



A Study On Farmers' Perceptions And Satisfaction With The Rythu Bandhu Scheme In Telangana State

R. Vanaja

Lecturer in Economics, GJC, Bejfur

Research Scholar, Department of Applied Economics, Telangana University

Abstract

The Rythu Bandhu Scheme (RBS), introduced by the Government of Telangana, is a pioneering direct investment support programme aimed at strengthening agricultural productivity and ensuring financial security for farmers. This study examines farmers' perceptions and levels of satisfaction with the Rythu Bandhu Scheme in Telangana State. Adopting a descriptive and analytical research design, the study is based on primary data collected from a sample of 300 farmers selected through a stratified random sampling technique from different districts of Telangana. The study analyzes farmers' awareness levels, utilization patterns, perceived benefits, and challenges associated with the scheme. The findings reveal that the Rythu Bandhu Scheme has significantly contributed to timely agricultural investment, reduced farmers' dependence on informal credit sources, and enhanced confidence in agricultural activities. A majority of the respondents expressed satisfaction with the scheme due to direct income support and ease of access. However, certain challenges persist, including the exclusion of tenant farmers, inaccuracies in land records, and occasional delays in fund disbursement. The study concludes that while the Rythu Bandhu Scheme has positively impacted farmers' livelihoods and strengthened agricultural sustainability, policy refinements, improved land record management, and inclusive coverage are essential to enhance its overall effectiveness and long-term success.

Keywords: Rythu Bandhu Scheme, Farmers' Perception, Satisfaction Level, Agricultural Support, Telangana, Direct Benefit Transfer, Rural Development

Introduction

Agriculture has long been the backbone of the Indian economy, providing livelihood to a significant proportion of the population and contributing substantially to national food security. Despite its importance, the agricultural sector in India has historically faced numerous challenges such as fragmented landholdings, rising input costs, dependence on monsoons, limited access to institutional credit, and vulnerability to market fluctuations. These challenges have often resulted in financial distress among farmers, making state intervention essential for sustaining agricultural growth and rural livelihoods.

In response to these challenges, various welfare-oriented schemes have been introduced by both the Central and State Governments to support farmers. Among these, the Rythu Bandhu Scheme (RBS) stands out as a landmark initiative launched by the Government of Telangana in the year 2018. The scheme was officially inaugurated on May 10, 2018, at Dharur Mandal of Vikarabad district, under the leadership of Sri K. Chandrashekhar Rao (KCR), the then Chief Minister of Telangana. It was introduced as a pioneering income support scheme aimed at providing direct financial assistance to farmers for agricultural investment.

The Rythu Bandhu Scheme provides investment support on a per-acre basis to land-owning farmers before every cropping season (Kharif and Rabi). The financial assistance is directly transferred to farmers' bank accounts, enabling them to meet essential agricultural input costs such as seeds, fertilizers, pesticides, and labor without depending on informal credit sources or moneylenders. This proactive approach distinguishes RBS from traditional subsidy or compensation-based schemes, as it emphasizes preventive investment support rather than post-crop relief.

The scheme is regarded as one of the first large-scale Direct Benefit Transfer (DBT) initiatives in Indian agriculture and has served as a model for similar schemes at the national level, notably the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN). By ensuring timely financial assistance, the Rythu Bandhu Scheme aims to stabilize farm incomes, enhance agricultural productivity, and promote sustainable farming practices. However, despite its wide coverage and financial significance, the effectiveness of the Rythu Bandhu Scheme largely depends on farmers' awareness, accessibility, and satisfaction with its implementation. Concerns have been raised regarding the exclusion of tenant farmers, inaccuracies in land records, and regional disparities in benefit distribution. These issues highlight the need for a systematic assessment of farmers' perceptions and experiences with the scheme.

Need and Significance of the Study

Agriculture remains the backbone of Telangana's economy, supporting a large proportion of the rural population and contributing significantly to livelihoods and food security. Despite various governmental interventions, farmers continue to face persistent challenges such as rising input costs, fluctuating market prices, climate uncertainty, fragmented landholdings, and limited access to institutional credit. In this context,

the Rythu Bandhu Scheme was introduced as a pioneering initiative to provide direct financial support to farmers and strengthen agricultural sustainability. However, the effectiveness of such a large-scale welfare program requires continuous and systematic assessment to ensure that its intended objectives are being achieved.

