

Role of the Aceh Environment and Forestry Service in Forest and Land Rehabilitation in Aceh Besar Regency

Peran Dinas Lingkungan Hidup dan Kehutanan Aceh dalam Rehabilitasi Hutan dan Lahan di Kabupaten Aceh Besar

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ABSTRACT

The Aceh Environment and Forestry Service (DLHK Aceh) is a regional government agency responsible for implementing the Aceh provincial government's policies in the fields of environmental management and forestry. The authority for the rehabilitation of both production forests and protected forests, along with other related functions, has been delegated to the provincial government as the governing body for environmental and forestry affairs in the region. The main issue examined in this study is the suboptimal efforts in forest and land protection, rehabilitation, and environmental damage control. This study aims to explore and analyze the role of DLHK Aceh in forest and land rehabilitation in Aceh Besar Regency. A descriptive qualitative approach was employed, utilizing data collection techniques such as interviews, documentation, and observations. The findings indicate that DLHK Aceh has implemented forest and land rehabilitation efforts, community empowerment programs, and extension activities. These efforts include tree planting in sub-watershed areas and outside forest zones through community-based seedling programs involving forest farmer groups. Additionally, guidance and training have been provided to communities living near forests, including awareness campaigns, patrols, and extension activities. Furthermore, forest rangers and contracted forest security personnel have been deployed down to the Forest Management Plan (RPH) level.

Keyword: DLHK Aceh, forest and land rehabilitation, forest protection

ABSTRAK

Dinas Lingkungan Hidup dan Kehutanan (DLHK) Aceh adalah perangkat daerah yang merupakan unsur pelaksana Pemerintah Aceh di bidang lingkungan hidup dan kehutanan. Urusan rehabilitasi hutan produksi maupun hutan lindung atau fungsi lainnya diserahkan kepada pemerintah provinsi sebagai pemegang urusan lingkungan hidup dan kehutanan di daerah. Permasalahan dalam penelitian ini adalah belum optimalnya upaya perlindungan, rehabilitasi hutan dan lahan, serta pengendalian kerusakan lingkungan hidup. Penelitian ini bertujuan untuk mengetahui dan menganalisis peran DLHK Aceh dalam rehabilitasi hutan dan lahan di Kabupaten Aceh Besar. Penelitian ini menggunakan pendekatan kualitatif deskriptif dengan teknik pengumpulan data wawancara, dokumentasi, dan observasi. Hasil penelitian menunjukkan pelaksanaan rehabilitasi hutan lahan dan pemberdayaan masyarakat serta penyuluh DLHK Aceh telah melakukan kegiatan penanaman di daerah sub-sungai dan penanaman di luar kawasan hutan. Melalui program pembibitan masyarakat dengan melibatkan kelompok masyarakat tani hutan. Pemberian bimbingan dan pelatihan kepada masyarakat sekitar hutan telah dilakukan sosialisasi, patrol, dan

penyuluhan serta menempatkan polisi hutan dan pengamanan hutan kontrak hingga ke tingkat Rencana Pengelolaan Hutan (RPH).

Kata Kunci: DLHK Aceh, Rehabilitasi Hutan dan Lahan, Perlindungan Hutan

INTRODUCTION

Forests are one of Indonesia's natural resources, serving as fundamental capital for national development to enhance the prosperity of its people, as stated in Article 33, Paragraph (3) of the 1945 Constitution: "The earth, water, and natural resources contained therein shall be controlled by the State and utilized for the greatest prosperity of the people." Forests provide various benefits for human life, both directly and indirectly.

Law No. 41/1999 on Forestry defines forests as "an ecosystem unit in the form of an expanse of land containing biological natural resources, predominantly trees, within a natural environmental alliance, where each component is inseparable from the whole." The benefits of forests can only be realized if their existence is ensured, allowing them to function optimally. The ecological and economic functions of forests play a crucial role, provided that forest resource management is conducted sustainably (Kuuluvainen et al., 2021; Kiri et al., 2024). As an essential natural resource, forests must be properly managed to maximize their contribution to public welfare while maintaining their ecological functions and environmental sustainability. The principle of sustainability in forest management is conceptualized as a three-dimensional construct, consisting of production sustainability, ecological sustainability, and social sustainability within a single management framework (Alsaadat, 2024). The sustainability of the economic function is represented by a forest product production system that maintains stable forest resources with continuous economic and financial value growth for all stakeholders.

