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LEI GUIDELINE 5000-1

SUSTAINABLE NATURAL PRODUCTION FOREST MANAGEMENT SYSTEM

(Please be aware that the translation of the document is still under reviewed following the Indonesian version)



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LEI STANDARD 5000-1

SYSTEMS FOR THE SUSTAINABLE MANAGEMENT OF NATURAL PRODUCTION FORESTS

1. Introduction

This document is the standard for a system of Sustainable Management of Natural Production Forest (SNPFM) originating from LEI Standard 5000 (Framework for Systems of Sustainable Management for Production Forest). The implementation guidelines for the certification of sustainable management of natural production forest is further elaborated in LEI Guideline 99-20 (The Implementation Guideline for the Certification of Sustainable Management of Natural Production Forest (SMNPF)).

2. Scope

This standard is an evaluation framework and is used as a reference for management units in the implementation of SNPFM.

3. References

1. International Tropical Timber Organization (ITTO) Criteria and Indicators for Sustainable Management of Natural Tropical Forest.
2. The International Organization for Standardization (ISO) Standard 14000 Series.
3. The Principles and Criteria for Forest Management of Forest Stewardship Council (FSC).
4. LEI Standard 5000, Framework for Sustainable Production Forest Management System.

4. Definitions

Definitions related to systems of sustainable management of natural production forest are based on general and technical forestry terms. The definitions of the following terms are used as a reference for this standard:

- 4.1 **Sustainability of Production Function** refers to the assurance of continuity of forest product utilization and business profitability.
- 4.2 **Sustainability of Resources** refers to the stability and security of natural production forest areas in order to ensure long-term business viability.
- 4.3 **Sustainability of Forest Products** refers to the maintenance of the range and volume of forest products or their increase over time due to the improvement in forest management.
- 4.4 **Sustainability of Business** refers to the capability of management units to manage natural production forests to generate profits within the capacity of the forests.
- 4.5 **Sustainability of Ecological Function** refers to the assurance of forest function as a support system to a variety of indigenous species and their ecosystems.
- 4.6 **Ecosystem Stability** refers to the dynamic balance of forest ecosystems, their structures, functions and components, to ensure that production capacity remains within the parameters of ecological flexibility.
- 4.7 **Survival of Endemic/Endangered/Protected Species** refers to the ability of endemic/endangered/protected flora and fauna species to acclimatize to the habitat of natural production forests.
- 4.8 **Sustainability of Social Function** refers to the assurance of stability for the function of forest utilization for the local community that, directly or indirectly, depends on the forest across generations.
- 4.9 **Guaranteed Tenure for Community Forests** is the maintenance of the rights and obligations to use forests based on traditional customs within clearly defined boundaries agreed by all interested parties, in order to guarantee that community livelihood through generations shall not be ignored due to the presence of management units.
- 4.10 **Guaranteed Economic Security and Development for Communities and Employees** refers to the maintenance of economic activities and their benefits to the community,

including job and business opportunities for the long term improvement of community livelihoods.

- 4.11 **Guaranteed Socio-cultural Integrity for Communities and Employees** refers to the assurance that social relationships are functioning appropriately.
- 4.12 **Responsibility for Nutrition and Prevention of Negative Impacts on Community Health** refers to efforts to maintain and enhance the nutritional status of local communities and to anticipate and avoid negative impacts on health.
- 4.13 **Assurance of Workers' Rights** is the implementation of workers' rights as stipulated in relevant employment policies and norms.
- 4.14 **Area Management** is a series of management activities in the forest areas to ensure the security of the area in the long term, through stabilizing, regulating and securing activities in the areas.
- 4.15 **Area Stabilization** is a series of activities to obtain legal and interested parties recognition.
- 4.16 **Division of Forest Area** is a series of activities to organize the forest area into management subdivisions within the forest management unit.
- 4.17 **Forest Security** is a series of activities to prevent and handle conflicts over forest ownership and used, and any disturbances to the area and its resources.
- 4.18 **Forest Management** is a series of productive forest management activities aimed at regulating the use of forest products and preventing the negative impacts of forest exploitations, including the presence of management units, through production, environmental, and social management. (sudah dibahas : lihat LEI 5000)
- 4.19 **Managing Production** is a series of activities for regulating and sustaining production within the capabilities of the forest.
- 4.20 **Management of the Environment** is a series of activities for minimizing negative impacts and maximizing positive impacts of forest management upon species and their ecosystems.
- 4.21 **Management of Social Aspects** is a series of management activities for increasing benefits and minimizing negative impacts of forest management on the long-term well-being of local communities, including the impacts related to the presence of management units,.