There is a pressing need to examine the extent to which the benefits of the Rythu Bandhu Scheme have reached the targeted beneficiaries and whether the financial assistance is adequate, timely, and equitable. Although the scheme has received widespread appreciation, several concerns persist, including the exclusion of tenant farmers, inaccuracies in land records, uneven regional implementation, and gaps in awareness among beneficiaries. These issues highlight the necessity for empirical research to evaluate the ground-level realities of the scheme and to identify challenges affecting its effective implementation.

Understanding farmers' perceptions and satisfaction levels is crucial for assessing the real success of the scheme beyond financial allocation and administrative efficiency. Farmers' experiences provide valuable insights into whether the scheme has helped reduce dependence on informal credit, enhanced agricultural investment, stabilized farm incomes, and improved overall livelihood security. Such an assessment helps in determining whether the scheme has truly fulfilled its objective of supporting sustainable agricultural development.

The study is also significant from a policy perspective, as it offers evidence-based insights that can assist policymakers and administrators in refining the design and execution of the Rythu Bandhu Scheme. Identifying strengths and shortcomings can contribute to improving targeting mechanisms, strengthening transparency, and ensuring inclusive coverage. The findings can further support policy reforms and guide the effective implementation of similar income-support schemes at both state and national levels, including initiatives such as PM-KISAN.

From an academic standpoint, the study contributes to the existing literature on agricultural welfare policies, direct benefit transfer mechanisms, and rural development in India. It enhances understanding of state-led welfare interventions and their role in promoting agricultural sustainability and socio-economic stability. Additionally, the study provides a valuable reference for future research and comparative studies on farmer-centric welfare schemes.

In this context, the present study seeks to examine farmers' perceptions and satisfaction with the Rythu Bandhu Scheme in Telangana State. By analyzing awareness levels, utilization patterns, and perceived outcomes, the study aims to provide empirical insights into the effectiveness of the scheme and its role in strengthening agricultural sustainability, rural livelihoods, and inclusive development. Overall, this study is significant in bridging the gap between policy intent and ground-level outcomes, amplifying farmers' voices, and supporting evidence-based decision-making for strengthening agricultural development and rural livelihoods in Telangana.

The Title of the Study

The title of the study is “**A Study on Farmers’ Perceptions and Satisfaction with the Rythu Bandhu Scheme in Telangana State**”

Objectives of the Study

1. To examine the level of awareness among farmers about the Rythu Bandhu Scheme in Telangana State.
2. To analyze farmers’ perceptions regarding the objectives, benefits, and implementation of the Rythu Bandhu Scheme.
3. To assess the level of satisfaction of farmers with respect to financial assistance, timeliness of payments, and accessibility of the scheme.
4. To study the impact of the Rythu Bandhu Scheme on agricultural investment, crop production, and livelihood security of farmers.
5. To identify the major challenges and constraints faced by farmers in availing benefits under the Rythu Bandhu Scheme.
6. To examine variations in perceptions and satisfaction levels among farmers based on socio-economic factors such as landholding size, region, and type of cultivation.
7. To suggest suitable measures for improving the effectiveness, inclusiveness, and implementation of the Rythu Bandhu Scheme.

Hypotheses of the study

1. There is no significant association between farmers’ age and their level of awareness about the Rythu Bandhu Scheme
2. There is a significant association between education level and satisfaction with the Rythu Bandhu Scheme.
3. There is a significant association between landholding size and impact on agricultural investment.
4. There is a significant relationship between income level and dependence on moneylenders.
5. There is a significant relationship between access to institutional credit and satisfaction level.

Methodology of the study

The present study adopts a descriptive and analytical research design to examine farmers’ perceptions and satisfaction regarding the Rythu Bandhu Scheme. The descriptive approach helps in understanding existing conditions, while the analytical approach facilitates interpretation of relationships among variables such as awareness, satisfaction, and impact of the scheme. The study was conducted in selected districts of Telangana State, representing different agro-climatic regions. These districts were chosen to capture variations in agricultural practices, socio-economic conditions, and scheme implementation patterns.

Population of the Study

The population of the study comprises all farmers who are beneficiaries of the Rythu Bandhu Scheme in the selected districts of Telangana.

Sample Size and Sampling Technique

A total sample of 300 farmers was selected for the study using a stratified random sampling technique. The population was stratified based on landholding size (small, marginal, and large farmers) to ensure adequate representation from each category.

Sources of Data

The data for the present study were collected from both primary and secondary sources. Primary data were obtained directly from farmers through a structured questionnaire designed to assess their level of awareness, perception, satisfaction, and perceived impact of the Rythu Bandhu Scheme. The questionnaire facilitated the collection of first-hand information regarding beneficiaries' experiences, utilization patterns, and overall evaluation of the scheme's effectiveness. Secondary data were collected from reliable and authentic sources such as government reports and official publications, records of the Telangana State Department of Agriculture, policy documents, official government websites, and relevant research journals, books, and academic articles. These secondary sources provided a broader contextual understanding of the scheme, supported data interpretation, and helped validate the findings of the study.

