# HANDBOOK OF INTERNSHIP OF SUSTAINABLE FOREST MANAGEMENT

LABORATORY OF FORESTRY



# **FOREWORD**

This manual provides the guideline for the implementation of internships for undergraduate students of the Bachelor in Forestry (BFT) program, Faculty of Agriculture, University of Bengkulu. It is expected to facilitate and provide a guideline for students so that they can achieve the desired competencies through the internship. In addition, it is hoped that it can align partner institutions' programs and the BFT's internship, thus, the shared goals and objectives can be achieved through this activity. Hopefully, this handbook can be useful for the relevant parties.

Bengkulu, February 2022

M. Fajrin Hidayat

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# I. INTRODUCTION

### 1.1. Background

The teaching and learning process in higher education, especially in the Department of Forestry, consists of knowledge transfer activities provided through lecture activities and practical activities in the field. With these, students are expected to be able to combine the theories obtained in college to analyze the empirical facts of forestry in the field.

This sustainable forest management internship is an activity that must be carried out by every final year student of the Department of Forestry, Faculty of Agriculture, University of Bengkulu. Activities are required for students in the hope that students can find out the actual and factual problems of forestry in the field and be able to analyze these facts to find a solution process.

After taking this internship, it is hoped that students will have adequate competence in the field of forestry and be able to perform well in working environment. In addition, internship activities are expected to improve the skills and competencies of forestry students to answer the challenges of competence and certification in human resources working in the field of forest resource management. Through this internship, it is also hoped that it can become a bridge between higher education and various partners institutions such as the government, non-governmental organizations, and forestry companies.

# 1.2. Purpose

The Sustainable Forest Management Internship aims to:

- 1. Gain working experience in order to implement the theory and science of sustainable forest management that has been learned in lectures.
- 2. Increase insight and improve students' abilities/skills in the dynamics of sustainable forest management.
- 3. Improving the internalization of the basic values of forester basic value for students as preparation for entering the world of work in the field of forest management.

# II. SUSTAINABLE FOREST MANAGEMENT INTERNSHIP

### 2.1. Course Description

The Sustainable Forest Management Internship course is a course aimed at practicing the theories that have been studied in several courses in the field of forestry science, such as Silviculture, Forest Planning, Forest Inventory, Forest Management, Forest Resource Conservation, Forest Measurement Science, Forest Survey and Mapping, etc. Thus, the Sustainable Forest Management Internship course is positioned as a course that summarizes the learning achievements in previous courses that are practical.

# 2.2. Study Materials

The Sustainable Forest Management Internship contains area organizing management, forest resource planning, forest resource management (making forest stands, forest development and maintenance, forest protection), engineering technology for the use of forest resources, as well as administration and administration of forest management. All aspects of competence as described above, in its implementation, can be applied to forest management for wood and non-timber production.

# 2.3. Learning Outcomes

The expected competence in the Sustainable Forest Management Internship course is that students are expected to be able to work and implement and organize the components of sustainable forest management in an institution of forest management and management units. After attending the Sustainable Forest Management Internship, students are expected to be able to:

- 1. Obtaining professional abilities and competencies at every stage of sustainable forest management.
- 2. Get used to working and interacting in a direct work atmosphere in the field to add experience to the work of sustainable forest management.
- 3. Develop personality, work ethic, and ability to work in groups and instil the value of professional ethics in the work environment in the forestry field.

## 2.4. Material reference

# 2.4.1. Organizing Working Areas

Through this activity, it is hoped that students can find out how the process to manage the working area in partner institutions in such a way that it is a unit to facilitate the application of the principle of forest sustainability. Because internship partner institutions are very diverse regarding their functions and authorities in the current period, the definition of working areas are adjustingsts to the partner institutions. An example and guidelines for defining working areas can be described as follows:

If the internship is carried out at a company holding an area concession/utilization permit (example: IUPHHKHA / HTI / RE, etc.) then what is meant by the working area is a forest area according to the function of the area that is set with the permit.

- If the internship partner is a Forest Management Unit (KPH) institution, then the working area is all the functions of the forest area which is the working area of the KPH.
- In internship partner institutions such as BKSDA, national parks, etc., the working area is the forest area which is the stakeholder area of the institution.
- If the internship partner is an institution that "does not directly" own /control / hold an area as a work area (for example BPDASHL, BPSKL, NGO etc.), then the working area here can be in the form of locations of activities/programs/activities of the partner institution. An example is RHL (Land and Forest Rehabilitation) activities at BPDAS HL which is located in a Protected Forest that in reality is a KPH stakeholder area.

