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Performance Analysis of Forest Management Unit Region III Kisaran, North Sumatra Province

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ABSTRACT

Forest Management Units (FMU) are a form of forestry policy that has become a key instrument in reforming Indonesia's forestry industry. North Sumatra Province has 33 FMU units, comprising 15 Production FMUs and 18 Protection FMUs, all grouped into 16 FMU Regions. This study evaluates forest management performance in the FMU Region III Kisaran. The performance assessment used the Forest Watch Indonesia 2.0 (FWI 2.0) instrument and the Technical Guidelines for Assessing the Effectiveness of Forest Area Management from the Ministry of Environment and Forestry. The FWI 2.0 method is oriented towards performance results, benefits, and impacts. The technical guidelines for assessing the effectiveness of FMU organizations are already oriented toward the results, benefits, and impacts of forest management. Both methods used show that the performance of FMU Region III Kisaran is in the medium category. This research indicates that the selection of FMU performance assessment methods should be tailored to the purpose of the assessment.

Keyword: Effective Criteria, Forest Management Unit, FMU III Kisaran, Performance Analysis

1. Introduction

The Forest Management Unit (FMU) is a product of the national forestry policy that will become the main instrument for reforming the domestic industry. As mentioned in Law of the Republic of Indonesia Number 41 Year 1999, the implementation of FMU is aimed at sustainable forest management [1]. According to Article 123, Government Regulation No. 23 of 2021 changes the FMU from a Regional Technical Implementation Unit to a structural organization with a facilitation function. As part of the Regional Implementing Organization, Government Regulation No. 23 recognizes FMU as Regional Technical Implementation Unit (RTIU), which has its Norms, Standards, Procedures, and Criteria (NSPC). In other words, the FMU office has become a structured organization that acts as a facilitator and no longer has the authority to utilize forest resources directly.

Currently, there are 549 FMUs in Indonesia (350 production FMUs, 199 protection FMUs). They are managed in 339 institutions. A total of 382 FMUs have been ratified, including 226 production FMUs and 156 protection FMUs. To improve efficiency, the FMU must function as a location-level organization for forest management. Sustainable forest management supports independent communities. The Regulation of the Governor of North

Sumatra Province Number 38 Year 2016 concerning the Organizational Structure of Regional Offices in North Sumatra. The FMU Region III Kisaran is one of the Technical Implementation Units (TIU) of forest management. The Decree of the Minister of Forestry of the Republic of Indonesia No. 102/Menhut-II/2010, dated March 5th, 2010, concerning the designation of a Protection Forest Management Unit (Protection FMU) Area of North Sumatra and a Production Forest Management Unit (Production FMU), covering an area of ± 1,831,884 ha.

The main challenge in forest management lies in technical aspects such as management, cultivation techniques, and technology that need attention, as well as socio-cultural factors. Socio-cultural issues are constantly changing and progressive [2]. The complexity of forest areas involves their boundaries and the division of authority between local communities and government officials [3]. Its status is further complicated by fluctuations in the value of land and forest resources [4]. To improve efficiency, the FMU must function as a location-level organization for forest management [5]. Therefore, it is necessary to conduct research related to the performance of FMUs in forest management [6].

This research aims to analyze the performance of FMU Region III Kisaran using the FWI 2.0 indicator criteria and technical guidelines issued by the Ministry of Environmental and Forestry. Furthermore, it compares the performance appraisal results from both methods used.

2. Method

2.1 Research Location

The research was carried out in the work area of FMU Region III, Kisaran, North Sumatra, Indonesia (Figure 1). They are Protected FMU XIII Asahan and Production FMU III Labuhanbatu Utara.