Data Analysis and Interpretation

Table 4.1: Distribution of Respondents by Age

Age Group (Years)	Frequency	Percentage
Below 30	48	16.0%
31–40	72	24.0%
41–50	96	32.0%
Above 50	84	28.0%
Total	300	100%

Table 4.1 presents the age-wise distribution of the respondents included in the study. The data indicate that the largest proportion of respondents belongs to the 41–50 years age group, accounting for 32.0% of the total sample. This suggests that middle-aged farmers form the dominant group actively involved in agricultural activities and participation in the Rythu Bandhu Scheme. The 31–40 years age group constitutes 24.0% of the respondents, indicating a significant presence of relatively younger farmers who are engaged in farming and

are beneficiaries of the scheme. The above 50 years category represents 28.0%, reflecting the continued involvement of experienced and senior farmers in agricultural practices.

The smallest proportion of respondents falls in the below 30 years category, comprising 16.0% of the sample. This comparatively lower participation may indicate limited engagement of younger individuals in farming activities, possibly due to migration to non-agricultural occupations or educational pursuits. Overall, the data suggest that the majority of beneficiaries of the Rythu Bandhu Scheme are middle-aged and older farmers, highlighting the scheme's relevance to experienced cultivators while also indicating the need for greater involvement of younger generations in agriculture.

Table 4.2: Distribution of Respondents by Education Level

Education Level	Frequency	Percentage
Illiterate	54	18%
Primary Education	96	32%
Secondary Education	84	28%
Higher Secondary	42	14%
Graduate and Above	24	8%
Total	300	100%

Table 4.2 presents the educational status of the respondents covered in the study. The data indicate that a significant proportion of the farmers possess basic levels of education. The largest group, 32%, has completed primary education, followed by 28% who have attained secondary education. This suggests that a majority of the respondents have foundational literacy and schooling, which can support their understanding of government schemes and agricultural practices. A notable 18% of the respondents are illiterate, highlighting the continued presence of educational deprivation among a section of the farming community. This group may face challenges in accessing information, understanding scheme guidelines, and completing formal procedures related to agricultural welfare programs.

Further, 14% of the respondents have completed higher secondary education, while only 8% have attained graduate-level education or above. This indicates that higher education attainment among farmers remains limited, which may affect their exposure to modern farming techniques, digital platforms, and policy awareness. Overall, the findings suggest that while basic education is fairly widespread among farmers, there remains a need for simplified communication strategies, extension services, and awareness programs to ensure inclusive access to the benefits of the Rythu Bandhu Scheme, particularly for less-educated and illiterate farmers.

Table 4.3: Distribution of Respondents by Landholding Category

Landholding Category	Frequency	Percentage
Marginal (up to 1 ha)	90	30%
Small (1–2 ha)	105	35%
Medium (2–4 ha)	75	25%
Large (above 4 ha)	30	10%
Total	300	100%

Table 4.3 shows the distribution of respondents based on the size of their landholdings. The data reveal that the majority of farmers in the study belong to the small and marginal landholding categories, which together account for 65% of the respondents. Specifically, 35% of the respondents are small farmers owning 1–2 hectares of land, while 30% are marginal farmers with landholdings up to 1 hectare. Medium farmers, owning 2–4 hectares of land, constitute 25% of the sample, whereas large farmers with more than 4 hectares represent only 10%.

This distribution indicates that the Rythu Bandhu Scheme primarily benefits small and marginal farmers, who form the backbone of Telangana's agricultural sector and are most dependent on financial support for timely agricultural investments. The lower proportion of medium and large landholders suggests that these categories are relatively less reliant on such schemes, as they may have greater financial resources or access to institutional credit. Overall, the data emphasize the importance of targeted agricultural welfare programs like the Rythu Bandhu Scheme in supporting the majority of farmers with limited land resources.

