
Implementation of Environmental and Food Safety Criteria in New Rural Area Construction in Thien Long Commune, Binh Gia District, Lang Son Province

Nguyen Thi Bich Hanh

Faculty of Resources and Environment, University of Sciences, Thai Nguyen University, Tan Thinh Ward, Thai Nguyen City, Thai Nguyen 250000, Vietnam. <https://orcid.org/0009-0001-4895-4183>

ABSTRACT: This study examines the implementation of environmental and food safety criteria within the New Rural Development program in Thien Long Commune, a mountainous border region in Vietnam. Despite significant progress in other areas, challenges persist in meeting environmental standards, particularly in waste management and water quality. The research highlights the need for increased investment in infrastructure, capacity building, and stricter enforcement of environmental regulations. By analyzing the factors influencing the implementation of these criteria, this study provides valuable insights for policymakers and practitioners seeking to promote sustainable rural development in similar contexts.

KEYWORDS: new rural area, environment, food safety, Thien Long, Binh Gia, Lang Son

1. INTRODUCTION

Vietnam has achieved remarkable achievements in the process of economic and social development, especially in rural areas, where the new rural development program plays an important role in improving the quality of life of the people [1], [2], [3]. This program not only focuses on building infrastructure and developing the economy but also aims at protecting the environment and ensuring food safety, contributing to improving the quality of life, sustainable poverty reduction and equitable social development [4], [5]. In that context, Thien Long commune, Binh Gia district, Lang Son province, with the characteristics of a mountainous commune in the northern border area of Vietnam, is implementing the new rural development program construction program to improve the material and spiritual life of the people here [6].

However, in the process of implementing the New Rural Development Program in Thien Long, ensuring environmental and food safety criteria is always a big challenge, especially in the context of many difficulties in infrastructure and uneven public awareness of environmental protection [6]. Issues such as environmental pollution, lack of waste treatment systems, and ensuring food hygiene and safety are still pressing issues that need to be thoroughly resolved [7], [8]. Meanwhile, developing the rural economy in conjunction with environmental protection and food safety is an important factor, helping Thien Long commune move towards the goal of sustainable development and improving the quality of life for the community.

In order to meet the requirements of the New Rural Development Program, it is extremely necessary to evaluate and analyze the implementation of environmental and food safety criteria in Thien Long. This paper will focus on researching and evaluating the current implementation of these criteria, thereby proposing solutions to improve the effectiveness of program implementation, contributing to sustainable rural development and ensuring safety for the community in Thien Long commune.

2. DATABASE AND RESEARCH METHODS

2.1. Database: The paper uses data from relevant legal documents, policies of the Party and State on building new rural areas; data on natural conditions, socio-economic conditions of the locality; documents on the current status of the local environment and food safety, the statistics in these documents are the basis for making assessments of the research results.

2.2. Research methods:

Field survey method: used to collect data on natural conditions, potential natural resources, socio-economics. During the field survey, combined with observations to assess the implementation of the criteria compared to the results of data collected on the current status of the Environmental and Food Safety criteria in the commune. - Comparison method: compare with the specific criteria of the content of criterion 17 of Thien Long commune with the requirements to be achieved for the Northern Midlands and

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Mountains region in the National Criteria for New Rural Communes (Decision No. 318/QD-TTg dated March 8, 2022 of the Prime Minister).

3. RESEARCH RESULTS AND DISCUSSION

3.1. Implementation status of the New Rural Program in Thien Long commune

Implementation of Plan No. 106/KH-UBND dated March 28, 2024 of the People's Committee of Binh Gia district on the plan to implement the national target program on building new rural areas in Binh Gia district in 2024. The People's Committee of Thien Long commune has developed Plan No. 263/KH-UBND dated May 3, 2024 to implement the national target program on building new rural areas in 2024 in Thien Long commune.

Party committees, authorities, unions and socio-political organizations always pay attention to propaganda and mobilization work for people in implementing and maintaining environmental criteria in building new rural areas. Contents related to building new rural areas are disseminated and integrated at village meetings and on loudspeakers.

