Strengthening village forest management strategies in East Kolaka, Southeast Sulawesi, Indonesia

MUHAMMAD REZA SETIAWAN[1], DODIK RIDHO NURROCHMAT[2,♥], HANDIAN PURWAWANGSA[2]

[1]Program of Forest Management Science, Graduate School, Institut Pertanian Bogor. Jl. Raya Dramaga, Kampus IPB Dramaga, Bogor 16680, West Java, Indonesia
[2]Department of Forest Management, Faculty of Forestry and Environment, Institut Pertanian Bogor. Jl. Raya Dramaga, Kampus IPB Dramaga, Bogor 16680, West Java, Indonesia. Tel.: +62-251-8621677, Fax.: +62-251-8621256, ♥email: dnurrochmat@apps.ipb.ac.id

Abstract. *Setiawan MR, Nurrochmat DR, Purwawangsa H. 2024. Strengthening village forest management strategies in East Kolaka, Southeast Sulawesi, Indonesia. Biodiversitas 25: 2945-2959.* The livelihoods of village communities in East Kolaka, Southeast Sulawesi, Indonesia, are intricately linked to managing forest resources for production, protection, and conservation. A key form of this community-based forest management is the Village Forest, a unique concept that encircles the forest. This study is particularly important as it evaluates the institutional conditions of Ueesi Village Forest management, Ueesi Sub-district, East Kolaka District, Southeast Sulawesi Province. It also proposes alternative strategies and strategic priorities for strengthening village forest institutions, strategies that are not just beneficial but also urgently needed for the sustainability of the communities. The study's findings underscore the need for the active participation of all stakeholders in this process. The study employed a qualitative approach and structured interviews with stakeholders or critical informants involved in the Ueesi Village Forest management. Technical analysis of Strengths, Weaknesses, Opportunities, and Threats (SWOT) and Quantitative Strategic Planning Matrix (QSPM) were used to identify the necessary management strategies. The study reveals that the most suitable strategy for strengthening village forest management institutions for Ueesi Village is a turn-around (WO) strategy, which leverages all external opportunities to address internal weaknesses. The main strategic priority is to create role models who can mobilize and encourage administrators of village forest management institutions and community members to actively participate in the Ueesi Village Forest's management actively, fostering a sense of shared responsibility. The low knowledge and capacity of village forest Management Institutions (LPHD) administrators and members and the lack of systematic government support are the reasons why LPHD Ueesi is not yet optimal. In addition to government support, support is also needed from NGOs, universities, and the business sector (BUMD and private). Therefore, it is crucial to design a strategy to strengthen appropriate management institutions to support the management of the Ueesi Village Forest, with the active involvement of all stakeholders.

Keywords: Institutions, QSPM, strengthening strategies, SWOT, village forests

INTRODUCTION

Involving village communities that rely on forest resources is a strategic step to encourage using forest resources and sustainably protect forest areas (Maryudi et al. 2018; Rahmani et al. 2021, 2022; Hasannudin et al. 2022). Village forest is a form of state forest management managed by village communities through village institutions, used for village welfare, and not burdened with permits or rights (Santoso et al. 2019; Rochmayanto et al. 2022, 2023). This village forest management can be an alternative solution for managing forest areas, especially in rural areas (Budiono et al. 2019). According to data from the Directorate of Social Forestry and Environmental Partnerships of the Ministry of Environment and Forestry in 2023, the realization of social forestry through village forest schemes has reached 508,931.42 hectares (72.76%) for 23,346 heads of families (KK) out of a total of 699,507.47 hectares. have been allocated to the community, with a total of 3,830 (47.36%) Village Forest Management Institutions (LPHD) out of a total of 8,087 institutional forms. This condition shows that forest management through the village forest scheme is quite popular with village communities (Santoso et al. 2019).

Village forests can provide various benefits, both directly and indirectly. These benefits include absorbing carbon, preserving biodiversity, reducing erosion, regulating water systems, resolving conflicts over land ownership, supporting ecotourism, maintaining forest resource conservation, and improving community welfare or per capita income (Roy et al. 2021; Nurrochmat et al. 2023a). Ueesi Village Forest has a working area of 8,017 hectares, including protected and production forests. The working area of this village forest is the largest compared to the area of other village forests in the same regency, and it is located upstream of the Konaweeha River Basin. The lives of the Ueesi Village people cannot be separated from the surrounding forest area. Generally, people use wood, Non-Timber Forest Products (NTFPs), and environmental services as drinking water sources and for regulating water systems (Adalina et al. 2014; Harbi et al. 2018; Rossita et al. 2021; Morizon et al. 2023; Mutaqin et al. 2023; Nurrochmat et al. 2023b). Following Environmental Kuznet's Curve (Nurrochmat et al. 2022), apart from increasing the

community's economic income, optimal village forest management can encourage the protection and conservation of forest areas, especially the upstream regions of the Konaweeha watershed.

One of the supporting factors for village forest management is institutional support for effective forest management (Sahide et al. 2015; Erbaugh and Nurrochmat 2019; Pribadi et al. 2020; Nurrochmat et al. 2021). Strong institutions are characterized by growth and functioning that run effectively within society. Therefore, institutional development efforts must be carried out by understanding the potential of existing management institutions so that institutional mapping can be carried out precisely and measurably (Nurrochmat et al. 2021).

The performance of the Ueesi Village Forest Management Institution (LPHD) is considered less than optimal. This can be seen from the absence of work programs, institutional rules, management plans, and activities for utilizing village forest work areas. Weak institutions are the main obstacle in managing village forests (Rochmayanto et al. 2023). Building village forest management institutions is an essential foundation for local collective action, a key strategy for increasing bargaining value and participation with other parties (Astuti et al. 2020; Kustanti et al. 2023). However, regional collective action can be successful if it is supported by applying forest management principles, including the existence of management rules by local community norms, the game rules that are prepared in a participatory manner, the economic incentives for land owners and users, and the land use control (Roslinda et al. 2012; Nurfatriani et al. 2015; Erbaugh and Nurrochmat 2019; Rossita et al. 2021; Purwawangsa et al. 2022). Therefore, serious attention is needed to encourage the performance of LPHD Ueesi by formulating appropriate institutions. An in-depth understanding of village forest management concepts and techniques is essential (Julijanti et al. 2014; Rochmayanto et al. 2022). This study aims to evaluate the condition of village forest management institutions of LPHD Ueesi and provide effective alternative strategies to strengthen them.

MATERIALS AND METHODS

Study area

This research was conducted in Ueesi Village, Ueesi Sub-district, East Kolaka District, Southeast Sulawesi Province, Indonesia (Figure 1). Ueesi Village is geographically located at coordinates 3º40'19,971" South and 121º32'7,691" East. The village forest in Ueesi Village covers an area of 8,017 hectares, or 5.5% of the total working area of UPTD KPHL Unit XIV Ueesi.

Data collection

This research uses both primary and secondary data. Primary data includes information about the elements and roles of stakeholders related to village forest management and essential factors that influence the strategic decisions to be executed. Secondary data includes information about village profiles, village forest management institutions, and relevant regulatory foundation documents for the areas used (Nurrochmat et al. 2017).

This study employs four techniques for data collection, i.e. (i) observation or observation directly in the field, (2) direct interviews with selected respondents in a structured manner using a questionnaire, (3) recording all secondary data from documents and reports belonging to agencies or companies related to research activities, (4) studies literature by collecting data from various sources including books, journals, previous studies, proceedings or other scientific writings and news.
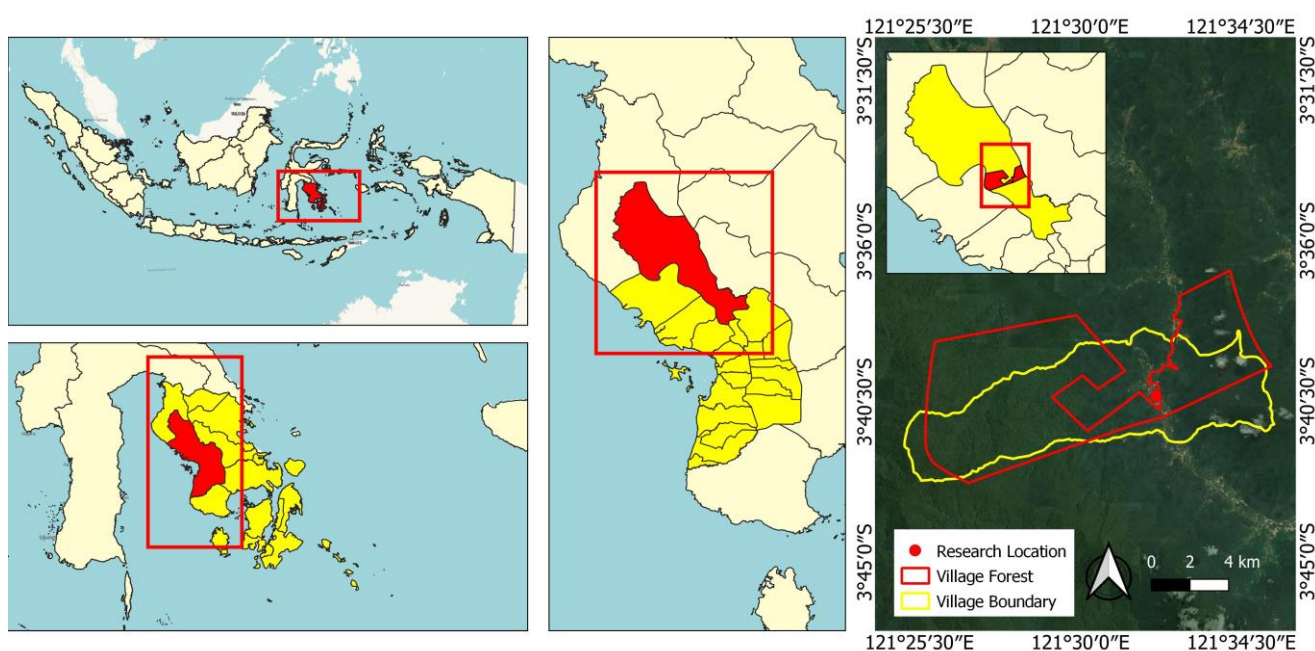
Figure 1. Location of Ueesi Village Forest, East Kolaka, Southeast Sulawesi, Indonesia

