

ANALYSIS OF THE COMMUNITY-BASED EMPOWERMENT PROCESS IN MANGROVE ECOTOURISM MANAGEMENT IN TELUK SEMANTING TOURISM VILLAGE

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ABSTRACT

In Indonesia, Community-based ecotourism has been widely promoted as a way link mangrove conservation with the economic resilience of coastal communities. This study explores how empowerment was carried out in the management of mangrove ecotourism in Teluk Semanting Tourism Village, East Kalimantan, where most residents rely on fisheries and forest product. The research applied a participatory approach, with data obtained through field observations, semi-structured interviews with local leader and woman's groups, focus group discussions involving different generations, and reviews of village records. The data were then analyzed using Miles and Huberman's interactive model of reduction, display, and verification. The results show that in the preparation stage, initial reluctance among residents was gradually reduced through free, Prior, and informed Consent (FPIC), which helped to build trust. In the assessment stage, residents pointed to the ecological richness of the mangroves but also described persistent obstacles such as dependence on middlemen and difficulties in obtaining start-up capital. Through participatory planning, the community co-designed an action plan that encouraged stronger ownership. During implementation and evaluation, women became central in developing MSME products, though challenges underline that local empowerment needs to be supported by broader policy and institutional backing to ensure long-term sustainability.

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INTRODUCTIONS

Sustainable development is a global target that emphasizes economic, social, and environmental aspects. In this case, of course, community empowerment is an important strategy in increasing the socio-economic capacity of villagers without damaging natural resources. Empowerment requires the active participation of the community in the development process, from planning to evaluation (Helena Thatcher, et al 2018). In line with the participatory development approach that is now widely adopted in village development, including in the management of natural potential.

The Government of Indonesia has also made community empowerment a priority through various policies. Judging from Law Number 32 of 2009 concerning Environmental Protection and Management which is a legal milestone in maintaining environmental sustainability. Meanwhile, Law Number 3 of 2024 concerning villages, which emphasizes the importance of community involvement in sustainable village development, especially in managing the potential of

local resources to realize common prosperity. One of the growing approaches is the development of community-based ecotourism, which is not only able to increase local economic growth but also contribute to the conservation of natural resources. Community-based ecotourism is a more specific form of ecotourism and as a tool to realize sustainable tourism development (Lelloltery et al., 2020). Tourism itself is one of the potential objects that has succeeded in increasing state revenue, even its development in Indonesia has touched to the foreign level (Salman, 2022).

Ecotourism is an alternative form of tourism that focuses on aspects of nature conservation, improving the welfare of local communities, and environmentally friendly tourism experiences. Ecotourism needs to be managed with the principle of sustainability, which is able to maintain the integrity of the ecosystem while providing economic and social benefits for the local community (Kayupa et al., 2025). Therefore, ecotourism management not only requires potential natural resources, but also from adequate social and institutional capacity at the local level.

Berau Regency, East Kalimantan, is one of the areas that has great potential in developing ecotourism, especially mangrove ecotourism. This area has an area of about 80,277 hectares of mangrove forest, making it the largest mangrove area in East Kalimantan. Mangroves are a variety of tropical coastal communities dominated by several species of distinctive trees or shrubs that have the ability to grow in salty waters (Joandani et al., 2019). Mangrove ecosystems play important ecological roles, such as protecting coastlines, resisting abrasion, preventing seawater, as well as spawning and rearing various types of marine life. In addition, mangroves also have an economic function as a source of household and industrial raw materials, as well as environmental services that support fisheries and tourism (Nanlohy & Masniar, 2020).

However, the mangrove ecosystem in Berau faces various serious threats, such as land conversion into settlements and ponds, pollution, and illegal logging. Mangrove management must pay attention to ecological and socio-economic issues, institutions, legal tools, and planned implementation strategies. Therefore, community involvement as the main actor is crucial, considering that coastal communities are highly dependent on the existence of mangrove ecosystems in daily life.

Tanjung Batu mangrove forest is part of the mangrove forest on the coast of Berau Regency, geographically this area is located in a very strategic location, located on the main mainland of Kalimantan which is a gateway or transit point for tourists who want to go to marine tourism objects that have been famous in the Derawan Islands, such as Derawan Island, Kakaban Island, Sangalaki Island, Semama Island, and Maratua Island (Mukhlisi, 2018).