Table 4.4: Distribution of Respondents by Income Level

Income Level (Annual)	Frequency	Percentage
Below ₹1,00,000	78	26%
₹1,00,001 – ₹2,00,000	102	34%
₹2,00,001 – ₹3,00,000	66	22%
Above ₹3,00,000	54	18%
Total	300	100%

Table 4.4 presents the annual income distribution of the respondents covered under the study. The findings reveal that a significant proportion of farmers belong to the lower and middle-income groups. About 34% of the respondents earn between ₹1,00,001 and ₹2,00,000 annually, forming the largest income group. This is followed by 26% of farmers who earn below ₹1,00,000, indicating that a considerable section of the farming community continues to face financial vulnerability. Further, 22% of the respondents fall in the income range of ₹2,00,001 to ₹3,00,000, while only 18% earn above ₹3,00,000 per annum, reflecting a relatively smaller

proportion of economically well-off farmers. Overall, the income distribution highlights the predominance of small and marginal farmers with limited financial capacity, underlining the significance of welfare initiatives like the Rythu Bandhu Scheme in providing income support, reducing financial stress, and promoting agricultural sustainability in Telangana State.

Table 4.5: Awareness Level among Farmers

Awareness Level	Frequency	Percentage
Fully Aware	216	72%
Partially Aware	54	18%
Not Aware	30	10%
Total	300	100%

Table 4.5 presents the awareness level of farmers regarding the Rythu Bandhu Scheme. The data reveal that a substantial majority of the respondents, 72%, are fully aware of the scheme, indicating effective dissemination of information through government channels, local administration, and community networks. This high level of awareness reflects the visibility and outreach of the scheme among farming communities. About 18% of the respondents are partially aware, suggesting that while they have some knowledge of the scheme, they may lack complete information regarding eligibility criteria, benefits, or procedural aspects. This highlights the need for enhanced awareness campaigns and targeted information dissemination to ensure comprehensive understanding.

A smaller proportion, 10%, of respondents reported being not aware of the scheme. This indicates that despite widespread implementation, a segment of the farming population remains uninformed, possibly due to illiteracy, geographical isolation, or limited access to communication channels. Overall, the findings suggest that while awareness of the Rythu Bandhu Scheme is generally high, there is still scope for improving outreach and communication strategies to ensure inclusive awareness among all sections of farmers.

Table 4.6: Access to Institutional Credit

Access to Institutional Credit	Frequency	Percentage
Regular Access	126	42%
Occasional Access	96	32%
Limited Access	48	16%
No Access	30	10%
Total	300	100%

Table 4.6 depicts the extent of access to institutional credit among the respondents. The data reveal that 42% of the farmers have regular access to institutional credit facilities such as banks, cooperative societies, and agricultural credit institutions. This indicates that a considerable proportion of farmers are able to avail formal financial support for agricultural activities. About 32% of the respondents reported occasional access, suggesting irregular or need-based borrowing, possibly due to procedural constraints or limited eligibility. Meanwhile, 16% of the farmers have limited access, and 10% reported having no access to institutional credit at all. This group is more likely to depend on informal sources such as moneylenders, which often leads to higher interest burdens. Overall, the findings highlight that although institutional credit availability has improved, a significant section of farmers still faces barriers in accessing formal financial services. This underscores the importance of schemes like Rythu Bandhu in providing direct financial support and reducing dependence on informal credit systems.

Table 4.7: Satisfaction with the Rythu Bandhu Scheme

Satisfaction Level	Respondents	Percentage
Highly Satisfied	114	38%
Satisfied	108	36%
Neutral	42	14%
Dissatisfied	36	12%
Total	300	100%

Table 4.7 presents the level of satisfaction of farmers regarding the Rythu Bandhu Scheme. The findings reveal that a substantial proportion of respondents express a positive level of satisfaction with the scheme. Specifically, 38% of the respondents reported being highly satisfied, while 36% indicated that they are satisfied. Together, these two categories account for 74% of the total respondents, reflecting a strong overall approval of the scheme among beneficiary farmers. Meanwhile, 14% of the respondents expressed a neutral opinion, suggesting that while they neither strongly approve nor disapprove of the scheme, they may perceive limited or moderate benefits. This group may require improved service delivery or clearer communication regarding scheme benefits.

A relatively smaller segment, 12%, reported being dissatisfied with the scheme. This dissatisfaction could be attributed to issues such as delays in fund disbursement, exclusion of tenant farmers, inaccuracies in land records, or challenges in accessing benefits. Overall, the findings indicate a high level of satisfaction among farmers with the Rythu Bandhu Scheme, highlighting its positive impact on agricultural livelihoods while also pointing toward areas that require policy attention and administrative improvement.

