



Reevaluating the Rythu Bandhu Scheme: Toward Sustainable and Inclusive Agriculture in Telangana: A Review

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ABSTRACT

The Rythu Bandhu Scheme (RBS), initiated by the Government of Telangana, India, on February 25, 2018, provides financial assistance to farmers across all categories. Its primary objective is to prevent farmers from succumbing to debt and to improve their financial stability. By enabling them to procure essential inputs like fertilizers, seeds, machinery, and labour, the scheme aims to enhance effective agricultural practices. However, it falls short in addressing critical environmental and social challenges in agriculture, including soil degradation, water pollution, climate change and food security. This paper proposes a comprehensive set of recommendations to enhance the Rythu Bandhu Scheme (RBS), ensuring its long-term sustainability and inclusivity for Telangana's agricultural sector. The following strategies are crucial for achieving these goals: To enhance soil health and reduce erosion, encourage practices like minimum tillage, crop rotation and cover cropping. Livestock rearing provides supplementary income, valuable manure and draught power, diversifying farmers' livelihoods. Address environmental and health concerns related to chemical fertilizers by recommending organic or bio-fertilizers. Utilize crop residues as mulch, fodder, or biofuel instead of burning them to minimize air pollution and greenhouse gas emissions. Establish vegetation strips along water bodies to safeguard water quality, preserve biodiversity, and prevent soil erosion. Financial incentives for sustainable practices ensure farmers' profitability and food security. Implement district-level advisory bodies to educate farmers about sustainable methods. These recommendations align with the sustainable development goals (SDGs) agenda, benefiting both farmers and the environment.

Key words: Conservative agriculture, Environment and social benefits, Financial assistance, Policy recommendations, Rythu bandhu scheme, Sustainable agriculture.

Rythu Bandhu is a kind of scheme that originated in the state of Telangana and it is intended to facilitate financial assistance to all farmers, irrespective of their caste, creed, community, religion, and landholding status. The scheme provides financial assistance of ₹ 5000 for two crop seasons, namely *Kharif* and *Rabi*. However, the current government has increased the amount to ₹ 7,500 per crop season, which means a total of ₹ 15,000 per annum. The primary objective of the scheme is to support the farming community by providing financial assistance for agriculture input namely tilling charges, fertilisers and pesticide purchases, and bear farm labour wages, and get rid of from rural indebtedness. The Telangana government believes that investing is the best approach to increase agricultural output and provide farmers with institution support and boost up individual confidence.

Inception of Rythu Bandhu scheme

To prevent farmers from slipping back into debts, a new programme known as the "Agriculture Investment Support Scheme" has been launched by the Government of Telangana (Government of Telangana, 2024a), with the recommendations Rythu Bandhu Scheme (RBS) Committee. The investigations suggested the Government ought to benefit the sizeable number of qualified farmers by providing a considerable financial aid (Anuradha and Goud, 2023). On February 25th, 2018, the Rythu Samanvaya

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Samithi, announced the Rythu Bandhu Scheme (RBS). However, the inception of scheme has been attributed as the brain child of Mr. K. Chandrashekar Rao (KCR), the first Chief Minister of Telangana State. The circular from the Ministry of Agriculture and Co-operation Department codifies the terms and conditions of the Rythu Bandhu Scheme (Thomas *et al.*, 2020). For the first time, ₹ 12,000 crore was allocated for the 2018-19 fiscal year which benefited 54,20,102 registered farmers under the scheme. This budget covers both the administrative costs associated with carrying out the programme and the service charges owed to banks for the 2018-19 fiscal year (Times of India, 2019). The initiative provided a payment of ₹ 4,000 per acre for every farmer per season to purchase inputs such as insecticides, fertilisers and seeds (Business

Standard News, 2018) and subsequently, when the harvest season (*khariif*) began in 2019, the payment was increased to ₹ 5000 (Akula Mounika *et al.*, 2022).

Spending of Rythu Bandhu since its inception (2018) to 2023

There has been a total expenditure of ₹ 65,559.28 crore by the Telangana government under the initiative over the course of 10 crop seasons since the scheme was first introduced in 2018. According to the plan, all farmers who own landholdings are eligible to receive ₹ 5,000 per acre as aid throughout each crop season (Minhaz A, 2023). The investment support under the initiative will cover 1,48,23,000 acres across the state for the coming Rabi season in 2023-24. Thus far, ₹ 7,411.52 crore has been transferred into the bank accounts of 62.99 lakh farmers in Telangana as part of the government's Rabi season initiative (IANS, 2022). Approximately 55% of the budgetary allotment for agricultural and related activities was utilised for the Rythu Bandhu programme in 2021-2022 (Government of Telangana, 2024b).