Teluk Semanting Tourism Village in Derawan Island District, Berau Regency, East Kalimantan, is an example of a coastal area that has great potential in the development of mangrove ecotourism. The mangrove area that is still maintained and high biodiversity is the main attraction for tourists as well as a source of environmental education. Village area 99.96 km² It has high biodiversity, including 26 species of mangrove plants, 55 species of birds, and 27 species of mammals, some of which are classified as rare and protected (FLIM, 2017). Community empowerment has emerged as a fundamental pillar in building sustainability, with an emphasis on inclusivity, participation, and alignment with local aspirations (Mustanir et al., 2025). Empowerment by utilizing local potential is an effort to increase the capacity of the community so that they can utilize the surrounding resources into products with economic value (Mustangin, 2020). Therefore, the management of mangrove ecotourism is aimed not only at preserving the environment, but also at encouraging the economic independence of the community.

The people in this village use the mangrove ecosystem to meet their daily needs, both through fisheries, processing seafood, and tourism activities. Apart from being an educational and conservative tourist attraction, mangrove ecotourism in Semanting Bay has also begun to be used to encourage local entrepreneurship, such as souvenir products based on forest and marine products. The Berau Regency Government itself has made various efforts to support the preservation of mangroves, including the preparation of Coastal Strategic Plans (Renstra), the determination of conservation areas, rehabilitation programs, and community involvement through NGOs (non-governmental organizations) or local communities. This shows the importance of integrity between environmental conservation and strengthening the community-based local economy.

Although there are still big challenges. Most of the people of Teluk Semanting still depend on the needs of life from marine catches and the sale of raw materials to collectors with low economic value. The capacity of MSMEs (micro, small and medium enterprises) in processing marine products and mangroves is still limited in terms of skills, market access, and capital. This condition makes it difficult for people to be independent and vulnerable to changes in the market and ecosystem. Although ecotourism has been introduced, there are doubts among residents regarding the real benefits obtained. This raises the question of whether the involvement of the community so far is only symbolic, or whether they play an active role in all stages of ecotourism development.

Previous studies on mangrove ecotourism in Berau Regency are still mostly focused on aspects of natural resource potential or short-term economic impacts, while studies on the community-based empowerment process as a whole are still limited. In fact, according to Afriansyah (2023), the success of empowerment is highly determined by how each stage is carried out, starting from preparation, review, planning, formalization, implementation, evaluation to termination.

In fact, according to Afriansyah (2023), the success of empowerment highly determined by how each stage is carried out, starting from preparation, review, planning, formalization, implementation, evaluation to termination. Therefore, this research not only highlights the final results of empowerment, but also analyzes the dynamic processes that occur in society. By understanding each stage, it can be seen to the extent that citizen participation, strengthening local institutions, and increasing economic capacity can be realized in the management of mangrove ecotourism. This analysis is expect to answer the research gap while providing a comprehensive overview of the effectiveness of community-based community empowerment in realizing the independence of the Semanting Bay Tourism Village in a sustainable manner.

The success of community empowerment is not only determined by the final outcomes such as increased income or the establishment of local institutions, but also by now the empowerment process is carroed out step by step. According to Afriansyah (2023), the empowerment process consists of seven crucial stages, namely preparation, assessment, alternative, program planning, action plan formulation, implementation, evalution, and termination. However, previous studies on mangrove ecotourism in Berau have mostly emphasized natural resource potential or short-term economic impacts, without comprehensively describing the dynamics of the empowerment process itself. Therefore, this study focuses on analyzing the empowerment process in Teluk Semanting by examining those stages, in order to reval the extent of community participation, institutional strengthening, and economic as well as ecological independence in managing sustainable mangrove ecotourism.

Without a comprehensive and participatory empowerment process, there is a risk that community involvement will remain symbolic, resulting in weak instituonal capacity and limited program sustainability (Sarjiyanto et al., 2022). Effective empowerment of the community, rather than imposed through top-down interventions (Mustangin, Iqbal, et al., 2021). Thus, by analyzing empowerment not only from its results but also from its ongoing processes, this study aims to provide a more holistic understanding of how mangrove ecotourism in Teluk Semanting can genuinely foster both socio-economic resilience and ecological conservation.

METHOD

This study uses a qualitative approach with a case study design to analyze the process of community empowerment in the development of community-based mangrove ecotourism in Teluk Semanting Village. The qualitative approach was chosen because this research aims to deeply understand social processes and the role of local actors in empowerment activities that are adaptive to local conditions and reflect the complexity of social realities.

1. Types of Research

This type of research is a qualitative descriptive research that aims to describe in detail and depth the process of community empowerment in managing and developing mangrove-based ecotourism. This research emphasizes understanding the processes that occur in the field, including citizen participation, the formation of local institutions, and interactions between stakeholders in supporting ecotourism sustainability.