Table 4.8: Impact on Agricultural Inputs and Investment

Impact Level	Frequency	Percentage
Significant Increase	135	45%
Moderate Increase	99	33%
No Change	42	14%
Decrease	24	8%
Total	300	100%

Table 4.8 illustrates the perceived impact of the Rythu Bandhu Scheme on agricultural inputs and investment among the respondents. The data indicate that a substantial proportion of farmers experienced a positive impact due to the scheme. Specifically, 45% of the respondents reported a significant increase in their investment on agricultural inputs such as seeds, fertilizers, pesticides, and labour. This suggests that the financial assistance provided under the scheme has enabled farmers to invest more confidently in their agricultural activities. Additionally, 33% of the respondents observed a moderate increase in their agricultural investment, indicating that the scheme has contributed positively, though to a lesser extent, in improving their capacity to meet cultivation expenses. Together, these two categories account for 78% of the respondents, highlighting the substantial role of the scheme in strengthening agricultural input usage.

On the other hand, 14% of the respondents reported no change in their level of agricultural investment, possibly due to limited landholding size, existing financial constraints, or alternative income sources. A smaller proportion, 8%, experienced a decrease, which may be attributed to factors such as crop failure, market volatility, or delays in receiving financial assistance. Overall, the findings indicate that the Rythu Bandhu Scheme has had a positive and meaningful impact on enhancing agricultural investment among the majority of farmers, thereby supporting improved productivity and farm sustainability.

Table 4.9: Change in Dependence on Moneylenders

Response	Frequency	Percentage
Significantly Reduced	142	47.3%
Moderately Reduced	88	29.3%
No Change	52	17.3%
Increased	18	6.1%
Total	300	100%

Table 4.9 presents the extent to which the Rythu Bandhu Scheme has influenced farmers' dependence on moneylenders. The data reveal a significant reduction in reliance on informal credit sources among the respondents. A majority of the farmers, 47.3%, reported that their dependence on moneylenders has significantly reduced, indicating that the timely financial assistance provided under the scheme has helped them meet agricultural expenses without resorting to high-interest loans. Additionally, 29.3% of the respondents stated that their dependence on moneylenders has moderately reduced, suggesting a partial but positive impact of the scheme in easing credit constraints. Together, these two categories account for 76.6% of the respondents, highlighting the scheme's substantial role in reducing exploitative borrowing practices.

On the other hand, 17.3% of the respondents reported no change in their dependence on moneylenders, possibly due to insufficient financial support relative to their cultivation costs or continued reliance on informal credit for non-agricultural needs. A small proportion, 6.1%, indicated an increase in dependence, which may be attributed to factors such as crop failure, delayed payments, or inadequate scheme coverage. Overall, the findings suggest that the Rythu Bandhu Scheme has played a crucial role in reducing farmers' dependence on moneylenders, thereby contributing to financial stability and improved livelihood security among beneficiaries.

Table 4.10: Major Challenges in Implementation

Challenges	Respondents	Percentage
Exclusion of Tenant Farmers	102	34%
Errors in Land Records	68	22.7%
Delay in Disbursement	56	18.6%
Lack of Awareness	44	14.7%
Digital Access Issues	30	10.0%
Total	300	100%

Table 4.10 highlights the major challenges faced by farmers in the implementation of the Rythu Bandhu Scheme. The findings indicate that the most significant challenge reported by respondents is the exclusion of tenant farmers, cited by 34% of the respondents. This suggests that a substantial section of cultivators who do not own land are unable to benefit from the scheme, raising concerns about inclusiveness and equity. The second major challenge identified is errors in land records, reported by 22.7% of the respondents. Inaccurate or outdated land records often lead to delays or denial of benefits, thereby limiting the effectiveness of the scheme. Additionally, 18.6% of the respondents pointed to delays in fund disbursement, which can adversely affect timely agricultural operations, especially during the sowing season.

A lack of adequate awareness about the scheme was reported by 14.7% of the respondents, indicating the need for stronger information dissemination and extension services. Furthermore, 10.0% of the respondents experienced digital access issues, such as difficulties in using online platforms or accessing banking services, which hindered smooth receipt of benefits. Overall, the findings suggest that while the Rythu Bandhu Scheme has been largely beneficial, addressing challenges related to inclusivity, administrative efficiency, and digital accessibility is essential for improving its effectiveness and ensuring equitable benefits to all sections of the farming community.

Hypothesis Testing

Hypothesis 1: There is no significant association between farmers' age and their level of awareness about the Rythu Bandhu Scheme

Table 4.11: Chi-Square Test between Age and Awareness Level

Variable	χ^2 Value	df	p-value	Result
Age × Awareness Level	12.48	6	0.052	Not Significant

Table 4.11 presents the results of the Chi-square test conducted to examine the association between farmers' age and their level of awareness about the Rythu Bandhu Scheme. The calculated Chi-square value is 12.48 with 6 degrees of freedom, and the corresponding p-value is 0.052. Since the p-value is slightly higher than the conventional level of significance (0.05), the result is not statistically significant. This indicates that there is no significant association between the age of the farmers and their level of awareness about the Rythu Bandhu Scheme. In other words, awareness of the scheme does not vary significantly across different age groups.

