

Role of NABARD-funded watershed projects in Sustainable Economic Development of Rural Communities: A Review of Selected Studies

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ABSTRACT: This research explores the transformative impact of the National Bank for Agriculture and Rural Development (NABARD)-funded watershed projects in promoting sustainable economic development in rural communities. These initiatives, addressing ecological, social, and economic dimensions, strategically optimize rainfed agriculture by integrating water resource management. A case study involving NABARD and Ambuja Cement Foundation exemplifies collaborative efforts for watershed development in Himachal Pradesh. The study synthesizes diverse literature, revealing NABARD's pivotal role in rural finance and microfinance, underscoring the symbiotic link between water conservation and economic prosperity. However, the research identifies a critical gap in understanding the long-term effectiveness and challenges of integrated watershed restoration programs, calling for comprehensive evaluations to inform resilient rural development strategies amid climate change.

Keywords: NABARD, Sustainable, Rural Communities, Economic Development, Watershed Projects.

I. INTRODUCTION

In the pursuit of fostering sustainable economic development in rural communities, the role played by watershed projects funded by the National Bank for Agriculture and Rural Development (NABARD) stands as a pivotal force in transforming agrarian landscapes. These projects encapsulate a comprehensive approach, addressing not only the immediate agricultural concerns but also the broader spectrum of ecological, social, and economic dimensions inherent to rural life. NABARD, as a financial institution with a mandate to uplift rural economies, has strategically invested in watershed management initiatives to harness the potential of rainfed agriculture. The watershed projects supported by NABARD aim to optimize water resources through integrated planning and implementation. By emphasizing soil and water conservation, afforestation, and sustainable land use practices, these projects transcend mere agricultural interventions, laying the foundation for holistic rural development. The symbiotic relationship between water conservation and economic prosperity is at the heart of NABARD-funded watershed projects. By mitigating water scarcity challenges and enhancing agricultural productivity, these initiatives empower rural communities to break free from the shackles of subsistence farming. Moreover, the ripple effects extend beyond agriculture, positively impacting allied sectors such as animal husbandry and agro-processing.

1.1 Contribution to other organizations with NABARD

Ambuja Cement Foundation (ACF) joins hands with the National Bank for Agriculture and Rural Development (NABARD) for the implementation of Watershed Development projects in Mandi District of Himachal Pradesh. Owing to ACF's successful experience in the field of Watershed Development in Solan under CSR mode where ACF is implementing 9 watershed projects, NABARD has now selected the Foundation to support farmers in the Mandi region – improving their production and livelihood. Intending to promote agriculture and rural welfare, NABARD has constituted a fund called the Watershed Development Fund (WDF) for promoting innovative and feasible concepts and for the transfer of technology for enhancing production and productivity in the farming and allied sectors. The governing body has also issued operational guidelines for providing funds from WDF to ACF.



<https://www.ambujacementfoundation.org/blog/nabard-appoints-acf-for-watershed-development-in-mandi-hp>

II. METHODOLOGY

This paper is descriptive and uses qualitative and quantitative reports published by prestigious organizations specially focused on NABARD. This is a review-based study where the researcher has used articles, research papers, books, etc.

III. REVIEW OF LITERATURE

Lobo, C. (2023). Although soil is necessary for life and human civilizations, anthropogenic and climatic causes put it at risk of degradation and desertification. In India, 30% of the land is degraded and 80% is susceptible to cyclones, floods, and drought. In order to preserve and improve natural resources, integrated watershed restoration entails putting governance, management, social, and technological strategies into practice. For growth to be successful, local communities must be actively involved. In Maharashtra, the Indo-German Watershed Development Program serves as an illustration of replication and upscaling done well.

Mirza, A. Agriculture is the backbone of the Indian economy, supporting a sizable portion of the country's people. The government founded NABARD in 1982 to support the rural sector's development. It offers various institutions monitoring and refinancing. The financial initiatives for agricultural and rural development in 2020–21 funded by NABARD are examined in this study.

Reddy, V. R., et al. (2018). Due to population pressure and inadequate maintenance, India's traditional water harvesting methods have diminished, which has had an impact on the country's agricultural development and way of life. This study examines tank systems and their restoration throughout India's regions, highlighting particular strategies for bolstering and advancing them. Tank restoration has more advantages than disadvantages, and it is crucial for local communities that rehabilitation efforts be expanded nationally and state-wide. The basis for interventions should be shifting circumstances, such as groundwater development and regional climate fluctuation.

