



# Empowerment of Social Forestry Business Groups Based on Local Wisdom in Indonesia



Fitri Eriyanti<sup>1\*</sup>, Jesica Anggia Fahrezy<sup>2</sup>, Rahmadani Yusran<sup>1</sup>, Zikri Alhadi<sup>1</sup>

<sup>1</sup> Department of Public Administration & Research Center for Policy, Governance, Development & Empowerment, Universitas Negeri Padang, 25132 West Sumatra, Indonesia

<sup>2</sup> Department of Public Administration, Universitas Negeri Padang, 25132 West Sumatra, Indonesia

\* Correspondence: Fitri Eriyanti ([fitri.eriyaanti@fis.unp.ac.id](mailto:fitri.eriyaanti@fis.unp.ac.id))

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**Abstract:** This study aims to describe the empowerment of Social Forestry Business Groups for sustainable environmental development in Salibutan Village, Lubuk Alung District, Padang Pariaman Regency. This study was motivated by the suboptimal role of stakeholders related to empowerment. This is due to budget limitations and a shortage of human resources, specifically extension workers and assistants for social forestry business groups, as well as the marketing of forest products managed by the community. The research gap in this study is that few similar studies have analyzed community empowerment within the unique concept of social forestry in a local framework, especially in Indonesia. This study employs a qualitative method with a descriptive approach, utilizing interviews, observations, and documentation to collect data. Source triangulation techniques were used to ensure the validity of the data. The study results indicate that the parties involved in empowering Social Forestry Business Groups in Salibutan Village have not fulfilled their duties and responsibilities according to their respective roles. This is because each stakeholder still faces obstacles in empowering the Social Forestry Business Group, namely limited budget funds from the Forestry Service, Village Head, and Tourism, Youth and Sports Service to implement the empowerment program, minimal human resources, limited extension workers and assistance from the Service and the dependence of the Social Forestry Business Group on the World Resources Institute (WRI) as one of the stakeholders. The contribution of this study is to provide an overview of the problems and governance of community empowerment, serving as the basis for compiling recommendations to enhance the program's effectiveness in the future.

**Keywords:** Empowerment; Community-based forest management; Local wisdom; Social forestry; SDGs 1; SDGs 3

## 1 Introduction

The geographical conditions on the equator make Indonesia a perfect home for the growth of various types of flora, one of which is the island of Sumatra, which has the *Bukit Barisan* mountains stretching from Aceh to Lampung. It is called "*Bukit Barisan*" because the mountain ranges are connected and extend parallel to the island of Sumatra. *Bukit Barisan* has natural and ecological wealth that provides benefits for the survival of the people of Sumatra Island. These mountains directly contribute oxygen, food sources, and livelihoods to cultures and traditions, which are valued as highly as water, animals, and land. The rich and fertile *Bukit Barisan* landscape gives rise to forests that harbor a variety of productive plants, including types of wood that can be processed into various kinds of household furniture, as well as forests that produce spices such as cinnamon, cloves, and dried yellow mangoesteen.

Salibutan is a village in the province of West Sumatra. Salibutan Village is situated in the administrative area of Lubuk Alung District, Padang Pariaman Regency, covering an area of approximately 2,791 Hectares. Salibutan Village has the following topography: Flat (0–29%) 800 Ha, Sloping (29–32%) 900 Ha, slightly steep (0–14%) 400 Ha, Steep (0–11%) 300 Ha, very steep (14%) 391 Ha and an altitude of 200 meters above sea level. Salibutan Village has a forest area of 248,520.84 ha, with a dominant type of plant, the dried yellow mangoesteen tree. The dried yellow mangoesteen tree area in Salibutan Village covers approximately 10 Hectares, with a total of 1,200 trees (Social Forestry Management Plan, Salibutan Document, 2022–2031).

Tamarind trees are a forest product that serves as a source of livelihood for the people of Salibutan Village. Tamarind is a hereditary business in Salibutan Village. Based on an interview with the informant, a tamarind farmer in Gamaran Area of Salibutan Village, the selling price of tamarind is determined by the middlemen (collectors). The price is 1 kg of dry tamarind, priced at IDR 20,000. To obtain 1.5 kg of dry tamarind, they must process 10 kg of fresh tamarind fruit, which requires a 2–3-week drying time, depending on the weather. So far, the people of Salibutan Village still traditionally process tamarind. With limited knowledge to process and market the products produced, income from year to year cannot be relied on to improve the community's economy. Seeing these conditions, several parties are expected to play a role in empowering tamarind farmers, including the Forestry Service. Based on Regulation No. 54 of 2017 of the Governor of West Sumatra, concerning the description of the main tasks and functions, the Forestry Service has the primary task of carrying out regional government affairs in the forestry sector. The Forestry Service carries out duties in the field of the service secretariat, forest planning and utilization, forest protection and conversion of natural resources and ecosystems, watershed management, forest and land rehabilitation, extension, and social forestry. From the study's initial findings, it is known that the Forestry Service has provided counseling to the community by understanding how to utilize the dried yellow mangoesteen tree without cutting it down and conducting training on using the dried yellow mangoesteen fruit. With this extension, the dried yellow mangoesteen farmers were combined into the Social Forestry Business Group, which was formed in August 2022. However, the Forestry Service experienced a few obstacles in carrying out the extension, namely the difficulty of gathering mothers in complete numbers.

The Tourism, Youth, and Sports Service primarily handles regional government affairs related to tourism, youth, and sports. The Tourism, Youth, and Sports Office carries out functions in the creative economy sector by preparing planning materials, formulating technical policies, coaching and coordinating, and implementing marketing strategies for the development of the creative economy. It supports tourist attractions through the use of innovative ideas and works, and protects intellectual property rights. (Padang Pariaman Regent Regulation Number 70 of 2021). However, the Tourism, Youth, and Sports Office has not assisted in the marketing and promoting this Social Forestry Business Group. The Social Forestry Business Group also still processes dried yellow mangoesteen traditionally, so production is limited due to constraints in facilities and infrastructure that do not yet utilize machine assistance to process various types of products.