Ongoing deforestation has led to environmental catastrophes and disasters, resulting in significant loss of life and property, including wildfires and droughts during the dry season, as well as floods and landslides during the rainy season (Maryani, 2018). Environmental degradation occurs when an ecosystem can no longer provide benefits, while conservation efforts aim to maintain environmental integrity and prevent damage. Forest conditions, as observed through land and vegetation cover, undergo rapid and dynamic changes due to development and the passage of time. Several factors contribute to these changes, including rapid population growth, extensive development outside the forestry sector—resulting in an increased demand for land and forest products—and institutional ambiguities in forest management. These challenges are further exacerbated by illegal forest encroachment and wildfires, leading to more extensive forest destruction (Pokhrel, 2024).

To mitigate forest degradation, the Government of Aceh addresses the factors contributing to carbon emissions in the land-use sector caused by deforestation and forest degradation. Additionally, it implements forest and land rehabilitation programs aimed at restoring, repairing, and improving degraded land conditions so that they can function optimally, whether as production land, water management systems, or as components of natural protection and environmental conservation. Community participation in forest and land rehabilitation programs (RHL) fosters a collective sense of responsibility and commitment to conservation efforts (Ahmad et al., 2024).

The Government of Aceh issued Aceh Governor Regulation No. 115/2016 on the Position, Organizational Structure, Duties, Functions, and Work Procedures of the Aceh Environment and Forestry Service, which refers to Law No. 23/2014 on Regional Government. According to this regulation, the responsibility for forest protection—whether in production forests, protected forests, or areas with other designated functions—has been transferred to the provincial government, which holds jurisdiction over environmental and forestry affairs. As an operational unit of the Aceh Government in environmental and forestry matters, the Aceh Environment and Forestry Service (*Dinas Lingkungan Hidup dan Kehutanan—DLHK Aceh*) plays a crucial role in carrying out governance and development responsibilities related to forest rehabilitation and protection. The decentralization of forestry authority from district and municipal governments to

the provincial government has significantly impacted forest protection efforts, as district and municipal governments no longer have jurisdiction over conservation initiatives. Consequently, the provincial government, as the authorized entity in forest management, holds full responsibility for forest and land rehabilitation efforts in Aceh Besar District.

RESEARCH METHODS

This research employs a descriptive qualitative method, focusing on the Aceh Environment and Forestry Agency. Purposeful sampling is used to select informants based on their expertise, aligning with the principles of qualitative research, which emphasize understanding complex social phenomena through in-depth interviews and observations (Subedi, 2023). Data collection techniques include observation, interviews, and documentation, which are essential for gathering rich contextual information on the subject matter (Zaini et al., 2023; Adlini et al., 2022). Furthermore, the use of both primary and secondary data sources enhances the depth of analysis, enabling a comprehensive understanding of the mechanisms of local governance and accountability, as explored in previous studies on public policy (Huda, 2024; Rukhmana, 2021). This methodological framework is crucial for examining the role of the Aceh Environment and Forestry Agency in forest and land rehabilitation in Aceh Besar District. By employing interviews, observations, and documentation, this study aims to capture real-world dynamics and provide empirical insights into forest and land rehabilitation efforts in the region.

RESULT AND DISCUSSION

Based on the field data findings, forest and land rehabilitation efforts in Aceh Besar District, under the Aceh Environment and Forestry Service, still require significant measures to reduce critical land. This study identifies several key factors influencing forest and land rehabilitation, including data preparation and monitoring of critical land, community empowerment around forest areas, and the implementation of monitoring and evaluation mechanisms for rehabilitation efforts.

Forest and Land Rehabilitation

The Aceh Environment and Forestry Service (DLHK) plays a crucial role in the control, monitoring, and evaluation of forest and land rehabilitation in Aceh Besar District. DLHK Aceh carries out these activities in collaboration with the Krueng Aceh Protected Forest Watershed Management Center, particularly in monitoring rehabilitation efforts and compiling data on critical land. The agency follows guidelines from BPDAS Krueng Aceh in conducting these activities. Additionally, the evaluation of forest and land rehabilitation is based on requests from forest farmer community groups. Efforts to enhance control over rehabilitation initiatives include socialization and counseling programs. A proposed implementation model emphasizes greater community involvement by optimizing the role of community-based forest protection organizations (Ahmad et al., 2023).

