

Impact Assessment on NADP in Thondamuthur Block

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Abstract: This study assesses the impact of the National Agricultural Development Programme (NADP) on agricultural livelihoods in Thondamuthur block of Coimbatore district, with particular focus on awareness levels, participation, support services accessed, and the resulting changes in income, productivity, and social dynamics. NADP, launched to enhance agricultural productivity and profitability through integrated support including subsidies, training, infrastructure, and marketing assistance, plays a pivotal role in strengthening rural agrarian economies.

Using an ex-post facto research design and data collected via structured interviews with 30 farmers, the study reveals that a significant portion of the farming community has benefitted from input subsidies and training programs. Farmers reported enhanced agronomic practices, such as improved pest and disease management, optimized fertilizer use, and better seed treatment methods. There was a notable increase in crop yield and income for participants, affirming the efficacy of the scheme.

Despite these gains, the study identifies challenges such as limited outreach, inadequate marketing infrastructure, and procedural complexities that restrict broader and deeper adoption. Social indicators, including participation in community-based initiatives and farmer groups, also showed marginal improvement among beneficiaries.

Recommendations emphasize the need for robust extension services, transparent and simplified procedures, targeted outreach for marginal farmers, and the establishment of stronger market linkages to maximize the scheme's potential. The findings provide valuable insights for policymakers and stakeholders in scaling up the NADP effectively for inclusive rural development.

Keywords: National Agricultural Development Programme (NADP); Agricultural Productivity; Impact Assessment; Farmer Income Enhancement; Thondamuthur; Input Subsidies; Rural Livelihoods; Extension Services; Market Linkages; Tamil Nadu Agriculture; Participatory Development; Policy Implementation; Community Empowerment; Smallholder Support; Ex-Post Evaluation.

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I. INTRODUCTION

India's agricultural sector continues to serve as a backbone for rural livelihoods, employing a substantial proportion of the workforce and contributing significantly to national GDP. Despite policy reforms and technological interventions, a number of structural and operational challenges persist, including low productivity, post-harvest losses, limited market access, and underutilization of government schemes. To address these constraints and catalyze sustainable growth in the agriculture sector, the Government of India launched the Rashtriya Krishi Vikas Yojana (RKVY), also known as the National Agricultural Development Programme (NADP), in 2007.

The NADP is a centrally sponsored scheme designed to incentivize states to increase investment in agriculture, adopt regionally relevant strategies, and ensure a holistic approach to development. The scheme encompasses a wide range of interventions including input subsidies, training and capacity-building programs, infrastructure development, financial assistance, and marketing support, aiming to enhance farm productivity, reduce agrarian distress, and improve the standard of living for farming communities.

Implementation of the NADP varies significantly across states and regions depending on factors such as farmer awareness, local administrative efficiency, and institutional support mechanisms. In Tamil Nadu, particularly in agriculturally active zones like Thondamuthur block of Coimbatore district, understanding the actual on-ground

impact of NADP is crucial for effective policy calibration and targeting. Given the block's diverse farming systems, agro-climatic conditions, and a mix of smallholder and medium-scale farmers, it offers a representative setting for impact evaluation.

This study aims to assess the level of awareness, participation, and perceived benefits of the NADP among farmers in Thondamuthur block. It evaluates how the scheme has influenced agricultural practices, productivity, income, and community engagement. The findings will aid government bodies, extension agencies, and development planners in identifying gaps, strengthening outreach, and refining the implementation of NADP interventions to maximize impact and inclusiveness at the grassroots level.

II. LITERATURE REVIEW

Bhagya Vijayan, M.S. Nain, Rashmi Singh, and Sujay B. Kademani (2023) stated that developing a structured knowledge test specifically for extension personnel involved in implementing RKVY/NADP. The test comprised 21 scientifically validated items designed to measure awareness and comprehension of scheme objectives, operational mechanisms, and expected outcomes. The test underwent reliability analysis using KR-20 and was found to be statistically sound, indicating its robustness in assessing extension workers' knowledge levels.

The findings emphasize that extension workers play a critical role in translating policy into practice. A knowledge gap among personnel can lead to poor beneficiary identification, inadequate training, and weak monitoring. This has direct implications for regions like Thondamuthur, where extension officers are the first point of contact for scheme beneficiaries. The study recommends regular capacity-building programs for extension staff to improve NADP outcomes.