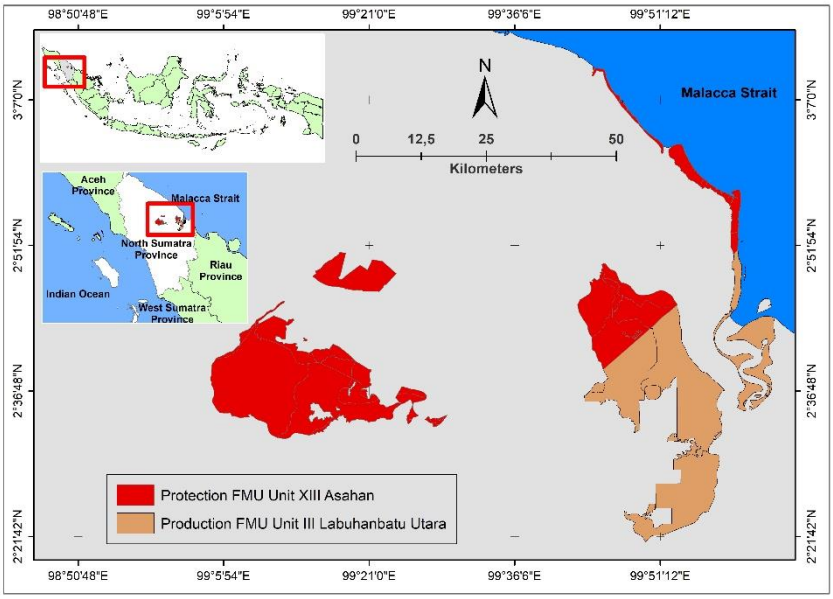

Figure 1. Research location in FMU Region III, North Sumatra

2.2 Materials and Tools

The tools used in the research are writing tools for minutes and interview guides. The materials used are image questionnaires on indicators and performance of FWI 2.0 and Technical Guidelines for Assessment of the Effectiveness of Forest Area Management (Effective FMU Towards Prosperous Communities and Sustainable Forests) in Protection FMUs and Production FMUs. It was issued by the Forest Utilization Plan Development, Ministry of Environment and Forestry (Decree Number: SK.14/BRPH/PFMU/HPL.0/07/2022, dated July 15, 2022).

2.3 Data Analysis

2.3.1 Forest Watch Indonesia 2.0 (FWI)

The descriptive method is the analytical method used in this study to assess the performance of FMU Region III Kisaran. The goal is to collect information already available, analyze it, and explain the facts or information

found [7]. The results were then processed using an analysis of the FWI Criteria and Indicators Version 2.0 (Table 1) [8]. The performance of forest management units built based on their scope is examined using various criteria, indicators, and quality assessment elements in this analysis developed by FWI in the form of an assessment matrix. The assessment matrix has 62 quality elements, 28 indicators, and nine criteria. The evaluation indicators of FMU development performance can be divided into high, moderate, and low levels.

Table 1. Categorization index evaluation performance FMU development

Index Value	Category	Description
2.34 – 3.00	High	The ideal average is obtained from each quality factor, indicator, or criterion.
1.67 – 2.33	Moderate	The average value of the moderate category obtained from each quality factor, indicator, or criterion
1.00 – 1.66	Low	The average value of the low category obtained from each quality factor, indicator, or criterion

The above indicators are calculated based on the score of each element, and the scores range from high to low, considering that each quality element and indicator carries equal weight. Data tabulation and data analysis based on field observations are data management next steps.

2.3.2 The criteria of Ministry of Environment and Forestry

In this study, we analysed the effectiveness of FMU by assigning scores and weights to each input, process, output, and outcome element. To form an FMU, we identify FMU areas, FMU management organizations, and the Long-Term Forest Management Plan (LTFMP). These are the criteria and indicators we use to assess the Ministry of Environment and Forestry method. The FMU performance assessment calculation uses a weighted value, and the final results are presented on a scale of 1-3 to determine the effectiveness index of the FMU organization in managing forest areas (Table 2).

