

# A Study on Socio Economic Conditions of Agriculture Farmers and Their Welfare Programmes in Tamil Nadu

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#### Abstrac

Agriculture continues to be the backbone of Tamil Nadu's economy, employing a large section of the rural population and contributing significantly to food security and state development, yet the farmers face socio economic challenges including fragmented landholdings, indebtedness, climate changes, fluctuating market price and limited access to industrial credit. To address these issues, both the Central and State Governments have introduced a wide range of welfare programmes, such as direct income support (PM-KISAN), crop insurance schemes (PMFBY), irrigation and mechanization subsidies, and targeted state-specific initiatives. This study explores multifaced issues-ranging from water scarcity and debt cycle to market instability and policy gaps that affects the livelihood and study aims to identify the key problems and analyse legal framework and propose actionable solution to improve farmers socio economic conditions.

Keywords: Agricultural Farmers, Socio-Economic Issues, Water Management, Welfare Programs, Policies, Rural Development, Legal Framework.

#### 1. Introduction

Tamil Nadu, with its diverse agro-climatic zone, is a significant contribution to India's agricultural output with crops ranging from paddy, sugarcane, cotton, and millets to horticultural products. However, the sector is characterized by persistent socio-economic challenges such as small and fragmented landholdings, low farm income, rising input costs, indebtedness, inadequate irrigation, and vulnerability to climate change. Despite technological advancement and policy intervention farmers continues to face socio economic hardships.

The study seeks to understand these challenges in depth and evaluate the effectiveness of existing legal and institutional mechanism in recognition of these challenges, the Central and State Governments have introduced numerous welfare programmes aimed at supporting farmers. These welfare programmes aim to reduce agrarian distress, increase productivity, sustainable and promote agricultural development. These welfare programmes aim to reduce agrarian distress, increase productivity, and promote sustainable agricultural development. Despite such efforts, many farmers still face barriers in accessing and benefiting from these schemes due to lack of awareness, administrative delays, eligibility restrictions, and uneven implementation This study seeks to analyse the socio-economic conditions of farmers in Tamil Nadu and evaluate the role of welfare

programmes in enhancing their livelihood security.

### 2. Statement of the Problem

Agricultural farmers in Tamil Nadu are grappling with a complex web of socio-economic issues. The primary concern is the lack of reliable irrigation and water management system, which directly affects crop yield and income. Coupled with fluctuating market price, mounting debt and limited access to credit that leads to financial stress, farmers often fall into poverty traps. Central and state schemes (PM-KISAN, PMFBY, mechanization and irrigation subsidies) aim to mitigate these issues. However, programme coverage, awareness, and timely delivery of benefits are often uneven and unclear. The absence of policy implementation and legal protection increases their vulnerability. This study investigating these pressing issues to uncover systematic gaps and recommended reforms.

#### 3. Review of Literature

M. S. Swaminathan Research Foundation (2024) [1], highlight how climate change amplifies vulnerabilities in agriculture. MSSRF has repeatedly emphasized that small and marginal farmers are among the most climate-vulnerable groups, as their limited landholdings and low incomes leave little buffer against crop loss (The Hindu, 2022). In Tamil Nadu, dependence on the northeast monsoon makes agriculture

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particularly sensitive to rainfall variation; a single failed season can push households into debt and distress migration. Field studies by MSSRF in Kolli Hills (Namakkal District) show that traditional millet varieties, when reintroduced, provide resilience to erratic rainfall and declining soil fertility. Farmer-led extension in such climate-resilient crops has helped improve food security and reduce dependency on water-intensive crops.

Socio-Economic Profile of Farmers in Tamil Nadu (2021) [2], A study conducted in Villupuram district examined the socioeconomic characteristics of dairy farmers, which indirectly reflect the conditions of farming households. The findings showed that most farmers belong to the small and marginal category, with limited landholding size. Education levels among farm families were generally low, which constrained their ability to access modern technologies and welfare schemes. Household incomes were unstable, and dependence on agriculture as the primary source of livelihood made them vulnerable to market fluctuations. Access to institutional credit remained a major challenge, leading to continued reliance on informal moneylenders. The study also revealed that social factors such as caste and gender played a role in access to resources. Farmers struggled with input costs, especially feed and fertilizers. Lack of training and awareness of government programmes was noted. The research emphasized that socio-economic challenges must be addressed through targeted policies. Thus, improving education, awareness, and access to institutional finance is crucial for rural development.