Activities for organizing work areas are carried out, including:

- Students study the working area map and or activity location map along with the
  description that accompanies these maps (for example the function of the area, the
  division of areas/blocks/plots, the division of administrative areas, along with an
  explanation of the area of each)
- Students practice the stages of forest mapping, such as: making maps of work areas/areas boundaries with GIS applications, boundary arrangements, field navigation, calculation of area, the practice of using measuring instruments (Theodolite, compass, GPS, etc.), interpretation of satellite images, etc. Activities can be carried out by simulating.
- The division of the territory of labor by importance:
  - Functional physique: HL (protected forest), HP (production forest), HK (community forest)
  - Territorial authority: KPH (unit), BKPH (sub-unit), RPH (resort), Petak (plot)
- Fixed markings in the field: Pal boundary, pal distance, etc. (Can be done by studying documents/maps and doing simulations

# 2.4.2. Forest Planning

Forest planning is an effort in the form of a plan, a basis of reference and a handle for the implementation of various forest management activities in order to achieve the goals of sustainable forest management. Through the practice of forest planning activities, students are expected to be able to implement forest planning theory in the forest management unit at the internship location. Because of the form, function and authority of management in the internship partner institutions of the Forestry Department, the scope of planning activities can be wider, in the sense that it is not only in the form of planning forest concession activities for wood production but also for other forest management activities, including the field of forest management. The practical activities that students can do during the internship are:

Inventory of forest resources (wood, HHBK, biodiversity, animals, social services, etc.).

- > Studying spatial and time-based role documents in internship institutions. These documents include: management plan, RPHJP KPH, Provincial Level Forestry Plan (RKTP), Integrated RPDAS, Forest Management Plan, Planting Technical Plan, etc. while for IUPHHK permit holders the documents studied are: Timber Forest Product Utilization Business Work Plan (RKUPHHK), Forest Sustainability Regulation Plan (RPKH), IUPHHK Annual Work Plan (CTR), etc. At each of the other partner institutions, the forest management planning documents adjust.
- > Study the workspace/region spatial planning document
- > Study related regulations and laws and regulations, as well as applicable policies.
- > Studying the organizational structure of the intern partner institution, along with an explanation of the relationship between coordination and authority.
- Learn all aspects covered in occupational safety and health (K3)

Because usually planning activities during the internship are not available, to enrich students' insights and skills, simulations can be carried out.

#### 2.4.3. Forest Development

Forest development in principle is an activity that is widely carried out in forest management institutions in the manufacture of forest plants. In practice, forest development activities can be equated with silviculture activities. In some internship locations other than forest business companies/institutions, coaching activities can be carried out, for example, on forest and land rehabilitation activities (RHL). The aspects of activities that can be carried out at the internship location related to forest development are:

- Fully study the silviculture system applied at the internship site.
- Assessment and practice of all activities in nurseries/seedbeds, descriptions of type selection, and practices in seed gardens.
- Tillage activities for planting (clearing of the territory, creation of planting site designs and planting patterns, regulation of the composition of the type and density of stands, etc.).
- Planting activities (transportation of seedlings, creation of planting pits, installation of ajir, planting, etc.).
- Plant maintenance activities (fertilization, embroidery, thinning, eradication of pests and diseases, etc.)
- Forest protection, monitoring and security activities
- Agroforestry
- Soil and water conservation

# 2.4.4. Collection of Timber Forest Products

This activity is intended to provide knowledge and experience to students and be able to understand and study the process of collecting timber forest products. Students are expected

to be able to try themselves a series of work units in this activity or can be done in the form of groups, depending on the type of work. By carrying out a series of work units themselves, it is hoped that students can understand: (a) Factors that need to be considered before, during and after the activity takes place; (b) Data and facts that need to be mastered and reviewed to carry out such activities; (c) Necessary materials and tools; (d) Obstacles that occur and how to overcome them; (e) The results achieved from such activities. If this activity is not possible to do it alone for some reason then you can see a demonstration of that activity by the local executive. The scope of activities that can be carried out in the form of simulations / practices are:

- Making a harvesting work plan (rencana target production volume, sarad road, TPn, tooluse and labor)
- Review of the applied harvesting system
- Tree marking and its administration
- Felling and skidding
- Timber Administration and Administration
- Timber stockpiling and testing site management system (Guidelines for timber testing and how to test it, aroll of wood entering the TPK from the TPK gate to the consumer)
- Timber Forest Product Marketing
- Processing of timber forest products (jenis processing industry, production capacity)

# 2.4.5. Forest Resource Conservation

In this activity, it is hoped that students can practice conservation and preservation of forest ecosystems in the forest management unit at the internship location. The activities that can be done by students during the internship are:

- Study and identify issues related to forest resource conservation issues.
- Conservation of plant and wildlife protection, both within their habitat (in-situ conservation) and outside their habitat (ex-situ conservation).
- Biodiversity and Ecosystems
- Inventory and management of natural attractions (ecotourism)
- Management of conservation areas in the internship area
- Management of endangered and protected species
- Wildlife management and management techniques, including when domestification activities are available.
- Germ plasm management

# 2.4.6. Empowerment of Communities around Forests

Through this activity, it is hoped that apprentices can be directly involved in all forms of new paradigm activities for forest management which puts the community as the main actor in

forest management (*community based*)." The activities that can be carried out by apprentices are:

- Identifying and studying community dynamics and problems in the context of forest area management.
- Involving themselves in the social forestry program (SF) scheme at the internship site, for example facilitating the preparation of SF proposals, verifying SF proposals, being involved in SF management plans, etc.
- Create working papers on effective forest community empowerment models and strategies
- Involved in forest village community development activities (PMDH), if the internship location is an IUPHHK permit holder.