Observation aims to carefully and systematically record the symptoms that are the focus of the study. Interviews with relevant respondents are intended to collect accurate information regarding the study's focus. Secondary data recording, such as documents and reports, is carried out to collect information that cannot be observed directly at the research site. A literature study was carried out to explore the theoretical basis and relevant previous studies.

Sampling was purposive sampling; that is, samples were chosen deliberately based on expertise, knowledge, and connection to the research focus as stakeholders or key informants. Key informants provide information about other people or situations, events, and conditions that cannot be avoided at the research location (Sukwika et al. 2016). Stakeholders or key respondents are key informants who seek information regarding element variables, stakeholder roles, and other supporting data. Respondents were drawn using the snowball sampling method in nonprobability sampling, with quota control to regulate the number of individuals interviewed.

This study interviewed 17 respondents representing the following institutions: BPSKL (Social Forestry and Environmental Partnership Center), Dishut Provinsi Sulawesi Tenggara (Southeast Sulawesi Provincial Forestry Office), KPHL (Protected Forest Management Unit) Unit XIV Ueesi, Working Group (Pokja) for the Acceleration of Social Forestry (PPS) of the Southeast Sulawesi Province, District Government, Village Government, academicians; NGOs, and LPHD Ueesi management.

Data analysis
Stakeholders mapping
Stakeholder analysis identifies and understands individuals or groups interested in and influencing village forest management (Nurrochmat et al. 2017). Stakeholder analysis is an approach to identifying, understanding, and evaluating the interests and influence of various individuals or groups/organizations related to or impacted by village forest programs. Stakeholders are arranged into lists based on specific criteria, then entered into tables, and stakeholder matrices are used to describe and present information about stakeholder characteristics. The stakeholder matrix in question is a strategic management tool that maps and analyzes stakeholders based on their level of interest and influence on village forest programs using MS Excel. In contrast, the stakeholder characteristics are attributes used to define the roles, interests, and influence of various individuals or groups/organizations related to or impacted by the village forest program. According to Bryson (2003), by constructing a two-by-two matrix, one dimension is the interests of stakeholders in the organization or the problems faced, and the other is the influence of stakeholders on the organization's future or the issues. Optimal village forest management requires the involvement of relevant stakeholders through a comprehensive, wise, and systematic approach. This stakeholder analysis uses the power-interests model to produce the actors' positions in quadrants that describe the roles, responsibilities, and interactions actors have regarding village forest management (Reed et al. 2009). (i) Key players are stakeholders with significant or equally high interests and influence. They must be actively involved because they have considerable interest and influence in creating management rules categorized within the group. (ii) Subjects are stakeholders who are highly interested but have low influence. Regulations do not influence them, but they are interested in village forest management. They are often the marginal stakeholders that forestry development schemes seek to empower. (iii) Context setters are stakeholders who have low interest but great influence. They can be a significant risk and must be monitored and appropriately managed. (iv) Crowds are stakeholders with low interest and influence on village forest management

The influence and interest matrix is prepared based on the description of the respondents' responses expressed in quantitative scores and then grouped according to the previously mentioned criteria. To assess stakeholders' influence level and interests using the Likert scale with a value of 5 = very high, 4 = high, 3 = relatively high, 2 = low, and 1 = very low. The maximum amount obtained from each stakeholder based on the level of influence and interest is 25 points. The relationship between stakeholders is explained descriptively and depicted in a matrix. Identified stakeholders are written in table rows and columns that describe the relationships between stakeholders.

I-E and SWOT analysis
This study employs I-E (Internal-External) Factor Analysis. The I-E analysis is carried out to identify available strengths and weaknesses, while external factor analysis is carried out to identify opportunities and threats faced. Internal factors are evaluated using the Internal Factor Evaluation (IFE) Matrix, while external factors are assessed using the External Factor Evaluation Matrix (EFE) (Rangkuti 2015). The stages in preparing the IFE and EFE Matrix are as follows: (i) Make a list of internal and external factors, identifying internal factors by assigning variables for each strength and weakness and external factors by assigning variables to each opportunity and threat at the research location. The results identify each variable furthermore, giving it weight and a ranking score (rating). (ii) Determine the weight of every variable, i.e., submit results identifying variable factors internal and external strategic to respondents or information selected in a way purposive sampling. Weighting is done using a comparison method in pairs (paired comparison).

Determining the weight for each variable uses a score between 1 and 5. The score has the following meaning: score 1 = very low, score 2 = low, score 3 = medium, score 4 = high, and score 5 = very high. The weight of each variable is calculated by dy the total value of all variables using the formula:

$$Alpha\ \alpha i = \frac{.\ x_i}{\sum\limits_{i\,=\,1}^{n} x_i}$$

Where:
$\alpha\,i$: Weight of the variable
x_i : Value variable i
i : 1, 2, 3, n
n : Number of data

A variable with a weight of 0 (zero) indicates that it is not an important factor, while a variable with a weight of 1 (one) is very important or most influential. The total weight assigned will be equal to 1.0. These weight values are placed in the IFE and EFE Matrix weight columns.

The rating score is determined by assigning each variable a rating score of 1 to 5 on the IFE and EFE Matrix following the Likert modification. (i) Calculate the weighting score by multiplying each variable's weight by the rating scale. Multiplication results between weights and rankings produce score weighting for each variable as SWOT components. (ii) Calculate total score weighting, i.e., vertically add all score weightings for every variable. Total score value weighting will range between 1 and 5. Total score value weighting describes how respondents or informants react to internal and external strategic factors. The Internal Factor Evaluation (IFE) Matrix and External Factor Evaluation (EFE) Matrix can be seen in Table 1 and Table 2.

Strategic alternatives are determined by SWOT analysis (Strengths, Weaknesses, Opportunities, Threats). SWOT analysis identifies various factors in a structured method. Formulating a company strategy that combines external opportunities and threats with internal factors of strength and weaknesses is necessary to reach the objective. SWOT analysis is purposeful to maximize available strengths and opportunities, however, in a way that simultaneously can minimize weaknesses and threats faced by organizations, thus leading to several alternative strategies.

QSPM analysis

The determination priority strategy uses the Quantitative Strategic Planning Matrix (QSPM) method analysis. QSPM forms an analytical framework for strategy formulation that objectively indicates the best alternative strategies and allows strategists to evaluate key internal factors. This analysis is conducted by making a matrix QSP, inputting internal and external factors and alternative strategies previously selected using SWOT analysis. Weight on each factor multiplied by score Power pull (Attractiveness Score/AS) so that the total score is obtained Power attractiveness (Total Attractiveness Score/TAS). Big or small TAS determines the order priority of the selected strategy. Alternative strategies with the highest mark TAS are the most prioritized strategies.

RESULTS AND DISCUSSION

Research site

East Kolaka Regency has four village forest management permits, one in Ueesi Village, Ueesi Sub-district. The management rights for the Ueesi Village Forest are stated in the Decree of the Minister of Environment and Forestry Number 8516 of 2018. Currently, the Ueesi Village Forest still has blue status or can only fulfill two of the eight criteria for the success of the Social Forestry Business Group (PS). The success criteria for social forestry business groups (KUPS) are used by the Southeast Sulawesi Provincial Forestry Service to

assess the position of a PS scheme. There are at least four assessment categories, namely blue, silver, gold, and platinum (most developed) which consist of eight criteria, namely: (i) has been designated as KUPS, (ii) business potential has been identified, (iii) already has RPHD/RKU/RPH/RKT (iv) already has a business unit, (v) already manages tourism products/facilities, (vi) already has access to capital (independent/assistance/loans), (vii) already has a local market/tourists, and (viii) already has a market/tourists (regional).