Mr. Varadan & Kumar [3], (2015) created a vulnerability index for Tamil Nadu districts in 2015. Study revealed that rainfed areas were highly exposed to climate variability, with farmers facing frequent droughts and unpredictable rainfall. Limited irrigation facilities, inadequate credit access, and low technical knowledge reduced the adaptive capacity of small and marginal farmers. Wealthier farmers were better able to manage risks, leading to increasing socio-economic inequality. Districts heavily dependent on paddy and sugarcane, such as Thanjavur and Tiruchirappalli, experienced higher vulnerability due to water scarcity. Frequent crop losses adversely affected income and livelihoods in these regions. The study emphasized that vulnerability mapping can guide policymakers in designing targeted welfare programmes. It also highlighted the importance of district-specific adaptation strategies, including improved irrigation, drought-tolerant crops, and access to credit. Overall, the research provided a roadmap for enhancing resilience among the most at-risk farming communities in Tamil Nadu.

### 4. Research Gap of the Study

Although several studies have examined farmer welfare schemes, most focus only on individual programmes like PM-KISAN, PMFBY, or IAMWARM, without integrating their combined impact on farmers' socio-economic conditions. More often research may be limited to a certain district without taking into account the variability of research throughout the state across small, marginal, and large farmers. Very few studies have also examined the interaction of climate change, water crisis, or market fluctuations and welfare measures in Tamil Nadu. Additionally, there is little evidence of an attempt to assess the farmers' awareness, access, and satisfaction with those programs. The literature does not provide enough engagement with the role of gender, education, or landholding size to ascertain any impact. A

comprehensive study of these gaps will the understanding of the farmers' socio-economic realities and the efficacy of welfare programs in Tamil Nadu

#### 5. Objective of study

- i). To find out hypotheses related to format distortions and institutional support
- ii). To identify key socio-economic problems faced by agricultural farmers in Tamil Nadu
- iii). To examine the impact of government welfare programmes on farmers.
- iv). To analyse legal frameworks and policies affecting farmers
- v). To suggest policy and legal reforms for improving farmers' livelihoods.
- vi). To assess the level of awareness, accessibility, and utilization of welfare schemes among different categories of farmers (small, marginal, and large).

#### 6. Methodology

This research is based on both doctorine and non doctorinal research. The doctrinal research involves analyzing existing literature, policies, welfare schemes, and secondary data to understand the socio-economic conditions of farmers and the scope of government programmes in Tamil Nadu. The non-doctrinal research is empirical, involving primary data collection from farmers to gather first-hand information about their socio-economic conditions, awareness, and utilization of welfare schemes. Sources of data from newspapers, journals, magazines, government reports, research publications, and e-sources. The statistical tool of research is used, percentage method and average method. The total sample of 98 respondents, selected using farmers from different socio-economic backgrounds. The research was conducted over a period of 5 months.

#### 7. Significance of the Study

The present study on the socio-economic conditions of agricultural farmers and their welfare programmes in Tamil Nadu is significant as it provides valuable insights into the living standards, challenges, and opportunities of the farming community. For the government, the findings are useful in framing better-targeted and district-specific welfare measures, ensuring equitable distribution of resources, and addressing inequalities between small, marginal, and large farmers. For researchers, the study contributes rich primary and secondary data, serving as a reliable source for future academic work on rural development, agricultural sustainability, and climate resilience. Thus, the research is significant both academically and practically, as it aids policymakers, scholars, and farmers alike in improving agricultural welfare and rural development in Tamil Nadu.

#### 8. Hypothesis of the Study

**H1:** Implementation of welfare programmes has a positive impact on reducing farmers' socio-economic vulnerability. **H2:** Farmers who avail credit from cooperative banks and NABARD-supported institutions achieve better productivity

#### 9. Limitation of the Study

than those relying on informal sources.

