

# **"From Rytu Bandhu to Women's Empowerment: Analyzing Telangana's Agricultural Policy Framework and Its Gender Impact"**

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## **Abstract:**

**This study examines Telangana's agricultural policy framework, particularly the Rytu Bandhu scheme, and its implications for women's empowerment in agriculture. Through a comprehensive analysis of policy documents, implementation data, and gender-disaggregated statistics, this research evaluates the effectiveness of direct farmer investment support schemes in addressing gender disparities in agricultural development. The study reveals that while the Rytu Bandhu scheme has provided financial assistance to 5.8 million farmers since its inception in 2018, its impact on women's economic empowerment remains limited due to structural barriers, including land ownership patterns, access to formal banking, and traditional gender roles in agriculture. The research employs both quantitative analysis of beneficiary data and qualitative assessment of policy outcomes to demonstrate that although women constitute approximately 55% of the agricultural workforce in Telangana, they receive disproportionately lower benefits from direct cash transfer schemes. The findings suggest that while Rytu Bandhu has successfully reduced rural indebtedness and increased agricultural investment, additional targeted interventions are necessary to ensure equitable participation of women farmers in agricultural development programs. This study contributes to understanding how universal agricultural policies can be enhanced through gender-sensitive design to achieve more inclusive rural development outcomes.**

**Keywords:** Rytu Bandhu scheme, women's empowerment, agricultural policy, gender equality, Telangana, direct benefit transfer, rural development, farmer welfare.

## **1. Introduction**

Agriculture remains the backbone of India's economy, employing nearly 50% of the country's workforce and contributing significantly to the GDP. Within this sector, women play a crucial role, constituting approximately 36% of the agricultural workforce nationally and up to 55% in states like Telangana (Census of India, 2011). Women farmers are still struggling to access resources, credit, and fair shares in agricultural policies because, despite their efforts, they do not have the same benefits as farmers due to barriers built on the patriarchal systems and traditional land ownership patterns.

The state of Telangana, which was formed in 2014, has become the leader in agricultural policy innovation, especially in the state flagship program, Rytu Bandhu (Agriculture Investment Support Scheme). The scheme is the first of its kind in India, being a direct investment scheme for farmers in the country, offering 5,000 rupees per acre per season to any farmer, irrespective of holding size and social status. The scheme was allocated 12,000 crores annually in the budget and aims to break the vicious cycle of rural indebtedness, as well as to boost agricultural productivity through direct cash transfers.

The importance of viewing Telangana's agricultural policy framework through a gendered lens becomes clear when it comes to understanding the specifics of the state, including particular demographic features and the

agricultural dynamics. Essentially, Telangana has more than 82 percent of its farmers as small and marginal, with around 59 percent of them having less than one hectare of land. Such a land fragmentation structure, coupled with semi-arid weather and reliance on rain that characterizes the state, poses unique risks to rural women farmers whose active engagement in agricultural work is not always formally recognized by the state. Empowerment of women in agriculture has been in various dimensions, such as the aspect of economic empowerment, referring to the access to resources and earning power of women, social empowerment, which is the capability of women to participate in the decision-making process, and, lastly, the aspect of political empowerment through representation in agricultural institutions. The Women Empowerment in Agriculture Index (WEAI), created by the International Food Policy Research Institute, offers a way to measure empowerment in five areas: resource ownership, production decision, control over income and leadership within the community, and who sets the time.

The study poses an important question regarding the literature since it explores the effectiveness of universal policies such as Rytu Bandhu on the empowerment of women. Although there is literature explaining the general successful results of direct benefit transfer programs on poverty alleviation and augmenting agricultural investment, there is little literature on the effects of direct benefit transfer programs on male and female farmers. It is imperative to conceptualize these gendered impacts to facilitate more expansive policies in agriculture, which can utilize the innovation of women to the fullest potential of agricultural growth.

The research is applicable beyond the state of Telangana since a number of other states in India are evaluating the viability of a direct farmer guarantee system. Such success can teach important lessons to other states affected by interstate conflict and can potentially aid policy-makers in other states to achieve additional development outcomes such as gender equality and poverty alleviation in rural regions.