2. Location and Research Subject

This research was carried out in Teluk Semanting Tourism Village, Derawan Island District, Berau Regency, East Kalimantan. Teluk Semanting Village is one of the villages downstream of Berau Regency. The location was chosen because it is on the coast, making this village famous for its abundant mangrove forests and marine products. In addition, Teluk Semanting Village is one of the coastal areas that has great potential in the development of mangrove tourism and has made various empowerment efforts through ecotourism activities. The subjects in this study include: (1). Representatives of the *Tim Pengelola Mangrove* (TPM, Mangrove Management Team): are community groups tasked with managing mangrove areas as well as field implementers in ecotourism programs, (2). MSME (micro, small and medium enterprises) actors: utilizing mangrove forest products and surrounding marine products as basic materials for processed products, and (3). Leaders of initiators or facilitators of ecotourism programs who have important information related to their background, objectives, and empowerment strategies carried out as well as forms of cooperation between stakeholders.

3. Data Collection Techniques

Data collection in this study was carried out through several techniques, namely: (1) Observation: observation was carried out to see firsthand the location and process of ecotourism activities as well as the dynamics of community empowerment that occurred. This observation focuses on how residents are involved in mangrove tourism activities and how communities carry out institutional functions independently. (2). Interviews: conducted with various parties in ecotourism development, namely: interviews with TPM chairmen, MSME actors, and facilitators. (3) Documentation: the documentation used in this study.

4. Data Analysis:

Data obtained from observations, interviews, and documentation were analyzed using the Miles and Huberman model which consisted of three stages, namely: (1) Data reduction: filtering and summarizing raw data from the field relevant to the focus of the research. (2) Data presentation: Organize data into narratives, tables, and thematic categories to facilitate understanding. (3). Conclusion drawer: interpret the pattern of findings to answer the formulation of the problem and achieve the research objectives.

Data obtained from observations, interviews, and documentations were analyzed using the Miles and Huberman model which consisted of three stages, namely (1) Data reduction, (2) Data display, and (3) Conclusion drawing and verification.

In this study, data reduction was carried out by coding interview transcripts and observation notes into several preliminary categories, such as “community participation,” “institutional strengthening,” “women’s involvement,” and “economic challenges of MSMEs.” These codes were then grouped into broader themes aligned with the seven stages of empowerment. For example, statements from MSME actors about difficulties in marketing were coded under “economic challenges,” while interviews with TPM leaders about village meetings were coded under “participatory planning.”

At the data display stage, the coded information was organized into thematic matrices and narrative tables that compared perspectives from different stakeholders (e.g. TPM members, women’s MSME groups, and village officials). This helped to identify patterns such as similarities and differences in perception regarding the benefits of mangrove ecotourism, as well institutional challenges faced during the empowerment process.

Finally, in the conclusion drawing and verification stage, the emerging themes were cross-checked through triangulation between interview results, observation notes, and supporting documents. For instance, the theme of “women’s active role” was confirmed both through interview data with MSME members and through field observation of their direct involvement in mangrove product processing. This iterative process ensured that the findings were credible, valid, and accurately reflected the empowerment dynamics in Teluk Semanting.

RESULT AND DISCUSSIONS

This research is compiled based on the stages of community empowerment as stated by Afriansyah (2023) in the book *Community Empowerment*, which includes seven sequential processes: preparation, review, alternative program planning, performance of action plans, program implementation, evaluation, and termination. The following is a description of each of these stages.

Preparation

The preparation stage is the starting point of the empowerment process in the management of mangrove ecotourism in Semanting Bay. Based on interviews, the preparation stage for community empowerment in the management of mangrove ecotourism in Semanting Bay has actually taken root since 2017, when the community began to receive initial assistance in maintaining the mangrove area. In this period, the initial idea of using mangroves emerged not only for ecological protection, but also as a community-based tourism opportunity.

At this stage, the *Konservasi Alam Nusantara* (YKAN, Nusantara Nature Conservation Foundation) through the Aksi Inspirasi Warga Untuk Perubahan (SIGAP, Citizen Inspiration Action for Change) program began initial socialization on the importance of mangrove conservation and the potential for ecotourism development. Since 2020, YKAN has also conducted regular mangrove carbon measurements. Perisai Alam Borneo played a role in facilitating village deliberations and preparing the initial structure of the TPM. Then, the process will strengthen in 2022 from the shield association with SIGAP facilitators to coordinate more intensively (Borneo Nature Shield, 2023). At this stage, a series of important activities were carried out in the form of team preparation, coordination of the parties, and socialization of activity plans to the community. Socialization is carried out through the PADIATAPA (Consent on the Basis of Prior

Information Without Coercion) or FPIC (free, prior and informed consent) to ensure that citizen participation is voluntary and not coercive.