- 4.22 **Institutional Structure** refers to a series of management activities to improve the managerial skills in the forest harvesting/management through the strengthening of the organization, its human resources and finance.
- 4.23 **Organizational Structure** is a series of activities in decision making to ensure that management is in compliance with the principles of sustainable management of production forests.
- 4.24 **Improvement in Human Resources** is a series of activities for improving employee capability in implementing and overcoming problems related to forest management at a management unit level.
- 4.25 **Financial Management** is the policy of a management unit to ensure the presence of funds for reinvesting in human resources in order to support the continuity of long-term business.

5. **Detailed Criteria and Indicators of Sustainable Management of Natural Production Forest**

Sustainable Management of Natural Production Forest will be accomplished if the Outcome Dimensions can be achieved through the use of a series of appropriate management strategies and activities (Management Dimensions). Indicators of the achievement of Sustainable Management of Natural Production Forest are formulated through a framework of evaluation as shown in **Table 1**. Clarification of the evaluation framework for SMNPF and the matrix of criteria and indicators for SMNPF are shown in **Attachment 1** and **Attachment 2**.

Details of the criteria and indicators of Sustainable Management of Natural Production Forest are as follows:

Production Sustainability

Criteria - 1 : Sustainability of Forest Resources

- P1.1 It must be guaranteed that the land will remain as a forest area
- P1.2 Forest planning and use based on forest types and functions.
- P1.3 The level of change in land cover due to encroachment and conversion of forest , fire and other factors.
- P1.4 A forest fire management system
- P1.5 The Selection and implementation of silvicultural systems in compliance with the local forest ecosystems
- P1.6 The maintenance of a variety of non-timber forest products is guaranteed

Criteria - 2 : Sustainability of Forest Production

- P2.1 Land use planning should ensure the continuity of production at all planning and implementation levels.
- P2.2 Observation of stand development and their level of productions.
- P2.3 Annual production in accordance with the capability of forest productivity
- P2.4 Efficiency of forest utilization
- P2.5 Condition of residual stands
- P2.6 Validity of a timber tracking system in the forest
- P2.7 Infrastructure of the forest management unit
- P2.8 Implementation of reduced impact logging
- P2.9 Availability of forest products for local communities

Criteria - 3 : Business Sustainability

- P3.1 Financial condition of the company
- P3.2 Contribution to regional economic development

P3.3 Management Information System (MIS)

P3.4 The availability of professional staff for planning, protection, production, and management of forests and business.

P3.5 Investment and reinvestment in forest management

P3.6 The growth of forest capital

Ecological Sustainability

Criteria - 1 : Ecosystem Stability

E1.1 The proportion of protected area that is functioning properly, as confirmed and/or recognized by relevant stakeholders.

E1.2 The proportion of well-designed protected area that is protected and has already been delineated in the field.

E1.3 The intensity of damage in protected areas

E1.4 The condition of floral and/or faunal diversity in protected areas in various forest formations/types within the management unit

E1.5 The intensity of damage to forest structure and plant species composition

E1.6 The intensity of damage to soil caused by management activities .

E1.7 The intensity of damage to water caused by management activities.

E1.8 The effectiveness of damage management on stand/forest structure and composition.

E1.9 The effectiveness of techniques controlling the impact of management activities on soil

E1.10 The effectiveness of techniques controlling the impact of management activities on water

E1.11 The effectiveness of education and extension on the importance of forest ecosystems as support systems and the impact of overharvesting activities on forest ecosystems

Criteria - 2 : Survival of Endangered/Endemic/Protected Species

- E2.1 The proportion of the area protected for survival endangered/endemic/protected species or unique ecosystems (Special Areas) which has been confirmed and/or recognized by involved parties .
- E2.2 The proportion of the area protected for the survival of endangered/endemic/protected species or protected unique ecosystems, which has already been delineated in the field
- E2.3 The intensity of damage to endangered/endemic/protected species in the Special Areas.
- E2.4 The condition of endangered/endemic/protected species in the Special Areas.
- E2.5 The intensity of impact of management activities on endangered/endemic/ protected plant species and their habitats.
- E2.6 The intensity of impact of management activities on endangered/endemic/protected animal species and their habitats.
- E2.7 The security of endangered/endemic/protected plant species and their habitats.
- E2.8 The security of endangered/endemic/protected animalspecies and their habitats.