## **2. Literature Review**

### **2.1 Theoretical Framework: Gender and Agricultural Development**

The gendered understanding of agricultural development is studied by many authors in the broad context of development economics and feminist theory. Through Bourdieu's (1970) work on the topic, Women's Role in Economic Development, the need to study how the processes of modernization affect women was harnessed, towards the marginalizing of their role in commercial farming was established. This theoretical background has been built by later scholars who have analysed the issue of gender, property rights, and agricultural productivity.

Another key theoretical lens that may be used in the analysis of women's empowerment in agriculture is related to the capability approach developed by the woman scholar, Sen (1999). Under this model, the task of empowerment is to increase the possibilities of individuals to attain what they value, including economic opportunities, political participation, and to become integrated in the social life. When translated to the agricultural landscape, this would focus not only on the availability of resources but also on the ability to make sound decisions in the fields of agriculture, income utilization, and involvement in decision-making mechanisms.

The efficiency argument pushing gender equality in agriculture, as put forward by researchers like Udry (1996) and Goldstein and Udry (2008), has shown that improving access to agricultural inputs by women would also promote their productivity. Their evidence in Ghana and Burkina Faso found that equalizing male-female access to inputs could raise yields by 6-20%, demonstrating how equal access to inputs has economic benefits in agricultural policy alternatives.

### **2.2 Direct Benefit Transfer Programs and Rural Development**

The literature on direct benefit transfer (DBT) programs is characterized by inconclusive results as far as whether it is effective in encouraging rural growth and poverty. Gentilini et al. (2020) review cash transfer program experiences around the world and suggest that, although cash transfer programs are effective in helping to reduce poverty and improve consumption patterns, their effectiveness on the productive capacity and long-term development outcomes may vary widely, based on the design and implementation contexts of programs.

Research on related programs, like the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) scheme, indicates positive results in terms of increasing the incomes of farmers and agricultural investments in India. Nonetheless, studies on this topic by Drèze & Somanchi (2021) report the issue of the accuracy of targeting and the fact that tenant farmers and agricultural workers are not included in such programs. This passing is significant in terms of determining the limitations of universal cash transfer schemes in catering to the needs of vulnerable agricultural populations such as women farmers.

### **2.3 Women's Participation in Indian Agriculture**

Studies of female contribution to Indian agriculture have produced a mixed result, which includes a high level of contribution along with the marginalization of women. The Agricultural Census of India (2015-16) states that women are 13.87 percent of all agricultural landholders, but they own only 10.3 percent of all agricultural land. This land inequality has far-reaching consequences on landless women in areas such as agricultural credit, extension services, and government programs, with such schemes basing their eligibility on land ownership.

As it has been recorded in the studies by Pattnaik et al. (2018) and Priya & Joshi (2022), feminization of agriculture is observed in various Indian states, including those of South India, due to male migration to non-agricultural jobs. This greater participation has not, however, been matched by a concurrent improvement in access to agricultural resources or the acknowledgement of women as farmers.

The gender wage gap in agricultural labour is evident in the fact that women farmers directly employed in the sector are paid 20-30 percent less when they perform the same task as their male counterparts (Mehrotra & Parida, 2017). This wage gap, along with the female concentration in the less mechanized and lower-paid agricultural classes, results in constant income differences in rural regions.

### **2.4 Agricultural Policy and Gender Inclusion in South India**

The South Indian scenario gives a significant insight into the connection between policy on agriculture and inclusion of gender. Studies by Swaminathan (2002) and Agarwal (2003) indicate how policies of land reforms and modernization of agriculture in such states as Kerala and Tamil Nadu have differentially affected both male and female farmers. Their efforts illustrate that unless gender considerations are given, seemingly harmonious agricultural policies would re-entrench the status quo in gender disparities.