Dey, K., & Mishra, P. K. Although blended financing is a new framework in climate finance, perceived market distortion and a lack of supportive conditions make it difficult to adopt and monitor. This paper looks at a case study in Odisha, India, and finds actors have misgivings regarding the use of blended finance. On the other hand, proximity, and role complementarities can enhance blended finance mainstreaming.

Goyal, P. K. (2015). Since independence, "Growth with Social Justice" has been the goal of India's development planning. The National Bank for Agriculture and Rural Development (NABARD) was founded in 1982 to strengthen the resource basis of rural financial institutions by offering refinancing and policy planning services.

Mansuri, B. B. (2010). Poverty affects people all across the world; in India, 26.1% of people live in poverty. Despite best attempts, growth has been hampered by poor planning, poor execution, and a lack of will. A good substitute is the SHG bank linkage program from NABARD, which has a high recovery rate because of its consistent repayment plans. The biggest global movement since the 1990s has also been put into practice: microfinance.

Jain, S., & Mathur, D. (2012). The role of the National Bank for Agriculture and Rural Development in rural development is examined in this study, with particular attention paid to its creative programs and microfinance. Through an analysis of policy papers, national microfinance institutions, and literature evaluations, it examines the expansion of microfinance at the national level. Enhancing rural residents' quality of life is the study's goal.

Jayalakshmi, M., & Selvarani, K. (2014). One of the most important institutions in India is the National Bank for Agricultural and Rural Development (NABARD), which supports rural crafts, small-scale and cottage

businesses, and agriculture. To support these industries, it offers short-, medium-, and long-term financial alternatives. The assistance provided by NABARD for sustainable rural development has benefited Tamil Nadu.

Karduck, S., & Seibel, H. D. (2005). High transaction costs (TC) prevent the impoverished in low-income nations from receiving bank loans. Self-help organizations (SHGs) can act as middlemen in the financial system to reduce TC. The National Bank for Agriculture and Rural Development (NABARD) in India has connected 36,000 bank branches and cooperatives with more than a million Self-Help Groups (SHGs). Low TC for SHGs was discovered in a pilot study conducted in the state of Karnataka. Real costs of 0.62% and opportunity costs of 0.60% of loans outstanding to members were observed.

Shah, B., & Soni, R. (2022). India's economy is based mostly on agriculture, and the villages make up the nation's center. With NABARD playing a key role, banks and other financial institutions are essential to the economic growth of rural areas. Programs for microfinance are designed to support small, micro, and medium-sized businesses (SMME) and to reduce poverty. Financial programs for capital investments in agriculture and associated industries, as well as bank financing, are offered for agricultural products. Additionally, NABARD offers both short- and long-term loans for the selling, processing, and storage of agricultural products. Finding strengths and limitations might be aided by knowledge of rural finance in India and its function in the lending industry.

Anitha, J. (2020). The main goal of the National Bank for Agriculture and Rural Development (NABARD) is to support the rural economy in all of its facets. In addition to giving money to the nation's underprivileged population, the organization oversees the management and oversight of banks. For millions of rural families across the nation, NABARD has been a blessing. The purpose of this paper is to comprehend the financial actions that the NABARD has performed in rural areas.

Das, S. K. (2016). Self Help Groups (SHGs) have been recognized globally for their contribution to rural development and poverty alleviation through microfinance. However, the growth of Self-Help Groups has sparked questions about their viability. Evaluating SHGs' quality is essential to ensuring their continuous expansion. This study examines the effects of NABARD and MYRADA, two quality assessment instruments, on the development and operations of SHGs. The study makes the case for the necessity of a shared understanding of the factors influencing grade discrepancies and SHG quality assessment.

Soni, B. K., & Trivedi, J. C. (2015). The National Bank for Agriculture and Rural Development launched the Farmers' Club initiative in 1982 to raise agricultural output and cut expenses. Farmers can access the most recent methods, post-harvest handling technologies, value addition, and collective bargaining power through these unofficial forums, which are arranged by rural bank branches. The purpose of this study is to evaluate respondents' awareness and satisfaction levels while analyzing the operations, expansion, and development of Farmers' Clubs in Gujarat's Anand area.

Singh, R. P. (1993). The book examines the activities of NABARD, which was founded in 1982 to fill India's agricultural financing shortages. It goes over the goals of the government, points out its advantages and disadvantages, and talks about how important agriculture is to the US economy. The book also covers the organization, management, financing sources, terms of refinancing, distribution, role in development, and coordination of NABARD's operations.