Table 2. FMU organizational effectiveness value category

Value	Category	Index Scale (IS)
0 – 40	Less effective	$0.00 \leq SI < 1.00$
41–70	moderate effective	$1.00 \leq SI < 2.00$
71 – 100	Effective	$2.00 \leq SI \leq 3.00$

Conversion mark effectiveness to in-scale index effectiveness, use formula comparison worth:

$$\text{Index scale effectiveness} = \frac{\text{Max value on each scale times effectiveness value}}{\text{Maximum value on effectiveness}} \quad (1)$$

Calculation of the average rating Effective FMU index in effectiveness FMU organization whole are:

$$\text{Average IE} = \text{Average Index (Protected FMU + Production FMU)} \quad (2)$$

3. Result and Discussion

3.1 Performance Assessment Results Using Forest Watch Criteria and Indicators 2.0

During the assessment, we used a performance evaluation guide with The FWI 2.0. We analyzed the data in three stages and determined the average. To calculate the final value, we divided the total value of all data items by the number of data items. As a result, FMU Region III Kisaran received a score of 2.22, which falls under the medium criteria. This indicates that the region has moderate criteria (Table 3).

Table 3. Assessment results performance use Forest Watch 2.0 criteria and indicators

No	Criteria	Score
1	Forest area stability	1.64
2	Forest layout	3.00
3	Manage plan	2.05
4	Organizational capacity	2.46
5	Government relations and regulation	1.75
6	Investment mechanism	1.00
7	Mechanism of Rights and access for indigenous/local communities	3.00
8	Implementation of management within the scope of the FMU	2.40
9	Conflict handling	2.75
	Total	**20.05**
	Average	**2.22**

The final results show that, on average, the 9 criteria are rated as medium. It means that FMU Region III Kisaran has a relatively good category in terms of forest governance and mechanisms of rights and access for indigenous/local communities. However, there are still several aspects that need improvement, including forest area stability, government relations, regulations, and investment mechanisms. The assessment's conclusion shows that FMU Region III Kisaran is committed to regional governance and providing access to indigenous/local communities through social forestry schemes. It is supported by the issuance of social forestry licenses to 28 forest farmer groups. However, there is currently a lack of necessary infrastructure and schemes to facilitate investment space creation. It is demonstrated by the absence of an FMU program to facilitate investment development. Please see below for a detailed explanation of the assessment results for each criterion.

3.1.1 Forest area stability

FMU Region III Kisaran will carry out forest inventory activities in 2020 and 2021 by involving the community as assistant staff in its implementation. It can be seen from the availability of forest inventory report documents. FMU Region III Kisaran is divided into two work area units, namely Protection FMU Unit XIII Asahan and Production FMU Unit III Labuhanbatu Utara. FMU Region III Kisaran will carry out forest inventory activities in 2020 and 2021 by involving the community as assistant staff in its implementation. This can be seen from the availability of forest inventory report documents. FMU Area III Kisaran is divided into 2 work area units, namely Protection FMU Unit XIII Asahan and Production FMU Unit III Labuhanbatu Utara.

The division of blocks or zones in Protection FMU Unit XIII Asahan is based on area functions, biophysical characteristics of the site, socio-economic status of the surrounding community, potential natural resources, and the existence of commercial rights or permits to develop and utilize forests. Based on this, the Protection FMU Unit XIII Asahan area is divided into 4 blocks, namely: Protected Forest Core Block for soil protection, water management, and carbon trading. Protected forest Utilization Block, this block will be utilized for the collection of NTFPs, partnerships, Community Forestry, environmental services, and others. The HP Utilization Block of Timber Forest Product – Forest Pantation (TFP-FP) is utilized for timber production, namely Small Logs (SL) and Logs (L). Community Empowerment Block, namely a block which, due to the condition of its forest area, is allocated for access to the community.

Communities benefit from forests through programs such as Community Forestry, Community Plantation Forests, and other forms of partnership. As much as 49.41% of the forest area is directed as a utilization block, while 43.3% of the production forest area that will function as an empowerment zone is an area close to community land. The criteria for the empowerment block in this protected forest include environmental services, natural tourism potential or non-timber forest products, closeness to the community, and high accessibility. The division of blocks or zones in Production FMU Unit III Labuhanbatu Utara is based on several factors including; area function, biophysical, natural resource potential, socio-economic of the surrounding community, and the existence of permits for utilization and exploitation of forest areas. Production forest areas that have already turned into oil palm and rubber plantations are made into Production Forest empowerment blocks. The area of forest area in Production FMU Unit III Labuhanbatu Utara can be seen in. It is by the statement [9, 10] that in general, the division of zoning in the management of forest areas applies as an effective regulation in the management of each zone to achieve the goals that have been set.

