

## Peran Pendidikan Dalam Meningkatkan Partisipasi Masyarakat Untuk Pelestarian Hutan Bukit Daun, Kabupaten Rejang Lebong

### The Role of Education in Enhancing Community Participation for Forest Conservation in Bukit Daun, Rejang Lebong Regency

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#### Abstrak

Penelitian ini mengkaji peran pendidikan dalam upaya pelestarian hutan di desa-desa sekitar Hutan Lindung Bukit Daun di Kabupaten Rejang Lebong, Provinsi Bengkulu. Dengan menggunakan pendekatan metode campuran yang menggabungkan survei kuantitatif dan wawancara kualitatif, penelitian ini mengevaluasi dampak program pendidikan formal dan informal terhadap kesadaran dan partisipasi masyarakat dalam pelestarian hutan. Temuan menunjukkan bahwa program pendidikan berbasis komunitas secara signifikan meningkatkan pengetahuan, sikap, dan keterlibatan masyarakat dalam upaya pelestarian. Pendidikan formal di sekolah juga berperan dalam membentuk sikap konservasi di kalangan generasi muda, meskipun efektivitasnya masih terbatas tanpa dukungan dari pendidikan berbasis komunitas. Penelitian ini merekomendasikan integrasi pendidikan lingkungan ke dalam kurikulum lokal serta penguatan kapasitas para pemangku kepentingan untuk mendukung pelestarian hutan yang berkelanjutan.

**Kata kunci:** Pendidikan, Pelestarian, Hutan, Masyarakat, Hutan Lindung

#### Abstract

*This study explores the role of education in forest conservation efforts in the villages surrounding Bukit Daun Protected Forest in Rejang Lebong Regency, Bengkulu Province. Using a mixed-methods approach that combines quantitative surveys and qualitative interviews, the research evaluates the impact of formal and informal education programs on community awareness and participation in forest conservation. The findings indicate that community-based education programs significantly enhance public knowledge, attitudes, and involvement in conservation efforts. Formal education in schools also plays a role in shaping conservation attitudes among the younger generation, although its effectiveness is only limited by the support of community-based education. This study recommends the integration of environmental education into the local curriculum and the strengthening of stakeholder capacity to support sustainable forest conservation.*

**Keywords:** Education, Conservation, Forests, Communities, Protected Forests

#### Introduction

Forest conservation in Indonesia is becoming an increasingly pressing issue, especially in areas with high levels of deforestation, such as Bengkulu Province. Bukit Daun Protected Forest, located in Rejang Lebong Regency, is one of the areas experiencing great pressure from human activities such as illegal encroachment and logging. The importance of forests for ecosystems and local communities makes forest conservation a top priority in maintaining environmental balance and the sustainability of natural resources (Hayadin & Yuniarto, 2023).

Several previous studies have shown that education effectively increases environmental awareness and motivates conservation actions (Luswaga & Nuppenau, 2020). Well-designed educational programs can deepen people's understanding of the importance of forest conservation and encourage communities to become actively involved in protecting and preserving their environment (Ridwan et al., 2020). Therefore,

this study focuses on the role of education in forest conservation in the area around Bukit Daun Protection Forest to identify effective strategies and evaluate their impacts.

The main problem in the Bukit Daun area forest conservation is the lack of community awareness and participation in conservation efforts. Many local residents are involved in activities that damage the forest because they lack an understanding of the long-term impacts of their actions. In addition, limited access to environmental information and education in villages around the forest worsens this situation. (Oktoyoki et al., 2023).

An approach that integrates education into forest conservation strategies is needed to address this issue. Formal education through schools and informal education through community-based programs can increase community awareness and involvement in conservation. The general solution proposed involves developing curricula that include material on forest conservation and training educators and stakeholders to implement these programs effectively.

Previous research has shown that community-based education effectively encourages community participation in forest conservation (Lestari et al., 2015). These programs typically involve workshops, group discussions, and field activities designed to build awareness and provide participants with practical skills. They also often involve community leaders and local leaders, who can catalyze change in their communities.