The below Table 1, shows the number of beneficiaries and the amount in crores incurred to implement the Rythu Bandhu scheme from its inception to 2022-23. The amount is distributed as part of this scheme in two seasons: Vanakalam (*Khariif*) and Yasangi (*Rabi*). Vanakalam is the season from June to October, when the monsoon rains occur. Yasangi is the season from November to March, when the winter crops are grown. The total number of beneficiaries is 5,69,40,000 and the total amount is 65,603 Cr. The number of beneficiaries and the amount in crores have increased over the years for both seasons, indicating that more farmers have been gradually showing their interest in enrolment in the scheme to receive more financial support from the government. It is found that the number of beneficiaries and the amount in crores are higher for Vanakalam than for Yasangi in most of the years, except for 2019-20. This could be because more farmers grow crops in the monsoon season than in the winter season, or because the government increased the amount

per acre for Vanakalam in 2020. The number of beneficiaries and the amount in crores have decreased for Yasangi in 2019-20 compared to the previous year. This could be due to various factors, such as drought, pest infestation, crop failure, or farmers opting out of the scheme. The number of beneficiaries and the amount in crores have increased significantly for Yasangi in 2022-23 compared to the previous year. This could be because of the inclusion of new farmers' accounts, especially the Podu farmers, who own around four lakh acres of Podu lands.

The eligibility criteria for Rythu Bandhu are as follows:

The government of Telangana has issued mandates to the agriculture department and farmers about their eligibility for the Rythu Bandhu Scheme (RBS). The following parameters are included in these mandates:

- I. The farmers must be residents of Telangana state and own the agricultural land.
- II. The scheme is applicable for small and marginal farmers, including forest land cultivators with a Record of Forest Rights (ROFR) document.
- III. Commercial farmers, tenants, and those under leasing agreements are not eligible under this scheme (India filings, 2023).

Concept and construct of base policy

The evolutionary thought offers a productive way to research policies for sustainable development. It addresses the structural and adaptive aspects such as policy design, policy initiation and policy execution, which shall promote economic development of the farming community by providing investment security, reducing operational costs, promoting self-reliance. It is also compatible with the idea that consumers' and businesses' economic behaviour is more consistent with constrained than infinite rationality (Rammel and Van Den Bergh, 2003). When it comes to agriculture, policies should prioritize inclusive, comprehensive growth for welfare and raise awareness of the current state of agricultural sustainability. Empowering disadvantaged groups is also important. An integrated

Table 1: Year-wise distribution of amount and number of beneficiaries since its inception.

Season	Year	No. of beneficiaries	Amount in crores
Vanakalam	2018	50,20,000	5,238
Yasangi	2018-19	49,10,000	5,249
Vanakalam	2019	51,60,000	6,126
Yasangi	2019-20	42,40,000	4,406
Vanakalam	2020	58,00,000	7,289
Yasangi	2020-21	59,30,000	7,367
Vanakalam	2021	60,80,000	7,360
Yasangi	2021-22	63,00,000	7,413
Vanakalam	2022	65,00,000	7,435
Yasangi	2022-23	70,00,000	7,720
		N=5,69,40,000	65,603 Cr

Sources: Telangana Socioeconomic Outlook 2023, 07/12/2023.

evaluation is necessary, considering a variety of drivers and indicators that establish the goals and limitations of the relevant stakeholders (Reidsma *et al.*, 2011). Present agricultural practices not only stress the environment but also unbalance productivity and population growth. This gap needs to be filled with advantageous policies that focus on both economic and sustainable empowerment. The growth narrative, on the other hand, contends that investments in social and environmental protection are made possible by economic growth. Neoclassical growth strategies, however, deem these kinds of interventions undesirable, even if recent experience has shown a lack of systemic (Spangenberg, 2010). The neoclassical theory underscores supply and demand as pivotal factors shaping production, pricing, and consumption of goods and services. However, this approach may hinder growth. Urgent policy reevaluation is necessary. Rather than discouraging the current approach, we must empower farmers through financially sound policies that safeguard our natural resources-resources threatened by intensive agricultural practices

In Fig 1, a farmer describes the adverse health effects resulting from the use of chemical fertilizers. Chemical fertilizers, while contributing to crop production, can have negative impacts on soil health, water quality and overall environmental balance. It is essential to strike a balance between agricultural productivity and sustainable practices to minimize these effects.