The relevance of women self-help groups (SHGs) in rural development and agricultural transformation has been documented in studies, particularly in the former Andhra Pradesh region (including the present-day Telangana state). Garikipati (2008) and Deininger and Liu (2013) provide empirical evidence that increasing the participation of women in SHGs has improved their access to credit and agricultural inputs, but the importance attached to their participation in decision-making processes in households remains insignificant. The watershed development schemes initiated in the area through community-managed water development programmes of the 1990s and 2000s have valuable lessons to offer in terms of how agricultural development interventions can be crafted in such a way that they help to promote gender inclusion. Studies by Reddy et al. (2004) and Wani et al. (2008) demonstrate that when women are actively involved in program planning and implementation, these interventions achieve better outcomes in terms of natural resource management and livelihood improvement.

### **2.5 Gaps in Existing Literature**

While the existing literature provides important insights into women's participation in agriculture and the effects of cash transfer programs, several gaps remain. First, there is limited research specifically examining the gender impacts of India's newer generation of direct farmer support schemes like Rytu Bandhu. Second, most studies focus on either policy effectiveness or gender issues in isolation, rather than examining their intersection. Third, there is insufficient attention to how universal policies might have differential impacts on different categories of women farmers, particularly those who are landless, belong to marginalized communities, or are involved in different types of agricultural activities.

This study addresses these gaps by providing a comprehensive analysis of how Telangana's agricultural policy framework, particularly the Rytu Bandhu scheme, affects women's empowerment outcomes. By examining both policy design features and implementation experiences, the research contributes to understanding how

direct benefit transfer programs can be made more gender-inclusive while maintaining their efficiency and political feasibility.

### 3. Methodology

#### 3.1 Research Design

This study employs a mixed-methods approach combining quantitative analysis of secondary data with qualitative assessment of policy documents and implementation reports. The research design is structured around three main components: (1) analysis of policy frameworks and their gender-sensitivity, (2) quantitative assessment of beneficiary data and outcomes, and (3) evaluation of gender-specific impacts and empowerment outcomes.

#### 3.2 Data Sources

The research draws upon multiple data sources to ensure comprehensive coverage of the research questions:

##### Primary Data Sources:

- Government of Telangana official publications and policy documents
- Telangana State Department of Agriculture statistical reports
- Rytu Bandhu scheme implementation data from 2018 to 2024
- District-level beneficiary databases

##### Secondary Data Sources:

- Agricultural Census of India (2015-16, 2020-21)
- National Sample Survey Office (NSSO) data on employment and rural development
- Reserve Bank of India reports on agricultural credit
- Academic publications from peer-reviewed journals
- Research reports from international development organizations

#### 3.3 Analytical Framework

The analysis employs a multi-level approach examining policy impacts at the state, district, and household levels. The Women's Empowerment in Agriculture Index (WEAI) framework is adapted to assess empowerment outcomes across five dimensions:

1. Production Decisions: the role of women in farm decisions
2. Access to Resources: Access to land, livestock, and agricultural inputs. Resource Access: The ability to have control over land, livestock, and agricultural inputs
3. Income Control: Power over what agricultural income and expenditure decisions are made
4. Community Leadership: membership in agricultural bodies and established groups

#### 3.4 Limitations

A number of caveats should be discussed in the context of interpreting results. First, the data divided by gender is not very detailed as far as household data is concerned, especially in the latest years. Second, the study uses mainly secondary sources of data that cannot bear the complexity of gender relations in agricultural households. Third, the deployment of the Rytu Bandhu scheme is relatively new; therefore, long-term effects are unsustainable to evaluate outcomes in terms of women's empowerment.

### 4. Results and Analysis

#### 4.1 Overview of Telangana's Agricultural Policy Framework

The agricultural policy structure of Telangana brings about a paradigm shift in the agricultural policy development as it is based on direct farmer support and investment-driven policies in the development of the rural region. Since its establishment in 2014, the state has developed various innovative schemes, the Rytu Bandhu scheme being the most popular one.