3.1.2 Manage plan

FMU Region III Kisaran already has a Long-Term Forest Management Plan (LTFMP) and a Short-Term Forest Management Plan (STFMP) and has been approved by the authorized official. LTFMP for the Protected FMU unit XIII Asahan was ratified by Ministry of Environmental and Forestry with regulation number SK.3651/MENLHK-KPHL/PKPHL/DAS.3/5/2018 dated May 31, 2018. LTFMP for the Production FMU unit III Labura was ratified by number SK.4961/MENLHK-KPHP/PKPHP/HPL.0/5/2019 dated 30 June 2019. The LTFMP has not yet included the FMU business plan, this affects the performance value of the FMU.

Based on Government Regulation number 23 of 2021 article 123 state that FMU as the Local Technical Implementation Unit (LTIU) is a structural organization with a facilitative function by its mandate. In other words, the FMU becomes a structural organization as a facilitator and is no longer an entity that can directly utilize forest resources. All forms of utilization of forests and forest products are only possible through business permits and social forestry. After the issuance of this regulation, social forestry in the form of partnerships can no longer partner with FMUs because the law stipulates that FMUs have only administrative duties and functions and may not be involved in forest management at the site level. Business licenses or Forestry States

Enterprises Body's (FSEB) only grant partnership permits between the community and other parties, not with FMUs. This is by the statement of Nugroho *et al.* [11] that the Omnibus Law on Job Creation makes it difficult to achieve effective FMUs due to the increasingly limited authority of FMUs.

3.1.3 Capacity organisation

In carrying out its main tasks and functions, FMU Region III Kisaran has a total of 28 people, consisting of 4 echelon officials, 1 forestry extension worker, 7 forestry police officers, 7 technical staff, and 9 administrative staff. The number of forestry police personnel is insufficient for the existing forest area. The problem of limited, adequate human resources in the working area of the FMU must be addressed immediately so that the FMU can be managed properly [12]. Good forest management also refers to effective and successful management of natural resources as well as adequate human resources [13].

Additional information about an organization's capacity often includes its ability to sustain itself. A comprehensive management information system for FMUs is very important in forest management, namely up-to-date and accountable data. Information support is very important to strengthen the organization's ability to carry out its duties. FMU Region III Kisaran uses a Spatial Information and Documentation System (SINPASDOK) to provide information and data that is easily accessible to the public and stakeholders.

3.1.4 Connection governance and regulation

FMU Region III Kisaran always coordinates and consults with the central and regional governments in carrying out their duties. The preparation of the LTFMP is aligned with the National Medium-Term Development Plan and Regional Medium-Term Development Plan documents. Synchronization of plans and activities is important because it influences the FMU's budget allocation decisions. If synchronization programs and activities are not carried out, likely, the implementation of FMU programs and activities will not be carried out. If the priorities set by the central and provincial governments are also different, this will affect the decision to allocate funds for the implementation of FMU activities. Therefore, the implementation of each FMU management plan will not be optimal [14].

3.1.5 Mechanism investment

In Minister of Environment and Forestry Regulation no 8 of 2021, in article 23 letter g, it is said that FMU development and development funds are intended to encourage investment growth, and industrial development, promote forest products and markets, and support national economic recovery. However, the structure and operational standards of FMU Region III Kisaran regarding the investment mechanism in the LTFMP and other documents were not found.