Land and forest rehabilitation activities encompass control, monitoring, and evaluation processes. During an interview with the Head of the Forest and Land Rehabilitation Division at DLHK Aceh, the researcher obtained the following statement:

“Forest and land rehabilitation efforts undertaken by the Aceh Environment and Forestry Service (DLHK) include planting activities outside forest areas, known as the community nursery program. This program involves forest farmer community groups in accordance with the authority outlined in Minister of Home Affairs Regulation No. 90 of 2019. Monitoring of rehabilitation activities (RHL) is conducted in collaboration with the Krueng Aceh Protected Forest Watershed Management Center (BPDAS-HL), alongside the compilation of critical land data. DLHK Aceh follows the guidelines set by BPDAS-HL Krueng Aceh in these processes. The evaluation of RHL is based on requests from forest farmer community groups, typically focusing on factors such as land conditions, location, and the suitability of plant species for specific areas. Additionally, control measures for RHL include

socialization and counseling initiatives aimed at raising awareness, particularly regarding forest encroachment. However, DLHK Aceh faces limitations in controlling, monitoring, and evaluating forest and land rehabilitation due to financial constraints, as activities must be adjusted based on available funding."

Control, monitoring, and evaluation of forest and land rehabilitation are crucial not only for restoring and reducing critical land but also for minimizing soil loss and enhancing ecosystem functions and services (Eshetu et al., 2024). Furthermore, the Head of FMU Region I Aceh elaborated on this by stating that:

"Forest and land rehabilitation efforts include the provision of data on areas requiring rehabilitation, the planning and implementation of rehabilitation activities, as well as guidance, monitoring, evaluation, and coordination among relevant stakeholders. However, challenges remain, particularly in the form of low-quality planning, inadequate monitoring and evaluation, weak coordination, and budgetary constraints."

In an effort to analyze land suitability and restore the carrying capacity of watershed areas, DLHK Aceh conducts land and plant suitability assessments. Additionally, efforts to restore the carrying capacity of watershed areas include implementing forest and land rehabilitation activities in sub-watersheds.

The key dimensions of forest and land rehabilitation indicate that DLHK Aceh has undertaken various measures, including monitoring and evaluating rehabilitation efforts based on requests from forest farmer community groups, implementing control measures such as socialization and counseling, conducting land and plant suitability analyses, and carrying out rehabilitation activities in sub-watersheds.

However, several challenges persist in land and forest rehabilitation efforts. These include inadequate planning, weak monitoring, evaluation, and coordination, as well as budgetary constraints. Additionally, unclear roles and responsibilities between central and local government agencies often result in differing interpretations of policies and actions. Furthermore, the community's low sense of ownership over surrounding forests and landscapes diminishes their commitment to protecting forest ecosystems and biodiversity (Haze, 2024).

Community Empowerment and Extension Workers

Community empowerment serves as a strategic approach to enhancing the well-being of communities living around forest areas. Through empowerment, community involvement can be strengthened at various stages of the process, ensuring that they play an active role in forest conservation and rehabilitation efforts. Effective guidance and support are essential to maximize the impact of these initiatives and ensure that local communities become more self-sufficient and engaged in sustainable forest management. As highlighted in an interview with the Head of the Forest and Land Rehabilitation Division of DLHK Aceh, they stated that:

"The Aceh Environment and Forestry Service supports the empowerment of forest-adjacent communities by facilitating the development of forest farmer community groups. These initiatives include providing plant seeds, as well as offering counseling and training on planting techniques."

Further elaborating on this, the Head of FMU Region I Aceh stated:

"To strengthen community empowerment, the Aceh Region I Management Unit focuses on enhancing the capacity of forest communities by improving their understanding of forest benefits and the importance of sustainability. This is achieved through targeted training programs and strategic engagement with local communities."