The Commune People's Committee coordinated with the Commune Fatherland Front Committee and mass organizations to promote propaganda work integrated at commune meetings, village meetings, regular activities of branches, directed villages, schools, and commune health stations to clean up the environment in 01 session with 1,069 participants. The results of implementing 13/19 criteria for building new rural areas in Thien Long commune by the end of June 2024 were all assessed as Achieved.

Criterion 01: Planning, assessed as achieved because the commune has a decision approving the general planning project for building new rural areas. Decision 4164/QD-UBND dated December 30, 2022 of the People's Committee of Binh Gia district on approving the project to adjust the general planning for building Thien Long commune, Binh Gia district, Lang Son province for the period 2021-2030, scale 1/10,000.

Criterion 02: Traffic, assessed as not achieved due to insufficient kilometers of solidified roads of over 80%

Criterion 03: Irrigation and natural disaster prevention, assessed as achieved due to Thien Long commune having a total of 09 irrigation works invested by the state (including 08 dams and 01 reservoir), with a canal system of 6.34 km long, currently 4.822 km have been solidified, reaching a rate of 76%.

Criterion 4. Electricity, assessed as achieved due to the electricity system (national grid, transformer station system, medium and low voltage lines, meters serving production and daily life of the people) ensuring to meet the requirements of the electricity industry. Percentage of households using electricity regularly and safely from various sources. Currently, in Thien Long commune, 603/603 households use electricity regularly and safely from various sources, reaching a rate of 100%.

Criterion 5: Schools, assessed as satisfactory because there are schools at all levels (preschool, primary, secondary) that meet the standard of level 1 facilities.

Criterion 6: Cultural facilities, assessed as unsatisfactory because 03 sanitary works at the cultural houses of Thanh Binh, Tong Noc, Na Lu villages have not been invested in construction.

Criterion 7: Rural commercial infrastructure, assessed as satisfactory because in Thien Long commune there are 27 grocery stores serving the daily essential needs of the people.

Criterion 8: Information and Communication, assessed as satisfactory because Thien Long commune has 01 Cultural Post Office in the commune, with service point number 244830, the commune has telecommunications and internet services, the commune has a radio system and loudspeaker system to the villages (6 loudspeakers/6 villages), the commune has applied information technology in management and operation.

Criterion 9: Residential housing, assessed as satisfactory because there are no temporary or dilapidated houses in the commune. In the commune, the rate of households with housing meeting the standards of the Ministry of Construction is 490/602 households, reaching 81.53%.

Criterion 10: Income, assessed as satisfactory because in 2023, the average income per capita of the commune is 42 million VND/person/year.

Criterion 11: Multidimensional poverty, assessed as unsatisfactory because according to Decision No. 761/QD-UBND dated December 13, 2023 of the People's Committee of Thien Long commune on recognizing the results of reviewing poor and near-poor households in Thien Long commune in 2024. The poverty rate in 2024 of the commune accounts for 21.9% (132/603 households).

Criterion 12: Labor, assessed as unsatisfactory due to the rate of trained workers reaching 48.01% (821/1710 people).

Criterion 13: Production organization and rural economic development, assessed as unsatisfactory due to the commune not having products with traceable origins of the commune's key products associated with the construction of raw material areas and certified by VietGAP or equivalent.

Criterion 14: Education and Training, assessed as satisfactory due to maintaining universal preschool education for 5-year-old children; universal primary education; universal lower secondary education; illiteracy eradication reaching 100%. The rate of junior high school graduates continuing to high school in 2023: 36/36 graduates reaching 100%.

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Criterion 15: Health, assessed as satisfactory due to the rate of people participating in Health Insurance 2,742/2,756 reaching 99.49%. The commune health station scored 90.5% of the total score and had no failing scores, the score in each criterion was 70% or higher. The rate of children under 5 years old, tall for age, with stunting (26/164) accounted for 15.85%. The rate of the population with electronic medical records reached over 70%.

Criterion 16: Culture, assessed as achieved because the number of villages meeting the cultural standards according to regulations in 2024 was 6/6 villages reaching 100%.

Criterion 17: Environment and food safety, assessed as not achieved due to: Regarding waste collection: Households collect and treat waste in the traditional way of burying or burning. There is no regulation planning for public green space. The commune does not have a centralized wastewater collection and treatment system. No households classify solid waste at source.