3.1.6 Mechanism rights and access again indigenous/local community

Minister of Environment and Forestry Regulation number 9 of 2021 concerning Social Forestry Management opens access for indigenous/local communities to utilize forests with the Village Forest, Community Forest, Community Plantation Forest programs, Customary Forest and Forestry Partnership programs. In FMU Region III Kisaran, the Kisaran of social forestry groups that already have permits is composed of 28 groups consisting of 18 community forest groups, one community plantation forest group, and nine forestry partnership groups with a total area of 12,839.61 ha located in protected forest areas. This condition indicates that the community has limited access to forest management and utilization, only for non-timber forest products and environmental services.

Article 198 Minister of Environment and Forestry Regulation No. 9 of 2021 states that forestry partnerships between communities and FMUs that have been issued are declared to remain valid until management rights or permits expire. Granting access rights legally will make the community the main actor in forest area development, which will have an impact on encouraging the development of forest area management in a better direction [15].

3.1.7 Execution of management at the scope of FMU

Forest management in the FMU III Kisaran area is carried out in various activities, namely:

1. Forest rehabilitation is carried out in forest areas with a budget originating from the State Budget and Revenue (APBN). Until now, Land and Forest Rehabilitation activities in forest areas have been carried out in an area of ± 678 Ha;
2. Forest protection is carried out in the form of security patrols and outreach to communities around the forest about the importance of preserving forests. Security patrols are carried out periodically every

month directed to all areas of the FMU Region III Kisaran work area, and involve the community in forest security by forming community forestry partners;
3. Prevention and control of forest and land fires are carried out in the form of outreach and management when a fire occurs by involving the community;
4. Facilitating the community in the development of social forestry by facilitating post-permit social forestry groups and providing assistance with productive economic tools, and;
5. Monitoring and evaluating the implementation of forest area utilization/use permits.

3.1.8 Handling conflict

FMU Region III Kisaran has a clear mechanism for handling conflicts in forest areas with 1 employee who is a Civil Servant Investigator and several Forestry Police who become a conflict resolution team in forest areas. Conflicts that occur are resolved in conciliation by bringing together conflicting parties to find a middle ground and the conflict is resolved properly. Budgets for conflict resolution are also available. Some of the conflicts that have been facilitated for resolution include:

1. The conflict between the Merdesa farmer group (social forestry permit holder) and the community around the forest who claimed that the concession of Merdesa area was theirs, the conflict was resolved properly, and the community participated and became a member of the farmer group.
2. Internal conflict between the Rajawali Mandiri forest farmer and fisherman group, Pematang Sei Baru Village, Tanjung Balai District, Asahan Regency with the chairman of the Rajawali Mandiri forest farmer and fisherman group for the 2016 – 2021 period. Until the early of 2024, the conflict is still in the mediation process and is in the process of being resolved. Social forestry scheme forest management provides space for communities to utilize forest resources, so it tends to create conflicts from local communities who are not involved in the legal utilization of forest resources according to the statement [16].

In resolving land tenure conflicts related to the continued use of protected forests and production forests, social forestry activities can be carried out (Article 29 A Law No. 11/2020 Omnibus law on Job Creation and implementation in conflict resolution is contained in Regulation of the Minister of Environment and Forestry No. 9/2021 concerning Social Forestry Management).

3.2 Performance Assessment Results by Using Organizational Assessment Techniques, FMU is Effective in Supporting Independent Communities and Sustainable Forests

Calculation results effectiveness of both FMU is moderate effective (Table 4 and Table 5). This means that the management unit has managed the forest area moderate effectively. Assessment is carried out to measure progress and achieve the desired results, referring to the input process, processing it through various stages, and producing output, input, process, output, and result.