Formal education in schools also plays an important role in shaping conservation attitudes and behavior among the younger generation (Sutherland, 2017). By integrating environmental education into the school curriculum, students can learn about the importance of protecting forests and how they can contribute to conservation efforts. Schools can also serve as information centers for the wider community by holding events that educate about the importance of forest conservation.

However, the main challenge in implementing this education program is ensuring that the messages delivered are appropriate to the local context and relevant to the community's needs (Junaid et al., 2021). Therefore, it is important to involve the community in designing and implementing educational programs so that they feel ownership of the program and are more motivated to participate.

Although several studies examine education's impact on environmental conservation, research focusing on the Bukit Daun area is still very limited. A major gap in the literature is the lack of empirical data on how education can influence the attitudes and behaviors of people in this area. In addition, no study has comprehensively evaluated the effectiveness of various educational strategies in improving forest conservation in villages around the Bukit Daun Protection Forest.

This study aims to fill this gap by providing empirical data and an in-depth analysis of the role of education in forest conservation in this region. Thus, it will contribute to the scientific literature and provide practical recommendations for policymakers and conservation actors.

The main objective of this study is to evaluate the impact of formal and informal education programs on forest conservation in villages around the Bukit Daun Protection Forest, Rejang Lebong Regency. It also aims to identify the most effective education strategies for increasing community awareness and participation in conservation efforts.

The novelty of this study lies in its specific focus on the Bukit Daun area, as well as the mixed-method approach used to evaluate the impact of the education program. Thus, this study is expected to contribute significantly to developing more effective forest conservation strategies in Indonesia.

## **Research Methods**

This study was conducted in villages around the Bukit Daun Protected Forest, Rejang Lebong Regency, Bengkulu Province. Data were collected from three villages selected based on their level of participation in existing environmental education programs. The research instruments included a questionnaire for the quantitative survey and an interview guide for the qualitative study.

The research sample consisted of 150 respondents randomly selected from the three villages. Respondents included residents, community leaders, and teachers involved in forest conservation education programs. Respondents were selected based on the criteria of their involvement in environmental programs and their attendance at community activities.

This study used a survey design to collect quantitative data on community knowledge, attitudes, and behaviors related to forest conservation. The survey was conducted using a questionnaire that had been tested for validity and reliability. Qualitative data were collected through in-depth interviews with community leaders and educators to gain deeper insights into the role of education in forest conservation.

The parameters measured in this study included knowledge about forest conservation, attitudes toward the environment, participation in conservation activities, and perceptions of the effectiveness of education programs. Each parameter was measured using a five-point Likert scale and analyzed to identify trends and relationships between variables.

Quantitative data were analyzed using regression analysis to determine the relationship between education and participation in forest conservation. Chi-square tests were also used to test for differences between respondent groups based on education level and involvement in conservation programs. Qualitative data were analyzed using thematic analysis methods to identify key themes emerging from the interviews.

## Result and Discuss

The survey results showed a significant relationship between education and community participation in forest conservation. Respondents involved in environmental education programs showed a higher level of knowledge about forest conservation's importance than those not involved.