The initial meeting in the village was attended by several elements of the community, including the village government, *Badan Permusyawaratan Kampung* (BPK, the Village Consultative Body), community leaders, religious leaders, *Lembaga Pemberdayaan Masyarakat* (LPM, Community Empowerment Institutions), youth, MSME/women actors and fishermen's groups. Although at first not all residents were enthusiastic and many even refused, but after explaining about the increase in household income, the market potential of marine products, and the long-term ecological benefits, slowly community support began to grow.

This initial reluctance is a common phenomenon in empowerment programs. Communities often hesitate to engage actively when they lack information or have experienced top-down projects that did not benefit them directly. As Sarjiyanto et al., (2022) point out, meaningful participation requires time and trust-building, not just one-off meetings. In this case, the FPIC mechanism played a key role in reducing community doubts by ensuring that decisions were made transparently and without coercion. This approach aligns with Utomo & Pulungan (2023), who argue that successful community-based tourism must begin with genuine local ownership.

To strengthen capacity, initial training was carried out at the end of 2022 to early 2023 with participants representing MSME groups, TPM, youth, and fishermen. The training material includes an introduction to the ecological function of mangroves, the concept of sustainable tourism, and the processing of products based on marine and mangrove products. In addition, an initial institutional baseline assessment and participatory mapping of commodity potential around the mangrove area was also carried out, and included the values of the mangrove ecosystem with aesthetic value, areas prone to abrasion, and the potential for marine products to be developed into superior products.

The results of this series of activities are:

1. The formation of the initial structure (TPM) as the driving force of the program.
2. The preparation of FPIC agreement documents that mark citizens' approval of the program.
3. The existence of a map of local commoditative potential as a follow-up plan.
4. The initial commitment of the village government to provide support for the use of mangrove areas.

The preparatory stage shows that the empowerment process in Teluk Semanting does not start with top-down interventions, but through participatory mechanisms, mutual agreements, and strengthening from the beginning. This is in line with the principle of community-based tourism which places the community as the main actor in participatory and sustainable natural resource management (Utomo & Pulungan, 2023). The active involvement of the surrounding community is very important in encouraging and supporting the implementation of the program, so that the policies made reflect the needs and aspirations of the community as a whole (Riyanto & Kovalenko, 2023). Despite facing obstacles in the form of doubts about adaptive facilitation, it succeeded in building an initial commitment and sense of community ownership to the mangrove ecotourism program.

Assessment

At the study stage, the community is involved in mapping potentials and problems in a participatory manner. Full participation of the community greatly determines the effectiveness of empowerment, as emphasized Sarjiyanto et al., (2022) that full participation of the community is the key factor determining the effectiveness of empowerment strategies. The assessment stage was carried out after many Teluk Semanting communities declared their availability through the FPIC mechanism. This process lasted from December 2022 to April 2023 by involving various elements of society such as the village government, BPK, community leaders, religious leaders, LPM, youth, MSME/women actors and fishermen groups. The activity at this stage is facilitated by the shield association with SIGAP, with a participatory approach. YKAN Bersama Perisai facilitated the FGD (Focus Group Discussion).

The methods used include FGD, participatory surveys, and social-spatial mapping. In these forums, residents not only discussed the potential, but also mapped the problems faced. FORCLIME also conducts ecological surveys to identify areas prone to abrasion, conservation potential, and superior commodities such as shrimp, crabs and mackerel. The results of this study are the basis for the preparation of participatory maps of mangrove areas.

However, the study also found a number of structural and socio-economic obstacles, including:

1. Limited processing capacity for products based on marine and mangrove products.
2. Lack of production equipment that meets standards.
3. Limited market access and dependence on collectors.

4. Ecological threats, such as coastal abrasion and illegal logging.

These findings are consistent with structural challenges commonly reported in rural coastal communities, where MSMEs struggle with weak capital, dependence on middlemen, and limited access to broader markets (Eka Desnyarti & Zulkarnaini Zulkarnaini, 2025). Such constraints indicate that empowerment efforts cannot rely solely on local initiatives, but require external facilitation to strengthen value chains and provide technological support. At the same time, the participatory mapping process served not only to identify aligns with Sarjiyanto et al. (2022), who emphasize that empowerment becomes more effective when communities actively analyze their own conditions rather than depending entirely on external assessments.