A farmer from Balaji Ankoda Village of Chinthala Manepalli Mandal expressed their serious concerns about the use of synthetic fertilizers. They said, "We have seen many of our fellow farmers' health deteriorate due to the use of chemical fertilizers which have degraded and contaminated the soil and nearby water ponds. We appreciate that the government is focusing on the financial development of farmers with some exclusive policies and it is having a positive impact on the farming community. However, we urge the government to understand the current practices of farmers and educate us about sustainable agriculture practices to preserve the health of people and the environment. At the same time, we stress that we have no option to cultivate without synthetic fertilizers, because these types of chemical fertilizers can only give a satisfactory production. If the government designs effective policies that can support sound productivity and maintain environmental health, we are ready to practice the proposed one (FGS - I)".

This article delves into the Rythu Bandhu Scheme, analyzing its impact on agricultural development and alternative livelihoods. It proposes policy redesigns within the farming community to enhance effective implementation and foster sustainable practices. By empowering farmers and prioritizing environmental protection, the scheme contributes to a more resilient future.

Countering on Rythu Bandhu Scheme

The Rythu Bandhu Scheme (RBS) stands out as a pivotal policy, offering substantial support to farmers, especially the underprivileged. By easing the financial burden associated with purchasing fertilizers and other agricultural essentials, it empowers farmers. However, this well-intentioned policy has faced criticism from political circles and stakeholders. It benefits both landlords and small landowners, even those not directly involved in farming. Notably, large landholders receive compensation equivalent to smaller holdings. Despite its merits, the scheme grapples with obstacles such as mismanagement, corruption, illiteracy and bureaucratic hurdles during implementation (Sakshi and Chauhan, 2023). In the interim, there are no established standards for determining candidates' real eligibility. The primary aim of any policy objective should be the amelioration of the plight of marginalised segments of society.

In Fig 2, a farmer is narrating his story of becoming remarginalized due to soil degradation.

Ramulu, a 40-year-old postgraduate from the Koya community, one of most primitive tribes comes under



Fig 1: Photo taken by Author, at Balaji Ankoda village.

Dated: 8th August 2023. 1.55 pm.



Fig 2: Photo taken by author, at Kuntala Manepalli. Dated 8th

August 2023. 3.08pm.

Scheduled Tribes category, from Bejjur mandal assumed that, “if this kind of intensive practice persists, the soil’s fertility will decline and it will become barren in the coming years. As a result, we will not be able to grow enough crops to meet the population’s demand. This will lead to food crisis and social unrest. He also speculated that this outcome will enable the powerful elites to oppress and exploit the middle and lower classes. Eventually, the farmers’ lands will be seized by these elites and the farmers will end up as labourers on their own fields. The food supply will diminish and fail to meet the demand of the growing population. Only those who have money will survive in the future (CS - I)”.

This paper diverges from policy allocation analysis. Instead, it urges policy designers and stakeholders to envision the future. By assessing feasibility and synergizing environmental impact with food security, we can effectively pursue sustainable goals (Davis *et al.*, 2016). Our focus extends beyond mere economic empowerment. It involves bolstering our ability to enhance food production, anticipating future population growth. A crucial path toward sustaining biodiversity and human well-being lies in purposeful actions (Crist *et al.*, 2017), for preserving our ecosystem for future generation.

Why it needs to revitalize the RBS

The expanding global population not only strains the environment but also impacts economic viability. Agriculture, a vital livelihood source, consumes 70% of fresh water and contributes to 21% of greenhouse gas emissions. Sustainable Development Goals (SDGs) emphasize soil protection and future-oriented agriculture (Pasupuleti *et al.*, 2023). However, Intensive Farming Practices (IFP) have already eroded 35% of natural soil fertility (Mohapatra and Sahoo, 2023), contaminating water sources and threatening biodiversity. Urgently, strategic policies must enhance ecosystem sustainability, focusing on biodiversity and farmers’ financial resilience.