Table 4. Calculation results evaluation Protection FMU Unit XIII Asahan organization

Element	Weight	Total Score on Criteria	Mark Total Elements
Inputs	15%	92.50	13.875
Process	25%	76	19
output	30%	62.5	18.75
Outcomes	30%	56.5	16.95
Effectiveness Value			**68.575**

Index scale effectiveness = $\frac{1.9 \times 68.575}{70}$ = 1.86 (moderate effective)

Table 5. Calculation results evaluation Production FMU Unit III Labuhanbatu Utara organization

Element	Weight	Total Score on Criteria	Mark Total Elements
Inputs	15%	92.5	13.875
Process	25%	70	17.5
output	30%	55	16.5
Outcomes	30%	56.5	16.95
Effectiveness Value			**64.825**

Index scale effectiveness = $\frac{1.9 \times 64.825}{70}$ = 1.75 (moderate effective)

Calculation of the average rating Effective FMU index in effectiveness FMU organization:

Average IE = Average Index (Protected FMU + Production FMU)

$$= \frac{1.86+1.75}{2}$$

= 1.805 (moderate effective)

The result of calculating the effectiveness of FMU Region III Kisaran is moderate effective. This means that the management unit has managed the forest area moderate effectively. Assessment is carried out to measure progress and achieve the desired results, referring to the input process, processing it through various stages, and producing output, input, process, output, and result.

3.2.1 Input element

The input element relates to what is needed to manage the area. The study focused on what resources are needed for forest area management, starting from budget sources, human resources, facilities and infrastructure, and forest area resources. FMU Region III Kisaran has sufficient human resources, adequate facilities and infrastructure, adequate budgetary resources from the the State Revenue and Expenditure Budget as well as Regional Revenue and Expenditure Budget, data and information on potential natural resources as well as the socio-economic culture of the community are clearly stated in the LTFMP document. Therefore, FMU Region III Kisaran effectively implemented forest management because it is clearly stated in the LTFMP all the intended input elements.

The LTFMP for Protection FMU Unit XIII Asahan was ratified based on the Decree of the Minister of Environment and Forestry of the Republic of Indonesia Number: SK.3651/MENLHK-KPHL/PKPHL/DAS.3/5/2018 dated 31 May 2018 concerning Ratification of the Long-Term Forest Management Plan for protected forest Management Unit (Protected FMU) Unit XIII Asahan of North Sumatra Province for 2018 – 2027. The LTFMP for Production FMU Unit III Labuhanbatu Utara ratified based on the Decree of the Minister of Environment and Forestry of the Republic of Indonesia Number: SK.4961/MENLHK-KPHP/PKPHP/HPL.0/5/2019 dated 21 May 2019 concerning Ratification of the Long-Term Forest Management Plan for Production FMUs Unit III Labuhan Batu Utara at FMU Region III Kisaran of North Sumatra Province in 2019 – 2028.

3.2.2 Process elements

The process element describes how the forest area is managed. The assessment focuses on forest management plans, implementation of forest management plans, efficiency and suitability of forest area management, policies, regulations, responsibilities, and functions of FMUs, as well as existing methods. After the LTFMP is ratified, the elaboration of the annual plan for FMU III is contained in the STFMP which is in the preparation and implementation in coordination with relevant stakeholders. The basis for preparing the STFMP for FMU Region III Kisaran is the Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number 8 of 2021 dated 01 April 2021 concerning Forest Management and Preparation of Forest Management Plans, as well as Forest Utilization in protected forests and Production Forests.

FMU Region III Kisaran consists of Protection FMU Unit XIII Asahan and Production FMU Unit III Labuhanbatu Utara. The determination of the name of an FMU is based on its function for the effectiveness and efficiency of its management. Until early of 2024, FMU Region III Kisaran does not yet have a unit office, considering that FMU Region III Kisaran manages 2 (two) units, namely Protection FMU Unit XIII Asahan and Production FMU Unit III Labuhanbatu Utara. It affects the results of the FMU effectiveness assessment. However, the LTFMP has been prepared regarding the construction of unit offices. Therefore, it requires an office unit with its organizational structure. Then forest management system can be efficient [17].