**Table 1: Key Agricultural Schemes in Telangana (2018-2024)**

Scheme Name	Launch Year	Budget Allocation (Crores)	Target Beneficiaries	Gender-Specific Provisions
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Rytu Bandhu	2018	12,000 (annual)	5.8 million farmers	Land ownership-based eligibility
Rytu Bima	2018	2,000	All enrolled farmers	Family coverage, including spouse
Mission Kakatiya	2015	25,000	Tank-dependent farmers	Women's participation in committees
Haritha Haram	2015	5,600	All districts	SHG participation encouraged
TS-iPASS	2014	Variable	Agri-entrepreneurs	Women entrepreneur quotas

*Source: Government of Telangana, Department of Agriculture, 2024*

There are some significant policy considerations incorporated in the design of the Rytu Bandhu scheme. First, its universal coverage strategy would minimize the administrative expenses and would eradicate the errors of targeting, which usually exclude the deserving beneficiaries. Second, the direct cash transfer system will, possibly, eliminate traditional intermediaries, resulting in less corruption and better efficiency. Third, the use of incentives through investment, not input subsidies, is geared towards encouraging a farmer's independent decision-making rather than incentive taking.

Nevertheless, the fact that the scheme primarily uses land possession reports as the mode of defining eligibility poses substantial implications for gender inclusion. Given that land ownership in India is strongly biased in favor of males, with women being the owners of less than 13 percent of agricultural lands, this feature of the design implicitly curtails direct opportunities of women to access the benefits of the scheme.

#### 4.2 Beneficiary Analysis and Gender Distribution

The analysis of Rytu Bandhu beneficiary data reveals significant gender disparities in both participation and benefit distribution. As of 2024, the scheme covers 5.8 million farmer families across Telangana, but the gender breakdown of direct beneficiaries shows concerning patterns.

**Table 2: Gender Distribution of Rytu Bandhu Beneficiaries (2018-2024)**

Year	Total Beneficiaries	Male Landholders (%)	Female Landholders (%)	Joint Holdings (%)	Average Benefit per Household (₹)
2018-19	5.2 million	82.3	12.8	4.9	8,640
2019-20	5.4 million	81.7	13.1	5.2	9,120
2020-21	5.6 million	81.2	13.6	5.2	9,800
2021-22	5.7 million	80.8	14.1	5.1	10,240
2022-23	5.8 million	80.4	14.3	5.3	10,560
2023-24	5.8 million	80.1	14.6	5.3	10,800

*Source: Telangana State Agriculture Department, Compiled from District Collector Reports, 2024*

The data reveals a gradual increase in the percentage of female landholders benefiting from the scheme, from 12.8% in 2018-19 to 14.6% in 2023-24. This modest improvement can be attributed to several factors, including increased awareness about land title registration, government initiatives to encourage joint land holdings, and inheritance-related title transfers. However, the overall proportion remains significantly lower than women's actual participation in agricultural activities.

#### 4.3 Economic Impact Assessment

The economic impact of the Rytu Bandhu scheme on participating households has been substantial, with several studies documenting positive outcomes in terms of agricultural investment, crop diversification, and



debt reduction. However, the gender-disaggregated analysis reveals important differences in how male and female farmers experience these benefits.

**Table 3: Economic Impact Indicators by Gender (2023-24)**

Impact Indicator	Male-Headed Households	Female-Headed Households	Gender Gap
Average landholding size (acres)	3.2	2.1	-1.1
Annual agricultural income (₹)	1,24,800	89,600	-35,200
Investment in improved seeds (%)	67.3	52.4	-14.9
Access to formal credit (%)	58.9	41.2	-17.7
Participation in FPOs (%)	23.1	15.8	-7.3
Adoption of new technology (%)	34.6	22.1	-12.5

Source: Sample survey data compiled from District Agricultural Extension Offices, 2024

The data reveal persistent gender gaps across multiple dimensions of agricultural development. Female-headed households receive lower absolute amounts from the Rytu Bandhu scheme due to smaller average landholding sizes, with implications for their ability to make productive investments. The 28.2% gap in annual agricultural income between male and female-headed households reflects these differential access patterns to scheme benefits and other agricultural resources.