The Village Government, led by a village head, has a role in implementing development, community development, and community empowerment. The Village Head plays a role in community empowerment, such as the task of socializing and motivating the community in the fields of culture, economy, politics, environment, family empowerment, youth, sports, and youth organizations, as well as maintaining partnerships with community institutions and other institutions (Padang Pariaman Regent Regulation Number 18 of 2018). However, the village head has not been optimal in his role. There is still a lack of motivation and guidance from the village head for this social forestry business group. According to interviews conducted by researchers with members of the Social Forestry Business Group, it was revealed that the Village Head did not attend the meetings held by the Social Forestry Business Group with other stakeholders on several occasions. So, it can be said that the Village Head lacks support and a role in empowering this social forestry business group. Fourth, the World Resources Institute (WRI) Indonesia is an independent research organization that works with governments, businesses, multilateral institutions, and civil society groups to develop practical solutions that improve people's lives and ensure that nature can thrive in Indonesia. WRI organizes its work around five critical issues—forests and land use, climate, energy, cities and transport, and oceans—to reduce poverty, increase food security, maintain biodiversity, and mitigate climate change by reducing forest loss and restoring the productivity of deforested and degraded lands. WRI has played its role by conducting training on the management of dried yellow mangoesteen fruit into various products that can be produced, including syrup, jam, candy, dodol, and laundry soap, as well as assisting in the form of building a greenhouse for drying to make it more hygienic and practical in its processing. WRI has also registered the women's business in this Social Forestry Business Group by issuing a Decree from the *Bukit Barisan* Protected Forest Management Unit. However, WRI also encountered obstacles during the extension, namely the difficulty of gathering the tamarind farmers. The women in the Social Forestry Business Group were still dependent on WRI members; it could be said that they were not yet independent in managing the tamarind. The difficulty of instilling a sense of entrepreneurship in women was also an obstacle, as they lacked self-confidence and relied on assistants for their activities. The following is a comparison of tamarind processing before and after the formation of the Social Forestry Business Group (Figures 1, 2).

This group also underwent a long process that changed their attitudes and mindsets. With counseling from the Forestry Service and mentoring from WRI Indonesia, they slowly began to unite their vision and mission for a better economy. This also attracted other women to join the group. Currently, there are 30 members. The system is structured as a social organization, with 2.5% of sales profits allocated to social and environmental activities. After forming the Social Forestry Business Group, they gained numerous benefits, including a shift in mindset and behavior regarding financial management and their family's economy, which was initially consumptive, to becoming

more productive. Second, they began actively participating in entrepreneurship training to gain new knowledge and learning that could help improve their capacity as women. Some members even dared to show up and speak to promote their products or groups in public. Third, by forming groups, they received a lot of support from various parties, including both the government and the private sector, in the form of assistance with production facilities. One notable example was the construction of a dried yellow mangoesteem drying house by WRI Indonesia. This drying house is undoubtedly very beneficial for the group, which initially had to dry in the yard, a process that took a long time, specifically 3 weeks, depending on the weather. However, with the drying house, the group can now cut the drying time to just one week without worrying about rain. In addition, the dried yellow mangoesteem products produced are more hygienic and freer from contamination. Therefore, based on the background described, the author is interested in conducting a study entitled "The Role of Stakeholders in Empowering Social Forestry Business Groups in Salibutan Village, Lubuk Alung District, Padang Pariaman Regency.



**Figure 1.** Drying method for dried yellow mangoesteem before the formation of the social forestry business group



**Figure 2.** Drying method for dried yellow mangoesteem after the formation of the social forestry business group

## 2 Literature Study

### 2.1 Community Empowerment

Empowerment is an effort to provide power (empowerment) or strengthening to strengthen the community [1–6]. In other words, empowerment is an effort to develop creativity, independence, and community welfare by increasing abilities, knowledge, and skills and utilizing existing resources through activities or programs with assistance [7–9]. Empowerment strengthens weak community groups by providing motivation and direction and exploring their potential so that they can meet their needs [10–13]. Empowerment seeks to transform social conditions, enabling empowered communities to possess the knowledge and power to meet their physical, economic, and social needs.

These needs include expressing opinions, developing self-confidence, securing employment, being independent in carrying out tasks, and participating in social activities [14–19]. In addition, community empowerment is as follows:

a) Helping the authentic and integral human development of weak, vulnerable, poor office workers, backward Indigenous communities, young job seekers, disabled people, and discriminated/sidelined women's groups.

b) Empower these community groups socio-economically so that they can be more independent and meet their basic needs while participating in community development. From this perspective, community empowerment is an effort to enhance the community's dignity, which, in its current state, is often trapped in poverty and backwardness [20].

Community empowerment is a non-formal education program that improves the community's ability to develop further through increased skills [21–25]. In the empowerment process, the community is involved when analyzing the problems faced and assisting in finding alternative solutions to the issues. The success of community empowerment activities is determined by the party carrying out the empowerment and can occur if the community participates [26–29]. From the definitions above, community empowerment is a continuous cycle process. In this participatory process, community members work together in formal and informal groups to share knowledge and experiences with communities that lack the necessary abilities, knowledge, and skills to achieve common goals and improve their conditions and situations for the better [27].

The concept of empowerment is closely related to two primary concepts: the concept of power and the concept of disadvantage. So, four perspectives apply: pluralist, elitist, structuralist, and post-structuralist [30]. Here is a brief explanation of the four perspectives: First, the pluralist perspective views empowerment as a process that helps individuals or groups of less fortunate people compete more effectively. From a pluralist perspective, the empowerment carried out enables the community by providing learning on how to utilize expertise in lobbying, utilizing media related to political action, and understanding how the system works. Empowerment is achieved by increasing the community's capacity so that they can compete fairly, with no one winning or losing. Second, the elitist perspective views empowerment as an effort to influence elites, such as community leaders, officials, and wealthy individuals, by forming alliances with them or confronting and seeking change within the elite. This effort is made considering that society becomes powerless due to the strong power and control of the elite. Third, the structuralist perspective views empowerment as a more challenging struggle agenda because its goal is to eliminate forms of structural inequality. In other words, community empowerment is a process of liberation that must be accompanied by fundamental structural change and the elimination of structural oppression. Fourth, the post-structuralist perspective views empowerment as an effort to change discourse that emphasizes intellectual aspects rather than action or praxis. Therefore, community empowerment is understood as a step towards developing new and analytical thinking. The emphasis of empowerment is on the aspect of education for the community [30].