The study on the socio-economic conditions of farmers and their welfare programmes in Tamil Nadu has certain limitations. It is based on a sample of 98 respondents, which may not fully represent the entire farming population. Only

selected districts were covered, so the findings cannot be generalized to the whole state. The research was conducted over duration if five months, limiting long-term observation of socio-economic changes. Data was collected through delf reported surveys, which may include recall bias. Secondary sources like reports and journals were sometimes outdated or incomplete. The study mainly focusses on major scheme such as PM-KISAN, PMFBY, MSP, IAMWARM and kisan credit card, while other schemes were not deeply analysed. Despite these limitations, the study provides valuable insights into farmers livelihood and welfare programme effectiveness

## 10. Result and Discussion 10.1.Doctrinal Research

Historical Background Agriculture has been the backbone of Tamil Nadu's economy for centuries, shaping the socio-economic structure of its rural population. Traditionally, farming in the state was largely rainfed, with dependence on monsoon rains and river irrigation systems such as the Cauvery delta. Historically, landholding patterns were uneven, with a few large landlords controlling significant portions of fertile land, while the majority of farmers were smallholders or landless laborers

During the colonial period, the introduction of cash crops like cotton, sugarcane, and tobacco changed agricultural practices but often led to exploitation of tenant farmers and bonded laborers. Post-independence, the government-initiated land reforms to redistribute land and reduce inequalities, but small and marginal farmers continued to face challenges in access to credit, technology, and irrigation. Over the last few decades, the state government and central government have introduced multiple welfare and support programmes aimed at improving farmers' socio-economic conditions. Schemes such as the Minimum Support Price (MSP) for crops, crop insurance programmes like PMFBY, direct income support through PM-KISAN, and irrigation modernization initiatives like IAMWARM were launched to stabilize income, improve productivity, and reduce vulnerability to climate and market risks.

#### **Socio-Economic Conditions of Agriculture Farmers**

The socio-economic conditions of agriculture farmers in Tamil Nadu are shaped by factors such as landholding size, income, education, access to credit, irrigation, and market facilities. A large proportion of farmers are small and marginal, owning less than 2 hectares of land, and often face challenges related to low productivity, unstable income, and limited access to modern agricultural technology. Medium and large farmers generally have better resources, higher incomes, and greater access to institutional credit and government schemes.

Education levels among farmers vary, affecting their ability to adopt new technologies, access welfare schemes, and make informed farming decisions. Many farmers rely on monsoon rains and face vulnerability to climate change, droughts, and erratic rainfall, which further impacts income and livelihood stability. Access to institutional credit, crop insurance, and government subsidies improves financial security, but awareness and utilization of these facilities remain uneven. Social factors such as caste, gender, and family structure also influence access to resources and decision-making in agriculture. Understanding these conditions is crucial for designing effective welfare programmes and interventions aimed at improving productivity, reducing risks, and enhancing the livelihoods of farmers across the state.

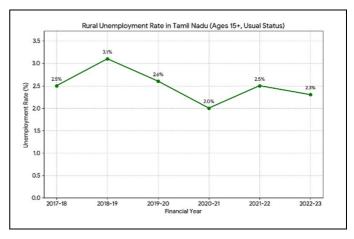
#### **Agriculture Based Unemployment**

Agriculture-based unemployment in Tamil Nadu is not a simple problem of people lacking jobs; it's a complex structural shift driven by a blend of environmental, economic, and aspirational factors. The core issue is a move from "agriculture dependence" to a "non-farm economy," which leaves behind a specific kind of unemployment and underemployment. Here is a breakdown of the key drivers and impacts: Erratic monsoons, frequent droughts, and rapidly depleting groundwater levels make farming a high-risk gamble. When the yield is poor, the entire year's income is jeopardised. This income instability pushes families to seek the certainty of a monthly salary elsewhere. Studies show a stark income disparity. An agricultural labourer can earn significantly less-sometimes four times less-than a nonagricultural worker (like a construction labourer). Agriculture's contribution to the state's economy (GSDP) has shrunk, making it a less lucrative sector. The agricultural sector suffers from what's called "disguised unemployment," where multiple family members work on small, fragmented plots of land, even though only one or two are technically needed.