#### 4.4 Women's Empowerment Outcomes

To assess the impact of Telangana's agricultural policies on women's empowerment, this study adapts the WEAI framework to examine outcomes across five key dimensions. The analysis is based on available survey data and administrative records from the period 2020-2024.

**Table 4: Women's Empowerment Indicators in Agriculture (Telangana)**

Empowerment Dimension	2020 Baseline	2024 Current	Change	National (2024)	Average
<b>Production Decisions</b>					
Input purchase decisions (%)	34.2	41.8	+7.6	38.5	
Crop choice decisions (%)	29.6	36.4	+6.8	35.1	
Marketing decisions (%)	22.1	28.7	+6.6	26.3	
<b>Resource Access</b>					
Land ownership/control (%)	13.1	14.6	+1.5	13.9	
Access to credit (%)	36.8	44.2	+7.4	41.7	
Equipment ownership (%)	18.4	23.9	+5.5	21.2	
<b>Income Control</b>					
Control over agricultural income (%)	41.5	48.9	+7.4	45.2	
Banking access (%)	67.3	78.6	+11.3	75.1	
<b>Leadership</b>					
Membership in FPOs (%)	12.8	18.6	+5.8	16.4	
Leadership roles in committees (%)	8.2	12.1	+3.9	10.8	
<b>Time Use</b>					
Leisure time satisfaction (scale 1-5)	2.1	2.4	+0.3	2.3	

Domestic work hours (daily average)	6.8	6.2	-0.6	6.4
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*Source: Compiled from NSSO Employment-Unemployment Surveys, State Agricultural Department Records, and Academic Studies*

The empowerment analysis reveals mixed outcomes across different dimensions. While there have been improvements in several areas, particularly in access to banking services and participation in agricultural decision-making, progress remains uneven. The most significant gains have been observed in income control and resource access, areas where policy interventions like digital financial inclusion and SHG strengthening have had direct impacts.

However, the data also highlights persistent challenges. Women's land ownership rates have increased only marginally, limiting their ability to benefit from land-based schemes like Rytu Bandhu directly. Similarly, their participation in leadership roles within agricultural institutions remains low, suggesting that while economic empowerment has improved, social and political empowerment lag.

#### 4.5 District-Level Variations

This means that the effect of agricultural policies on women's empowerment is highly differentiated, as was evident in Telangana, in the districts of the state, with a range of agricultural systems, social structures, and implementation effectiveness. Analysis of district-level data presents key tendencies that can be estimated on the issue of policy effectiveness.

**Table 5: District-wise Women's Participation in Agricultural Schemes (2023-24)**

District	Female Landholders (%)	Women in FPOs (%)	SHG Coverage (%)	Agricultural Income Gap (Male-Female)
Hyderabad	18.2	24.6	89.4	22.1%
Rangareddy	16.8	21.3	85.7	26.3%
Medchal-Malkajgiri	15.9	19.8	82.1	28.9%
Warangal	14.1	17.4	78.9	31.5%
Khammam	13.8	16.2	76.3	33.2%
Karimnagar	13.5	15.8	74.6	34.8%
Nizamabad	12.9	14.7	72.8	36.1%
Mahabubnagar	12.4	13.9	71.2	37.6%
Nalgonda	11.8	13.1	69.8	39.2%
Adilabad	11.2	12.4	67.5	41.3%

*Source: District Collector Offices, Telangana State, 2024*

No counterintuitive findings are revealed at the district level of the analysis, which indicates that urban and peri-urban districts tend to score better in most of the gender inclusion indicators. This difference may be explained by the fact of the better infrastructure, increased levels of literacy, exposure to a variety of development programs, and more liberal social views toward the economic activity of women.

The higher the tribal population, the lower the level of participation of women in formal agricultural schemes, which are found in districts with high levels of women participating in the work of actual farming. This difference underscores the need to consider program design and implementation, which is culture-sensitive.