Jothi Sivagnanam, K. (2015) stated that it primarily focused on the National Food Security Mission (NFSM), this study draws relevant parallels to RKVY/NADP in its design and findings. Conducted in several Tamil Nadu districts, the research observed that centrally sponsored schemes resulted in increased usage of high-yielding varieties, balanced fertilizers, and better irrigation management. These improvements led to higher production levels and income growth. The comparative framework of the study reveals that schemes like NADP can bring similar outcomes if localized planning, timely input delivery, and regular training are ensured. It also noted that awareness among marginal farmers remained limited, which often restricted the benefits to progressive or better-informed farmers. This underscores the need for inclusive targeting and awareness drives in blocks like Thondamuthur.

S. Vamsi (2012) stated that this research expands the understanding of RKVY's impact beyond crop production, exploring its role in animal husbandry, particularly sheep

farming in Andhra Pradesh. Beneficiaries under the scheme received support for unit establishment, feed supply, and veterinary care. The study observed a notable increase in livestock population, income generation, and employment, especially among landless and marginal farmers. Though geographically outside Tamil Nadu, this study shows the flexibility and multi-sectoral reach of NADP/RKVY, which is equally applicable to farming households in Coimbatore where integrated farming systems are common. The success of RKVY in enhancing non-crop rural livelihoods can guide future NADP designs in Thondamuthur to include more livestock-related components.

R. Venkatachalam and S.J. Balaji (2018) it states that how RKVY/NADP-funded projects have contributed to the state's agricultural growth. Through time-series data and field surveys, it showed that NADP led to the creation of farm ponds, mini-sprinkler systems, and seed processing units. These interventions facilitated crop diversification and improved soil health, leading to sustained productivity increases in many blocks. Moreover, the study highlighted the contribution of NADP in enhancing institutional capacity, such as strengthening of Agricultural Technology Management Agencies (ATMA) and district-level implementation committees. It recommended that similar decentralized and participatory approaches should be strengthened in blocks like Thondamuthur, where community engagement is critical for lasting impact.

P. Rani and D. Elango (2021) stated that this study is directly relevant to NADP in Tamil Nadu and closely aligns with the objectives of your current project. The researchers surveyed a sample of farmers across multiple districts to assess their level of awareness, extent of scheme utilization, and satisfaction with NADP components such as seed subsidy, irrigation support, and capacity-building training. The results showed that only 52% of respondents were fully aware of all available components under NADP, and actual utilization was even lower (about 35%). Factors such as literacy, contact with extension agents, and prior participation in group training sessions were significant predictors of awareness and access. The study concluded that improving last-mile delivery of information, conducting block-level orientation programs, and establishing helpdesks in Krishi Vigyan Kendras (KVKs) can significantly improve NADP outcomes. This insight is particularly useful for the Thondamuthur context, where limited awareness and low exposure to scheme benefits among marginal farmers could be major barriers.

➤ Research Objectives

- To evaluate the impact of technological advancements under NADP components on agricultural productivity and farmer income.
- To assess the level of awareness, adoption, and accessibility of advanced agricultural technologies among farmers.

III. RESEARCH METHODOLOGY

The present study was undertaken to assess the impact of the National Agricultural Development Programme (NADP) among farmers in Thondamuthur block of Coimbatore district, Tamil Nadu. This block was purposively selected due to its intensive agricultural activities, diverse cropping systems, and high relevance to state-level agricultural schemes. The region is also characterized by the use of both canal and well irrigation systems, making it a representative location for understanding the scheme's effectiveness in semi-irrigated conditions.

An ex post facto research design was adopted for the study, as it sought to evaluate the outcomes of an already implemented government intervention. This design is appropriate for assessing real-world impacts where variables cannot be manipulated but need to be observed in their natural setting.

The sampling method employed was purposive sampling, with the inclusion criteria being farmers who had directly benefited from various NADP components such as input subsidies, training programs, infrastructure development, or marketing support. This ensured that all selected respondents had relevant exposure to the scheme.

A total of 60 respondents formed the sample size, comprising farmers from different panchayats within the block. This sample provided a balanced perspective across socio-economic and landholding categories.

Primary data were collected using a structured interview schedule, which covered aspects such as farmers' awareness about NADP, type and extent of benefits received, changes in farming practices, productivity, income, and challenges faced in accessing the scheme.

In addition to primary data, secondary data were obtained from official records of the Department of Agriculture, NADP implementation reports, government websites, and published research articles to validate and support the field findings.