The Consequences such as the out-migration of young, often male, workers create an acute labour shortage in rural areas, making it difficult for the remaining farmers to complete operations on time, which ironically increases the demand for more mechanisation, perpetuating the cycle. Rise of the Non-Farm Worker: The majority of rural workers in Tamil Nadu have already shifted to non-farm activities. The state is undergoing a rapid, almost complete, structural transformation of its rural economy. Agriculture is increasingly becoming a supplementary or secondary income source for many rural households, not the primary one.

The rural unemployment rate in Tamil Nadu for persons aged 15 years and above, based on the Annual Periodic Labour Force Survey (PLFS) by MoSPI (Usual Status approach), is presented in the graph below.

The data generally shows a relatively low and fluctuating rural unemployment rate over the period.



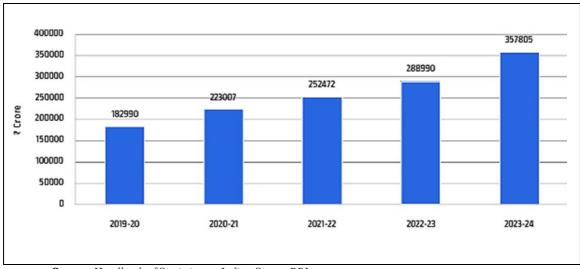
**Graph 1:** Rural Unemployment Rate in Tamil Nadu (2017-18 to 2022-23)

The structural shift in rural employment in Tamil Nadu, which is the key driver of agriculture-based unemployment (often referred to as disguised unemployment or underemployment) is illustrated in the chart below. The graph compares the percentage of workers engaged in agricultural versus non-agricultural activities in a set of surveyed villages in Tamil Nadu for 2012 and 2024.

#### Finance support to farmers by Tamil Nadu Government

The Economic Survey of Tamil Nadu 2024-25 says that, In Tamil Nadu, credit services for agricultural as well as non-agricultural purposes are extended through 4,454 Primary Agricultural Co-operative Credit Societies (PACCS) and their 151 branch units, covering 12,525 village panchayats. During 2023-24, crop loan disbursement reached an all-time high of ₹15,000 crore, marking the largest in the history of the Tamil

Nadu Co-operative Department. Altogether, a total of ₹15,542.84 crore was provided to 18,36,345 farmers. The inclusion of new beneficiaries also contributed to this growth in loan distribution. In the Cauvery Delta region, the number of farmers accessing crop loans rose by 14% in 2023-24, with ₹3,744.59 crore extended to 5,00,380 farmers, compared to ₹3,288.98 crore distributed among 4,88,866 farmers in the previous year (2022-23).



Source: Handbook of Statistics on Indian States, RBI.

Graph 2: Credit to Tamil Nadu Agriculture by Commercial Banks

As shown in Table 1, Credit disbursement to Tamil Nadu farmers by scheduled commercial banks rose from ₹1.82 lakh crore in 2019-20 to ₹3.58 lakh crore in 2023-24, placing the state first in agricultural credit disbursal, ahead of Andhra Pradesh (₹2.64 lakh crore), Uttar Pradesh (₹2.1 lakh crore), and Karnataka (₹1.84 lakh crore). According to Agricultural Statistics at a Glance (2024), total institutional credit in Tamil Nadu's farm sector reached ₹4.39 lakh crore, comprising ₹2.42 lakh crore in crop loans and ₹1.97 lakh crore in term loans for long-term investments.

Crop Insurance: Crop insurance offers financial protection to farmers against losses from natural disasters. The Tamil Nadu government covers 49% of the premium, supporting farmers' livelihoods while promoting modern farming practices. Under PMFBY, 2020-21 recorded the highest farmer enrollment—largely due to the pandemic—with compensation payouts reaching ₹2,685 crore. However, enrollment levels and insured areas have fluctuated over time, shaped by climatic risks and improved targeting measures.