## 5. Discussion

### 5.1 Policy Design and Gender Inclusion

The agricultural policy structure of Telangana is quite strong in a few aspects, which encourage gender inclusion; however, there are limitations to it too. The universal nature of the Rytu Bandhu scheme offers a significant change to the existing targeted programs, which used to leave the vulnerable people behind most of the time because of the complexity of these programs and corruption. Nevertheless, the scheme is based on

the ownership of land as a condition, which inadvertently propagates the current gender unequal status in terms of asset ownership.

The policy design dilemmas that this study brings out are in tandem with the wider arguments of development studies concerning trade-offs between universal and targeted systems of social protection. Although universal programmes have the benefit of being politically sustainable and administratively efficient, they might not sufficiently serve to combat the unique disadvantages of marginalized groups such as women farmers.

The gradual rise in the levels of registration of females as landholders in the data points to the possibility that the scheme indeed may have provided an incentive to formalize the control of women as landholders in the family. This is, however, a slow process and apt to be put down to general social and legal elements external to the realm of direct agricultural policy.

### **5.2 Implementation Challenges and Opportunities**

The experience of the Rytu Bandhu implementation scheme points to a number of issues and opportunities that exist to advance the discourse on gender inclusion. The use of revenue records and digital platforms in delivering benefits has enhanced efficiency, but has come at the cost of generating new practices of exclusion when it comes to women with low digital literacy or no formal documentation.

Nevertheless, there is the potential to make the scheme more inclusive with integration into the existing institutional structures, especially the Self-Help Groups with their Women Farmer Producer Organizations. Districts with more established SHG networks demonstrate higher levels of SHG awareness, as well as accessibility of scheme benefits to women, which indicates that the incorporation of existing women-centric institutions may help improve policy performance.

The analysis also indicates the significance of complementary interventions in capacity-building outcomes of policies. Districts that have pursued female empowerment through capacity building, digital awareness and institutional capacity, along with the cash transfer programs, demonstrate a higher degree of empowerment and therefore, agricultural policy cannot be devised in a vacuum.

### **5.3 Broader Implications for Rural Development**

The findings of this paper have repercussions beyond agricultural policy with regard to the manner in which rural development interventions interact with gender practices. The study shows that even the best-planned general policies may impact various social groups more/less, and specifying the focus on equity and inclusion is equally important in policymaking.

These overall results of empowerment that are found in Telangana indicate that cash transfer schemes can be used to empower women, but they may only do so by intervening in the prevailing social structures and institutions. This observation is corroborated by the literature on conditional cash transfer schemes that have been established in parts of Latin America and Africa, demonstrating that economic schemes are not enough to alter gender dynamics without parallel social and institutional add-ons.

The research can also help in the field of the relationship between various aspects of empowerment. Although the key economic empowerment indicators in Telangana have improved, e.g., income control and financial access by women, their social and political empowerment indicators have not improved to the same degree. This trend indicates that empowerment is not a one-dimensional process and that efforts to influence this dynamism must focus on more than one dimension at a time in order to achieve revolutionary results.

### **5.4 Lessons for Policy Design**

The experience of Telangana presents a number of lessons when it comes to the creation of more gender-inclusive policies promoting agriculture. On the one hand, universal eligibility criteria may create less administrative cost and political opposition; however, they must be well considered because they may merely consolidate the pre-existing disparities. In the case of land-based schemes, interventions that build on the rights of women to land ought to be complementary.

Second, the extent to which digital technologies are used to deliver the programs allows efficiency and transparency gains, but in parallel, investments in digital literacy and infrastructure need to be made to increase accessibility. The increased participation rates that are recorded in the districts with better digital infrastructure indicate the significance of dealing with the digital divide.



Third, existing institutions, especially women's organizations, are important in helping to carry out the program. Not only does the correlation between SHG coverage and women's involvement in agricultural schemes support the view that one may build on the present social capital to increase policy effectiveness and cut down on implementation expenses, but it also reveals the potential strength of the SHG coverage regarding women's involvement in agricultural schemes.

Lastly, the variations that were present at the district levels indicate the need to adapt to notice the local settings and difficulties. A uniform solution will not necessarily help in covering the needs and situations of varied women farmers of various regions.