Criterion 18: Political system and legal access and criterion 19: National defense and security are not assessed within the framework of this study.

3.2. Results of implementing environmental and food safety criteria according to the National criteria for New Rural Development in the period of 2021-2025:

Indicator 17.1. Percentage of households using clean water according to standards

After reviewing the total number of households in the commune, there are 603 households, of which 603/603 households use hygienic water, reaching 100%; 02 officers have certificates of water management and operation. After taking samples and conducting tests according to national technical regulations QCVN: 02/2009/BYT, the Center for Clean Water and Rural Environmental Sanitation announced that the percentage of households using clean water in Thien Long commune, Binh Gia district is: 68.6%; The percentage of households using clean water from the centralized water supply system is 11.96%. Self-assessment: Achieved

Indicator 17.2: Rate of production - business establishments, aquaculture, craft villages that ensure environmental protection regulations (Indicator $\geq 90\%$). In the commune, there are a total of 05 production and business establishments, of which: 02/05 production and business establishments are currently temporarily suspended (including Dao Xuan Binh Gia Company Limited, Lanh Nom Company Limited), the establishments have complete environmental records according to regulations. 03/05 production and business establishments are regularly operating (including Vien Van Hien Peeled Wood Processing Facility, Ly Van Cat Peeled Wood Processing Facility, Le Van Lai Peeled Wood Processing Facility). The establishments have established environmental records according to regulations; collected and treated waste to ensure environmental hygiene; had no activities causing environmental pollution; did not receive any complaints or recommendations from the people. In addition, the commune has no craft villages. Self-assessment: Achieved

Indicator 17.3: Landscape, green-clean-beautiful, safe space; no stagnant domestic wastewater in concentrated residential areas. Regarding the wastewater drainage system: the commune does not have a centralized wastewater collection and treatment system. However, households have their own drainage ditches to ensure hygiene. Livestock wastewater: Wastewater and animal manure are collected and composted by local people to serve agricultural production. Self-assessment: Not achieved.

Indicator 17.4. Public green land in rural residential areas: Currently, the commune does not have a plan for public green land. Self-assessment: Not achieved.

Indicator 17.5. Burial and cremation in accordance with regulations and planning. Burial of the deceased is carried out in accordance with beliefs, good customs, practices, cultural traditions and modern civilized lifestyle. Not implemented in the form of cremation. Self-assessment: achieved.

Indicator 17.6: The rate of domestic solid waste and non-hazardous solid waste in the area is collected and treated according to regulations. (Target achieved $\geq 70\%$); Propagate and mobilize people to not let domestic wastewater accumulate in concentrated residential areas and collect solid waste in households and groups of households. Encourage households to collect and classify domestic waste at home and store it in suitable containers (such as: plastic buckets, plastic baskets, covered baskets, etc.) then when the weather is dry, treat difficult-to-decompose waste according to appropriate measures to ensure environmental hygiene; absolutely do not dump waste into sewers, rivers, streams, ponds and lakes, causing loss of aesthetics and environmental pollution. However, the commune does not have a centralized wastewater collection and treatment system. Self-assessment: Not achieved.

Indicator 17.7: The rate of used pesticide packaging and medical solid waste collected and treated to meet environmental protection requirements. (Target achieved 100%); The rate of used pesticide packaging and medical solid waste collected and treated to meet environmental protection requirements. In 2021, 25 pesticide packaging tanks were built in 6 villages to ensure the collection of pesticide packaging in the commune, and medical solid waste was collected and treated to meet environmental protection requirements. Self-assessment: Achieved.

Indicator 17.8: The rate of households with hygienic toilets, bathrooms, and water storage facilities that ensure 3 clean. (Target achieved $\geq 70\%$). Hygienic toilets: 507/603, accounting for 84.07%; Hygienic bathrooms: 554/603, accounting for 91.87%; Hygienic water storage equipment: 599/603, accounting for 93.33%. Self-assessment: Achieved.

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Indicator 17.11: Percentage of households classifying solid waste at source. (Target achieved $\geq 30\%$). There are no households in the commune classifying solid waste at source. Self-assessment: Not achieved.

