they face a high incidence of crop failure from wild animals. Mainly pigs, peacocks can consume or trample crops, resulting in economic losses in their cultivation.

**TABLE 4.51: DISTRIBUTION OF THE RESPONDENTS BASED ON HIGH INCIDENCE OF CROP FAILURE**

SL.NO	CROP FAILURE	FREQUENCY	PERCENT
1	YES	60	100.00
2	No	0	0.00
	Total	60	100

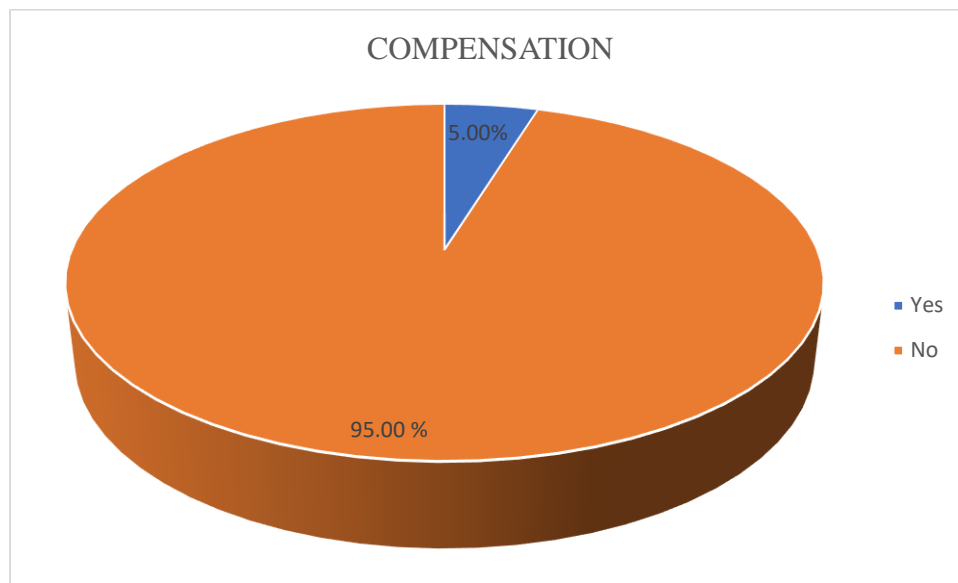


**FIGURE 4.27: DISTRIBUTION OF THE RESPONDENTS BASED ON HIGH INCIDENCE OF CROP FAILURE**

The above figure (4.27) indicates that crop failure is a serious issue. Here 100.00 % of respondents face a high incidence of crop failure due to variations in weather conditions, shortage of labour, difficulty in irrigation, pest attack and wildlife disturbances etc.

**TABLE 4.52: DISTRIBUTION OF THE RESPONDENTS BASED ON COMPENSATION**

SL.NO	COMPENSATION	FREQUENCY	PERCENT
1	YES	3	5.00
2	No	57	95.00
	Total	60	100



**FIGURE 4.28: DISTRIBUTION OF THE RESPONDENTS BASED ON COMPENSATION**

The above figure (4.28) shows that 95.00 % of respondents said compensation from crop failure is not received on time. It is a main problem faced by respondents and leads to more debt. out of 60 respondents only 5.00 % of respondents said compensation is received on the correct time. Respondents said that getting compensation from the government for droughts, floods and also wildlife disturbances. These problems can cause significant damage to paddy fields, leading to high incidence of crop loss and financial problems. Compensation helps them recover and sustain their livelihoods.

**TABLE 4.53: DISTRIBUTION OF THE RESPONDENTS BASED ON THE EFFECTS OF CLIMATE CHANGE**

SL.NO	CLIMATE CHANGE	FREQUENCY	PERCENT
1	YES	60	100.00
2	No	0	0.00
	Total	60	100

The above table states that climate change is a major factor for paddy cultivation. 100.00 % of respondents said variations in climate change can affect crop production, increase crop failures and reduce crop yields. Respondents are increasingly facing several challenges due to the effects of climate change. One major issue is the unpredictability and variability of rainfall patterns. Changes in the climate can result in droughts or floods, both of which can severely impact paddy cultivation. Droughts can lead to water scarcity, affecting crop growth and productivity, while floods can destroy paddy fields and result in crop losses. Climate change can disrupt the timing of seasonal cycles, including the onset of monsoons and the duration of growing seasons. Higher temperatures can affect the growth and development of paddy plants, reducing yields and quality.

## CONCLUSION

Data analysis is the process of understanding, collecting, compiling and processing large amounts of data. For data collection the researcher uses an interview schedule. The data will be analyzed using Microsoft Word and Excel. The collected data are represented in the form of tables, bar diagrams and pie charts.

## CHAPTER 5

### FINDINGS, SUGGESTIONS AND CONCLUSION

This chapter deals with the findings and suggestions that gained through research study.