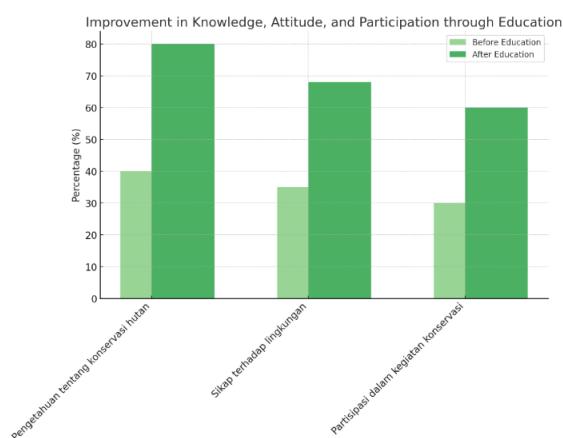


Figure 1. Improvement in Knowledge, Attitude, and Participation

Respondents with access to educational programs showed a 40% increase in knowledge compared to those without access. They could better identify protected plant and animal species and understand the negative impacts of deforestation. These results are consistent with a Study on how youth-focused citizen science programs can increase environmental science knowledge and engagement in conservation and contribute to species and habitat management through outdoor activities and hands-on learning (Ballard et al., 2017). Attitudes towards the Environment: 68% of respondents involved in educational programs showed positive attitudes towards forest conservation, compared to only 35% of those not involved. This attitude was reflected in their willingness to participate in conservation activities such as tree planting and forest patrols. This study aligns with the results of studies that explain that environmental motivation and trust in conservation programs play an important role in their participation (Greiner, 2015).

Participation in Conservation Activities: Participation in conservation activities such as tree planting and forest patrols increased by 50% among respondents who participated in environmental education. They were also more likely to participate in other environmental conservation activities, such as waste management and reducing plastic use. This study contradicts research suggesting that active participation in environmental protection activities can improve environmental behavior, but these changes are often limited to behaviors explicitly taught in the program. This study suggests that active participation may not always lead to increased conservation behavior outside the context of the program (Baur & Haase, 2015). Interviews with community leaders and educators revealed several important findings:

### Role, Effectiveness, and Involvement of Community Leaders

Role of Formal Education: Formal education in schools, although important, has limitations in addressing specific issues related to forest conservation. The existing curriculum has not fully integrated material on

forest conservation, so students do not understand the importance of protecting the environment. (Ribeiro et al., 2020).

**Effectiveness of Community-Based Education:** Community-based education programs, such as workshops and focus groups, are more effective in educating communities about forest conservation. These programs allow communities to learn from first-hand experiences and discuss issues relevant to their local context.

**Involvement of Community Leaders:** Community leaders in education programs are key to increasing community participation. Community leaders who support forest conservation can influence community attitudes and actions, encouraging them to participate actively in conservation activities. This aligns with research that suggests that community leaders play a significant role in encouraging voluntary participation through conservation education programs (Lestari et al., 2015).

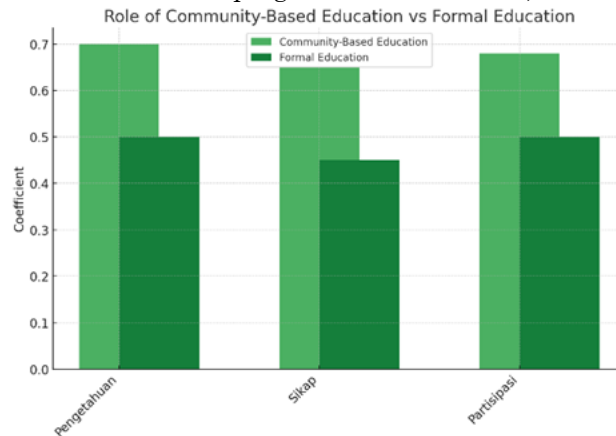


Figure 1. Role of Community-Based Education vs Formal Education

**Analisis Statistik**

**Regression Analysis:** The regression analysis results show that formal and informal education significantly impact participation in forest conservation ( $p < 0.05$ ). Community-based education has a higher coefficient than formal education, indicating that this approach is more effective in increasing community participation.

**Chi-Square Test:** The chi-square test shows significant differences between respondent groups based on education level and involvement in conservation programs ( $p < 0.01$ ). Respondents with higher education levels and greater involvement in environmental education programs showed higher levels of participation in forest conservation efforts.