The Ueesi Village Forest is included in the working area of the UPTD Forest Management Unit (KPH) Unit XIV Ueesi, East Kolaka Regency, Southeast Sulawesi Province, with a KPHS area of 145,224 hectares. The area of KPH Unit Based on the UPTD KPHL Unit XIV Ueesi land criticality level map, the administrative area of Ueesi Village has a land criticality level in the "somewhat critical" category. The area of the Ueesi Village Forest is 8,017 hectares or 5.5% of the total working area of UPTD KPHL Unit XIV Ueesi. Therefore, optimal management of the Ueesi Village Forest will reduce those critical land areas.

The types of state forest security disturbances in the Ueesi Sub-district, East Kolaka District, during 2022 (January-December period) consist of illegal logging, forest encroachment, and forest and land fires. Forest and land fires are the most frequent disturbances in this region. Those disturbances also occur in production forests, limited-production forests, and other land uses. The follow-up efforts carried out by the relevant agencies are (i) taking coordinate points and coordinating with the local Village Head, (ii) stopping encroachment activities and providing guidance to the community, and (iii) carrying out extinguishing and outreach regarding forest and land fires to the community.

The results of observations and interviews with stakeholders show that the Ueesi Village Forest work area is located in the upstream Konaweeha River Basin (DAS). Administratively, the Konaweeha watershed crosses four autonomous regions, namely East Kolaka Regency, Konawe, South Konawe, and Kendari City, and it has hydrological functions. The existence of the Ueesi Village Forest will provide economic benefits and forest protection to local communities; however, it will also benefit communities living and carrying out activities in downstream areas. Forest damage in the upstream region of the Konaweeha watershed will impact the lives and livelihoods of the community and disrupt community rice fields downstream due to the loss of the watershed's function as a water management system.

Ueesi Village Community Institution

The stakeholder interviews show that Ueesi Village has several community institutions: (i) Village-owned enterprises (BUMDes), which focus on village businesses renting tents and chairs. (ii) Village cooperatives focus on forest honey as a leading commodity but are no longer active. (iii) Forest farmer groups (KTH) focus on forestry and agricultural management. KTH in Ueesi Village is spread across each hamlet, namely KTH Medulu (Hamlet I

Ueesi), KTH Morini (Village II Wandaeha), KTH Mepokoaso (Village III Andoono), and KTH Meohai (Village IV Anggoune). However, two of the four existing KTHs are no longer active, and the others are still active. (iv) Ueesi Village Forest Management Institution (LPHD) focuses on managing village forests, and the stakeholder interviews revealed that village forest management needed to integrate better with the abovementioned social institutions.

Village Forest Institutions

The interviews with stakeholders revealed that the formation of the Ueesi Village Forest Management Institution (LPHD) was initiated by NGOs offering the Social Forestry (PS) village forest scheme program to the Village Government through the Village Head. As a member of the Working Group (POKJA) for the Acceleration of Social Forestry (PPS) in Southeast Sulawesi Province, which acts as a forestry assistant, this offering was made to encourage the distribution of forest land and forest production businesses to the community groups. The interested Village Government then deliberated at the village level, involving village officials and Forest Farmers Group (KTH) members to form a village forest Management Institution (LPHD).

The Village Government's interest is motivated by the community's desire and hope to manage and receive forest benefits legally. Interviews with other stakeholders revealed that another motivation for the Village Government's interest was the belief that the community could plant oil plants in the village forest work area; furthermore, the lure from NGOs that the village forest work area could be downgraded to forest area status to become owned land.

Based on the minutes of technical verification of the Ueesi HPHD application, East Kolaka Regency, it was concluded that the proposed location was approved and continued to the stage of issuing or determining the Ueesi HPHD, resulting in the issuance of Ministerial Decree Number 8516 of 2018 concerning the Granting of village forest Management Rights to the Ueesi Village Forest Management Institution covering an area of ±8,017 by the Director General of Social Forestry and Environmental Partnerships (Figure 2).

The licensing of Ueesi Village Forest Management Rights (HPHD) was established following the Minister of Environment and Forestry Regulation 83 of 2016 concerning Social Forestry. After issuing village forest Management Rights (HPHD) for 35 years, LPHD Ueesi has rights and obligations that must be implemented. These rights and responsibilities are written on the rules that regulate the operations of LPHD Ueesi. These rights consist of (i) protecting the area from damage and pollution, (ii) carrying out utilization efforts by local wisdom, including agroforestry (forestry) systems, (3) benefiting from management rights areas, and (4) developing a forestry production economy, (5) receive assistance in managing and resolving conflicts, (6) receive assistance in partnerships for business development, (7) receive assistance in preparing management plans and annual work plans for village forests, and (8) receive fair treatment based on gender. Meanwhile, LPHD's obligations consist of (i) protecting the area from environmental damage and pollution, (ii) marking the boundaries of its work area, (3) preparing a village forest management plan (RPHD) and an annual work plan for village forest management rights (RKT-HPHD), (4) submit reports on the implementation of village forest management, (5) carry out forest planting and maintenance, (6) carry out forest product administration, (7) pay forest resource provisions, (8) maintain forest functions, and (9) carry out protection forest. However, these rights and obligations have yet to be implemented optimally.

Moreover, granting village forest permits allows communities to utilize and manage their forest resources. According to Pribadi et al. (2023), village forests can guarantee long-term access to state forest land, stimulate investment in village forest work areas, and provide opportunities to diversify community household income sources. However, the formation of LPHD Ueesi has yet to be supported by the readiness of qualified Human Resources (HR). The Human Resources (HR) referred to are LPHD administrators and members who understand and know the village forest program and can manage and collaborate to manage the Ueesi Village Forest.
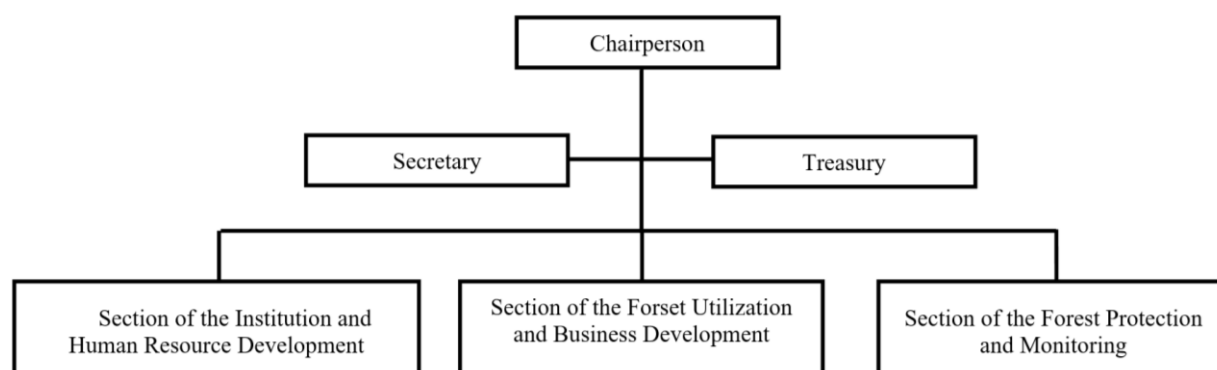
Figure 2. Organization structure of the LPHD Ueesi, East Kolaka, Southeast Sulawesi, Indonesia

Until now, the management and members of LPHD Ueesi do not yet have the organization's articles of association and bylaws (AD/ART), plans for village forest management (RPHD), annual work plan (RKT), and work plan business (RKU). Poor communication and coordination are other problems faced by LPHD Ueesi. Those issues cause LPHD Ueesi's performance to be unable to run optimally in utilizing and managing village forests because the institutional rules and village forest management plans are not defined yet. Village forest management plans, both annual and business work plans, are a reference for the technical implementation of the program that will be done and a basis for monitoring and evaluating activities in assessing and measuring the development and success of the village forest program in Ueesi Village.

Utilization of the Ueesi Village Forests

The interviews with stakeholders show that the Ueesi Village community is highly dependent on forests because people live directly adjacent to forest areas. The community uses forest resources, such as agroforestry or agroforestry patterns, as a source of household needs. People also use Non-Timber Forest Products (NTFPs); some use wood forest products.

The forest area in Ueesi Village has the potential for abundant and diverse forest resources to be utilized and maintained. This potential includes timber, Non-Timber Forest Products (NTFPs), and environmental services. Village communities generally use types of wood such as White Teak (*Gmelina arborea* Roxb. ex Sm.), Redwood (*Pterocarpus indicus* Willd.), Iron or Nona wood (*Xanthostemon petiolatus* (Valeton) Peter G.Wilson), Bitti (*Vitex cofassus* Reinw. ex Blume), Pando wood, Jabon (*Anthocephalus cadamba* Miq.), and Mahogany (*Swietenia mahagoni* (L.) Jacq.), while types of fruit plants such as Mango (*Mangifera indica* L.), Langsat (*Lansium domesticum* Corrêa), and Durian (*Durio zibethinus* Murray). Meanwhile, NTFPs that are widely used include forest honey (*Apis dorsata* Fabricius, 1793), rattan (*Calamus*), sago (*Metroxylon sagu* Rottb.), and bamboo (*Bambuseae*).