Although minor variations in awareness levels are observed among different age categories, these differences are not strong enough to establish a statistically meaningful relationship. This suggests that awareness of the Rythu Bandhu Scheme is relatively uniform across age groups, possibly due to widespread publicity, government outreach programs, and community-level dissemination of information. Hence, the null hypothesis stating that there is no significant association between farmers' age and their level of awareness about the Rythu Bandhu Scheme is accepted.

Hypothesis 2: There is a significant association between education level and satisfaction with the Rythu Bandhu Scheme.

Table 4.12: Chi-Square Test between Education and Satisfaction Level

Variable	χ^2 Value	df	p-value	Result
Education × Satisfaction	18.62	8	0.017	Significant

Table 4.12 presents the results of the Chi-square test examining the relationship between farmers' educational level and their satisfaction with the Rythu Bandhu Scheme. The calculated Chi-square value is 18.62 with 8 degrees of freedom, and the corresponding p-value is 0.017. Since the p-value (0.017) is less than the conventional significance level of 0.05, the result is statistically significant. This indicates that there is a significant association between education level and satisfaction with the Rythu Bandhu Scheme.

The finding suggests that farmers' level of education influences how they perceive and evaluate the benefits of the scheme. More educated farmers may have better awareness, understanding of scheme procedures, and ability to utilize the benefits effectively, which may lead to higher or more informed levels of satisfaction. Conversely, farmers with lower educational attainment may face challenges in accessing information, understanding eligibility norms, or navigating administrative processes, which can affect their satisfaction levels. Therefore, the hypothesis stating that there is a significant association between education level and satisfaction with the Rythu Bandhu Scheme is accepted. This highlights the importance of education and awareness-building initiatives to ensure equitable satisfaction and effective utilization of the scheme across all farmer groups.

Hypothesis 3: There is a significant association between landholding size and impact on agricultural investment.

Table 4.13: Chi-Square Test between Landholding Size and Impact on Agricultural Investment

Variable	χ^2 Value	df	p-value	Result
Landholding × Investment Impact	21.35	9	0.011	Significant

Table 4.13 presents the results of the Chi-square test examining the relationship between landholding size and the impact of the Rythu Bandhu Scheme on agricultural investment. The calculated Chi-square value is 21.35 with 9 degrees of freedom, and the corresponding p-value is 0.011. Since the p-value (0.011) is less than the 0.05 level of significance, the result is statistically significant. This indicates that there is a significant association between the size of landholdings and the level of impact of the Rythu Bandhu Scheme on agricultural investment.

The findings suggest that farmers with different landholding sizes experience varying levels of benefit from the scheme. Small and marginal farmers may perceive a greater relative impact of the financial assistance, as the support constitutes a significant portion of their cultivation expenses. In contrast, medium and large farmers may experience a comparatively moderate impact, as their overall investment requirements are higher. Thus, the hypothesis stating that there is a significant association between landholding size and impact on agricultural investment is accepted. This result highlights the differential influence of the Rythu Bandhu Scheme across farm sizes and underscores the importance of considering landholding categories while designing and evaluating agricultural support policies.

Hypothesis 4: There is a significant relationship between income level and dependence on moneylenders.

Table 4.14: Chi-Square Test between Income Level and Dependence on Moneylenders

Variable	χ^2 Value	df	p-value	Result
Income × Dependence on Moneylenders	19.78	9	0.020	Significant

Table 4.14 presents the results of the Chi-square test examining the relationship between income level and dependence on moneylenders among the farmers. The calculated Chi-square value is 19.78 with 9 degrees of freedom, and the corresponding p-value is 0.020. Since the p-value (0.020) is less than the 0.05 level of significance, the result is statistically significant. This indicates that there is a significant association between farmers' income levels and their dependence on moneylenders.

The findings suggest that farmers with lower income levels tend to rely more heavily on moneylenders for meeting agricultural and household financial needs, whereas farmers with higher income levels are comparatively less dependent on informal credit sources. This may be attributed to better access to institutional credit, savings, and financial stability among higher-income farmers. Therefore, the hypothesis stating that there is a significant relationship between income level and dependence on moneylenders is accepted. The result highlights the importance of income-enhancing schemes like the Rythu Bandhu Scheme in reducing farmers' reliance on informal and high-interest credit systems, thereby improving financial security and sustainability in rural areas.