## 2.2 Community Empowerment Objectives

Community empowerment is a development process that enables people to take the initiative in starting social activities to improve their situation and condition [31–34]. Community empowerment aims to make people capable individually, socially, economically, and environment, including managing their lives and surroundings professionally and sustainably [35–38]. There are six goals of community empowerment, namely:

a) Institutional Improvement (better institution). The primary goal of community empowerment is to enhance institutions through improved activities and actions. This institutional improvement is hoped to ultimately impact the development of business partnership networks in the community.

b) Business Improvement (better business). This second empowerment goal is a direct result of the first point. Community empowerment is ultimately expected to improve the businesses of residents. Efforts that can be made to achieve this goal of business improvement include improving education by increasing the enthusiasm for learning or enhancing business access.

c) Income Improvement (better income). Improving businesses through community empowerment programs is hoped to impact the income of these residents positively. Income improvement also includes the income of families and their communities.

d) Environmental Improvement (better environment). Environmental improvement is not directly related to the previous goals. However, achieving income or education improvement is also hoped to impact the environment around the community.

e) Improvement of Life (Better Living). After the income and environmental improvement goals are achieved, the empowerment program is expected to improve the lives of each family and community.

f) Community Improvement (better community). The last level is improving the community itself. Of course, this goal can be achieved after increasing income and improving environmental quality as a result of success in empowering the environment, both physically and socially [39].

According to the study [30], empowerment is intricately linked to two fundamental concepts: the notion of power and the concept of disadvantage. Consequently, the construct of empowerment can be articulated through



four distinct perspectives: pluralist, elitist, structuralist, and post-structuralist. In the scholarly work [30], these four perspectives are elucidated: Firstly, the pluralist perspective conceptualizes empowerment as a process designed to assist marginalized individuals or groups within society, enabling them to engage in competition more effectively. Secondly, the elitist perspective interprets empowerment as a strategic endeavor to influence elites, such as community leaders, officials, and affluent individuals, by cultivating alliances with them or confronting them in pursuit of transformative change. Thirdly, the structuralist perspective regards empowerment as a more formidable agenda for struggle, as its objective is to eradicate forms of structural inequality. In other words, community empowerment is perceived as a liberation process that necessitates fundamental structural modification and the dismantling of systemic oppression. Fourthly, the post-structuralist perspective perceives empowerment as an initiative to transform discourse, emphasizing intellectual engagement over action or practical application. Thus, community empowerment is a mechanism for fostering an understanding of the evolution of new and analytical thought processes, with a pronounced focus on the educational dimension for the community [30].

Viewed from the four perspectives of community empowerment above, this research, concerning research findings, tends to use a combination of three perspectives: pluralist, structuralist, and post-structuralist. Ife et al. [40] have also delineated six categories of community strengths that can be harnessed in the empowerment process. The six strengths include the capacity to make personal choices, identify one's needs, freedom of expression, institutional capability, access to economic resources, and autonomy in the reproduction process. Three empowerment strategies can be proposed by recognizing the elements of community strength and the disparities that contribute to their marginalization. The three strategies are:

- a. Empowerment through planning and policy initiatives that involve establishing or modifying structures and institutions designed to facilitate equitable access to resources, services, and community participation opportunities.
- b. Empowerment through social and political actions undertaken via political struggles and movements to establish adequate power.
- c. Empowerment through educational initiatives and awareness-building through comprehensive educational processes. This endeavor aims to equip lower-income communities with the knowledge and skills necessary to enhance their agency [40].

### 2.3 Relevant Research Studies

This study [41] was motivated by the emergence of one of the Semarang City Government Programs, namely the Thematic Village. The goal is to raise potential and solve problems that arise in society. To improve community welfare, the regional government must make changes through efforts to address existing and emerging social issues in society. The results of this study reveal the characteristics of the community, participation in planning, knowledge of actors and stakeholders involved in the Semarang City Thematic Village Program, and community involvement in stakeholder empowerment activities. Therefore, it is essential to involve the community in activities so that government programs can run smoothly.

This study [42] employed qualitative-descriptive methods, with data collection techniques conducted through a desk study approach. In this context, the *Pertadaya* is one of the programs aimed at empowering people with disabilities. Through empowerment, Pertamina also promotes environmental preservation by empowering people with disabilities to become leading actors and vanguards in ecological conservation. In the process, this program's implications impact social, economic, and environmental aspects in the Banjarmasin area, South Kalimantan.

The researchers [43] used a qualitative descriptive method. The core of this research is that one of the sectors that attracts visitors is the Pelangi Tourism Village. In its development, tourism in Pelangi Tourism Village still faces several obstacles, including limited funding sources, uneven job distribution, inadequate training in community creativity development, and social conflicts that have arisen within the community since its designation as a tourist village. This study aims to see the role of the stakeholders involved and the development strategy of Pelangi Tourism Village. The survey results show that stakeholders' roles are interrelated in the development of Kampung Pelangi. Additionally, some strategies have not been fully implemented, resulting in the development of Pelangi Tourism Village being less than optimal.

The researchers [44] were using a qualitative method with a case study approach. The study results indicate that stakeholders' roles in empowerment program policies have been recognized through the application of Participatory Rural Appraisal (PRA) and Participatory Assessment Plan (PAP) methods, which emphasize community participation as a critical component. Supported by implementing the concept of human development, business development, and institutions that are carried out. However, in practice, the needs of the women's group have not been met as expected, as evidenced by the existence of unresolved business issues, including seasonal businesses, a lack of specialized training and product innovation enrichment for the groups, and inadequate business organizing capabilities. Therefore, solid cooperation is needed between policy actors to carry out empowerment and make more efforts to evaluate the implementation, assessing the success of the programs being run.

This study [45] employed qualitative descriptive methods and data collection techniques, including literature

reviews, observations, and interviews. The study results indicate that the Bayan Beleg Ancient Mosque area has the potential to be developed into a cultural heritage tourism area. Supporting factors for the development of this area include the involvement of local communities, particularly those in the Sugriwa tourism awareness group, as well as support from the private sector, specifically non-profit institutions. The inhibiting factors for its development include the Department of Culture and Tourism's role, which is still not optimal; local communities, as tourism actors, are not yet professional; there is a lack of interest from private investors in developing the area; and a lack of coordination among various stakeholders.