Village communities also use land and forests for farming and gardening by implementing agroforestry patterns or intercropping between agricultural and plantation crops. The types of agricultural plants used are cayenne pepper (*Capsium frutescens* L.), tomato (*Solanum lycopersicum* L.), spinach (*Amaranthus* spp.), long beans (*Vigna unguiculata* ssp. *sesquipedalis*), kale (*Ipomoea aquatica* Forssk.), cucumber (*Cucumis sativus* L.), Ginger (*Zingiber officinale var rubrum rhizoma*), and turmeric (*Curcuma longa* L.), candlenut (*Aleurites moluccana* (L.) Willd.), cloves (*Syzygium aromaticum* L.), nutmeg (*Myristica fragrans* Houtt.), and patchouli (*Pogostemon cablin* Benth). Meanwhile, the types of plantation crops are coffee (*Coffea* sp.), Coconut (*Cocos nucifera* L.), Cocoa (*Theobroma cacao* L.), Pepper (*Piper nigrum* L.), Sugar Palm (*Arenga pinnata*, MERR), and Oil Palm (*Elaeis guineensis* Jacq.).

The interviews with stakeholders explained that forest honey is one of the well-known superior commodities and is used as a source of additional income. From 2004 to 2016, forest honey use experienced a significant increase,

and its production was successfully sold outside the region. At that time, forest honey management was carried out through village cooperatives and assisted by the Nature Lovers Foundation (YASCITA) as a companion to the forest honey management community. However, after YASCITA was no longer established, forest honey management began to fail. Besides, forest honey production is declining due to high-rain intensities, forest burning activities, and illegal tree felling by people outside the village.

Based on the observations and interviews with stakeholders, it is clear that the Ueesi Village Forest has not had a maximum impact on improving community welfare and protecting forest areas. In other words, no significant changes occurred before and after the Ueesi Village Forest permit was obtained. The absence of institutional facilitation and assistance by the government means that village forest management has not provided optimal benefits for the welfare of the community and the surrounding natural environment.

Stakeholder mapping

Stakeholder analysis aims to determine the elements and roles of stakeholders related to village forest management in Ueesi Village. According to Reed et al. (2009), stakeholder mapping uses assessments based on interests and influence.

The interviews with stakeholders show that nine stakeholders are related to the management of the Ueesi Village Forest: the Ueesi LPHD administrators, NGOs, Halu Oleo University (UHO) academics, the Village Government, the District Government, the Provincial Social Forestry Acceleration Working Group, Southeast Sulawesi, KPHL Unit XIV Ueesi, and the Provincial Forestry Service. Southeast Sulawesi, and BPSKL Sulawesi region.

Stakeholder classification shows differences in roles between stakeholders in the interests and influences related to village forest management in Ueesi Village, which are described in four quadrant sections using a matrix. This identification of influence and interests is differentiated into three (three) aspects, namely the Subject aspect, the Players aspect, and the Crowds aspect (Figure 3).
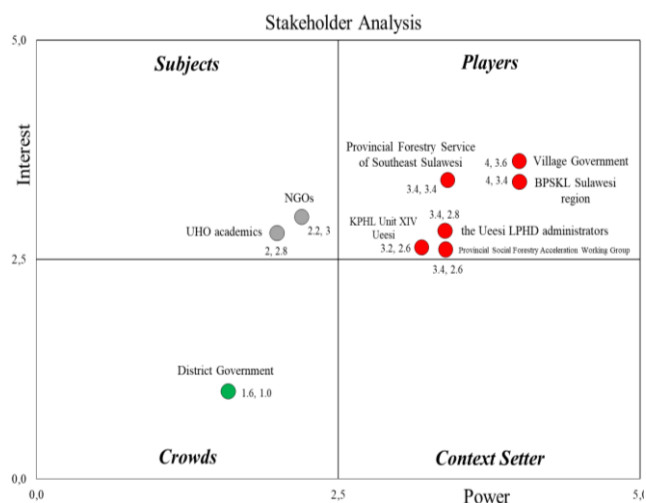
Figure 3. Stakeholder mapping related to village forest management in Ueesi Village, Southeast Sulawesi, Indonesia

Subject

Stakeholders in Quadrant 1 are subjects, namely stakeholders with a high interest in village forest management but a low influence on village forest management. Quadrant 1 in Figure 3 consists of NGOs and Halu Oleo University (UHO) academics. NGOs and UHO academics are subjects that have significant involvement in managing village forest licensing. NGOs facilitated the village government and LPHD Ueesi administrators with the Ministry of Environment and Forestry (KLHK) through the Social Forestry and Environmental Partnership Center (BPSKL) in the Sulawesi region. The NGO concerned processes the village forest permit (approval) directly through BPSKL in the Sulawesi region without involving other stakeholders such as the local government, KPH, and the private sector. The benefits of the village forest program include strengthening their networking and economic values by obtaining village forest permits; for each permit application, the NGO charges a fee for each Village Government whose village forest permit they facilitated. Regarding influence, NGOs are involved in outreach activities by the village government about the existence of village forests. Meanwhile, UHO Academics are engaged in the technical verification process for the village forest proposal in Ueesi Village. The benefits of the village forest program are the suitability of the primary duties and functions as a member of the Working Group for the Acceleration of Social Forestry in the Province. Southeast Sulawesi. Regarding influence, UHO Academics are involved in outreach related to the PS program to the community during field verification activities.

Players

Parties included in Quadrant II are key players, namely stakeholders with a high interest and influence in village forest management. These stakeholders are the Ueesi LPHD Management, Village Government, Provincial PPS Working Group, Southeast Sulawesi, KPHL Unit XIV Ueesi, and Provincial Forestry Service. Southeast Sulawesi, and BPSKL Sulawesi region. Stakeholders who act as players are involved in forming LPHD, field technical verification, licensing, and establishing village forests in Ueesi Village.

The village government and LPHD management are stakeholders that play a role in establishing village forest institutions. Both are interested in the village forest program, which discusses the benefits of opening employment opportunities for the community and the economy gained from utilizing forest areas. They also support the performance of these agencies while promoting programs in Ueesi Village. In terms of influence, these two institutions have authority in managing village forests, controlling financial resources, managing the workforce (HR), and determining the role of LPHD. These two institutions also significantly influence the continuity of the village forest program. However, they have obstacles, namely the need for more understanding, knowledge, and skills in managing village forests.

Provincial Forest Service of the Southeast Sulawesi, Provincial PPS Working Group of the Southeast Sulawesi, and KPHL Unit XIV Ueesi were involved in the technical verification process for the village forest proposal in Ueesi Village. These three agencies are interested in participating in village forest area evaluations, community empowerment, and providing facilities and infrastructure. However, these institutions have yet to offer facilitation and assistance to LPHD and Ueesi Village Forest; in terms of their primary duties and responsibilities, their role and responsibilities were to support LPHD's performance and promote forest products while securing forest areas. Evaluation in village forest management has not been carried out because village forest management planning has yet to be provided to these stakeholders, so monitoring and program evaluation cannot be done. On the other hand, this agency does not process the formation of LPHD and village forest licensing. From the aspect of influence, these stakeholders have control over resources, namely institutional (organizational) rules, forms of expertise as extension workers, and program sustainability through the development, training, and facilitation of human resources for village forest managers.

BPSKL for the Sulawesi region is involved in the licensing and designation process for village forests in Ueesi Village. Apart from its duties and functions as an extension of the central government, which is assigned to manage Social Forestry (PS) at the regional level, BPSKL is also involved because of its knowledge and understanding of forest resources and statutory regulations. BPSKL is interested in the HD program regarding the availability of stakeholder participation and the suitability of the agency's primary duties and functions.

Crowds

Stakeholders in Quadrant III are crowds, namely stakeholders with low interest and influence in village forest management. However, there is less intent to consider engaging with these stakeholders in more detail. The stakeholder included in the crowd's classification is the District Government. The sub-district government was only involved in notifying the existence of LPHD Ueesi and the village forest program. However, they were not technically involved and must learn more about the village forest program.

The results of the stakeholder analysis show a conflict of interest between the relevant stakeholders, where there is still sector ego between the stakeholders in the management of the Ueesi Village Forest. Besides, village and regional government programs are still partially or not integrated. The village forest program has the potential to be integrated with other business units such as Village Owned Enterprises (BUMDes) and Village Cooperatives, as well as other village development programs such as village fund programs, village Sustainable Development Goals/SDGs programs, and village innovation programs, which in principle aims to increase development and empowerment of village communities.

The results of the stakeholder analysis also show that the current level of government and non-government support for LPHD Ueesi is still shallow. This is proven by the absence of assistance provided to LPHD Ueesi regarding mentoring, funding, technology, or business unit development (forest products). In other words, the support system is still not adequate, causing the Ueesi Village Forest program not to be managed and utilized optimally.

The village government and LPHD Ueesi communicate and coordinate poorly with relevant stakeholders such as UHO Academics, Pokja PPS Southeast Sulawesi, KPHL Ueesi, Southeast Sulawesi Provincial Forestry Service, and BPSKL Sulawesi region. One way to overcome potential conflicts and competing interests between stakeholders is to emphasize inclusiveness in decision-making. Engaging in open dialogue and constructive discussions with all stakeholders can help identify and mitigate potential conflicts.