Based on research conducted by DLHK Aceh, community empowerment and counseling initiatives have provided significant guidance in fostering the empowerment of communities residing near forest areas. The Aceh Environment and Forestry Service implements these

initiatives by supporting forest farmer groups through the provision of plant seeds, counseling sessions, and training on planting techniques. The primary strategy focuses on enhancing skills, knowledge, and attitudes to build community capacity, which is expected to have a positive impact on community empowerment (Whulandary et al., 2024).

To further improve the welfare of the communities involved, DLHK Aceh has integrated them into forest and land rehabilitation efforts. This includes direct participation in planting and maintenance activities, ensuring that local communities play an active role in sustaining forest ecosystems while benefiting from these initiatives (Ahmad et al., 2023). As part of this research, the Head of the Forest and Land Rehabilitation Division of DLHK Aceh elaborated on these efforts, stating:

"In efforts to improve the welfare of the fostered community, DLHK Aceh, in accordance with its authority, focuses on areas outside the forest zone. This is achieved by directly involving the community in the planting of Forest and Land Rehabilitation (RHL) plants. In addition to participating in the planting process, community members are also engaged in the maintenance of these rehabilitated forest and land areas."

Forestry extension aims to enhance knowledge and skills while fostering changes in community attitudes and behavior, enabling them to actively support development initiatives. The ultimate goal of forestry extension is to establish a self-sufficient community that contributes to sustainable forestry development. The activities within forestry extension are directly related to advancing forestry initiatives. The potential for community empowerment in environmental conservation practices can be maximized through several stages: identifying empowerment potential, planning and organizing, implementing activities, and disseminating results and experiences (Pratama et al., 2024). As the researcher interviewed the Head of the Forest and Land Rehabilitation Division of DLHK Aceh, they stated that:

"In an effort to raise awareness and improve public perception of forests, DLHK Aceh focuses on enhancing the capacity of forestry extension workers through training and internships. Additionally, forestry extension workers are strategically placed in all FMUs to disseminate information about the Aceh Environment and Forestry Service's programs, thereby increasing public awareness and understanding of forest conservation."

The Head of FMU Region I Aceh further emphasized:

"One of the key factors in forest conservation efforts is increasing public awareness, improving perceptions of forests, and strengthening the capacity of extension workers. The role of extension workers remains crucial and requires further enhancement, both in terms of personnel numbers and human resource capacity. Extension workers must be equipped to offer solutions that improve community welfare by facilitating access to sustainable forest utilization."

Based on the research findings, DLHK Aceh has made significant efforts in community empowerment and counselling by increasing public awareness and perceptions of forests, as well as enhancing the capacity of forestry extension workers. To effectively promote environmental protection, forestry extension workers must strengthen their communication skills, expand social networks, and develop environmental competencies (Pratama et al., 2024). These efforts include providing training and internships for forestry extension workers and strategically placing them in all FMUs. The key conclusions regarding community empowerment and forestry extension workers highlight that DLHK Aceh has: *provided guidance and plant seeds to forest farmer groups, conducted counselling and training on planting methods, involved communities in planting and maintaining forest and land rehabilitation plants, and offered training and internships to forestry extension workers.*

The implementation of land and forest rehabilitation policies must emphasize collaboration with stakeholders, actively involve local communities, and ensure their participation. Such an

approach can slow the expansion of critical land in protected forests, thereby promoting the principles of sustainable forest management and community well-being (Ahmad et al., 2024). Furthermore, community development efforts and the role of extension workers in forest rehabilitation must be closely integrated. Without proper community development initiatives led by extension workers, the success of land and forest rehabilitation programs cannot be achieved as expected.

CONCLUSION

Based on the results and discussion, it can be concluded that the Aceh Environment and Forestry Service (DLHK Aceh) has actively carried out its role in forest and land rehabilitation. This has been achieved through planting activities in sub-watersheds and outside forest areas, particularly via the community nursery program, which involves forest farmer community groups. However, DLHK Aceh's forest and land rehabilitation efforts are limited to areas outside protected forests, as the authority for rehabilitation within protected forest areas falls under BPDAS Krueng Aceh. In terms of community empowerment and extension services, DLHK Aceh has implemented coaching and training programs while actively involving forest communities in planting and maintaining forest and land rehabilitation plants. These efforts contribute to fostering environmental awareness and strengthening community participation in sustainable forest management.

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