#### MAJOR FINDINGS

- ❖ Most of the respondents (51.67%) are used 2-5 acres of land for paddy cultivation, then 25.00% of respondents are used 51-1 acres of land, 20.00% of respondents used above 5 acres of land, only 3.33% of respondents are used 5-50 cent of land for paddy cultivation.
- ❖ Majority of the respondents (71.67%) depend upon agricultural and non-agricultural activities for their source of income, then 28.33 % of respondents depend upon agricultural activities for their source of income. So most of the respondents get income from agricultural and non- agricultural activities.
- ❖ Here 85.00% of the respondents cultivate paddy twice in a year. And 15.00% of the respondents cultivate paddy only once in a year. They said that paddy requires a specific climate and growing conditions, and regions with favorable climates can support two crops per year. Cultivating paddy twice in a year allows respondents to increase their income.
- ❖ 65% of the respondents are not getting subsidies at the correct time then 35 % of the respondents are getting subsidies at the right time. Respondents experience delays in receiving subsidies from the government due to administrative processes and bureaucratic inefficiencies. Limited financial resources within the government can further delay in getting subsidies.
- ❖ Most of the respondents (78.33%) are selling the paddy to supplyco after crop production and 15.00% of respondents selling to direct persons, only 6.67 % of respondents selling crops to others.
- ❖ 63.33% of the respondents are aware about the new agricultural schemes and 36.67 % of the respondents have no idea about the agricultural schemes launched by the government. Most of 61.67% respondents are not getting agricultural schemes at the appropriate time, then 38.33 % of the respondents are getting schemes at the correct time. Majority of the respondents were facing difficulties in getting agricultural schemes.
- ❖ Out of 73.33% respondents are aware about the Pradhan Mantri Fasal Bima Yojana Scheme, 26.67 % of respondents are not aware about Pradhan Mantri Fasal Bima Yojana Scheme. 55.00% of respondents having membership in this scheme and 45.00% of respondents are not member in the scheme.
- ❖ 100% of respondents said there has been a decrease in rice production from the past 2 years. Due to decrease in shortage of labour, Inadequate marketing facilities, wildlife disturbances, irrigation problems affected the decrease in rice production.
- ❖ 100 % of the respondents had faced high incidence of crop failure due to variations in weather conditions, shortage of labour, pest attack, difficulty in irrigation and wildlife disturbances etc.
- ❖ 100% of the respondents said variations in climate change can affect crop production, increase the chance for crop failures and reduce crop yield.

### SUGGESTIONS

#### SUGGESTIONS FOR THE GOVERNMENT

- ❖ Government should take necessary steps to improve the level of awareness like various programmes or campaigns to educate the farmers and create awareness among the schemes.
- ❖ Government should speed up the awareness among farmers to know about all the schemes announced.
- ❖ Krishibhavan should conduct monthly agricultural programmes to be aware of various schemes.
- ❖ As the shortage of labour is the main problem, mechanization of agriculture will increase paddy Production.

#### SUGGESTIONS FOR THE FARMERS

- ❖ Conduct regular soil testing to determine its nutrient content and pH levels.
- ❖ Implement a crop rotation system where paddy cultivation is alternated with other crops. This practice helps in maintaining soil fertility, reducing pest and disease pressure, and improving overall crop yield.
- ❖ Updated with agricultural schemes and programs offered by the government.
- ❖ Monitor your crop regularly for pest and disease outbreaks.

## CONCLUSION

This study focused on the cognizance of paddy farmers about agricultural schemes and cultivation practices. India is known as the land of farmers since the majority of its people work in agriculture, either directly or indirectly. The facts from the study shows that debt from the paddy cultivation is a major problem. Majority of the respondents depend upon paddy rather than other crops. Paddy cultivation as a source of income for their livelihood. Respondents have taken loans from the bank for doing paddy cultivation and taking time to get benefits leads to debt. One of their major problems was not receiving subsidies at the proper time. Pesticides are being used by the farmers in order to protect the paddy from pest attack. Paddy cultivation has been declining year by year. Even though the government has been giving paddy farmers a lot of financial and marketing aid through various schemes and programmes. Many respondents are aware of the Pradhan Mantri Fasal Bima Yojana Scheme. But they didn't receive the benefits at the correct time. So they are not satisfied with the scheme. Pradhan Mantri Krishi Sinchai Yojana scheme is not known by anyone. From not receiving the benefits from the government at the right time, paddy farmers have many issues. Mainly they are not able to afford the daily life expenses. Because there is less understanding, minimum farmers take advantage of government programmes and subsidies. From the study researcher understand that the majority of the respondents use chemical pesticides for prevention of pests. Difficulty in irrigation purpose and irregular climate change, decrease in shortage of labour, inadequate marketing facilities, wildlife disturbances are the reasons for decrease in rice production. Labour shortage can affect delay in harvesting, the timing of field operations and yield reduction can directly affect the profitability and productivity of paddy. Variations in climate change can affect crop production, increase the chance for crop failures and reduce crop yield. Compensation from crop failure is not received on time. From the result the researcher understands that the majority of respondents are facing different types of problems in their agricultural field that lead into debt.

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