## Government Welfare Programmes for Farmers in Tamil Nadu

The Government of India and the Tamil Nadu state government have implemented several welfare programmes to improve the socio-economic conditions of farmers, increase agricultural productivity, and reduce vulnerability to climate and market risks. These programmes provide financial support, insurance, subsidies, and technical assistance. Key initiatives include:

- i). Pradhan Mantri Kisan Samman Nidhi (PM-KISAN):
  Provides direct income support to small and marginal farmers, offering ₹6,000 annually in three equal installments. This helps farmers meet agricultural and household expenses, reducing financial stress.
- ii). Pradhan Mantri Fasal Bima Yojana (PMFBY): A crop insurance scheme that protects farmers against

- losses due to natural calamities, pests, and diseases. It ensures compensation in case of crop failure, helping farmers recover financially
- **iii). Minimum Support Price (MSP):** The government guarantees a minimum price for certain crops like paddy, sugarcane, and millets, stabilizing farmers' income and reducing the risk of price fluctuations in the market.
- iv). Irrigated Agriculture Modernization and Waterbodies Restoration and Management (IAMWARM): Aims improve irrigation to infrastructure, restore water bodies, and implement water-efficient practices, ensuring sustainable agriculture and higher productivity in irrigated regions.
- v). Kisan Credit Card (KCC): Provides farmers with timely access to institutional credit at low-interest rates for purchasing inputs like seeds, fertilizers, and equipment, reducing dependence on informal moneylenders.
- vi). National Agriculture Market (e-NAM): An online platform that connects farmers to markets across India, ensuring better price discovery, transparency, and efficient sale of produce.
- vii). Other State Scheme: The Tamil Nadu government also runs programmes like Rice Subsidy Schemes, Free Power for Agriculture, Micro Irrigation Support, and Crop Diversification Incentives, aimed at improving productivity and farmers' income.

### **Current Status of Agriculture in Tamil Nadu**

Agriculture continues to play a vital role in Tamil Nadu's economy, providing employment to nearly 44% of the rural population and contributing significantly to the state's GDP. The state has a diverse agro-climatic condition, supporting crops such as paddy, sugarcane, millets, cotton, pulses, and horticultural crops. Irrigated agriculture, primarily in the Cauvery delta, coexists with rainfed farming in arid and semi-

arid regions, creating variations in productivity and income levels among farmers.

The government has implemented multiple welfare and support schemes to improve farmers' livelihoods. Programs such as PM-KISAN, PMFBY, MSP, and IAMWARM aim to stabilize income, reduce risk, and enhance irrigation infrastructure. Despite these measures, small and marginal farmers continue to face challenges, including limited access to institutional credit, market fluctuations, dependence on monsoon rains, and vulnerability to climate change.

Modernization efforts, including the adoption of mechanized farming, improved seeds, and digital platforms like e-NAM for marketing, are gradually transforming agricultural practices. Non-governmental organizations, research institutes like MSSRF, and state initiatives are increasingly focusing on sustainable agriculture, water management, and farmer empowerment.

Overall, while agriculture in Tamil Nadu has seen significant improvements in infrastructure, policy support, and technology adoption, socio-economic disparities, vulnerability to climatic variations, and limited awareness or access to welfare schemes continue to affect the overall well-being of farmers. This context underscores the importance of studying socio-economic conditions and the effectiveness of welfare programmes, providing insights for targeted policy interventions and sustainable rural development.

#### Challenges Faced by Farmers Due to Welfare Programme

Despite the existence of numerous welfare schemes, several challenges continue to limit their effectiveness. One of the major issues is the gap between policy formulation and implementation. While policies may look promising on paper, bureaucratic delays and lack of accountability prevent their benefits from reaching the intended beneficiaries. Many farmers, especially those in remote villages, are unaware of available schemes due to poor dissemination of information. Illiteracy, limited digital literacy, and lack of formal documentation further exclude vulnerable groups. Tenant farmers and women cultivators often remain outside the welfare net since most schemes require ownership documents, whereas in reality, a significant percentage of cultivation in Tamil Nadu is carried out by tenant farmers. In addition, corruption and the involvement of middlemen sometimes divert benefits away from the deserving farmers.