Strategy for strengthening village forest management institutions

Strategy, in general, is a tool used to achieve goals. (Rangkuti 2015). The formulation of a strategy for strengthening village forest management institutions in Ueesi Village, Ueesi District, produces variables that are summarized to obtain alternative management strategies through an internal-external matrix. A complete description of internal and external factors is as follows:

Internal factors

Analyzing the internal factors of the village forest management institution is the first step in developing an institutional strengthening strategy. This analysis identifies the factors that constitute the institution's strengths and weaknesses. The results of identifying strengths and weaknesses (Table 1) owned by institutions can be used to determine strategies for strengthening village forest management institutions so that many market opportunities can be utilized optimally.

External factors

Analysis of the external factors of the Ueesi Village Forest management institution aims to identify factors that constitute the opportunities and threats (Table 2). External factors are determined by involving relevant stakeholders and selected experts knowledgeable about village forests, assessing their weight and rating, and displaying the results in the external factor matrix.

The selection of strategies for strengthening village forest management institutions in Ueesi Village is determined based on the results of calculating scores on the EFAS and IFAS matrix of Ueesi Village Forest management institutions, depicted on the X and Y axes. The coordinate points are between X = -0.84 and Y = 0.38, showing the position of the strategy quadrant that will be used, namely quadrant III (Figure 4). Figure 3 shows the appropriate strategy to use in strengthening village forest management institutions in Ueesi Village is the turn-around (WO) strategy. Therefore, it is essential to formulate alternative strategies that apply to the existing conditions by creating a SWOT matrix. The SWOT matrix was also built to analyze external and internal strategic factors (Table 3).

The diagram and matrix illustrate the position of the village forest management institution facing weaknesses, so it is necessary to stimulate and implement strategies using opportunities from an external perspective to have the advantage of long-term opportunities by implementing a turn-around strategy at the village forest management institution in Ueesi Village.

Selected strategic priorities

Analysis A Quantitative Strategic Planning Matrix (QSPM) is intended to select strategic priorities based on the results of the WO matrix. This analysis is carried out by creating a QSP matrix with the input of internal-external factors and alternative strategies that have been formulated. The weight of each factor is multiplied by the score Power pull (Attractiveness Score/AS) to obtain a total attractiveness score (Total Attractiveness Score/TAS). The selected stakeholders determine attractiveness scores (Attractiveness Score) for each strategy against internal and external factors, and the values on TAS, bigger or smaller, determine the order priority chosen strategy. An alternative strategy with mark TAS at the highest is the most prioritized strategy recommended for strengthening village forest management institutions in Ueesi Village.

The SWOT analysis results obtained ten alternative strategies (Table 3). In comparison, the results of the W-O analysis obtained three alternative strategies, namely Strategy I, which Assists in increasing the capacity of LPHD administrators and community members to manage village forests. Strategy II: Make a village forest management plan and LPHD AD/ART by involving relevant stakeholders. Strategy III: Create role models to mobilize and encourage LPHD administrators and community members in village forest management, presented in Table 4.

The results of the QSPM matrix show that the priority strategy is "creating role models who can mobilize and encourage LPHD administrators and community members in managing village forests." This strategy has a total attractiveness score (TAS) of 5.552.

Forming role models in LPHD Ueesi is essential to initiating environmental awareness and increasing active participation and sustainability in village forest management in Ueesi Village. According to Suharti et al. (2016), individuals with symbolic power can inspire others and establish a recognized framework for action. These influential individuals become role models for initiating joint action in forest management. Role models were derived from the community, LPHD administrators, village government, forestry assistants, or other stakeholders who are motivated and committed to giving their time, energy, and all resources to HD management.
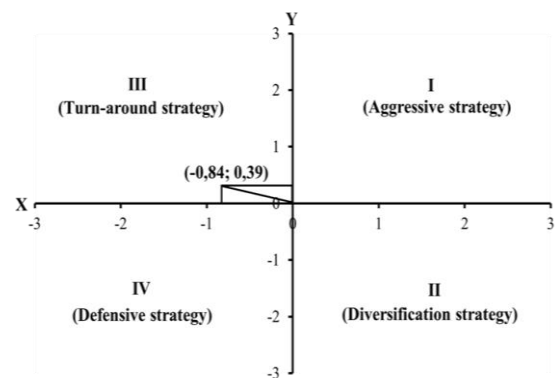
Figure 4. Quadrant position of village forest management institutions in Ueesi Village, Southeast Sulawesi, Indonesia

Table 1. Internal strategy factors

Strength	Weight	Ratings	Score
1 There is public awareness to improve the welfare and sustainability of forests	0.05	3.71	0.201
2 There is awareness among the administrators of village forest management institutions to improve village forest institutions	0.05	3.64	0.193
3 Availability of Human Resources (HR) to manage village forests	0.04	2.92	0.124
4 The existence of village forest management rights covering an area of 8,017 hectares within the village area	0.06	3.81	0.211
5 Community social capital in the form of trust and community social norms is strong	0.05	3.71	0.201
6 Establishment of the structure of village forest management institutions (LPHD)	0.06	3.92	0.223
7 There is a commitment from village officials and LPHD administrators to manage village forests optimally	0.05	3.57	0.186
8 Use of technology to encourage the development and marketing of village forest commodities	0.03	2.20	0.071
Total	**0.40**		**1, 41**

Weakness	Weight	Ratings	Score
1 There are no village forest area boundaries yet	0.06	3.79	0.209
2 There is no systematic program to manage village forests	0.05	3.71	0.201
3 Leadership management to manage low village forests	0.06	3.79	0.209
4 Community participation in village forest programs is lacking	0.05	3.21	0.150
5 Institutional assistance in village forest management is not yet running	0.06	4.00	0.233
6 Low understanding and knowledge of Human Resources (HR) to manage village forests	0.06	3.86	0.217
7 The division of labor and working relationships between LPHD administrators have not gone well	0.05	3.64	0.193
8 There is no AD/ART (Rule of the game) in village forest management	0.06	3.86	0.217
9 Monitoring and supervision in village forest management is not yet running	0.05	3.71	0.201
10 Sanctions and rewards in village forest management have not yet been implemented	0.06	3.86	0.217
11 Accountability and evaluation mechanisms in village forest management are not yet operational	0.06	3.79	0.209
Total	**0.60**		**2.25**

Table 2. External factor strategies

Opportunity	Weight	Ratings	Score
1 Policy and regulatory support in state forest management	0.07	3.36	0.236
2 Support from relevant stakeholders according to their capacity and role in village forest development	0.07	3.21	0.217
3 There are training programs from the government, NGOs, and research institutes for village forest development	0.05	2.50	0.131
4 Receipt of economic and ecological benefits for society	0.08	3.79	0.300
5 There is assistance from the village government to monitor and protect forests	0.05	2.43	0.124
6 There are sanctions for forest destroyers	0.07	3.14	0.207
7 Implementation of innovative management strategies for village forest development	0.05	2.57	0.139
8 Cooperation and collaboration in the utilization and development of village forest businesses	0.07	3.43	0.246
9 Expansion of target markets and promotion of village forest commodities	0.07	3.21	0.217
Total	**0.58**		**1.82**

Threat	Weight	Ratings	Score
1 Increased encroachment on state forest areas due to the absence of monitoring activities	0.06	3.00	0.189
2 Increased encroachment on state forest areas due to the lack of enforcement of sanctions against destroyers of forest	0.06	2.93	0.180
3 The increase in encroachment on state forest areas is due to the lack of incentives and disincentives for the community	0.06	2.79	0.163
4 Low communication and coordination between agencies involved in village forest management	0.08	3.79	0.300
5 Strengthening village forest management institutions from the government or other related institutions has not been implemented	0.08	3.86	0.312
6 The limited number of Human Resources (HR) owned by relevant stakeholders to provide facilitation and assistance	0.08	3.71	0.289
Total	**0.42**		**1, 43**

Table 3. SWOT Matrix of strategies for strengthening institutional management of the Ueesi Village Forest, Southeast Sulawesi, Indonesia