Hypothesis 5: There is a significant relationship between access to institutional credit and satisfaction level.

Table 4.15: Chi-Square Test between Access to Institutional Credit and Satisfaction Level

Variable	χ^2 Value	df	p-value	Result
Credit Access × Satisfaction	23.64	9	0.005	Significant

Table 4.15 presents the results of the Chi-square test examining the relationship between access to institutional credit and satisfaction level with the Rythu Bandhu Scheme. The calculated Chi-square value is 23.64 with 9 degrees of freedom, and the corresponding p-value is 0.005. Since the p-value (0.005) is less than the 0.01 level of significance, the result is highly significant. This indicates a strong and statistically significant association between farmers' access to institutional credit and their level of satisfaction with the Rythu Bandhu Scheme.

The findings suggest that farmers who have better access to institutional credit such as banks, cooperative societies, and formal financial institutions tend to report higher levels of satisfaction with the scheme. This may be because institutional credit complements the financial support provided under Rythu Bandhu, enabling farmers to meet cultivation expenses more effectively and reduce dependence on informal moneylenders. Conversely, farmers with limited or no access to institutional credit may experience financial stress despite receiving scheme benefits, leading to comparatively lower satisfaction levels. Therefore, the hypothesis stating that there is a significant relationship between access to institutional credit and satisfaction level is accepted. This finding underscores the importance of strengthening institutional credit mechanisms alongside welfare schemes to enhance overall farmer satisfaction and agricultural sustainability.

Conclusion of the Study

The present study on Farmers' Perceptions and Satisfaction with the Rythu Bandhu Scheme in Telangana State provides comprehensive insights into the effectiveness and impact of one of India's most significant agricultural welfare initiatives. The findings clearly indicate that the Rythu Bandhu Scheme has played a crucial role in strengthening the economic stability of farmers by offering timely financial assistance for agricultural inputs and reducing dependence on informal credit sources.

The analysis reveals that a majority of the beneficiaries are small and marginal farmers, highlighting the scheme's relevance to the most vulnerable sections of the agrarian community. High levels of awareness and satisfaction among farmers reflect the successful outreach and implementation of the scheme. The positive impact on agricultural investment, input usage, and reduction in reliance on moneylenders demonstrates that the scheme has contributed meaningfully to improving farm productivity and financial security.

The study also establishes significant relationships between key socio-economic variables and the effectiveness of the scheme. Factors such as education level, landholding size, income, and access to institutional credit significantly influence farmers' satisfaction and the perceived benefits of the scheme. In particular, access to institutional credit emerged as a critical determinant of satisfaction, underscoring the importance of integrating income support programs with formal financial systems.

However, the study also identifies notable challenges that limit the full potential of the Rythu Bandhu Scheme. Issues such as exclusion of tenant farmers, inaccuracies in land records, delays in fund disbursement,

and digital accessibility barriers continue to affect equitable implementation. These concerns highlight the need for policy refinement, improved administrative efficiency, and inclusive design to ensure that the benefits reach all deserving farming households.

In conclusion, the Rythu Bandhu Scheme stands out as a transformative initiative that has significantly contributed to agricultural sustainability and rural welfare in Telangana. While its overall impact is positive, strengthening institutional mechanisms, improving inclusiveness, and enhancing awareness and digital access are essential for maximizing its long-term effectiveness. The findings of this study offer valuable insights for policymakers, administrators, and researchers aiming to strengthen farmer-centric welfare programs and promote sustainable agricultural development.

Policy Recommendations

Based on the findings of the study on Farmers' Perceptions and Satisfaction with the Rythu Bandhu Scheme in Telangana State, the following policy recommendations are suggested to enhance the effectiveness, inclusiveness, and sustainability of the scheme:

- 1. Inclusion of Tenant and Sharecropping Farmers:** One of the major limitations identified is the exclusion of tenant farmers who cultivate land without ownership rights. The government should develop a transparent mechanism to identify and register tenant farmers through local institutions such as Gram Panchayats, Farmer Producer Organizations (FPOs), or self-declaration systems verified by local authorities. Including tenant farmers would promote equity and ensure that actual cultivators receive financial support.
- 2. Strengthening Land Record Management:** Errors and inconsistencies in land records were found to be a major barrier to accessing scheme benefits. Digitization and regular updating of land records should be strengthened, along with grievance redressal mechanisms to correct errors promptly. Integration of land records with Aadhaar and agricultural databases can improve accuracy and transparency.
- 3. Timely and Predictable Fund Disbursement:** Delays in fund transfer reduce the effectiveness of the scheme, especially during critical agricultural seasons. Ensuring timely release of funds before the sowing season through improved coordination between departments and banking institutions is essential. Establishing a fixed disbursement calendar may enhance farmers' planning and trust in the scheme.
- 4. Enhancing Awareness and Outreach Programs:** Although awareness levels are relatively high, a section of farmers still lacks complete information about eligibility, benefits, and procedures. Strengthening extension services, village-level awareness campaigns, and use of local languages through digital and traditional media can help bridge this gap.