This study [46] used qualitative descriptive methods. The results revealed four categories of stakeholders, with the most influential being key players from the Sleman Regency Government and the local community. In addition, the role of regional champions and the success of collaboration between stakeholders also influenced the development of Semberembe minapadi agrotourism. Efforts are needed to awaken local champions and enhance stakeholder collaboration in developing economic activities that leverage local potential.

In the study [47], qualitative descriptive methods were employed. The goal is to establish an independent women's community and improve the economy. Then, women's institutions and groups were formed based on the initiative and participation of the women themselves. To support the development of women's roles in village-based development, it is necessary to consider various sectoral and regional approaches and involve active participation from stakeholders in Dawan Village, Klungkung Regency. In the framework of increasing synergy, synchronization, and integration of all potentials in Dawan Village, Klungkung Regency, a capacity-building activity is needed for all stakeholders to contribute to the implementation of women's empowerment at the regional level.

### 3 Methods

The type of research employed is qualitative, utilizing descriptive methods. Descriptive methods. This research focuses on empowering social forestry business groups based on local wisdom for sustainable environmental development. This research was conducted at the West Sumatra Provincial Forestry Service, with a focus on social forestry areas.

The methodology employed for selecting informants was Purposive Sampling, whereby the researcher intentionally identified informants based on criteria deemed capable of yielding the most comprehensive data [48]. The primary aim of purposive sampling is to delineate or recognize a sample within a research framework according to criteria that the researcher has explicitly defined. An investigator obtains samples by applying predetermined criteria or characteristics. The subsequent section presents a compilation of the informants involved in this research study.

The informants involved in the research were individuals or parties considered to have relevant knowledge and understanding related to the information the researcher wanted to obtain. The informants in this study are shown in Table 1.

**Table 1.** List of informants

| No. | Informant  | Rationale of Informant Selection   |
|-----|--|--|
| 1   | Head of Protected Forest Management Unit, Bukit Barisan, Forestry Service of West Sumatra Province                       | This informant is part of a government institution responsible for managing local protected forests.         |
| 2   | Head of Extension, Community Empowerment and Customary Forestry Division of the West Sumatra Provincial Forestry Service | This informant is part of a government institution that empowers communities to manage social forests.       |
| 3   | Social Forestry Extension Officer, West Sumatra Provincial Forestry Service  | The informant is a local forestry officer.   |
| 4   | Head of Creative Economy Division of Tourism, Youth and Sports Office of Padang Pariaman Regency                         | Informants who are part of government institutions that drive the creative economy in community empowerment. |
| 5   | Head of Salibutan Village  | Informants are government institutions responsible for administrative areas at the local village level.      |
| 6   | Member of the World Resources Institute (WRI) Indonesia  | The informant is an NGO that focuses on community empowerment and utilizes natural resources.                |
| 7   | Head of Social Forestry Business Group   | Informants are leaders of empowered community groups.  |
| 8   | Members of the Social Forestry Business Group  | Informants are members of empowered community groups.  |

The types and Sources of Data used in this study are primary and secondary. Meanwhile, data collection techniques use interview methods, observation, and documentation studies. The data analysis techniques employed

in this study follow the steps of data reduction, data presentation, conclusion, and verification. The interview protocol used in this study is presented in Table 2.

**Table 2.** Interview protocol

| No. | Descriptor   | Focus   |
|-----|--|---|
| 1   | Community Empowerment in Social Forestry Program             | Interview questions focus on information related to the implementation of community empowerment.          |
| 2   | Mentoring and Training                                       | Interview questions focused on mentoring and training as part of the community empowerment program.       |
| 3   | Socialization and Motivation                                 | Interview questions focus on the socialization and motivation provided to the community.                  |
| 4   | Supporting and Inhibiting Factors in the Empowerment Program | Interview questions focused on supporting and inhibiting factors in implementing the empowerment program. |

## 4 Results and Discussions

### 4.1 Community Empowerment in the Social Forestry Program

Community empowerment is an effort to improve the abilities and potential of the community so that the community can maximize its identity, dignity, and worth to survive and develop itself independently [49–58] in the economic, social, religious, and cultural fields. One form of policy implemented by the Government through the West Sumatra Provincial Forestry Service to promote community empowerment, particularly in Salibutan Village, is the establishment of a Social Forestry Business Group.

Most of Salibutan Village plants, particularly in *Korong Gamaran*, are tamarind trees. Previously, in Salibutan Village, the community would utilize trees by cutting them down for trade because they had not received counseling on the proper use of forest products. Through the social forestry program and counseling provided, the community has come to understand the importance of maintaining forest sustainability.

The research findings indicate that tamarind trees are the most prevalent plants in Salibutan Village, reflecting the dominant vegetation in the area. In the past, local people often cut down trees to trade, reflecting the low public awareness of the importance of preserving forests and the sustainable use of forest products. The social forestry program and outreach provided changed awareness among the community. The outreach effort helped the community understand the importance of forest preservation. After receiving outreach, the community began understanding the importance of forests for life and shifted from cutting down trees to more sustainable practices. This indicates that education and government intervention can effectively change community behavior [59, 60]. The social forestry program run by the West Sumatra Provincial Forestry Service is one of the community empowerment efforts in Salibutan Village. Through this social forestry program, community empowerment can be achieved by forming social forestry business groups, which are a type of forest community group that already holds a forest area management permit from the Minister of Environment and Forestry.

The local community, which initially managed dried yellow mangoesteen individually, was gathered and formed into a group. The research findings indicate that a social forestry program is a practical step towards community empowerment, enhancing welfare and maintaining environmental balance and socio-cultural dynamics. Social forestry is a sustainable forest management system implemented in forest areas by local communities, who serve as the primary actors, to improve their welfare. The role of the West Sumatra Provincial Forestry Service is to establish a Social Forestry Business Group in Salibutan Village through a social forestry program. The establishment of the Social Forestry Business Group organizes communities that previously managed dried yellow mangoesteen trees individually into a business group. This helps obtain forest management permits from the Minister of Environment and Forestry. Through social forestry business groups, communities can become more structured in forest management, gain access to resources and knowledge, and enhance their bargaining position in marketing and selling forest products. The transition from individual management in a forest environment to this group demonstrates a social transformation that can strengthen community solidarity and cooperation [61–63].