Internal	Strength (S)	Weakness (W)
	1 There is public awareness to improve the welfare and sustainability of forests 2 There is awareness among the administrators of village forest management institutions to improve village forest institutions 3 Availability of Human Resources (HR) to manage village forests 4 The existence of village forest management rights covering an area of 8,017 hectares within the village area 5 Community social capital in the form of trust and community social norms is strong 6 Establishment of the structure of village forest management institutions (LPHD) 7 There is a commitment from village officials and LPHD administrators to manage village forests optimally 8 Use of technology to encourage the development and marketing of village forest commodities	1 There are no village forest area boundaries yet 2 There is no systematic program to manage village forests 3 Leadership management to manage low village forests 4 Community participation in village forest programs is lacking 5 Institutional assistance in village forest management is not yet running 6 Low understanding and knowledge of Human Resources (HR) to manage village forests 7 The division of labor and working relationships between LPHD administrators have not gone well 8 There is no AD/ART (Role of the game) in village forest management 9 Monitoring and supervision in village forest management is not yet running 10 Sanctions and rewards in village forest management have not yet been implemented 11 Accountability and evaluation mechanisms in village forest management are not yet operational
External		
Opportunity (O) 1 Policy and regulatory support in state forest management 2 Support from relevant stakeholders according to their capacity and role in village forest development 3 There are training programs from the government, NGOs, and research institutions for village forest development 4 Receipt of economic and ecological benefits for society 5 There is assistance from the village government to monitor and protect forests 6 There are sanctions for forest destroyers Implementation of innovative management strategies for village forest development 7 Cooperation and collaboration in the utilization and development of village forest businesses 8 Expansion of target markets and promotion of village forest commodities	**SO Strategy:** 1 Collaborating with other stakeholders regarding assistance, funding, and business development in village forest management (S1, S2, S3, S4, S5, S7, O1, O2, O4, O5, O7, O8, O9) 2 Increasing social capital in fostering cooperation, expanding the capacity of village forest managers, and building collective action in village forest management (S5, S6, S7, O2, O3, O4, O5, O8) 3 Develop innovative technology to increase the added value of forest products in village forest management (S4, S8, O4, O7, O8, O9) 4 Incorporating village forest management plans into the RPJMDes and SDGs of Ueesi Village (S4, S7, O2, O4, O5, O8)	**WO Strategy:** 1 Assist in increasing the capacity of LPHD administrators and community members in village forest management (W1, W2, W3, W5, W6, W7, W9, O2, O3, O4, O7, O8, O9) 2 Create a village forest management plan and LPHD AD/ART by involving relevant stakeholders (W4, W6, W7, W8, W9, W10, W11, O2, O4, O,7, O8) 3 Creating role models who can mobilize and encourage LPHD administrators and community members in village forest management (W1, W3, W4, W6, O2, O3, O8)
Threats (T) 1 Increased encroachment on state forest areas due to the absence of monitoring activities 2 Increased encroachment on state forest areas due to the lack of enforcement of sanctions for forest destroyers 3 The increase in encroachment on state forest areas is due to the need for more incentives and disincentives for the community. 4 Low communication and coordination between agencies involved in village forest management 5 Strengthening village forest management institutions from the government or other related institutions has yet to be implemented. 6 The limited number of Human Resources (HR) owned by relevant stakeholders to provide facilitation and assistance	**ST Strategy:** 1 Create a monitoring mechanism and enforce sanctions for communities that destroy forests (S1, S6, S7, T1, T2, T5) 2 Create incentive and disincentive schemes according to the needs and desires of LPHD administrators and community members (S2, S4, S7, T3, T5, T6)	**WT Strategy:** 1 Arrange the rights and obligations of LPHD administrators and community members in village forest management (W4, W7, W9, W10, W11, T1, T2, T3)

Table 4. Priority strategies in building village forest management institutions

Key factors	Value	Strategy I		Strategy II		Strategy III	
		AS	TAS	AS	TAS	AS	TAS
Internal factors							
Strength (S)							
1. There is public awareness to improve the welfare and sustainability of forests	0.054	3	0.144	2	0.108	3	0.162
2. There is awareness among the administrators of village forest management institutions to improve village forest institutions	0.053	3	0.141	2	0.124	3	0.159
3. Availability of Human Resources (HR) to manage village forests	0.042	3	0.113	2	0.099	2	0.099
4. The existence of village forest management rights covering an area of 8,017 hectares within the village area	0.055	3	0.185	3	0.148	3	0.148
5. Community social capital in the form of trust and community social norms is strong	0.054	2	0.126	2	0.108	3	0.144
6. Establishment of the structure of village forest management institutions (LPHD)	0.057	2	0.133	3	0.190	3	0.152
7. There is a commitment from village officials and LPHD administrators to manage village forests optimally	0.052	3	0.173	2	0.121	3	0.156
8. Use of technology to encourage the development and marketing of village forest commodities	0.032	2	0.053	2	0.053	1	0.043
Weakness (W)							
1. There are no village forest area boundaries yet	0.055	2	0.110	3	0.147	3	0.147
2. There is no systematic program to manage village forests	0.054	3	0.162	2	0.108	2	0.126
3. Leadership management to manage low village forests	0.055	3	0.147	3	0.147	3	0.165
4. Community participation in village forest programs is lacking	0.047	3	0.140	2	0.078	3	0.140
5. Institutional assistance in village forest management is not yet running	0.058	3	0.155	2	0.097	2	0.136
6. Low understanding and knowledge of Human Resources (HR) to manage village forests	0.056	3	0.168	2	0.094	3	0.168
7. The division of labor and working relationships between LPHD administrators have not gone well	0.053	3	0.159	3	0.141	2	0.124
8. There is no ad/art (role of the game) in village forest management	0.056	2	0.131	3	0.168	2	0.131
9. Monitoring and supervision in village forest management are not yet running	0.054	2	0.108	2	0.126	3	0.144
10. Sanctions and rewards in village forest management have not yet been implemented	0.056	2	0.131	1	0.075	2	0.112
11. Accountability and evaluation mechanisms in village forest management are not yet operational.	0.055	2	0.129	2	0.110	2	0.129
External factors							
Opportunity (O)							
1. Policy and regulatory support in state forest management	0.070	4	0.281	4	0.281	3	0.211
2. Support from relevant stakeholders according to their capacity and role in village forest development	0.067	3	0.202	3	0.180	3	0.180
3. There are training programs from the government, NGOs, and research institutions for village forest development	0.052	3	0.175	2	0.122	3	0.157
4. Receipt of economic and ecological benefits for society	0.079	2	0.185	2	0.159	3	0.212
5. There is assistance from the village government to monitor and protect forests	0.051	2	0.119	1	0.068	2	0.102
6. There are sanctions for forest destroyers	0.066	2	0.132	1	0.088	2	0.132
7. Implementation of innovative management strategies for village forest development	0.054	2	0.126	2	0.126	2	0.126
8. Cooperation and collaboration in the utilization and development of village forest businesses	0.072	3	0.216	3	0.192	3	0.240
9. Expansion of target markets and promotion of village forest commodities	0.067	3	0.202	2	0.157	3	0.202
Threat (T)							
1. Increased encroachment on state forest areas due to the absence of monitoring activities	0.063	4	0.231	2	0.126	3	0.168
2. Increased encroachment on state forest areas due to the lack of enforcement of sanctions for forest destroyers	0.061	3	0.184	2	0.143	3	0.205
3. The increase in encroachment on state forest areas is due to the lack of incentives and disincentives for the community	0.058	3	0.175	3	0.156	4	0.214
4. Low communication and coordination between agencies in village forest management	0.079	3	0.238	3	0.212	4	0.291
5. Strengthening village forest management institutions from the government or other related institutions has not been implemented	0.081	3	0.216	2	0.189	3	0.269
6. There is a limited number of Human Resources (HR) owned by relevant stakeholders to provide facilitation and assistance	0.078	3	0.259	2	0.182	3	0.259
Total interest score			5.551		4.622		5.552
Selected strategic priorities			II		III		I

Role models are expected to have good knowledge, communication, and coordination skills to provide understanding and motivation to LPHD administrators and community members to be actively involved in forest management. Apart from that, it is also hoped that it will be able to bridge access to information and coordination with BPSKL agencies in the Sulawesi region, universities, the Provincial Forestry Service, KPHL Ueesi, and Pokja PPS Southeast Sulawesi, as well as other stakeholders who are not yet involved in village forest management such as the private sector (entrepreneurs) and district government to obtain support for management activities. Suharti et al. (2016) Explain that these symbolic power holders are essential in persuading community members to realize the interest of collective action. This process, known as common knowledge, is critical to encourage community involvement in joint actions. In areas that do not have local leadership capable of initiating joint action, external assistance can facilitate the creation of a conducive environment and conditions that allow leadership to emerge, supported by the necessary infrastructure and resources.

However, this effort will undoubtedly face challenges from LPHD administrators and community members. To control these challenges, we need to provide an in-depth understanding of the formation of role models in the proposed management of the Ueesi Village Forest. In addition, this effort must be built on strong social capital between LPHD administrators and community members, and it must be emphasized that this strategy will bring about improvements in Ueesi Village Forest institutions.

The second priority strategy is to "provide assistance to increase the capacity of LPHD administrators and community members in managing village forests." This strategy has a Total Attractiveness Score (TAS) of 5,551. Ueesi LPHD administrators have limited knowledge and understanding regarding village forest management. These limitations result in the inability of LPHD administrators and members to formulate organizational rules and village forest management plans and establish coordination with related agencies. Assistance is critical in implementing Social Forestry (PS), including helping community groups create proposals, location maps, and business development plan documents. The role of the companion is to provide information and explanations about village forests, facilitate community capacity building (institutional, management, and technical), and communication between the community and local government. Therefore, the government, regional government, and accompanying institutions such as NGOs are vital to implementing PS. According to Moeliono et al. (2015), facilitation and mentoring activities are essential to encourage village forest implementation and development. The facilitation process in village forest management aims to assist communities in preparing and implementing their management plans.