In addition to mapping potential economic and social problems, the study produced a participatory map of mangrove areas that showed:

1. Location points with high aesthetic value that can be used as educational tourist routes,
2. Abrasion-prone areas that require rehabilitation,
3. As well as areas that are suitable for development as community-based tourist spots.

From an institutional perspective, the study identified the need to strengthen TPM as a management institution, as well as the formation of new business groups to support ecotourism. The aspirations of residents that emerged included ideas for the development of mangrove trails, processed marine products, entrepreneurship training, and verified ecotourism-based businesses.

All the results of the assessment are then presented back in the village forum, so that residents can provide input and validate together. In this way, the data and findings truly reflect the real conditions of the field as well as the collective aspirations of the community.

This stage of the study shows that empowerment in Teluk Semanting does not only stop at the identification of potential, but also emphasizes the importance of active participation of the community in analyzing problems and formulating aspirations.

Alternative Program Planning

Kampung Teluk Semanting is one of the villages with a large forest, but there are still some vacant lands on the coast, around 2020-2021 NGOs made mangrove planting programs, distribution of mangrove crab seeds, and kelulut honey breeding (Ardani & Hamid, 2025). The alternative planning stage of the program is carried out after the assessment produces a map of the community's potential, problems, and aspirations. This process took place from May to June 2023 and was carried out through a series of village deliberations, thematic FGDs, and planning workshops. Analysis of the suitability of the area and the carrying capacity of ecotourism is the basis for planning while maintaining ecology and social (Kasman et al., 2022). The goal is to formulate various alternative mangrove ecotourism management programs that are realistic and in accordance with local capacity.

In the deliberation forum, the community consisting of the village government, BPK, community leaders, religious leaders, LPM, youth, MSME/women actors and fishermen groups and facilitators, participatly compiled a list of priorities. Alternative programs that emerge include:

1. Development of mangrove trails with educational points and simple supporting facilities.
2. Training and processing of marine products (such as fish, shrimp, crabs) into ready-to-sell processing with added value.
3. The use of mangrove fruits (padada, api-api, mangrove) is a typical food product.
4. Entrepreneurship training and strengthening MSMEs to support ecotourism-based businesses.
5. Environmental conservation activities are in the form of planting mangroves in areas prone to abrasion.

The discussion highlighted challenges that need to be anticipated, such as limited business capital, technical skills, and market access to answer them, formulated the need for assistance in the form of intensive training, simple equipment assistance, and digital promotion support through social media and tourism platforms.

The results of the series of discussions are then outlined in a participatory action plan, which includes objectives, objectives, types of activities, implementers, schedules, and external support needs.

This level of planning emphasizes that the community is not only the object, but the main subject in planning the direction of the development of the tourist village. This is in line with the determination of empowerment programs that must be based on the needs of residents to suit the conditions of the community itself (Mustangin, Iqbal, et al., 2021).

Performaturation of Action Plan

The performance stage of the action plan was carried out after the community agreed on alternative programs in the village deliberations. This process took place in July 2023, marked by the preparation of official documents and the formation of more structured institutions.

In this stage, the facilitator assists the community to prepare a participation action plan document that contains vision, goals, objectives, success indicators, and mangrove ecotourism management activity plans. This document also includes the results of mapping the potential of commodities and citizens' aspirations that were previously obtained in the assessment and alternative planning stage.

This participatory planning process indicates that the community was not treated as passive beneficiaries, but as active planners of the ecotourism program. Such an approach is crucial for program legitimacy and sustainability, since it reflects the actual aspirations and capacities of local residents. Similar findings were reported by Mustangin, Iqbal, et al. (2021), who emphasized that empowerment and non-formal education are more successful when rooted in genuine community participation. In this way, the action plan in Teluk Semanting not only served as a technical document, but also as a product of collective decision-making that fosters a stronger sense of ownership among stakeholders.

An internal legalization process was also carried out at the village level, the Kampung Teluk Semanting government together with the BPK gave recognition to the results of the deliberations and supported the formation of the institutional structure of the management. At this time, TPM is formalized as the main driving institution for the management of tourist routes, conservation, and the development of MSME products.

As a form of mutual agreement, the community and facilitators agreed on basic management rules that include:

1. Sharing of roles between groups (fishermen, MSMEs/women, youth, and community leaders)
2. The mechanism for processing business results, including profit sharing from tourism and processed products.
3. Mangrove utilization rules, which emphasize ecological protection while opening up the use of a sustainable economy.

The result of this formalization is marked by the preparation of a village agreement document that serves as the operational basis for the activity. Although it is not yet fully in the form of a village regulation, this document has strong social legitimacy because it was ratified through citizens' deliberations and supported by the village government.