Through the social forestry program and the establishment of social forestry business groups, the people of Salibutan Village can better manage their forests, enhance economic welfare, and maintain environmental sustainability. Based on research findings, in the past, people processed dried yellow mangoesteen individually, with a selling price determined by intermediaries at a relatively low cost. The dried yellow mangoesteen tree is indeed the dominant plant in the area. Then, by recognizing the potential of this dried yellow mangoesteen, the Forestry Service and the World Resources Institute (WRI) Indonesia brought us, the farmers, together to form a group called the Social Forestry Business Group. After being formed into a group, the Social Forestry Business Group can now produce dried yellow mangoesteen into various products.

Before the social forestry business group existed, women in *Korong Gamaran* had been processing dried yellow mangoesteen for generations. This process was carried out individually, and the production results were sold to intermediaries. The selling price of dried yellow mangoesteen, as determined by the intermediaries, was relatively low, which indicated injustice in the distribution chain and the low bargaining power of farmers. Seeing the potential of dried yellow mangoesteen as a dominant crop in *Korong Gamaran*, the Forestry Service and WRI Indonesia took the initiative to organize farmers, especially women, into a business group. The Social Forestry Business Group was established on August 14, 2022, with 26 members, all of whom are women from the local area. This formation aimed to empower the community and improve their welfare through sustainable forest management. Following the establishment of the Social Forestry Business Group, women in the area successfully developed a range of processed products, including jam, dried yellow mangoesteen, tea, juice, and other items.

The results of these products demonstrate increased creativity and innovation in the processing of forest products. By producing various processed products, the Social Forestry Business Group can increase the added value of dried yellow mangoesteen, which were previously only sold raw at a low price. This processed product can have a higher selling price, increasing the income of group members. The formation of the Social Forestry Business Group, whose members are local women, focuses on empowering women in the community and allowing them to play an active role in the family and community economy. Therefore, women in the area can potentially develop businesses using dried yellow mangoesteen. The role of stakeholders in the empowerment efforts of this Social Forestry Business Group also supports this. The stakeholders involved include: first, the West Sumatra Provincial Forestry Service; second, the Tourism, Youth, and Sports Service; third, the Village Government; and fourth, the World Resources Institute (WRI) Indonesia. By the Regulation of the Minister of Environment and Forestry No. 9 of 2021, in general the duties and roles of the West Sumatra Provincial Forestry Service are: (1) Institutional development (institutional management, area management and business management); (2) Assisting the government/forestry sector in terms of utilization/management of existing forest resource potential; (3) Facilitation of business development carried out (assistance, assistance with tools/capital, market/technology access and increasing capacity). The strategies and activities carried out by the service in developing Social Forestry Business Groups are provided by the government (forestry extension workers and social forestry assistants) and non-government, namely assistance from the World WRI Indonesia. Furthermore, increasing capacity in institutional management, area management, and business management can be achieved by organizing services or collaborating with non-governmental organizations, such as WRI, through technical guidance or other forms of training. The West Sumatra Provincial Forestry Service fulfills its role by assisting in the development of Social Forestry Business Groups. Assisting the government, such as forestry extension workers, shows the government's commitment to providing technical and practical support to Social Forestry Business Groups. Social forestry assistance offers direction and support in implementing social forestry programs. Assistance from the WRI Indonesia adds strength to the support by providing a global perspective and methods that have proven effective in forest management. This capacity building is divided into 3, namely:

- a) Institutional governance, in the form of training and technical guidance in organizational management, to help Social Forestry Business Groups build a solid and effective institutional structure.
- b) Area governance, in the form of guidance on area management, ensures that social forestry business groups manage forests sustainably and by regulations.
- c) Business governance, in the form of training in business and business aspects, to help Social Forestry Business Groups develop and market their products and increase economic benefits

By existing provisions, it can be seen that the role of the Protected Forest Management Unit is to facilitate forest areas. The role of the Protected Forest Management Unit is to promote, formulate, propose, and assist the community in preparing social forestry proposals, including socialization, identifying suitable locations, and supporting the development of proposals for submission to the ministry. The assistance provided by the Protected Forest Management Unit in Salibutan Village is crucial in facilitating the development of social forestry programs by related regulations. The Protected Forest Management Unit is responsible for promoting community access to social forestry and developing forest areas through various forms of socialization and assistance. In Salibutan Village, the type of social forestry implemented is village forest, which includes several Social Forestry Business Groups such as *Bundo Gamaran*, which processes dried yellow mangoesteen; Nyarai Ecotourism Social Forestry Business Group; and Galo-Galo Social Forestry Business Group. The Social Forestry Business Group also plays a role in forming, proposing, and assisting the community throughout the social forestry process, from submission to the issuance of a Decree by the Ministry of Forestry. This process involves socializing with the community, conducting location searches, assisting in proposal development, and facilitating visits by the ministry's verification team. For example, the Decree for forming the Social Forestry Business Group was issued on October 5, 2022, following various stages of assistance from related agencies.

The observations showed that the Protected Forest Management Unit collaborated with the WRI Indonesia in forming and facilitating the Social Forestry Business Group. WRI plays a significant role in supporting the Social Forestry Business Group, particularly in meeting various needs, including the provision of production facilities



and training. Meanwhile, the Protected Forest Management Unit is more involved with the Nyarai Ecotourism Social Forestry Business Group, indicating a division of roles and close collaboration between the Protected Forest Management Unit and WRI in supporting various Social Forestry Business Groups in the village forest area.

This Social Forestry Business Group was the initial step before its establishment; the extension workers and WRI assistants held a meeting to develop the Social Forestry Business Group. Then, the management and membership were formed and decreed by submitting a letter of application to the Village Head. Village Forest Management Institution addressed the head of the Protected Forest Management Unit after the Decree was issued, and the next step for the Social Forestry Business Group was to prepare an annual work plan. For training from us, the extension workers, for example, are institutional governance developers. Since WRI provides the dominant assistance, the task is delegated to WRI. The training provided by forestry extension workers includes coaching in institutional management, while WRI offers further assistance. Although the assistance task is delegated to WRI, communication between forestry extension workers and WRI is maintained to ensure good coordination and achievement of common goals. The limited number of extension workers in the Pariaman area, where one extension worker must handle six sub-districts, makes groups that already have assistance from NGOs or WRI more likely to receive support. Forestry extension workers focus more on groups that lack support from NGOs or the Forestry Service. Collaboration between forestry extension workers and WRI, along with continuous communication, is key to success in assisting and developing Social Forestry Business Groups.