In Minister of Forestry Regulation number 29 of 2013 concerning guidelines for assistance in forestry development activities, assistance is divided into several aspects such as (a) forest governance and preparation of forest management plans, (b) forest utilization and use of forest areas, (c) forest rehabilitation and reclamation, and (d) forest protection and nature conservation. Meanwhile, the assistance aims to support LPHD Ueesi's activities in managing village forests, such as (a) facility and infrastructure assistance, (b) financial assistance, and (c) promotional/marketing assistance. Without assistance, village forest management institutions in Ueesi Village find operating and achieving common goals difficult. The assistance can include transferring information and technology and the facilitation process to access information and technology sources and widen relationships between other agencies. In addition, assistance can conduct counseling activities and technical training. Mentoring in the mentoring process acts as a mediator, planner, motivator, liaison, facilitator, and evaluator. Furthermore, activities related to social issues and increasing capacity to build cooperation require serious assistance from relevant stakeholders. According to the article, local community institutions are weak because they are ineffective in regulating community behavior to achieve community management goals (economic, social, and ecological). For this reason, assistance is essential to help LPHD Ueesi achieve common goals and build strong conservation awareness in village forest management.

The interviews with stakeholders show that the NGO that facilitated the Ueesi Village Forest permit (approval) did not assist in the planning and implementation stage of the village forest program. The NGO only facilitated HD licensing, so the Ueesi LPHD administrators have many issues due to their ignorance of the HD program. Other stakeholders are reluctant to get involved because they lack a sense of ownership and responsibility for village forest management. This is because establishing the LPHD and licensing the Ueesi Village Forest only involves NGOs and the central government vertically, in this case, BPSKL Sulawesi region, without affecting the Provincial Forestry Service and KPH as area stakeholders.

On the other hand, the interviews with stakeholders show that the LPHD Ueesi management wants to receive facilitation and assistance in managing village forests from related stakeholders. The Village Government and LPHD Ueesi hope for assistance in village forest management to develop village forest businesses.

The third priority strategy is "creating a village forest management plan and AD/ART of the village forest management institution (LPHD) by involving relevant stakeholders." The strategy has a Total Attractiveness Score (TAS) of 4.62 2. The village forest management plan and AD/ART of the management agency are the rules of the game that regulate the management agency in carrying out activities for the utilization and management of the Ueesi Village Forest. After implementing the two strategic priorities, LPHD Ueesi management is expected to experience increased Human Resource (HR) capabilities to develop management planning and organizational rules

together. Therefore, LPHD Ueesi can improve the institution's performance and manage its forests independently according to the characteristics and potential of its forest resources. Apart from identifying existing resource potentials and their problems, preparing activity plans and programs in forest area management also considers the readiness and capacity of the community groups' involvement. The interviews with stakeholders show that monitoring and evaluation of the village forest in Ueesi Village has not been carried out because the Ueesi LPHD does not yet have an RKT/RKHD, so there is no basis or reference for monitoring and evaluation activities by relevant stakeholders to assess the extent to which village forest management is being implemented.

Institutional structure plays a vital role in the success of an organization, including the division of power, tasks, internal communication, and means for institutional interaction. Although institutions determine the achievement of LPHD Ueesi's goals and performance, the process of achieving performance is influenced by socio-political factors and resource flows that influence the effectiveness of social interactions, such as participation, dissemination of information, and community knowledge (Kartodihardjo 2023). In other words, the granting of village forest management permits to the Ueesi Village community has not been supported by good institutional infrastructure. The institutional infrastructure refers to coordination between agencies, community empowerment, and governance.

Management of the Ueesi Village Forest requires institutional development support from relevant stakeholders to increase the institutional capacity of Ueesi Village Forest management and to ensure the sustainability of the village forest program. However, this support will work well if it is accompanied by efforts to foster trust and interaction between various stakeholders. In other words, the involvement of multiple stakeholders from the start of the licensing process and the formation of village forest management institutions will strengthen the binding of relevant stakeholders to be actively involved and committed. This is important to ensure stakeholders have a sense of responsibility and ownership towards the village forest program.

In conclusions, forests are threatened due to illegal logging activities, forest fires, and conversion of forest land for agricultural and plantation activities by village communities and communities outside the village. The capacity of LPHD Ueesi administrators is still low due to the absence of institutional facilitation and assistance activities. This causes village forest management's conceptual and operational practices to be incomprehensible and practiced optimally by the Ueesi LPHD administrators.

Village forest management in Ueesi Village has not been supported by the realization of the development of village forest management institutions by the government and related stakeholders, so the existence of Village Forests has not had a significant impact on the welfare of local communities and the sustainability of the forest ecosystem in the area.

The delivery of village forest rights or granting permits must be supported by efforts to internalize village forest management, which aims to strengthen the management institutional structure. Therefore, internalization must be done to incorporate and adopt village forest management practices into village community activities through regulations and understanding. Hence, the village forest framework must become regulated and established.

Moreover, it is essential to develop the capacity of village forest management institution (LPHD) administrators and members, who generally have limited knowledge, communication, and skills, to sustainably operate village forest management concepts and techniques and contribute to community welfare and sustainability.

Weaknesses in the management of LPHD Ueesi include: (i) Low leadership management; (ii) Institutional assistance has not been implemented; (3) Low understanding and knowledge of human resources regarding village forests; (4) Low community participation; (5) Village forest area boundary markers have not been installed; (6) A systematic village forest program has not been developed; (7) The division of labor and working relationships between LPHD administrators are not yet functional; (8) AD/ART as the rules of the game that are used do not exist; (9) Monitoring and supervision is not yet running; (10) Sanctions and rewards have not yet been implemented; and (11) Accountability and evaluation mechanisms have not yet been implemented.

Strengthening local capacity by increasing the capacity of administrators and local leadership of LPHD is one approach or strategy to overcome potential weaknesses or limitations of the proposed strategy to strengthen Ueesi Village Forest management institutions so that they can manage and mobilize their resources independently.

Strengthening this capacity is expected to significantly impact the motivation and enthusiasm of LPHD administrators in managing forest areas. However, strengthening Ueesi Village Forest management institutions needs to be supported by efforts to increase awareness and involvement of LPHD administrators and members in decision-making, implementation, benefit distribution, and program evaluation, as well as forms of forest area management through partnership patterns to obtain funding and technological assistance.

This study indicates that the government still needs to be more aware of implementing the institutional development of village forest management in Ueesi Village and tends only to pursue the target of realizing the area of village forest permits (approvals) without realizing the development of village forest institutions and businesses. Therefore, the government needs to reconstruct the capacity of LPHD Ueesi administrators and members by internalizing village forest management so that LPHD administrators and members can independently and responsibly utilize and optimize the potential of forest resources in their villages. On the other hand, this study can also help local governments identify and implement strategies for strengthening appropriate village forest management institutions in East Kolaka Regency, especially in Ueesi Village, Ueesi District.

In addition, NGOs that assist in the licensing process must have strong commitment and influence both vertically and horizontally. The commitment refers to its vision, mission, and responsibility; in this case, assistance is not only in the licensing process but needs to be carried out continuously up to the process of preparing program plans and institutional rules (AD and ART), implementation, and evaluation of management village forest. Meanwhile, the influence referred to is that NGOs not only have access and networks to the central government (vertical). However, it must also have robust access and influence at the regional level (horizontal), which can mobilize regional governments and other related stakeholders such as KPH, universities, BUMD, and the private sector to strengthen institutions and develop village forest businesses actively.

However, relying on external support from the government and Non-Governmental Organizations (NGOs) to manage Ueesi Village Forests will not result in long-term, sustainable institutional strengthening. External support is limited regarding Human Resources (HR) and funding, usually within a certain period. For this reason, long-term sustainable institutional strengthening is carried out through local institutional development by transferring knowledge and opening network access to LPHD Ueesi.

Given the unique socio-economic and cultural dynamics of Ueesi Village, it is critical to conduct a thorough assessment and consultation to understand the practical implications of the proposed strategy. Adapting strategies to align with a community's specific needs and traditions can increase the likelihood of successful implementation. Therefore, a balanced approach is needed to address concerns about growing government and external support that has the potential to overshadow the nature of village forest management.

ACKNOWLEDGEMENTS

REFERENCES

Adalina Y, Nurrochmat DR, Darusman D, Sundawati L. 2014. Harvesting of non-timber forest products by the local communities in Mount Halimun-Salak National Park, West Java, Indonesia. Jurnal Manajemen Hutan Tropika 20 (2): 103-111. DOI: 10.7226/jtfm.20.2.103.

Astuti EW, Hidayat A, Nurrochmat DR. 2020. Community forest scheme: Measuring impact in livelihood case study Lombok Tengah Regency, West Nusa Tenggara Province. Jurnal Manajemen Hutan Tropika 26 (1): 52-58. DOI: 10.7226/jtfm.26.1.52.

Bryson JM. 2003. What to do when Stakeholders Matter: A Guide to Stakeholder Identification and Analysis Techniques. The London School of Economics and Political Science, London.

Budiono R, Nugroho B, Hardjanto, Nurrochmat DR. 2019. The village forest is a counter-territorialization by village communities in Kampar Peninsula Riau. Jurnal Manajemen Hutan Tropika 24 (3): 115-125. DOI: 10.7226/JTFM.24.3.115.