The Rythu Bandhu scheme, a Direct Benefit Transfer (DBT) programme for landowning farmers in Telangana (Minhaz, 2023) and how it can support sustainable agriculture development by adopting the recommendations from various sources. Using SAP, farmers can manage their resources in a way that is both effective and eco-friendly, without harming the soil or the environment, and ensuring long-term benefits. Industrial farming harms the environment and climate and may not last long due to expensive fertilizers (Wright *et al.*, 2012). Unsustainable farming damages the soil, the environment, and our well-being. It causes many problems such as climate change, water shortage, pollution, land loss, deforestation, less crops, animal suffering and human diseases (USDA, 2024). while productive, risks depleting nature and exacerbating future food shortages due to population growth. If left unchecked, this trajectory could force farmers to abandon their profession, losing land to corporate

entities. Such a scenario would render them landless laborers, lacking alternative skills. If the government significantly emphasizes policies that promote farmer education, invests in research, and enhances irrigation, it can lead to substantial financial improvement for farmers (Dhandhalya *et al.*, 2020). These measures would empower farmers with knowledge, improve agricultural practices and ultimately contribute to their economic well-being. To avert this potential farmer disenfranchisement, urgent action is needed. Financial support schemes and protective programs must empower and safeguard our farming community.

Revising the Rythu Bandhu Scheme: Policy recommendations

1. The scheme should be open to all landowners, from small and marginal farmers to landlords, as well as tenant farmers who share or lease the land.
2. The scheme should cover all types of cultivable land, whether dry or wet land.
3. Farmers who practice intensive farming must follow the principles of conservation agriculture, such as crops rotation for every two years, intercropping every year, tilling the soil no more than 5 inches deep (Katherasala, 2023), with traditional or mechanical tools and enriching the soil with livestock manure at the beginning of each season.
4. Every farming household must maintain a minimum number of livestock and take care of their health and welfare. Each family should own at least two bulls and one cow or buffalo.
5. Farmers must minimize the use of synthetic fertilizers and avoid herbicides and harmful pesticides altogether. Unwanted weeds should be removed manually or with traditional tools.
6. Farmers must manage crop residues properly. Burning of residues is prohibited at any time. The residues or leftovers should be incorporated into the soil. Agricultural residues play a vital role in enhancing the synthetic properties of soil (Devaraj and Isaac, 2023). It is also recommended to grow trap crops around the cultivated land, especially for dryland crops, to attract pests and diseases away from the main crop.
7. Farmers must create riparian buffer zones along the edges of their land, especially where there are water channels or slopes, to reduce soil erosion and protect water bodies. Implementing erosion control measures on farmland can significantly enhance food production (Ighodaro *et al.*, 2021) and improve the natural fertility of the soil.
8. Only the farmers who comply with the above recommendations are eligible for the benefits of Rythu Bandhu scheme.
9. The government should procure the produce from the farmers who follow the recommended process and offer them a Minimum Support Price that is 30% higher per quintal than the other crops that are not cultivated under the recommendations.

10. The government should support and encourage the farmers to use livestock and green manure in every crop season. The government should also provide subsidies to the farmers for purchasing green manure if needed (Kumar, 2023). It is recommended to stop subsidizing the purchase of synthetic fertilizers.
11. There should be a field advisory support body in every district to educate and motivate the farmers to practice sustainable agriculture. This body should also monitor the land quality, the procured produce and the actual practices of the farmers who are enrolled in the scheme.

CONCLUSION

Given the alarming global warming and soil degradation, sustainable agriculture holds paramount importance for preserving our soil for future generations and meeting the ever-growing global demand for food. To achieve this goal, governments must implement stringent policies that promote sustainable agricultural practices. Initially, these recommendations may face resistance from farmers who have become accustomed to unconditional monetary benefits. While free financial grants alone may not sufficiently motivate farmers, incorporating terms and conditions could empower their attitudes toward sustainable practices. In the context of Telangana, despite potential protests from stakeholders and political opponents, it is crucial to consider the long-term benefits of these policies. Without healthy soil, life on Earth would be unsustainable. Therefore, these seemingly challenging measures will ultimately ensure a better future for all living beings and the environment. To safeguard our environment and secure our soil for future food production, we must align our actions with the principles of nature, striking a balance between environmental conservation and human well-being. Given the current context of climate change and its consequences, these policies may be more critical than ever.

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Conflict of interest

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