**The Role of Education in Increasing Community Awareness and Participation**

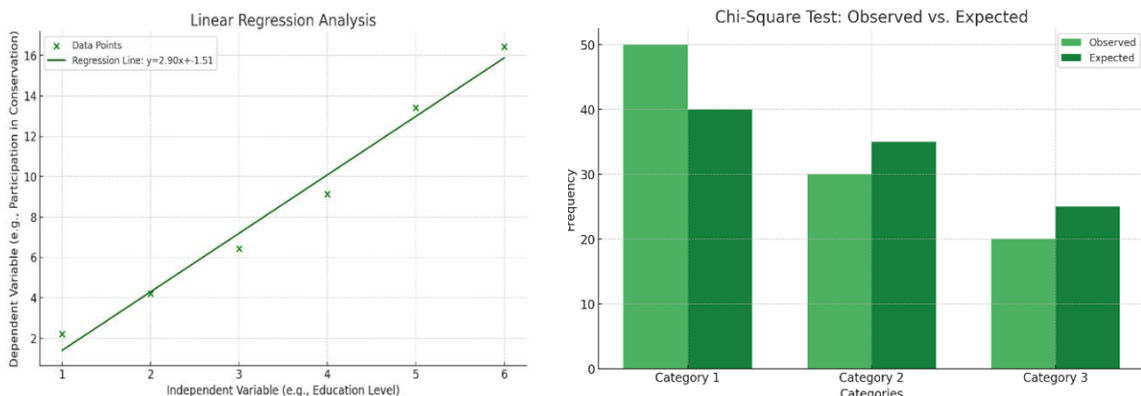


Figure 3. Statistic analysis

This study confirms the importance of education in increasing community awareness and participation in forest conservation. Educational programs designed with local context in mind can significantly increase

community knowledge about the importance of forest conservation and encourage them to be actively involved in conservation efforts.

**Effectiveness of Community-Based Education**

Community-based education is more effective than formal education in the context of forest conservation in villages around Bukit Daun Protection Forest. Community involvement in hands-on activities such as workshops and group discussions allows them to understand environmental issues more deeply and feel the impact of their actions.

**Challenges and Recommendations**

Although the results of this study indicate the success of educational programs in increasing community participation, several challenges remain, such as limited resources and the need to adapt programs to the specific needs of local communities, recommendations to improve the effectiveness of educational programs include:

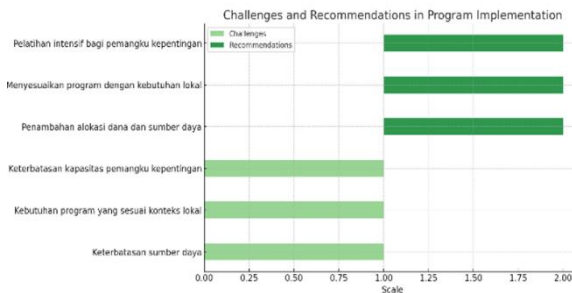


Figure 4. Challenges and Recommendations in Program Implementation

**Integration of Environmental Education into Local Curriculum:** Integrating forest conservation materials into school curricula can help shape conservation attitudes and behaviors among young people.

**Stakeholder Capacity Building:** Engaging community leaders and educators in more in-depth training on forest conservation can increase the effectiveness of education programs.

**Collaboration between Stakeholders:** Government, educational institutions, and non-governmental organizations are needed to develop and implement sustainable education strategies.

**Conclusion**

It can be concluded that education plays an important role in forest conservation efforts in villages around the Bukit Daun Protected Forest in Rejang Lebong Regency, Bengkulu Province. This study shows that education programs, both formal and informal, have a significant impact on improving community knowledge, attitudes, and participation in forest conservation activities.

Community-based education is more effective than formal education in increasing community awareness and involvement. Programs that involve the community in conservation activities, such as workshops and group discussions, can build a deeper understanding of the importance of protecting the environment.

In addition, the involvement of community leaders in education programs is also a key factor in driving successful conservation. However, challenges include limited resources and adapting education programs to the local context. Therefore, it is recommended that forest conservation materials be integrated into the local curriculum and capacity building for stakeholders to support sustainable conservation efforts. Research also states that conservation and development goals align with local community priorities. This study also shows that training and capacity building for stakeholders are key elements to increasing community participation in conservation programs and the need to adapt education programs to the local context.

This conclusion confirms that education designed for local needs can significantly contribute to environmental preservation and forest conservation efforts.

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