## **6. Recommendations**

### **6.1 Policy Design Modifications**

It is based on the findings of the study that one can recommend several amendments to the current agricultural policies that would improve their gender inclusion effects:

**Improvements in eligibility requirements:** The Rytu Bandhu scheme must look at relaxing the eligibility requirements by adapting them to tenant farmers, sharecroppers, and agricultural laborers. The change would significantly help women who, in most cases, engage in agriculture but are not commonly the landowners. A card system, of the type now in use in some other states, might offer a way of encompassing all these groups without seriously burdening administration.

**Gender-Responsive Budgeting:** Gender-responsive budgeting should be introduced, where the budget will take into consideration the agricultural programs by allocating funds to the specific participation levels of women and setting special aims. This would be a feature that would follow gender-disaggregated outcomes and revise program design due to the frequency of monitoring and evaluation.

**Complementary Interventions:** The state ought to introduce complementary initiatives to reduce structural impediments that restrict access of women to agricultural resources. These may include legal assistance in land titling, digital literacy training and women leadership training programs.

### **6.2 Implementation Improvements**

Several implementation enhancements can be used to improve the work of existing programs:

**Institutional Strengthening:** More investment in women farmer producer organizations (FPOs) and self-help groups would enhance women's collective bargaining power, as well as access to agricultural services. This may comprise technical and financial aid as well as capacity building schemes specially tailored to the work of women's agricultural cooperatives.

**Technology and Digital Inclusion:** Even though the utilization of digital platforms has been beneficial to program efficiency, there is still a need to target women, making sure that they can utilize digital platforms effectively. This involves mobile-based applications in regard to support of vernacular languages, a simplified user interface, and community-based assistance centers in a digital form.

**Awareness and Outreach:** Communication strategies that target specific groups need to be established to make women farmers aware of available programs and what they can get. This may mean collaboration with women's groups, local-level sensitization and training of female extension workers.

### **6.3 Monitoring and Evaluation**

New monitoring and evaluation systems have to be established to monitor and evaluate gender outcomes and hold people accountable:

**Gender-Disaggregated Data:** All programs regarding agriculture must maintain a gender-disaggregated database with which to track participation, but also indicators of outcome stuff such as income change, asset accumulation and steps towards empowerment.

**Periodic Impact Assessments:** There should be a regular impact assessment that looks at gender-differentiated impacts of agricultural policies, and also in terms of qualitative attitudes about empowerment.

**Participatory Evaluation:** Women farmers are to be included actively in the evaluation process by using a participatory research methodology, collecting their views on program performance and how to make it better.

#### **6.4 Scaling and Replication**

The experience of Telangana can show other states that are thinking of introducing similar policy innovations to agricultural policy:

**Adaptive Implementation:** Other states are expected to adapt this Rytu Bandhu model to their own scenarios/conditions by respecting their own agricultural systems dynamics, the social structures and the capabilities of their institutions. This could entail adjusting eligibility, benefits and methods of delivery, according to local circumstances.

**Pilot Testing:** Pilot testing alternative design options before implementation of universal programs should be an important consideration that a state can perform to understand the gender orientation and make the necessary adjustments to the features of a program.

**Knowledge Sharing:** Telangana needs to have forums for sharing experiences and lessons learned with other states, both the achievements and the difficulties faced in pursuing gender inclusion through agricultural policies.

#### **7. Conclusion**

This detailed overview of the agricultural policy in the State of Telangana, especially the Rytu Bandhu plan, shows the extensive character of the evolution and the continuing issues of encouraging women's empowerment in agricultural growth. Although the state has scored a significant success in launching the country's first direct farmer investment support scheme covering 5.8 million farm families, as well as ensuring that the farmers get the much-needed financial support, the gender-differentiated effects of such policies imply that the state requires more insightful policies to differentiate specific actions for the rural populace.

The results of the study show that, regardless of its administrative efficiency and political attractiveness, universal agricultural policies may end up contributing to existing gender inequalities in unintentional ways unless specific solutions are created based on in-depth knowledge of structural constraints. The landownership aspect used to identify people who can obtain the benefits has hampered the direct access of the benefits to women, as land ownership accounts for 14.6 percent of the overall beneficiaries, even though women participate significantly in the agricultural practices.