In addition to the village agreement document, support also came from the local government. This is marked by the issuance of the Decree of the Regent of Berau Number 483 of 2022 concerning the Determination of Community-Based Mangrove Ecosystems, and Decree Number 484 of 2022 concerning the Appointment of TPM as a Sustainable Mangrove Ecotourism Manager. These two decrees affirm the protection and management of mangroves covering an area of 748.89 ha in the Teluk Semanting APL, while providing formal legality for the community to manage mangrove areas in a sustainable manner.

The stage of embolization of the action plan shows that mangrove ecotourism in Semanting Bay is developed not only as a tourism activity, but also as an empowerment strategy that has an institutional foundation.

Program Implementation

At this stage, the contribution of NGOs began to be seen. In 2021, FORCLIME carried out mangrove seedlings, crab seedlings, and kelulut honey breeding. Followed by the implementation of the mangrove ecotourism program in Semanting Bay actively from March to June 2023. The activities carried out reflect the real involvement of the community in tourism management as well as the preservation of mangrove ecotourism. One of the main activities is participatory mangrove rehabilitation by three groups of women's MSMEs with TPM. The program includes three stages: seeding, planting, and handing over production equipment. From the final report, it was stated that as many as 1,230 mangrove trees were successfully planted on an area of 1.17 hectares in the tourist area. This planting not only has an impact on the environment, but also becomes a symbol of women's involvement in the agenda/restoration.

From an economic perspective, the MSME group consisting of "Tenggiri I", "Tenggiri II", and "Ceria" began to develop processed products based on marine products and mangrove forests. These products include mackerel amplang, fish chips, mangrove syrup, and shredded fish. Data from the report shows that in the early days of production, this MSME group has managed to record an initial income of around Rp. 3,000,000 to Rp. 5,000,000 per month per /group, depending on the type of product and sales intensity.

These products are sold during tourist visits or ordered directly by local residents and assisted by marketing by the Management and Marketing Group. To support business sustainability, in June 2023, Perisai handed over complete production equipment such as sealers, industrial pans, mixers, and vacuum packaging to the three MSME groups. In addition, assistance was also provided in the form of a clothes screen printing tool whose results were souvenir clothes typical of mangrove ecotourism. The handover of this production equipment was accompanied by minutes and recognition from the Village Government.

In the field of tourism, mangrove trail activities are slowly introduced to visitors. The tourist trails are designed with the help of TPM and village youth, including mangrove education points, rest areas, and bird monitoring areas. Residents are also involved as local guides, area cleaners, patrols, and souvenir sales. Although the number of visits has not been too high, this initiative shows a paradigm shift from the community receiving assistance to the main actor of development. According to the results of the interviews, some residents began to feel the impact of the increase in tourism activities, both economically and in terms of pride in the village environment and became an example for other villages.

Environmental conservation and economic development activities are carried out regularly and continuously, with a weekly or monthly schedule according to the division of tasks between groups. TPM remains the driving force of the field, while the village government and Perisai provide strategic support. In addition, most residents feel that the existence of this program has brought a significant change in their perspective on mangrove forests. The community no longer sees mangroves only as a source of wood or a barrier to ponds, but as ecotourism with high economic and ecological value.

Evaluation

Evaluation is an important part of ensuring that the empowerment program is really running according to the purpose and has a real impact on the community. Evaluation is carried out to determine the success of the program implementation and to be the basis for improvement in the next implementation (Mustangin, Akbar, et al., 2021). In Teluk Semanting, the evaluation is carried out through community discussion forums, both formal such as village meetings and informal ones such as small group discussions between TPM, MSMEs, and community leaders. According to the interview results, evaluations are carried out at least every two months led by TPM and facilitators. In this meeting, various aspects of the program were discussed, ranging from achievements, technical obstacles, to new aspirations from the community.

One of the most prominent results of the evaluation is the increase in women's participation, especially in the processing of marine products and mangroves. Residents realize that the active involvement of women's groups not only impacts the household economy, but also improves social cohesion. However, the evaluation also found challenges such as limited capital, market access, and promotions that have not been maximized. Challenges such as lack of support facilities, training, and conservation awareness still need to be addressed (Eka Desnyarti & Zulkarnaini Zulkarnaini, 2025).

Evaluation is a shared learning space for the community. Residents are getting used to reflecting on what they are doing, not just waiting for an outside assessment. This process shows that the people of Teluk Semanting have reached the stage of independence, although in some aspects they still need assistance, but most of them have been carried out by the community itself, both in terms of technical, institutional, and operational aspects in the field.