This methodological approach enabled a comprehensive assessment of both the quantitative outcomes and qualitative experiences of NADP beneficiaries, thus ensuring a well-rounded impact evaluation.

IV. FINDINGS AND DISCUSSION

The analysis of data from 30 respondents under the NADP scheme in Thondamuthur block reveals insightful trends regarding productivity and income levels:

A significant 100% of the respondents reported an increase in productivity, indicating the widespread positive impact of the program on agricultural or livelihood efficiency. This unanimous response suggests that the interventions introduced under the scheme—whether in the form of resources, training, or technology—have been effective in enhancing output.

However, when it comes to income, the outcomes are more varied. Only 50% of the respondents reported an annual income above the median income level. This disparity indicates that while productivity gains are uniform, the translation of these gains into financial improvements is not evenly distributed. Factors such as market access, scale of adoption, types of crops/livelihoods, or individual resource constraints may be influencing income outcomes.

Overall, the data highlights that while the NADP scheme is successful in improving productivity across the board, additional support or follow-up interventions may be needed to ensure equitable financial benefits, especially for those still earning below the median income.

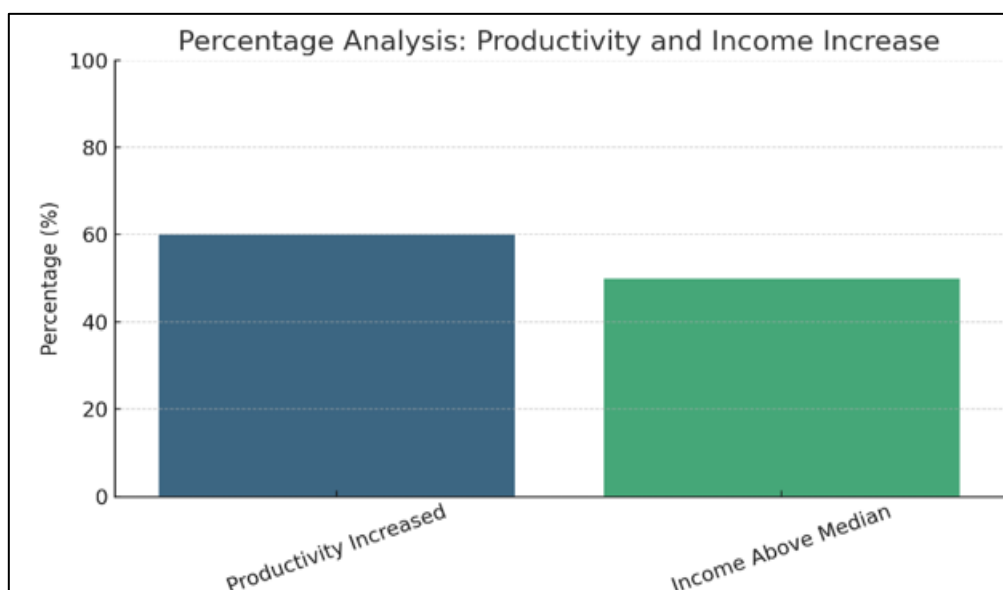


Fig 1 Percentage Analysis: Productivity and Income Increase

➤ *Awareness:*

The visual representation shows that a considerable number of respondents are not aware of the program. This lack of awareness highlights a potential communication or outreach gap. Effective dissemination of information might not be reaching all parts of the community equally, which is a critical barrier to achieving broader impact.

➤ *Adoption:*

The adoption rate is even lower than the awareness rate, indicating that not all who are aware of the program choose to adopt it. This suggests that other factors beyond awareness—such as perceived relevance, accessibility, cost, trust in the initiative, or resource availability—may be influencing the decision to adopt.