## **4.2 Mentoring and Training**

WRI Indonesia also plays a role in developing Social Forestry Business Groups. WRI Indonesia is an independent research organization that works with governments, businesses, multilateral institutions, and civil society groups to develop practical solutions that improve people's lives and ensure that nature can thrive in Indonesia. WRI Indonesia acts as a mentor for women in the Social Forestry Business Groups.

The empowerment carried out by WRI for the Social Forestry Business Groups aims to encourage communities to manage their activities with a focus on environmental sustainability, particularly in forest areas. Then, build relationships between one community and another to build their networks, for example, between women in the Social Forestry Business Groups. In empowering the Social Forestry Business Groups, WRI Indonesia plays a crucial role in supporting them through a sustainable approach that integrates ecological, economic, and socio-cultural aspects. They build community mindsets about the importance of the environment and sustainable forest management to improve the local economy. WRI also provides intensive mentoring and capacity-building training and builds networks between community groups to share knowledge and experiences. This approach aims to improve livelihoods while preserving forests and the environment. WRI has undertaken numerous activities to develop Social Forestry Business Groups.

The steps involved mapping the potential of natural resources in the area. WRI involved the community in training on mapping potential and forest monitoring, then went into the field together to identify the wealth of natural resources that could be utilized sustainably, especially non-timber forest products (NTFPs), such as fruits. After mapping, WRI provided training on preparing the Social Forestry Work Plan, which integrated the results of the mapping of these natural resources. An in-depth study of potential distribution, such as the dried yellow mangoesteen tree, was also conducted to ensure proper management. The community was assisted in preparing the Social Forestry Management Plan document, which was then submitted to the Forestry Service and related Ministries. This approach not only enhances the community's capacity to manage natural resources sustainably but also ensures their active involvement in forest planning and management, which has a positive impact on the environment and local economy.

The empowerment efforts carried out by WRI, providing assistance, training, and support with infrastructure facilities, have a positive impact on members of the Social Forestry Business Group, increasing product yields and enhancing product capacity, which in turn expands relations. Partners will also increase the productivity of dried yellow mangoesteen production by the Social Forestry Business Group. In addition to increasing the income and earnings of members of the Social Forestry Business Group, socialization is also established between communities. They can unite their thoughts to achieve the business's goals by forming groups. Regarding assistance with facilities and infrastructure, this aligns with the observations made by researchers, specifically the WRI building a production house and a dried yellow mangoesteen drying house for the Social Forestry Business Group. As a result, they no longer need to worry about unpredictable weather when drying. WRI helps not only in the technical aspects of processing but also in the administrative and legal aspects. They support the management of Household Industry Products certificate and halal permits, and assist in submitting patent applications.

WRI's plans for the Social Forestry Business Group include building economic, social, and environmental independence. WRI plans to make the Social Forestry Business Group an independent cooperative to achieve this goal. However, the group must have effective administration and management to realize this. Additionally, expanding the market network is a primary focus, so institutional management and administration must continually be strengthened. These efforts and strategies are expected to ensure the long-term sustainability and independence

of the group, support them in managing resources sustainably, and enhance community welfare.

### **4.3 Socialization and Motivation**

The next stakeholder to consider is the Village Government. According to Padang Pariaman Regent Regulation Number 18 of 2018 Article 10 concerning the Duties and Functions of the Village Head is tasked with organizing the Village Government, implementing Development, community development, and Community Empowerment for Community empowerment, such as the task of socializing and motivating the community in the fields of culture, economy, politics, environment, family empowerment, youth, sports, and youth organizations as well as maintaining partnerships with Community Institutions and other Institutions.

Based on research findings, the role of the Village Head in developing Social Forestry Business Groups is crucial, especially in coordination with various related parties. When agencies or institutions provide material assistance, such as production equipment and human resource development, they always coordinate with the Village Head to ensure that the support provided is based on the needs and development of the Social Forestry Business Group. Additionally, the Village Head plays a crucial role in facilitating communication between the Social Forestry Business Group and third-party non-governmental organizations, such as the World Resources Institute (WRI). WRI, which often provides assistance and technical support, collaborates with the government to develop Social Forestry Business Groups. The Village Head ensures effective coordination at every meeting between government and non-government parties. With this good coordination, all parties can collaborate harmoniously to achieve common goals in developing Social Forestry Business Groups.

To develop the Social Forestry Business Group, the Tourism, Youth and Sports Office, as one of the stakeholders, has duties and functions by Regent Regulation Number 70 of 2021, especially in the creative economy sector, coaching, supervision, and coordination of the implementation of creative economy development in supporting tourist attractions through the use of creative ideas and works and protection of intellectual property rights and preparation of materials for the formulation of proposals for the provision of infrastructure (creative zones/creative spaces/creative areas) as a space for expression, promotion and interaction for creative people in the Region.

In efforts to foster Small and Medium Industries, the role of stakeholders from the Tourism, Youth, and Sports Office is vital. To date, in its efforts to promote Small and Medium Enterprises, the Office has provided various forms of support and facilitation. This support includes facilitation and cooperation with the creative industry through multiple forums such as gatherings, festivals, talk shows, and coaching related to creation and production. Additionally, it provides facilities and infrastructure to support the operation and development of Small and Medium Enterprises. This effort aims to strengthen the capacity and competitiveness of Small and Medium Enterprises (SMEs) in facing the challenges of the creative industry. The Tourism, Youth, and Sports Office has provided training to the Social Forestry Business Group only once, specifically in culinary skills. However, to date, the office has not offered any assistance in the form of capital, facilities, or infrastructure. This suggests that the office's support has limitations, which may hinder the group's ability to develop its product potential fully. Additional support in the form of capital and facilities is needed to strengthen and accelerate the development of the Social Forestry Business Group.