The prominence of woman in MSME activities indicates that empowerment in Teluk Semanting also has a gendered dimension, where woman emerge as key actors in household and community-level resilience. This resonates with Mustanir et al. (2025), who found that woman's involvement often strengthens the sustainability of community-based tourism initiatives. At the same time, the persistence of capital and market access issues reflects structural barriers commonly faced by rural MSMEs, which cannot be solved solely through local initiatives (Eka Desnyarti & Zulkarnaini Zulkarnaini, 2025). These findings suggest that while internal capacity is growing, external support remains essential to address systemic constraints.

Termination

The termination stage is the final stage of the empowerment cycle, which is when external assistance begins to be reduced and the community is encouraged to be independent. In Teluk Semanting, the termination is carried out in stages so that residents do not feel abandoned.

Facilitators are still present, but the role of daily management is mostly left to TPM and community groups. Tasks that were previously assisted by facilitators, such as financial records, tourism promotion, and activity planning, are slowly being taken over by local administrators.

The community has also begun to develop a network of partnerships independently, both with local tourism agents and government agencies. Several MSME products processed by sea and mangroves are marketed through village exhibitions and social media by the surrounding community.

The termination stage confirms that the mangroves in Semanting Bay already have local social and institutional capital, the sustainability of the program is strengthened by Decree of the Regent of Berau Number 483 and 484 of 2022, which ensures the protection of mangrove ecosystems and establishes TPM as the official manager. With this legal basis, the community is more confident to continue managing ecotourism independently.

CONCLUSION

The community-based empowerment process in the management of mangrove ecotourism in Teluk Semanting Tourism Village takes place through seven stages that are mutually sustainable, ranging from preparation, study, planning, formalization, implementation, evaluation to termination. The results show that the empowerment process is able to:

1. Increasing community participation through the FPIC (free, prior and informed consent) mechanism and village deliberations.
2. Strengthening local institutions with the formation of TPM supported by local government regulations.
3. Increasing economic capacity through the development of seafood-based MSMEs and digital promotion.
4. Fostering ecological awareness through mangrove rehabilitation and sustainable tourism management.

In addition, the findings suggest that policymakers and NGOs should provide stronger support in terms of market access, financial resources, and institutional strengthening, as internal empowerment alone cannot fully overcome the structural barriers faced by rural communities.

The termination phase marks the community's independence in managing ecotourism, with the role of facilitators reduced and local institutions taking over management. Thus, empowerment in Teluk Semanting not only strengthens the economy of residents, but also realizes sustainable and participatory management of mangrove ecotourism.

REFERENCES

- Afriansyah, A. M. (2023). *Community Empowerment*. Jakarta: PT Global Ejecutivo Teknologi. PISBN: 978-623-198-033-5.
- FLIM (Indonesian Mangrove Environment Forum). (2017). *Biodiversity inventory in the Berau mangrove area. Samarinda: FLIM*.
- Ardani, R., & Hamid, I. (2025). Pendekatan Gerakan Lingkungan Hidup yang Diterapkan pada Program REDD+ di Kabupaten Berau. *Huma: Jurnal Sosiologi*, 4(1), 71–83. <https://doi.org/10.20527/h-js.v4i1.376>
- Eka Desnyarti, & Zulkarnaini Zulkarnaini. (2025). Strategi Pengembangan Ekowisata Mangrove dalam Meningkatkan Ekonomi Masyarakat di Bukit Batu, Kabupaten Bengkalis. *JISPENDIORA Jurnal Ilmu Sosial Pendidikan Dan Humaniora*, 4(2), 53–64. <https://doi.org/10.56910/jispendiora.v4i2.2193>
- Helena Thatcher, et al. (2018). Konsep Pemberdayaan Masyarakat. In *Journal of Chemical Information and Modeling* (Vol. 53, Issue 9).
- Joandani, G. K. J., Pribadi, R., & Suryono, C. A. (2019). Kajian Potensi Pengembangan Ekowisata Sebagai Upaya Konservasi Mangrove Di Desa Pasar Banggi, Kabupaten Rembang. *Journal of Marine Research*, 8(1), 117–126. <https://doi.org/10.14710/jmr.v8i1.24337>
- Kasman, K., Tudikromo, F. H., & Arifin, T.-. (2022). Pengembangan Ekowisata Mangrove di Pantai Sesar Lama, Kecamatan Bula. *Jurnal Kelautan Nasional*, 17(3), 221. <https://doi.org/10.15578/jkn.v17i3.11519>
- Kayupa, O. O., Guampe, F. A., Hengkeng, J., & Balo, M. J. (2025). *Tantangan dan Peluang Implementasi Perencanaan Pembangunan Partisipatif Desa-Desa di Indonesia (Challenges and Opportunities for Implementing Participatory Village Development Planning in Indonesia)*. 6(1), 187–199.
- Lelloltery, H., Hitipeuw, J. C., & Sahureka, M. (2020). Strategi Pengembangan Ekowisata Berbasis Masyarakat Di Hutan Lindung Gunung Sirimau Kota Ambon. *Jurnal Hutan Tropis*, 8(1), 23. <https://doi.org/10.20527/jht.v8i1.8155>
- Mukhlisi, M. (2018). POTENSI PENGEMBANGAN EKOWISATA MANGROVE DI KAMPUNG TANJUNG BATU, KECAMATAN PULAU DERAWAN, KABUPATEN BERAU (Potential Development of Mangrove