5. **Improving Digital and Banking Accessibility:** Digital barriers and limited access to banking services affect some beneficiaries, particularly elderly and less-educated farmers. Expanding banking infrastructure, promoting financial literacy, and offering assisted digital services at village secretariats can ensure smoother access to scheme benefits.
6. **Integration with Institutional Credit and Insurance Schemes:** Linking the Rythu Bandhu Scheme with institutional credit facilities, crop insurance, and input supply programs can enhance its overall impact. Such convergence would provide holistic support to farmers and reduce their dependence on informal credit sources.
7. **Periodic Monitoring and Impact Evaluation:** Regular monitoring and independent evaluations should be conducted to assess the socio-economic impact of the scheme. Feedback mechanisms involving farmers can help identify emerging challenges and ensure continuous improvement in implementation.
8. **Promotion of Sustainable and Climate-Resilient Farming:** The scheme can be aligned with sustainable agricultural practices by incentivizing eco-friendly inputs, water conservation, and climate-resilient crops. This would strengthen long-term agricultural sustainability alongside income support.
9. **Strengthening Local Institutions:** Empowering local bodies such as Gram Panchayats and agricultural extension offices to play a greater role in implementation and grievance redressal can improve accountability and responsiveness at the grassroots level.
10. **Replication and Policy Learning:** The success of the Rythu Bandhu Scheme offers valuable lessons for other states and the central government. Best practices from the scheme can inform the design and improvement of similar income-support programs such as PM-KISAN, ensuring better coordination and efficiency across governance levels.

Overall, these policy recommendations aim to enhance inclusivity, transparency, and effectiveness of the Rythu Bandhu Scheme, thereby strengthening agricultural livelihoods and promoting sustainable rural development in Telangana.

Suggestions for Further Studies

Based on the findings and scope of the present study on the Rythu Bandhu Scheme in Telangana, the following suggestions are proposed for future research.

1. **Comparative Studies Across States:** Future studies may undertake a comparative analysis between the Rythu Bandhu Scheme and similar income support schemes such as PM-KISAN or other state-level agricultural welfare programs to assess relative effectiveness, coverage, and sustainability.
2. **Longitudinal Impact Studies:** Researchers may conduct longitudinal studies to examine the long-term impact of the scheme on farmers' income stability, productivity, debt reduction, and livelihood security over multiple agricultural seasons.

3. **Focus on Tenant and Marginal Farmers:** Special studies can be undertaken to analyze the conditions and challenges of tenant farmers and landless agricultural workers who are currently excluded from the scheme, to explore alternative policy models for their inclusion.
4. **Gender-Based Analysis:** Future research may focus on gender dimensions of the scheme, examining women farmers' access to benefits, decision-making power, and role in agricultural investments supported by Rythu Bandhu.
5. **Regional and Crop-Specific Studies:** Area-specific studies focusing on different agro-climatic zones or crop patterns within Telangana can provide deeper insights into how the scheme performs under varying environmental and economic conditions.
6. **Impact on Agricultural Productivity and Sustainability:** Further research may assess the long-term effects of the scheme on crop yields, soil health, use of sustainable inputs, and environmental sustainability.
7. **Technology and Digital Governance Evaluation:** Studies may explore the effectiveness of digital platforms, land record digitization, and direct benefit transfer mechanisms in ensuring transparency, efficiency, and accessibility.
8. **Behavioral and Socio-Economic Impact Studies:** Researchers can examine how income support influences farmers' risk-taking behavior, investment decisions, and adoption of modern agricultural practices.
9. **Cost-Benefit and Fiscal Sustainability Analysis:** Future research could evaluate the fiscal sustainability of the scheme and its long-term implications for state finances, especially in comparison with alternative welfare models.
10. **Policy Implementation and Governance Studies:** In-depth qualitative studies involving administrators, extension workers, and policymakers can help identify institutional bottlenecks and best practices in scheme implementation.

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