3.2.3 Output elements

The output element is the result of an evaluation of the implementation of programs and interventions in the management of forest areas, with an emphasis on aspects of work results that are produced by the process. Forest inventory activities are conducted in areas with no forest utilization business permit to know the conditions and biophysical potential of the managed area, such as attractive landscapes, potential environmental services, types of vegetation, and their distribution which will be carried out in 2020 for Protection FMU Unit XIII Asahan and in 2021 for Production FMU Unit III Labuhanbatu Utara based on the document report on the results of the implementation of forest inventory activities. An inventory of NTFPs is

carried out to determine the potential of existing NTFPs as a basis for development. Inventory and identification of community interest were carried out to determine the extent of community dependence on forests. Vegetation inventory in the form of structure, composition, and potential of existing forest stands in the FMU area is a fundamental factor in sustainable forest management [18].

The rehabilitation activities carried out during 2016–2022 cover an area of 678 Ha in forest areas. Farmer group assistance activities are carried out by providing productive economic assistance to social forestry groups and facilitating the development of farmer groups. Guidance and supervision of forest use in areas burdened with permits, namely the PT. Toba Pulp Lestari. The implementation of forest protection and nature conservation is intended to maintain and protect the existence of potential forest resources from external disturbances, especially from humans, carried out preventively in the form of outreach to communities around the forest, routine patrols, and installation of prohibition/appeal planks. The formation of community forestry partners was also conducted in 1 (one) group in Production FMU Unit III Labuhan batu Utara which is expected to become partners with FMU Region III Kisaran in maintaining forest areas.

3.2.4 Outcome elements

Outcome elements relate to outcomes achieved by an effective FMU organization in managing production forest areas and/or conservation forest management, the effectiveness and suitability of the final management results, and the extent to which these results achieve the main management objectives. FMU Region III Kisaran continues to explore opportunities from investors for private sector investment and regional development within the FMU area that are consistent with the objectives of sustainable forest management, for example, ecotourism development. Until early of 2024, the available Social Forestry Business Groups are 28 groups with attention to gender mainstreaming which are scattered in several places with various kinds of commodities, one of which is honey bee cultivation. Hopefully, Social Forestry Business Groups will have an impact on improving the community's economy.

Tenurial conflicts in forest areas have decreased with the existence of social forestry schemes, as evidenced by the reduced complaints and reports of forest disturbances (encroachment, illegal logging, and forest fires) in the working area of FMU Region III Kisaran, As stated by Zachrisson and Lindahl [18], partnerships in forestry can resolve tenure conflicts. However, after the issuance of the social forestry license, there were conflicts between permit holders and communities that were not part of the group. FMU Region III Kisaran has helped resolve the conflict. It is contrary to the statement of Gamin *et al.* [19] that social forestry is positioned as an effort to resolve conflicts by providing equal opportunities in forest management for communities.

Most of the forest cover in the FMU III Kisaran forest area has changed its function to plantation land. Forest areas that have experienced over time becoming oil palm and rubber plantations are used as empowerment blocks by implementing social forestry programs to become solutions to existing problems. So gradually, with the social forestry scheme, the forest cover will return as it should. One of the government policies being introduced at this time is through a program that provides legal access to forest management, and social forestry. Providing legal access through social forestry by the Minister of Environment and Forestry in the form of regulatory approval to be submitted to parties who will manage and are expected to be able to commit to preserving and fulfilling forests for the economic development of the surrounding community [20, 21].

3.3 Comparison of Performance Appraisal of The Two Methods Used

The results of the performance analysis using the two methods are compared to each other to obtain information on how each criterion was obtained (Table 6). The matrix comparison in Table 6 shows that Forest Watch Indonesia (FWI) only focuses on how civil society organizations (CSOs) can participate actively in monitoring the performance of the FMU. However, the evaluation concept of performance FWI 2.0 does not yet reflect an assessment of public organizations and still assesses budget-based performance that is not yet oriented towards measuring results, benefits, or impacts. According to Ekawati *et al.* [22], measurement performance must describe the level of achievement of a target or goals that have been set.