Nevertheless, the study shows positive tendencies toward the improvement of various outcomes in the empowerment of women. The case of women farmers in Telangana shows that women have made significant gains in terms of financial inclusion, agricultural decision-making, and control of income, thereby implying that less-than-perfect policy designs could still help bring change in case they are implemented in conducive institutional environments. The 11.3 percentage point improvement in the percentage of women having access to banking, the 7.4 percentage point accretion in the share of women having agricultural income control between the periods 2020 and 2024, indicates the potential of the agricultural policies in embodying the broader processes of empowerment.

The contextual conditions highlighted by the variations at the district level imply that policy effectiveness is an issue of temporal and spatial variation. Districts with higher institutional infrastructure, especially the districts with well-established Self-Help Group systems and women farmer producer organizations, have been able to yield better results in terms of gender inclusion and empowerment measures. This observation reveals the important role of extant social capital and institutional setup in the moderation of policy effects.

This paper provides relevant findings to the literature pertaining to gender and agricultural development. It outlines that the connection between economic policies and empowerment outcomes is sophisticated and channeled through a variety of factors such as social norms, institutional designs, and other corrective measures/interventions. The second is that the various aspects of empowerment can have varying degrees of success, and economic empowerment usually comes first before the social and political empowerment. Third, it emphasizes the value of flexibility of implementation, which takes into account local contexts and issues.

The policy implication of the research is that gender inclusion in agricultural development should be approached using a multi-faceted intervention that comprises both universal and targeted programs to accommodate various challenges women farmers endure. This can be done by enhancing eligibility to cover

tenant farmers and agricultural workers, empowering their institutions and action capacity, particularly of women, and taking supporting measures to overcome such structural constraints as land distribution and lack of digital literacy.

There is also the added emphasis of the study on strong monitoring and evaluation systems that measure gender-differentiated outcomes and can give feedback to programs to improve. Their trend lessens the involvement of women over time, implying that policy change might take some time to show results and that such changes ought to be maintained over an extended period.

With its forward-looking, Telangana experience of agricultural policy innovation can offer invaluable guidance to other states and nations struggling with the same problems of achieving a more inclusive rural growth. The inclination of the state to experiment with mechanisms to carry out direct benefit transfers and its investment in digital infrastructures and strengthening institutions create a basis to pursue more inclusive agricultural development.

Nevertheless, structural challenges that cut across the agricultural sector will require repetitive efforts to make significant change in the empowerment of women. These are done through legal changes that would reinforce land rights among women, social change actions to reform discriminatory norms and practices, and economic policies that would appreciate and reward women in agricultural production and rural livelihoods.

The results of the study have implications for achieving various broader development goals, including Sustainable Development Goals to promote gender equality, reduce poverty, and promote sustainable agriculture. The study has shown that agricultural policies can be an important point of intervention in empowering women, and this may succeed provided there is attention to the features of design, implementation processes, and other complementary measures.

As India further develops its agriculture industry and works to mitigate new issues on the horizon like climate change, market volatility, and technological change, the role of women farmers cannot be ignored in making sustainable and inclusive development gains. The Telangana example may present a model as well as a warning to this great initiative, that policy innovation can lead to gender equality and, at the same time, the long-standing issues still need to be addressed and recommended.

Future work should also focus on the long-term effects of these policy innovations on women's empowerment outcomes and the varying effects on different classes of women farmers, and also on the circumstances under which agricultural policies can have the most profound impact on inclusive development. Besides, comparative research across states and policy settings may be a great key to the understanding of factors that make efforts to achieve gender inclusion in agricultural development programs successful.

The pathway to women's empowerment from Rytu Bandhu is still a long process that still needs continuity of efforts by state and non-state agencies. Although much has already been achieved, in order to attain genuine inclusiveness in the development of the rural Indian agricultural sector, further innovations, adjustments, and focus on the numerous dynamics of rural inequality of gender and other factors will be needed.

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