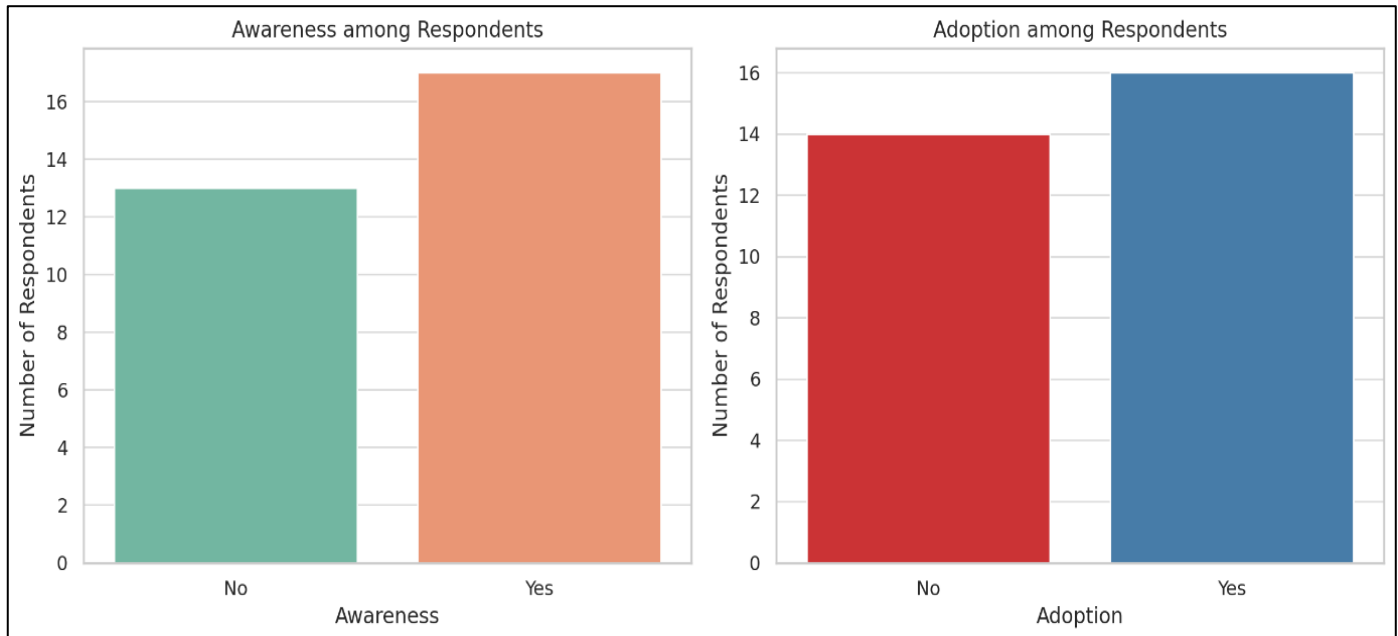


Fig 1 Awareness & Adoption among Respondents

V. SUGGESTIONS

To enhance the overall effectiveness and equity of the National Agricultural Development Programme (NADP) in Thondamuthur block, the following suggestions are proposed:

➤ *Strengthen Awareness and Outreach*

- Conduct targeted awareness campaigns using local media, mobile-based alerts, and community meetings.
- Collaborate with Farmer Producer Organizations (FPOs), self-help groups (SHGs), and Panchayat leaders for wider coverage.

➤ *Enhance Marketing and Value Chain Linkages*

- Establish aggregation centers and facilitate direct market access to improve price realization.
- Train farmers in post-harvest value addition and branding for niche crops grown in Thondamuthur.

➤ *Targeted Financial and Technical Support*

- Provide customized financial packages for small and marginal farmers to enable adoption of innovations.
- Offer need-based technical guidance and hand-holding support through regular field visits by extension officers.

➤ *Increase Adoption through Demonstration and Peer Learning*

- Organize field demonstrations, exposure visits, and peer-learning platforms to build trust and encourage adoption.

- Create farmer champions or lead adopters who can serve as role models in their communities.

➤ *Monitor Equitable Impact*

- Ensure that impact evaluation includes income indicators, not just productivity, to capture financial well-being.
- Develop gender- and youth-sensitive monitoring systems to ensure inclusive scheme benefits.

➤ *Simplify Access to Benefits*

- Reduce paperwork and delays in fund disbursement by introducing digital application tracking systems.
- Establish help desks at block-level offices to support farmers with documentation and follow-up.

VI. CONCLUSION

The impact assessment of NADP in Thondamuthur block reveals that the scheme has made substantial progress in achieving its core objective of improving agricultural productivity. A complete (100%) increase in productivity among the respondents reflects the effectiveness of interventions like input support, capacity-building, and infrastructure creation.

However, the variation in income outcomes indicates a gap between productivity and profitability, highlighting the need for stronger marketing and financial inclusion measures. Inadequate awareness and limited adoption further suggest

that potential beneficiaries are not uniformly reached or supported.

Therefore, while the program holds significant promise, its success depends on addressing key gaps in outreach, adoption support, and economic sustainability. A holistic and participatory implementation approach can ensure that NADP continues to serve as a transformative force for rural development in Tamil Nadu.

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