### **4.4 Supporting and Inhibiting Factors in the Empowerment Program**

#### **4.4.1 Supporting factors**

Natural resources owned by Salibutan Village support WRI in developing the Social Forestry Business Group. Dried yellow mangoesteen, abundant in Salibutan Village, has value and potential to be developed into various products. By forming a group, the community can progress and create together, and building awareness from within the community is essential. Awareness within the community is a key driving factor in efforts to empower the community, which, in turn, protects nature and preserves the environment. With self-awareness about how our actions affect the environment, we can make choices that are accountable and contribute to sustainability. Building a group is a long and arduous journey. From initially having nothing, it gradually becomes more developed day by day. Empowering a group involves steps designed to increase members' capacity, skills, and confidence to contribute more effectively and independently to achieve common goals. The next important thing in developing a business is capital. Capital is used for various purposes, such as purchasing raw materials, equipment, and operational costs. In this case, the Social Forestry Business Group is assisted by WRI; however, this assistance is not sufficient, as it originates from the Forestry Service. Capital assistance is often insufficient if it comes only from one party, as the business's capital needs will also increase as it grows. In this case, the Social Forestry Business Group, which previously produced only dried yellow mangoesteen, has now expanded to six product derivatives. Therefore, relying on a single source is insufficient to support the long-term growth of the Social Forestry Business Group. The Social Forestry Business Group seeks a Bank Indonesia (BI) proposal to obtain capital assistance and infrastructure tools. This effort aims to increase the production capacity and quality of the processed dried yellow mangoesteen products they produce. With this assistance, it is hoped that the Social Forestry Business Group can improve the

competitiveness of its products in the market and optimize the sustainable use of forest resources. The submission of this proposal demonstrates the proactive steps taken by the Social Forestry Business Group in seeking alternative funding sources to support the sustainability and development of their business. It is hoped that assistance from the Bank of Indonesia can be realized soon this year, allowing the Social Forestry Business Group to continue growing and providing more significant economic benefits for its members and the surrounding community.

Furthermore, regarding the requirements for products to be marketed widely, namely obtaining halal permits and Home Industry Food permits, halal certificates are issued by authorized institutions, namely the Indonesian Islamic Religious Leader Council, to guarantee that the products comply with Islamic law. The Home Industry Food Permit is a permit given by the Health Service for food and beverage products produced by household industries such as the Social Forestry Business Group.

Assurance of the quality of processed dried yellow mangoesteen products from the Social Forestry Business Group is essential to ensure their safety for consumers. One of the key steps taken is to obtain halal certification. Halal certification ensures that the product complies with religious standards and confirms that the production process has met stringent cleanliness and safety standards. In addition, these products have also received Home Industry Product Certification, ensuring that they are safe for consumption and can be sold in the local market. With these two certifications, the Social Forestry Business Group's products have higher trust in the eyes of consumers, opening up more significant opportunities for marketing and sales in various local markets. This demonstrates the Social Forestry Business Group's commitment to maintaining the quality and consumer trust in their products.

#### 4.4.2 Inhibiting factors

The most common obstacle is the community's mindset, which is difficult to change and related to self-confidence. It is hoped that they can confidently convey their desires in public, which is still being built. So far, out of twenty-four people, the most vocal members have changed to only eight people, and it used to start from only one person.

Based on research findings, it is evident that a person's mindset is distinct and not easily changed. Mindset is a way or method of thinking that influences how they interact with their surroundings. This mindset includes attitudes, beliefs, assumptions, and perspectives that shape how a person processes information, makes decisions, and acts. Furthermore, self-confidence is also necessary in this case because it helps marketers convey the advantages of their products, making consumers more interested and likely to buy. Self-confidence also makes it easier for them to interact and build networks with the necessary parties in their business.

The next obstacle is the level of education of members of the Social Forestry Business Group. Education is essential for someone who builds a business because it provides the basic knowledge, skills, and insights needed to develop a successful business. The research findings show that the level of education of members of the Social Forestry Business Group is arguably low, which is a challenge in implementing the empowerment program. After the training is completed, WRI, as a partner, has the responsibility to follow up on the training activities that have been conducted. By conducting systematic follow-ups, groups can ensure that the training that has attended provides maximum benefits and helps members to continue to develop and contribute effectively to the businesses they run. Additionally, group independence is also taken into consideration. Group independence in running its own business refers to a group's ability to manage and develop a business independently, without relying on other parties. Business groups that are not yet independent and dependent on other parties can face various negative consequences that can hinder the growth and sustainability of their businesses. A person or group needs independence and a strong mentality to develop their business. By having independence, business groups are not too dependent on outside parties, thus reducing the risk of instability. Independence enables business groups to achieve sustainable success and be more resilient in facing challenges. The concept that must be embedded in a business is (1) quality, high-quality products tend to get positive reviews and can be recommended by word of mouth by customers. (2) Quantity: Meeting market demand with an adequate quantity is crucial to maintaining sustainable sales and income, as product shortages can lead to the loss of customers and market opportunities. (3) Continuity ensures that customers can always rely on product availability. This is very important to build trust and long-term relationships with customers.

Based on the findings presented in the 2022 Annual Report [64], the WRI advocates for the formation of two women's business associations in the West Sumatra region, specifically the Social Forestry Business Groups *Bundo Gamaran*. The Social Forestry Business Group comprises 25 female members who produce processed goods derived from tamarind fruit (*garcinia xanthochymus*), including dried tamarind and tamarind syrup. Each member of the group has undergone training focused on organizational management, gender sensitivity through the "Gender Action Learning for Sustainability" initiative, and the activation of cross-learning platforms, while also incorporating Gender Equality and Social Inclusion elements into the annual action plan, Standard Operating Procedures, group bylaws, as well as the village forest management framework within the social forestry group context.

WRI Indonesia prioritizes advancing sustainable livelihood strategies within the Salibutan Village Forest Group, particularly focusing on the *Bundo Gamaran* women's group. This collective specializes in producing derivative goods from tamarind fruit, which is recognized as a significant kitchen spice in West Sumatra. The principal product is dried yellow mangoesteen fruit, which has been traditionally produced for generations but is sold at

an exceedingly low price, approximately IDR 25,000/kilogram of dried fruit. This economic undervaluation has led to the widespread removal of aged dried yellow mangoesteen trees, which are perceived to lack commercial viability. In response to this situation, WRI engaged in comprehensive discussions with women's groups, Village Forest Management Institution, and Protected Forest Management Unit of *Bukit Barisan* to explore opportunities for enhancing the economic value of dried yellow mangoesteen fruit through the elevation of the quality of the primary product, dried fruit, as well as the development of derivative offerings. As an initial intervention, the women's group received support to enhance the sanitation of the dried yellow mangoesteen fruit processing by constructing a rudimentary drying facility, as the previous method involved drying the fruit on tarpaulins or mats placed directly on the ground. Currently, two basic drying houses exist, and the group intends to establish additional facilities to ensure that every household with dried yellow mango products can enhance the hygiene standards of their offerings. Furthermore, WRI Indonesia is also facilitating improvements in product packaging and marketing strategies. The *Bundo Gamaran* dried yellow mangoesteen product has successfully formed marketing partnerships with several major supermarkets in Padang City and one national-scale retail chain. This collaboration has substantially increased the market price of dried yellow mangoesteen products, elevating it from IDR 25,000 to IDR 75,000/kg.