Sustainability of Social Functions

Criteria - 1 : Secured Community-based Forest Tenure System

- S1.1 Boundaries between forest concession areas and local community areas are clearly delineated and approved by interested parties
- S1.2 Full inter-generational community access and control over traditional forest areas is guaranteed
- S1.3 Full inter-generational community access to the forest product is guaranteed in concession areas.
- S1.4 The use of appropriate procedures for any conflicting claims to forest areas

Criteria - 2 : Assured Resilience and Development of Community and Employees Economics

S2.1 The economic resources of the community should at least be able to support the continuation of inter-generational well-being.

S2.2 Recognition and formal (legal) compensation for the use of a community's traditional knowledge in a forest management system

S2.3 The capability of community to gain access to employment and business opportunities

S2.4 The development of local capital

S2.5 Periodic review of employees' welfare and appropriate accommodation facilities

Criteria - 3 : Assured Continuity of Social and Cultural Integration of Community and Employees

S3.1 Human rights are guaranteed

S3.2 The impact of forest management units on social and cultural integratyis minimized

S3.3 The empowerment of communities and employees is promoted

Criteria - 4 : Responsibility to Rehabilitate Nutritious Status and Anticipate the Impact on Health

S4.1 The impact of forest management units on community health is minimized

S4.2 Cooperation with health authorities is established

Criteria - 5 : Assurance of Employees' Rights

S5.1 Mutual Work Agreements are in existence and implemented

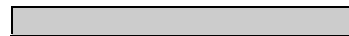
S5.2 A Regional Minimum Wage and fair pay structure are implemented

S5.3 Health and Safety regulations are implemented

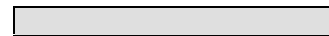
Table-1. Evaluation Framework of SMNPF on Management Unit Level

MANAGEMENT DIMENSION (Output-based Achievement Strategy)	OUTPUT DIMENSION									
	Production Sustainability			Ecological Sustainability		Sustainability of Social Function				
	Sustainability of Resources	Sustainability of Forest Product	Sustainability of Business	Ecosystem Stability	Survival of Endemic/ Endangered/ Protected Species	Secured Community-based Forests Tenure System	Secured Community and Employees Resilience and Economic Development	Guaranteed Community and Employees Socio-cultural Integrity	Responsibility on Nutritional Status and Prevention of the Impact on Community Health	Assurance of Workers' Rights
1. Area Management 1.1. Area Stabilization 1.2. Area Arrangement 1.3. Area Security	INDICATORS	INDICATORS	INDICATORS	INDICATORS	INDICATORS	INDICATORS	INDICATORS	INDICATORS	INDICATORS	INDICATORS
2. Forest Management 2.1. Production Management 2.2. Environment Management 2.3. Social Management	INDICATORS	INDICATOR	INDICATORS	INDICATORS	INDICATORS	INDICATORS	INDICATORS	INDICATORS	INDICATORS	INDICATORS
3. Institutional Arrangement 3.1. Organization Arrangement 3.2. Human Resources 3.3. Financial Management	INDICATORS	INDICATORS	INDICATORS	INDICATORS	INDICATORS	INDICATORS	INDICATORS	INDICATORS	INDICATORS	INDICATORS

Note:



Necessary Conditions



Core Activities



Sufficient Requirements

ATTACHMENT 1

1. **Necessary Conditions, Core Activities, and Sufficiency Requirements**

In every management activity that involves a number of process or factors in order to achieve a desired objective, grouping are required according to their position in that management. Necessary Conditions, Core Activities, and Sufficiency Requirements are such position classifications.

Necessary Conditions are all those processes or factors that have to be fulfilled before the next process or factor is implemented.

Core Activities are all those processes or factors that should be implemented in a management procedure.

Sufficiency Requirements are all those possible supportive processes or factors for achieving management objectives.

2. **Area Management**

The definition of area management for privately-owned and community-owned forests may be different to that of state-owned forest. Therefore, the term "long-term security" is not relevant to the privately-owned and community-owned forests.

Incentives must be provided to support privately-owned and community-owned forests, which according to forest land use plan (TGHK) should be maintained as forests because their owners have effectively contributed to the public functions of those forests. Products from privately-owned and community-owned forests, which according to the forest land use plan need not be maintained as forests, may be exempted from certification object. In the event that the market requires SNPFM certification from privately-owned forests and community-owned forests, evaluation process and the issuance of certification should be further arranged in a separate guideline.