- Ecotourism in Tanjung Batu Village, Derawan Island District, Berau Regency). *Jurnal Manusia Dan Lingkungan*, 24(1), 23. <https://doi.org/10.22146/jml.22939>
- Mustangin. (2020). *Local Resources Based Empowerment Through Non-Formal Education for Women Communities in Kampung Babakan Cianjur*. 405(Iclles 2019), 107–111. <https://doi.org/10.2991/assehr.k.200217.022>
- Mustangin, M., Akbar, M. F., & Sari, W. N. (2021). Analisis Pelaksanaan Program Pendidikan Nonformal Bagi Anak Jalanan. *International Journal of Community Service Learning*, 5(3), 234. <https://doi.org/10.23887/ijcsl.v5i3.38821>
- Mustangin, M., Iqbal, M., & Buhari, M. R. (2021). Proses Perencanaan Pendidikan Nonformal untuk Peningkatan Kapasitas Teknologi Pelaku UMKM. *Jurnal Penelitian Dan Pengembangan Pendidikan*, 5(3), 414. <https://doi.org/10.23887/jppp.v5i3.38927>
- Mustanir, A., Sellang, K., Adnan, A. A., & Lubis, S. (2025). Tracing the Evolution of Community Empowerment Models in Development Planning. *Jurnal Ilmu Sosial Dan Ilmu Politik*, 28(3), 400. <https://doi.org/10.22146/jsp.99202>
- Nanlohy, L. H., & Masniar, M. (2020). Manfaat Ekosistem Mangrove Dalam Meningkatkan Kualitas Lingkungan Masyarakat Pesisir. *Abdimas: Papua Journal of Community Service*, 2(1), 1–4. <https://doi.org/10.33506/pjcs.v2i1.804>
- Perisai Alam Borneo. (2023). *Laporan Akhir Penguatan Program Penguatan Program Restorasi/Rehabilitasi dan Perlindungan Hutan Mangrove Berbasis Masyarakat dalam Kerangka Pembangunan Kampung Rendah Emisi Kampung*.
- Riyanto, M., & Kovalenko, V. (2023). Partisipasi Masyarakat Menuju Negara Kesejahteraan: Memahami Pentingnya Peran Aktif Masyarakat Dalam Mewujudkan Kesejahteraan Bersama. *Jurnal Pembangunan Hukum Indonesia*, 5(2), 374–388. <https://doi.org/10.14710/jphi.v5i2.374-388>
- Salman, M. A. (2022). Progressivitas Pengurus Kelompok Sadar Wisata (Pokdarwis) Kalibata Dalam Upaya Memberdayakan Masyarakat Di Kelurahan Teluk Bayur. *Pendidikan Dan Pemberdayaan Masyarakat*, 3(1), 1–9. <https://doi.org/https://doi.org/10.30872/ls.v3i1.1143>
- Sarjiyanto, Sarwoto, & Darma, T. S. (2022). The Sustainability of Community Empowerment as Development Strategies: The Experience of Indonesia. *International Journal of Multicultural and Multireligious Understanding*, 9(3), 207–218. <https://doi.org/http://dx.doi.org/10.18415/ijmmu.v9i3.3604>
- Utomo, D. K. S., & Pulungan, A. R. (2023). Ekowisata Mangrove dalam Pariwisata Berkelanjutan di Sumatera Utara. *Masyarakat Pariwisata: Journal of Community Services in Tourism*, 4(2016), 46–60. <https://doi.org/10.34013/mp.v4i2.1393>
- Armored Society. (2023). *Final report on community capacity strengthening activities in mangrove ecotourism management in Teluk Semanting Village*. Berau: The Natural Shield of Borneo.