Another major challenge is the impact of climate change and natural disasters. Tamil Nadu is highly vulnerable to recurring droughts, cyclones, and floods. While insurance schemes exist, coverage is often inadequate, and compensation is delayed, leaving farmers helpless during crises. The lack of proper storage facilities, cold chains, and rural infrastructure forces farmers to sell their produce at distress prices, reducing income security. Rising input costs due to dependence on chemical fertilizers, hybrid seeds, and machinery also strain small farmers' budgets. In addition, there is weak monitoring of welfare programmes and insufficient grievance redressal mechanisms. Migration of rural youth towards cities and the ageing of the agricultural workforce further create sustainability issues. Collectively, these challenges underline the need for stronger policy design, better implementation, and a holistic approach that recognizes the realities of small and marginal farmers in Tamil Nadu.

#### **Relevant Case law**

i). Case 1: V. Murugan v. NLC India Ltd. & Ors. (2023) (Madras High Court) This case involved farmers

cultivating land that had been acquired by Neyveli Lignite Corporation (NLC) many years ago but was not yet physically possessed or used by the corporation. When NLC started to take possession, standing crops were damaged. The Madras High Court adopted a balanced approach, directing NLC and the government to pay a significantly high compensation (e.g., ₹40,000 per acre) to the farmers for the damaged standing crops, even though the land technically vested with the corporation. This acknowledged the farmers' reliance and continuous cultivation over the years and emphasized a welfare-oriented approach in peculiar circumstances.

- ii). Case 2: Kumbakonam Central Cooperative Bank v. New India Assurance Company Ltd. (2024) The court dealt with the payment of compensation under the Pradhan Mantri Fasal Bima Yojana (PMFBY) to farmers who suffered crop loss (e.g., due to Cyclone Gaja). The Madras High Court ordered the insurance company to pay the full assessed compensation to the farmers, setting aside an earlier order. The court held that the insurance firm cannot escape paying full compensation merely due to a clerical or inadvertent wrong entry of the loss percentage made on the relevant web portal. This emphasized the paramount welfare objective of the crop insurance scheme over minor procedural errors.
- iii). Case 3: Premkumar K.S. (Babu) v. State Bank of India (2016) [4] Citation: 2016 (3) KLT 101, Court: Kerala High Court The petitioner, Premkumar K.S., had availed multiple loans, including a Kisan Credit Card (KCC) loan, from the State Bank of India. Due to financial difficulties, he defaulted on the repayment of these loans. The bank initiated proceedings under the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (SARFAESI Act), to recover the dues. The Kerala High Court examined the legality of the bank's actions and the applicability of the SARFAESI Act in the context of agricultural loans. The Court emphasized the need for a balanced approach, considering the socio-economic conditions of farmers, and directed the bank to explore alternative dispute resolution mechanisms before resorting to stringent recovery measures.

#### 10.2. Non doctrinal research

**Table 1:** "Does the implementation of welfare programmes has a positive impact on reducing farmers' socio-economic vulnerability?".

Indicator	Yes	No	Total	
Male	12(12.46)	14(14.5)	26(27.0)	
Female	58(59.0)	13(13.2)	71(72.0)	
Others	0(0.00)	1(1.0)	1(1.0)	
Total	70(72.0)	28(28.0)	98(100.0)	

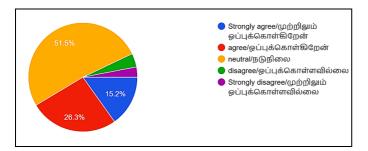
Source: Primary Data

The Table no.1 shows that a majority of respondents 72 percentage believe that the implementation of welfare programmes has a positive impact on reducing farmers' socioeconomic vulnerability, while 28 percentage disagree, the results suggest that welfare programmes are generally perceived as beneficial, especially by female respondents, in reducing socio-economic challenges faced by farmers.

**Table 2:** Farmers avail credit from cooperative banks and NABARD-supported institutions achieve better productivity than those relying on other financial sources

Indicator	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total
Male	9(9.34)	11(11.4)	3(3.11)	1(1.0)	2(2.1)	26(27.0)
Female	42(43.0)	14(14.2)	12(12.2)	2(2.0)	1(1.0)	71(72.0)
Others	0(0.00)	1(1.0)	0(0.00)	0(0.00)	0(0.00)	1(1.0)
Total	51(51.5)	26(26.3)	15(15.2)	3(3.6)	3(3.4)	98(100.0)