3. Evaluation Matrix

The matrix shows that the objective can be achieved through three main activities: area management, forest management, and institutional structure. Information describing the result achieved through the three main activities is translated into indicators.

4. Classification of Management Dimensions

In the formulation of indicators for privately-owned forests and community-owned forests management, the classification of management dimensions into area management, forest management, and institutional structure will need to be put into context.

ATTACHMENT 2. MATRIX OF SMNPF CRITERIA AND INDICATORS

MANAGEMENT DIMENSION (Output-based Strategy)	OUTPUT DIMENSION									
	PRODUCTION SUSTAINABILITY			ECOLOGICAL SUSTAINABILITY		SUSTAINABILITY OF SOCIAL FUNCTION				
	Sustainability of Forest Resources	Sustainability of Forest Product	Sustainability of Business	Stability of Ecosystem	Survival of Endangered/Endemic /Protected Species	Guaranteed Community-based Forest Tenure System	Guaranteed Community and Employees Resilience and Economics Development	Guaranteed Continuity of Community and Employees Social and Cultural Integration	Realization of Responsibility to Rehabilitate Nutritional Status and Prevention of the Impacts on Health	Assurance of Employees' Rights
1. AREA MANAGEMENT										
1.1. Area Stability	P1.1 Guarantee of land utilization as a forest area			E1.1 Proportion of well-designed protected area from its total size that should be protected, and confirmed and/or recognized by the parties concerned	E2.1 Proportion of protected area as stipulated based on consideration of endangered/ endemic/protected species or unique ecosystem (special area), existence of which has been confirmed and/or recognized by interested parties	S1.1 Boundaries between forest concession area and local community areas are clearly delineated and approved by the interested parties S1.2 Communities' inter-generation full access and control towards guaranteed traditional forest areas S1.3 Communities' inter-generation full access on the forest product utilization in guaranteed concession is guaranteed				
1.2. Area Arrangement	P1.2 Planning and implementation of forest arrangement based on their functions and types	P2.1 Area organization ensures the continuity of production activities reflected at all level of plans and their implementations		E1.2 Proportion of well-designed protected area to the total size that should be protected and has already been delineated in the field	E2.2 Proportion of well-designed protected area, which is specially designed for the survival of endangered/ endemic/protected species or protected unique ecosystem, and has already been delineated in the field	S1.4 Use of appropriate solution procedures for every claim over the same forest area				

MANAGEMENT DIMENSION (Output-based Strategy)	OUTPUT DIMENSION									
	SUSTAINABILITY OF PRODUCTION FUNCTION			SUSTAINABILITY OF ECOLOGICAL FUNCTION		SUSTAINABILITY OF SOCIOAL FUNCTION				
	Sustainability of Forest Resources	Sustainability of Forest Product	Sustainability of Business	Stability of Ecosystem	Survival of Endangered/Endemic/Protected Species	Guaranteed Community-based Forest Tenure System	Guaranteed Community and Employees Resilience and Economics Development	Guaranteed Continuity of Community and Employees Social and Cultural Integration	Realization of Responsibility to Rehabilitate Nutritional Status and Prevention of the Impacts on Health	Assurance of Employees' Rights
1.3. Area Security	<p>P1.3 Size of change in the closure of land due to encroachment and conversion of forest area functions, fires and other impediments</p> <p>P1.4 Forest fire management system</p>			<p>E1.3 The intensity of damage in the protected area</p> <p>E1.4 The condition of flora and/or fauna species diversity in protected areas in various forest formation/types within management units</p>	<p>E2.3 The damage intensity to endangered/ endemic/ protected species in the special areas</p> <p>E2.4 The condition of endangered/endemic/ protected species in the special areas</p>					