Indicator 17.12: Percentage of plastic waste generated in the area that is collected, reused, recycled, and treated according to regulations. (Target achieved $\geq 30\%$). In the commune, plastic waste is collected by households but there are no measures to reuse, recycle, and treat according to regulations. Self-assessment: Not achieved.

The implementation of criterion No. 17 on the environment in the national target program on new rural construction and advanced new rural construction has always been of interest to Party committees, authorities, the Fatherland Front, and organizations and people. The work of propaganda and mobilization for new rural construction in general and the implementation of criterion No. 17 on the environment in particular has always been maintained political and social organizations have actively participated in propaganda and mobilization of union members and members to participate in implementing environmental criteria; awareness and action among cadres, party members and people have been raised, people have voluntarily participated in contributing working days, cash and materials to build family garbage pits, toilets, bathrooms and hygienic barns. Environmental sanitation work in the commune in recent years has had clear changes. People's awareness has been raised, the work of cleaning village roads and alleys, building green - clean - beautiful landscapes, creating landscapes in households has been paid attention to and implemented regularly, creating habits and daily lifestyles. Regularly carry out periodic environmental sanitation campaigns according to the village's conventions and village regulations and according to the commune's plan.

3.3. LIMITATIONS, SHORTCOMINGS AND SOLUTIONS

3.3.1. Limitations, shortcomings

In addition to the achieved results, the results of implementing environmental protection work show that there are still some difficulties and limitations such as:

The implementation of environmental criteria is still slow, information and propaganda work has been implemented, but the results are not high, people have not yet voluntarily participated in implementing environmental criteria in the national criteria set for new rural areas.

Regarding the implementation of resources for implementing environmental criteria, there are still limited resources. The implementation of environmental criterion No. 17 according to the motto "The State and the People work together" in the difficult economic conditions of the commune, so the results of mobilizing resources from people to participate are still limited. Local budget sources for implementing environmental criteria have not met the needs.

3.3.2. Solution

Ensure to maintain and continuously improve the quality of criteria No. 17 in the national criteria set on new rural construction. With specific implementation contents as follows:

Propaganda, mobilizing people to raise awareness in environmental protection, preserving and building landscapes in households, green-clean-beautiful residential areas, not carrying out activities that cause quality degradation and environmental pollution. Encourage and mobilize people to apply scientific and technological measures in the collection and treatment of domestic waste and livestock waste such as: building biogas pits, using biological buffer layers, collecting and treating waste properly, etc.

Strictly manage and require households and food production and trading establishments in the commune to ensure proper implementation of procedures and regulations of the law in all aspects, especially regulations on food safety and environmental hygiene.

4. CONCLUSIONS

This study aimed to assess the implementation of environmental and food safety criteria within the context of the New Rural Development program in Thien Long Commune, Lang Son Province. Our findings reveal a complex interplay of achievements and challenges in this mountainous, border region. While the commune has made significant progress in several areas, such as access to clean water and education, the implementation of environmental criteria remains a persistent challenge.

Key findings indicate a gap between the theoretical framework of the New Rural Development program and the practical realities on the ground. While the commune has made efforts to promote environmental awareness and practices, the lack of a comprehensive waste management system, inadequate infrastructure for wastewater treatment, and insufficient enforcement of environmental regulations continue to hinder progress. Moreover, the study highlights the need for a more integrated approach to rural development that considers the interconnectedness of economic, social, and environmental factors.

To address these challenges, several recommendations can be made. Firstly, there is a need for increased investment in infrastructure, particularly in relation to waste management and wastewater treatment. Secondly, targeted capacity-building programs should be implemented to enhance the knowledge and skills of local officials and communities in environmental management. Thirdly, stronger enforcement of environmental regulations is essential to deter non-compliance. Finally, there is a

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need for more research to explore the specific challenges and opportunities associated with implementing environmental and food safety criteria in mountainous, border regions.

In conclusion, this study underscores the importance of integrating environmental considerations into rural development initiatives. While Thien Long Commune has made notable strides, further efforts are required to ensure that the benefits of the New Rural Development program are sustainable and equitable. By addressing the identified challenges and adopting a more holistic approach, the commune can become a model for sustainable rural development in Vietnam.

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