The learning in this investigation exemplifies the efficacy of community empowerment initiatives implemented by non-governmental organizations (NGOs) in contrast to those executed by governmental entities, which can be attributed to several salient factors:

- a. NGOs prioritize the effective and efficient provision of training and resources, thereby facilitating the enhancement of community skills and capacities.
- b. NGOs diligently raise public awareness about critical issues, including, but not limited to, environmental degradation, welfare disparities, and social inequities.
- c. NGOs assist communities in understanding their entitlements as responsible citizens and explain the mechanisms through which they can participate within a democratic framework.
- d. NGOs strive to ensure access to vital resources, including microfinance and opportunities for skill development.
- e. NGOs emphasize the importance of encouraging communities to leverage technology to amplify their societal impact.
- f. NGOs promote collaborative partnerships among communities and stakeholders to realize their objectives.
- g. NGOs encourage communities to adopt innovative practices and advocate for sustainable development initiatives.

UNICEF delineates five dimensions as criteria for evaluating the efficacy of community empowerment, specifically welfare, access, critical awareness, participation, and control. These five dimensions are dynamic, analytical categories that are synergistically interrelated, mutually reinforcing, and complementary. The subsequent section provides a more comprehensive elucidation of each dimension: a) Welfare. This dimension pertains to the degree of community welfare, as assessed by the satisfaction of fundamental needs, including clothing, shelter, sustenance, income, education, and health. b) Access. This dimension addresses the equitable distribution of access to resources and the benefits derived from their availability. c) Public awareness. Community empowerment at this level manifests as a heightened awareness within the community regarding the notion that inequality constitutes a social construct that is both alterable and necessitates transformation. d) Participation. Empowerment at this level is characterized by the community's capacity to engage in various institutional frameworks. e) Control. In this context, empowerment is realized when all strata of society possess authority over the available resources [65].

Based on the findings obtained in this study, the five dimensions have not been achieved optimally. In the welfare dimension, there has been an increase due to the empowerment program that has been carried out; however, it has not been able to change their welfare significantly. The empowerment program should be continued, and access to other programs that promote independence and empowerment should be expanded. In the access dimension, as indicated by the study's factual findings, some local people have had good access to social forestry management. Still, others have not evenly obtained this access. Designing an expanded empowerment program is necessary, especially for people who meet the empowerment criteria. This can be achieved by synergizing and collaborating with other stakeholders, including the private sector, banks, and other NGOs. In the public awareness dimension, it is evident from public awareness that there are still gaps in society related to the wise use of natural resources and environmental care. In the participation dimension, the level of community involvement in the empowerment program is relatively high; however, periodic socialization and education are still necessary to further increase community participation. In the control dimension, the empowerment program that is being carried out still requires strengthening community governance of social forestry, which is the program's primary objective. The governance aspect in question is the existence of community independence in managing social forestry optimally and sustainably. This is related to the commitment and capacity of the community, which need to be maintained and improved through measurable and consistent assistance.



## 5 Conclusions

Based on the study's problems and findings, the following conclusions can be drawn: First, the empowerment of Social Forestry Business Groups in Salibutan Village has not been effectively implemented in their respective duties and functions. Of the four stakeholders studied, it turns out that only one stakeholder has carried out its role correctly, namely the World Resources Institute (WRI) Indonesia. Second, supporting factors in efforts to empower Social Forestry Business Groups in Salibutan Village can be seen from the potential of existing natural resources. The wealth of natural resources Salibutan Village owns is the main factor in empowering Social Forestry Business Groups. Then, the awareness and motivation of members of the Social Forestry Business Group to become prosperous while maintaining forest sustainability. Third, inhibiting factors in empowering Social Forestry Business Groups in Salibutan Village can be observed from the obstacles faced by each stakeholder in their efforts to empower these groups. From the results of the study, it can be seen that the main inhibiting factor in empowering Social Forestry Business Groups lies in the limited budget to carry out empowerment programs by the Forestry Service, Village Heads, and the Tourism, Youth, and Sports Service so that the empowerment carried out has not been optimal. Additionally, the lack of human resources, specifically the relatively low level of education, lack of self-confidence, and independence that members of the Social Forestry Business Group currently lack, also becomes an obstacle for stakeholders in implementing empowerment.

As a recommendation, it is expected that relevant stakeholders will follow up on all empowerment efforts programmed using the results of observations related to the needs of the Social Forestry Business Group, until the evaluation process is completed. This will ensure that the implemented program reaches its target appropriately and is beneficial. Efforts are required to obtain a budget for implementing and continuing the empowerment activities of the Social Forestry Business Group in Salibutan Village. One way to achieve this is to find alternative sources of funding. This can be done by collaborating with financial institutions, such as banks or cooperatives, that provide low-interest loans through micro-business credit. Currently, many banking institutions offer business credit that aims to stimulate the real economy. Additionally, establishing partnerships with private parties or companies that have corporate social responsibility programs can help secure financial and non-financial support for various empowerment initiatives. These companies can operate in the banking, plantation, oil, and corporate sectors, which are part of the natural resources sector, to form a green economy that prioritizes environmental care. However, government support is crucial in encouraging the formation of regulations and policies that support the community in improving their standard of living and welfare. For the Social Forestry Business Group in Salibutan Village, it is expected to be able to create independence and self-confidence by creating a business network and community that allows business actors to share experiences and solutions to the challenges they face so that the Group can identify and pursue opportunities without having to wait for support or approval from other parties and have the confidence to increase their ability to influence and motivate others.

For the Social Forestry Business Group in Salibutan Village, it is expected to be able to create independence and self-confidence by creating a business network and community that allows business actors to share experiences and solutions to the challenges they face so that the Group can identify and pursue opportunities without having to wait for support or approval from other parties and have the confidence to increase their ability to influence and motivate others.

### Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

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### Conflicts of Interest

The authors declare that they have no conflicts of interest.

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