Performance appraisal covers input, process, output, and outcome elements. Assessment results illustrate the effectiveness of FMUs as an organization carrying out its duties as applicable regulations, FMU conditions, problems encountered, plans management arranged, results obtained, benefits, and impact from FMU management can be seen clearly. Reference to evaluation refers to the LTFMP and the achievements that have been obtained. An effective FMU organization evaluation is more effectively used to evaluate FMU

organizations because it includes all assessed elements based on LTFMP and describes the level of achievement of FMU performance based on the legalized LTFMP. This is from the statement of Setiawan and Nur [23], who mentioned that FMU performance in implementing forestry development programs can be seen from the results of evaluating the realization of LTFMP implementation.

Table 6. Matrix comparison evaluation performance using FWI 2.0 and the Technical Guide Evaluation Effective FMU Organization f in Support Independent Communities and Sustainable Forests

No	Description	FWI 2.0	Technical Instructions for the Director of Forest Utilization Development
1.	Assessment results	Currently	Enough effective
2.	Object evaluation	Performance appraisal covers the working area of FMU III as a whole.	The assessment was carried out for each of the existing FMU units, namely Protected FMU and Production FMU results summed and averaged.
3.	Evaluator	Evaluators must have good knowledge and understanding of FMUs.	FMU conducts an independent assessment (self-assessment).
4.	Objective	Evaluating the implementation of FMUs to provide maximum welfare to the community in the context of more professional, just, and sustainable forest management.	FMU's organizational review of its effectiveness in creating social sufficiency and sustainable forestry.
5.	Criteria	1. Stability area 2. Forest layout 3. Manage Plan 4. Capacity organization 5. Connection governance and regulation 6. Mechanism investment 7. Mechanism rights and access for public custom / local 8. Implementation management forest within the scope of the FMU 9. Handling conflict	1. input element a. Budget sources b. Current budget allocation c. Budget Performance d. Technical qualifications of FMU Structural Officers e. HR competence as area manager f. Main facilities and infrastructure g. Data and information on potential natural resources and the socio-economic culture of the community. 2. Element process a. Preparation of Forest management plans as outlined in the STFMP document b. Implementation of Forest management planning coordination c. Implementation of resort development in FMU d. Implementation of policies in the environmental and forestry sector by Regulation of the Minister of Environment and Forestry of the Republic of Indonesia no. 8 Year 2021. 3. output element a) STFMP documents that have been implemented b) Coordinated Forest management planning c) The construction of a resort in the FMU is by the planning with infrastructure and operationalization d) Implementation of policies in the environmental and forestry sector by Regulation of the Minister of Environment and Forestry of the Republic of Indonesia no. 8 Year 2021. 4. Outcome element Management forest impact on: a. The number of community productive economic groups that have been formed with due regard to gender mainstreaming in

No	Description	FWI 2.0	Technical Instructions for the Director of Forest Utilization Development
			carrying out forestry management activities Social. b. Economic improvement for the community from the forest area c. economic improvement for the community from the forest area d. utilization of forest management data and information by FMUs e. tenure conflicts within the region reduce f. securing forest areas from forest disturbances (encroachment, illegal logging, and forest fires) g. securing forest areas from forest disturbances (encroachment, illegal logging, and forest fires).
6.	Indicator	Described through element quality, views from Availability of data/ documents	Shows directions change if measured and monitored in a manner periodic, data/ document availability supports results evaluation

4. Conclusion

The results of the performance assessment of FMU Region III Kisaran using FWI 2.0 obtained an index value of 2.22, which is included in the medium category, meaning that FMU Region III Kisaran is quite good at implementing forest management. The results of a performance evaluation using technical guidelines for assessing FMU organizations are effective in supporting independent communities and sustainable forests (index value is 1.805). It is in the quite effective category, meaning that they have managed forest areas quite effectively. The results of the performance evaluation using both tools are effective in supporting independent communities, and sustainable forests are in the categories of sufficient, quite good, and moderate effective. However, the results of FWI 2.0 are not yet oriented toward results, benefits, or performance impacts. The technical guidelines for assessing the effectiveness of FMU organizations in supporting independent communities and sustainable forests are oriented towards performance results, benefits, and impacts of forest management by FMU III. Therefore, the effectiveness in 2019 and 2021 is moderate effective.

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