Balooni, K., & Singh, K. (1994). A large amount of money is needed for wasteland afforestation, which is frequently out of reach for the majority of landowners. The finances of the Indian government and the state governments are inadequate, necessitating institutional credit. Individuals engaged in forestry activities can obtain refinance loans from the National Bank; nonetheless, social forestry schemes account for a mere 0.61% of approved schemes and 1.64 percent of total disbursements. Government restrictions impede the Bank's ability to provide refinance by slowing down development initiatives in the forestry sector.

Eswaran, R., & Prema, M. G. (2019). To advance and develop agriculture, small-scale enterprises, and rural crafts, the National Bank for Agriculture and Rural Development (NABARD) was founded in 1982. It addresses the precarious financial situation of farmers and is essential to the economic development of rural India. NABARD can take the lead in raising money through low-cost subsidy sources, delivery formats, and cooperation between State Governments, financial institutions, and private sector infrastructure agencies because of its expertise with the Rural Infrastructure Development Fund (RIDF).

Mukherjee, S. (2019). In this article, the advantages of JLGL over LLIL (limited liability individual lending) are examined, along with NABARD's contribution to the Financial Inclusion Initiative (FII) in India. JLGL initiatives have been effective in reaching the underprivileged, especially women, and have prompted the implementation of microcredit initiatives. With almost 11 crore families served, NABARD's Self-Help Group - Bank Linkage Programme is the biggest in the world.

Darsana, S., & Chandrakumar, A. (2017). Research conducted in the state of Kerala examined how farmers' clubs engaged in several social and economic development initiatives. The study discovered that joint liability organizations, village programs, and technology transfer initiatives had the highest participation rates. Farmers

are drawn to the clubs' cooperative approach, which also guarantees coordinated efforts, technical support, and credit connections.

Nigam, S. A. (2022). Since the 1950s, there has been a rise in the frequency and intensity of heavy precipitation events, which has affected agricultural areas and food security. In certain areas, the effects of climate change have increased agricultural droughts. Watershed projects in Karnataka, Andhra, Kerala, Jharkhand, Bihar, Maharashtra, and Tamil Nadu have been completed as part of the first phase of a three-phase project. The research assesses monetary and material accomplishments, the effects of climate change on agricultural and related industries, and community-based organizations. 2023 has been proclaimed the International Year of Millets by the UN General Assembly.

Kerr, J. M., et al. (2000). The semi-arid tropical region of India has to deal with issues including poverty, degraded resources, and low agricultural output. The goal of watershed improvement is to support rainfed agriculture, however, the benefits and costs are not evenly split. A study identifies effective participatory strategies to manage natural resources, reduce poverty, and increase agricultural productivity. The findings indicate that more collaborative projects produce better outcomes, but widespread adoption of these initiatives is still difficult.

4. Research Gap

Despite the extensive focus on various aspects of agricultural development, watershed restoration, and rural finance in India, there is a noticeable research gap in understanding the long-term effectiveness and challenges of integrated watershed restoration programs, especially in regions susceptible to climatic events. Existing studies touch upon successful cases like the Indo-German Watershed Development Program in Maharashtra, but there is limited exploration of failures, constraints, or the sustainability of such initiatives. Future research should delve into comprehensive evaluations of watershed restoration projects, considering socioeconomic, environmental, and governance factors, to guide policymakers and practitioners in designing more resilient and adaptive strategies for sustainable rural development in the face of climate change.

IV. CONCLUSION

This research underscores the transformative impact of National Bank for Agriculture and Rural Development (NABARD)-funded watershed projects on sustainable economic development in rural communities. Through a comprehensive analysis of NABARD's strategic interventions, particularly in rainfed agriculture, the study illuminates the symbiotic relationship between water conservation and economic prosperity. The collaborative efforts between NABARD and Ambuja Cement Foundation in Himachal Pradesh serve as a noteworthy example, showcasing the potential for positive outcomes in watershed development. However, the research reveals a critical gap in understanding the long-term effectiveness and challenges of integrated watershed restoration programs, emphasizing the need for comprehensive evaluations. While successful cases are acknowledged, the study calls for a deeper exploration of failures, constraints, and the sustainability of such initiatives. This gap in research, especially in regions susceptible to climatic events, prompts a call to action for future studies to delve into multifaceted evaluations. Such research can guide policymakers and practitioners in designing resilient strategies for sustainable rural development amid the challenges posed by climate change. In essence, this study positions NABARD's role as pivotal, yet underscores the importance of continuous assessment and adaptation in fostering enduring positive impacts on rural communities.

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