MANAGEMENT DIMENSION (Output-based Strategy)	OUTPUT DIMENSION									
	SUSTAINABILITY OF PRODUCTION FUNCTION			SUSTAINABILITY OF ECOLOGICAL FUNCTION		SUSTAINABILITY OF SOCIOAL FUNCTION				
	Sustainability of Forest Resources	Sustainability of Forest Product	Sustainability of Business	Stability of Ecosystem	Survival of Endangered/Endemic /Protected Species	Guaranteed Community-based Forest Tenure System	Guaranteed of Community and Employees Resilience and Economics Development	Guaranteed Continuity of Community and Employees Social and Cultural Integration	Realization of Responsibility to Rehabilitate Nutritional Status and Prevention of the Impacts on Health	Assurance of Employees' Rights
2. FOREST MANAGEMENT 2.1. Production Management	P1.5 Selection and implementation of silviculture system in compliance with the local forest ecosystem P1.6 Existence and variety of non-timber forest products is guaranteed.	P2.2 Implementation of observation in the development standard and its outcomes P2.3 Annual production in accordance with the capability of forest productivity P2.4 Efficiency of forest utilization P2.5 Condition of residual stands P2.6 Validity of timber tracking system in the forest P2.7 Infrastructure of forest management unit	P3.1 Financial condition of the company	E1.5 Damage intensity of forest structure and plant species composition E1.6 Damage intensity of production management activities on soil E1.7 Damage intensity of production management activities on water	E2.5 Impact intensity of production management activities towards endangered/endemic/protected plant species and their habitat E2.6 Impact intensity of production management activities towards endangered/endemic/protected wildlife species and their habitat		S2.1 Economic resources of the community should at least be able to support the continuation of inter-generation livelihood S2.2 Recognition and formal (legal) compensation for the use and the implementation of community's traditional knowledge in the management system			

MANAGEMENT DIMENSION (Output-based Strategy)	OUTCOME DIMENSIONS									
	SUSTAINABILITY OF PRODUCTION FUNCTION			SUSTAINABILITY OF ENVIRONMENTAL FUNCTION		SUSTAINABILITY OF SOCIOAL FUNCTION				
	Sustainability of Forest Resources	Sustainability of Forest Product	Sustainability of Business	Stability of Ecosystem	Survival of Endangered/Endemic /Protected Species	Guaranteed Community-based Forest Tenure System	Guaranteed of Community and Employees Resilience and Economics Development	Guaranteed Continuity of Community and Employees Social and Cultural Integration	Realization of Responsibility to Rehabilitate Nutritional Status and Prevention of the Impacts on Health	Assurance of Employees' Rights
2.2. Environmental Management		P2.8 Implementation of reduced impact logging		E1.8 Effectiveness of damage management on stand/forest structure and compositions E1.9 Effectiveness of controlling techniques on the impact of production management activities on soil E1.10 Effectiveness of controlling techniques on the impact of production management activities on water	E2.7 Security of endangered/endemic/ protected plant species and their habitat E2.8 Security of endangered/endemic/ protected wildlife species and their habitat					
2.3. Social Management		P2.9 Arrangement of forest product utilization for local communities	P3.2 Contribution to regional economic development	E1.11 Effectiveness of counselling regarding the importance of sustainability of forest ecosystem as support system and the impact of over-harvesting activities to forest ecosystem			S2.3 Capability of community to gain access to the employment and business opportunities S2.4 Development of domestic capital S2.5 Programs to increase employees' welfare and appropriate accommodation facilities are reviewed periodically	S3.1 Human rights are guaranteed S3.2 Impact of management units on social and cultural integration is minimized S3.3 Empowerment of community and employees are promoted	S4.1 Impact of management units on the community health is minimized S4.2 Cooperation with health authorities is established	

MANAGEMENT DIMENSION (Output-based Strategy)	OUTPUT DIMENSIONS									
	SUSTAINABILITY OF PRODUCTION FUNCTION			SUSTAINABILITY OF ENVIRONMENTAL FUNCTION		SUSTAINABILITY OF SOCIOAL FUNCTION				
	Sustainability of Forest Resources	Sustainability of Forest Product	Sustainability of Business	Stability of Ecosystem	Survival of Endangered/Endemic /Protected Species	Guaranteed Community-based Forest Tenure System	Guaranteed of Community and Employees Resilience and Economics Development	Guaranteed Continuity of Community and Employees Social and Cultural Integration	Realization of Responsibility to Rehabilitate Nutritional Status and Prevention of the Impacts on Health	Assurance of Employees' Rights
3. Institutional Arrangements 3.1. Organization Arrangements			P3.3 Management Information System (MIS)							S5.1 Mutual Work Agreements are in existence and implemented S5.2 Regional Minimum Wage and a fair pay structure are implemented S5.3 Health and Safety regulations are implemented
3.2. Improvement of Human Resources			P3.4 Availability of professional staff for planning, protection, production, and management of forest and business							
3.3. Financial Management			P3.5 Investment and reinvestment for forest management P3.6 Increase of forest capital							