Erbaugh JT, Nurrochmat DR. 2019. Paradigm shift and business as usual through policy layering: Forest-related policy change in Indonesia (1999-2016). Land Use Policy 86: 136-146. DOI: 10.1016/j.landusepol.2019.04.021.

Harbi J, Erbaugh JT, Sidiq M, Haasler B, Nurrochmat DR. 2018. Making a bridge between livelihoods and forest conservation: lessons from Non-Timber Forest Products' utilization in South Sumatera, Indonesia. For Policy Econ 94: 1-10. DOI: 10.1016/j.forpol.2018.05.011.

Hasannudin DAL, Nurrochmat DR, Ekayani M. 2022. Agroforestry management systems through landscape-life scape integration: A case study in Gowa, Indonesia. Biodiversitas 23 (4): 1864-1874. DOI: 10.13057/biodiv/d230420.

Julijanti J, Nugroho B, Kartodihardjo H, Nurrochmat DR. 2014. Policy adoption of forest management unit: A knowledge diffusion analysis. Jurnal Manajemen Hutan Tropika 20 (2): 94-102. DOI: 10.7226/jtfm.20.2.94.

Kartodihardjo H. 2023. Analisis Kebijakan Tata Kelola Sumber Daya Alam. LP3ES, Depok. [Indonesian]

Kustanti A, Purnomo M, Nurrochmat DR, Fitriana YR. 2023. Sustaining mangrove and rainforests: Land rights and collective action in Indonesia. Intl J Sustain Dev Plan 18 (5): 1545-1552. DOI: 10.18280/ijsdp.180525.

Maryudi A, Nurrochmat DR, Giessen L. 2018. Research trend: Forest policy and governance - Future analyses in multiple social science disciplines. For Policy Econ 91: 1-4. DOI: 10.1016/j.forpol.2018.02.007.

Moeliono M, Mulyana A, Adnan H, Manalu P, Yuliani L, Balang. 2015. Hutan Desa: Pemberdayaan, Bisnis, atau Beban? Agroforestry and Forestry in Sulawesi No. 52. Bogor, Indonesia. [Indonesian]

Morizon M, Nurrochmat DR, Maharijaya A, Putra PK. 2023. Developing a sustainable community forest management strategy in the mountainous areas of Tanggamus, Lampung, Indonesia. Biodiversitas 24 (8): 4503-4513. DOI: 10.13057/biodiv/d240831.

Mutaqin F, Nurrochmat DR, Supriyanto B. 2023. Evaluating the sustainability of forest utilization in the protected areas of Mandalagiri Forest, West Java, Indonesia. Biodiversitas 24 (5): 2745-2755. DOI: 10.13057/biodiv/d240528.

Nurfatriani F, Darusman D, Nurrochmat DR, Yustika AE, Muttaqin MZ. 2015. Redesigning Indonesian forest fiscal policy to support forest conservation. For Policy Econ 61: 39-50. DOI: 10.1016/j.forpol.2015.07.006.

Nurrochmat DR, Nugroho IA, Hardjanto, Purwadianto A, Maryudi A, Erbaugh JT. 2017. Shifting contestation into cooperation: Strategy to incorporate different interest of actors in medicinal plants in Meru Betiri National Park, Indonesia. For Policy Econ 83: 162-168. DOI: 10.1016/j.forpol.2017.08.005.

Nurrochmat DR, Pribadi R, Siregar H, Justianto A, Park MS. 2021. Transformation of agro-forest management policy under the dynamic circumstances of a two-decade regional autonomy in Indonesia. Forests 12 (4): 419. DOI: 10.3390/f12040419.

Nurrochmat DR, Sahide MAK, Fisher MR. 2022. Making sustainable forest development work: Formulating an idea for a more appropriate green policy paradigm. Front Environ Sci 10: 783718. DOI: 10.3389/fenvs.2022.783718.

Nurrochmat DR, Suryanto, Nurrochmat NA, Tarigan S, Siregar IZ, Rizki DLY, Radjawali I, Sulistio H. 2023a. Indonesia's options in becoming a high-income country: Accelerating the turning point in deforestation? For Policy Econ 148: 102905. DOI: 10.1016/j.forpol.2022.102905.

Nurrochmat NA, Purnomo H, Muhdin, Erbaugh JT. 2023b. Developing sustainable models of agroforest-landscape in Bogor, Indonesia. Biodiversitas 24 (8): 4324-4333. DOI: 10.13057/biodiv/d240814.

Pribadi H, Malik A, Golar, Dg S, Massiri, Rahman A, Maiwa A. 2023. Community attitude and behavior toward village forest management plan in Central Sulawesi, Indonesia. Jurnal Ilmu Kehutanan 17 (1): 1-11. DOI: 10.22146/jik.v17i1.3839.

Pribadi R, Nurrochmat DR, Suhendang E, Siregar H. 2020. Enhancing the role of the district government in decentralized forest management.

Jurnal Manajemen Hutan Tropika 26 (2): 114-122. DOI: 10.7226/jtfm.26.2.114.

Purwawangsa H, Nurrochmat DR, Kartodihardjo H, Rustiadi E. 2022. Assessing integration of science in policy-making process of the utilization of abandoned lands in Indonesia: Case of Bogor Regency. For Soc 6 (2): 639-658. DOI: 10.24259/fs.v6i2.19295.

Rahmani TA, Nurrochmat DR, Hero Y, Park MS, Boer R, Satria A, 2021. Evaluating the feasibility of oil palm agroforestry in Harapan Rainforest, Jambi, Indonesia. For Soc 5 (2): 458-477. DOI: 10.24259/fs.v5i2.10375.

Rahmani TA, Nurrochmat DR, Park MS, Boer R, Ekayani M, Satria A. 2022. Reconciling conflict of interest in the management of forest restoration ecosystem: A strategy to incorporate different interests of stakeholders in the utilization of the Harapan Rainforest, Jambi, Indonesia. Sustainability 14 (21): 13924. DOI: 10.3390/su142113924.

Rangkuti F. 2015. Teknik Membedah Kasus Bisnis: Analisis SWOT, Cara Perhitungan Bobot, Rating, dan OCAI. PT. Gramedia Pustaka Utama, Jakarta. [Indonesian]

Reed MS, Graves A, Dandy N, Posthumus H, Hubacek K, Morris J, Prell C, Quinn CH, Stringer LC. 2009. Who's in and why? A typology of stakeholder analysis methods for natural resource management. J Environ Manag 90 (5): 1933-1949. DOI: 10.1016/j.jenvman.2009.01.001.

Rochmayanto Y, Nurrochmat DR, Locke C, Casse T, Nugroho B, Darusman D. 2022. Evaluating the "Village forests" in Indonesia: Property rights and sustainability perspectives. Small-Scale For 21: 461-481. DOI: 10.1007/s11842-022-09506-y.

Rochmayanto Y, Nurrochmat DR, Nugroho B, Darusman D, Satria A, Casse T, Erbaugh JT, Wicaksono D. 2023. Devolution of forest management to local communities and its impacts on livelihoods and deforestation in Berau, Indonesia. Heliyon 9 (5): e16115. DOI: 10.1016/j.heliyon.2023.e16115.

Roslinda E, Darusman D, Suharjito D, Nurrochmat DR. 2012. Stakeholders analysis on the management of Danau Sentarum National Park Kapuas Hulu Regency, West Kalimantan. Jurnal Manajemen Hutan Tropika 18 (2): 78-85. DOI: 10.7226/jtfm.18.2.78. [Indonesian]

Rossita A, Nurrochmat DR, Boer R, Hein L, Riqqi A. 2021. Assessing the monetary value of ecosystem services provided by Gaung-Batang Tka Peat Hydrological Unit (KHG), Riau Province. Heliyon 7 (10): e08208. DOI: 10.1016/j.heliyon.2021.e08208.

Roy J, Hadjaat M, Darma DC, Zainurossalamia ZA S, Kasuma J. 2021. Eksplorasi pariwisata pedesaan di Hutan Desa Merabu, Berau (Indonesia). Pesona Jurnal Pariwisata 6 (1): 36-48. DOI: 10.26905/jpp.v6i1.5641. [Indonesian]

Sahide MAK, Nurrochmat DR, Giessen L. 2015. The regime complex for tropical rainforest transformation: Analysing the relevance of multiple global and regional land use regimes in Indonesia. Land Use Policy 47: 408-425. DOI: 10.1016/j.landusepol.2015.04.030.

Santoso SS, Nurrochmat DR, Nugroho B, Santoso I. 2019. The feasibility of the implementation of forest management units' (FMUS') policy: A case study in FMU Yogyakarta and FMU region IX Panyabungan. Jurnal Manajemen Hutan Tropika 25 (1): 1-16. DOI: 10.7226/jtfm.25.1.1.

Suharti S, Darusman D, Nugroho B, Sundawati L. 2016. Strengthening social capital for propelling collective action in mangrove management. Wetlands Ecol Manag 24 (6): 683-695. DOI: 10.1007/s11273-016-9496-9.

Sukwika T, Darusman D, Kusmana C, Nurrochmat DR. 2016. We are evaluating the sustainability of privately managed forests in Bogor, Indonesia. Biodiversitas 17 (1): 241-248. DOI: 10.13057/biodiv/d170135.