Source: Primary Data



The Table no.2 reveals mixed opinions regarding the statement that "farmers who avail credit from cooperative banks and NABARD-supported institutions achieve better productivity than those relying on other financial sources, 51.5 percentage of respondents strongly agree and 26.3 percentage agree, 15.2 percentage remains neutral, 3.6 percentage disagrees and 3.4 percentage strongly disagree to some extent, suggesting that while many recognize the benefits, a significant proportion are uncertain about the actual impact on productivity

 Table 3: Farmers have benefited from the government welfare programmes

Indicator	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total
Male	4(4.5)	12(12.46)	5(5.19)	3(3.11)	2(2.07)	26(27.0)
Female	6(6.1)	18(18.25)	39(39.5)	6(6.1)	2(2.0)	71(72.0)
Others	1(1.0)	0(0.00)	0(0.00)	0(0.00)	0(0.00)	1(1.0)
Total	11(11.0)	30(30.5)	44(44.5)	9(9.0)	4(4.0)	98(100.0)

Source: Primary Data

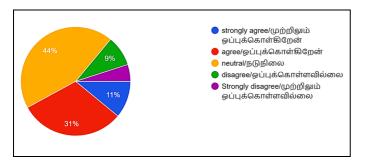


Table no.3 indicates the opinions regarding the statement that "Farmers have benefited from the government welfare programmes"? Overall, 11 percentage of total respondent strongly agreed, 30.5 percentage agrees indicating that they sees that the government programme are beneficial to the people. Meanwhile 44.5 percentage of people remains neutral, 9 percentage of them disagree and 4 percentage of them strongly disagrees as they sees that the welfare programme are not beneficial to the farmers

#### **Testing of Hypothesis**

# Hypothesis 1: Implementation of welfare programmes has a positive impact on reducing farmers' socio-economic vulnerability

Under hypothesis.1, Table no.1 shows that a majority of respondents 72 percentage believe that the implementation of welfare programmes has a positive impact on reducing farmers' socio-economic vulnerability. Therefore hypothesis is accepted and this is null hypothesis.

#### Hypothesis 2: Farmers who avail credit from cooperative banks and NABARD-supported institutions achieve better productivity than those relying on informal sources

Under hypothesis 2, Table no.2 shows that as highest 51.5 percentage of respondents strongly agree and 26.3 percentage agree with this statement. Hence hypothesis is accepted and this is also null hypothesis.

#### Conclusion

The study concludes that agriculture continues to be a key pillar of Tamil Nadu's rural economy, supporting millions of livelihoods. However, the socio-economic conditions of farmers remain uneven due to small landholdings, uncertain rainfall, and fluctuating crop prices. Government welfare programmes such as PM-KISAN, PMFBY, and IAMWARM have played an essential role in improving productivity, ensuring income security, and promoting sustainable agricultural practices. Institutional credit facilities provided through NABARD, cooperative banks, and Kisan Credit Cards (KCC) have helped farmers access timely financial support for purchasing inputs, irrigation equipment, and modern machinery. Despite these efforts, challenges such as high indebtedness, limited credit awareness, and dependency on informal lenders still affect many rural farmers. Strengthening institutional credit systems and ensuring inclusive access can significantly improve investment capacity and income stability among rural farmers.

To enhance the effectiveness of welfare schemes, it is essential to strengthen institutional credit delivery systems, ensure transparent implementation, and promote financial literacy among farmers. However, issues such as delayed loan disbursement, inadequate awareness of financial schemes, and collateral challenges still hinder the optimal utilization of these facilities. Integrating credit access with crop insurance, marketing support, and technological innovation can further stabilize income and reduce vulnerability. Furthermore, diversification into allied sectors like dairy, fisheries, and horticulture, coupled with technological advancements and digital marketing platforms, can enhance rural income and employment. The research highlights the need for continuous monitoring, capacity building, and region-specific interventions to ensure inclusive growth.

#### **Suggestions**

- i). Simplify and speed up institutional credit access for farmers through NABARD and KCC.
- ii). Increase farmer awareness about welfare schemes through local workshops and media.
- iii). Promote efficient water management using microirrigation and rainwater harvesting.
- iv). Expand and streamline crop insurance under PMFBY for faster claim settlements.
- v). Conduct regular socio-economic surveys to monitor the impact of welfare schemes.

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