### 2.4.7. Forest Protection and Safeguarding

Through this activity, it is hoped that students can be involved in the implementation of activities to protect forest ecosystems from various kinds of disturbances and anticipate the impact of disturbances that occur. Protection and security activities also include the protection of forest products. Activities that students can do during internships are:

- Identification and inventory of potential conflicts between people and forest areas.
- Identify and inventory forest encroachment and study efforts to solve forest encroachment problems.
- Develop mitigation plans for potential damage to forest ecosystems.
- Mitigation and enforcement of illegal logging laws, for example through patrol activities.
- Forest security patrols and forest and land fire patrols
- Make documents reporting incidents of violations of the law and evidence of forest destruction.

#### 2.4.8. Thematic Activities

In connection with the various forms of institutions of internship partner institutions, resulting in activities that can be carried out by students are also very diverse between internship partner institutions, students can carry out thematic internship activities in accordance with the activities at the internship location. The thematic activities that can be carried out by students are:

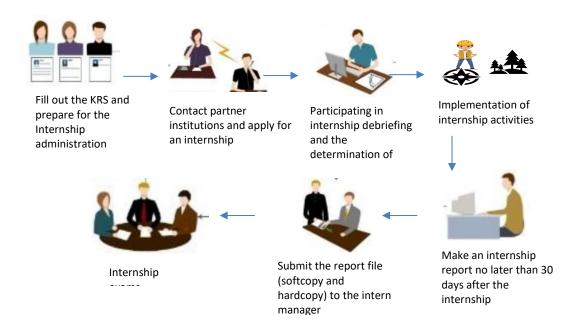
• Management and utilization of various kinds of non-timber forest products (HHBK) commodities. In this activity, students are expected to learn holistically all aspects related to the management and utilization of HHBK. These aspects include: identification and inventory of HHBK potens, management planning, cultivation and production of HHBK, post-harvest processing and increasing the added value of production results, marketing strategies and management, etc. HHBK that can be studied for example: honey bees, essential oils, liquid smoke, resins, carbohydrates, fruits, tannins and sap, medicinal and ornamental plants, rattan and bamboo, animal products, etc.

- Utilization and management of environmental services and natural tourism
- Wildlife management and management
- Mini research activities that may be at the internship site

For activities that are thematic in nature, students are expected to be able to explore information independently related to all aspects of these thematic activities.

# III. THE IMPLEMENTATION OF INTERNSHIP

# 3.1. Internship Procedure



# 3.2. Requirements

The interns for sustainable forest management are students of the Department of Forestry, Faculty of Agriculture, University of Bengkulu with the following requirements:

- 1. Being registered as an active student is proven by attaching a Study Plan Card (KRS), and taking the Internship in Sustainable Forest Management course.
- 2. Have taken a minimum of 110 credits with a compulsive achievement index of at least 2.00 and proven by attaching a photocopy of the last LHS.
- 3. Fill out the internship form
- 4. Sign a statement letter of ability to carry out internships
- 5. Sign a statement of responsibility for safety risks and work accidents
- 6. Sign a parent/guardian permit.
- 7. Attach a health certificate

In certain situation and conditions, the intern manager may specify additional requirements.

## 3.3. Time and Place of Implementation

Internship activities for sustainable forest management are carried out for 1 (one) to 2 (two) months. The place of implementation of the internship is a partner institution that is considered adequate for the implementation of the internship in accordance with the expected competencies. These institutions include the Provincial Forestry and Environment Service, Forest Management Unit (KPH), Technical Implementation Unit of the Ministry of Environment and Forestry such as National Parks, Natural Resources Conservation Centers (BKSDA), Watershed and Protected Forest Management Centers (BPDASHL), Environmental and Forestry Research and Development Centers (BP2LHK), etc., companies holding forest product utilization permits (IUPHHKHA, IUPHHKHTI, IUPHHK-RE, etc.), and other institutions that are deemed suitable for the implementation of internships.

#### 3.4. Code of Conduct

Students who take part in the internship must pay attention to and comply with the rules for implementing the internship as follows:

- Maintaining the good name of the alma mater of University of Bengkulu and always prioritizing the soul and basic values of foresters.
- Behave and dress in accordance with the norms and rules that apply in the institution where the internship is carried out.
- It is mandatory to follow all activities and comply with the schedule that has been made by the intern manager and the institution where the internship is carried out.
- Must notify the supervisor and / or intern manager if they are unable to attend or leave the internship location.
- It is forbidden to drink liquor, carry sharp weapons (unless needed in activities), firearms, and consume drugs during the internship.
- Maintain the cleanliness of the environment while at the internship location.
- Maintain ethics, manners, order, and peace at the internship site and pay attention to and obey local customs and culture.
- Perform tasks assigned by field supervisory internship managers at partner institutions.
- Prioritizing aspects of occupational health safety (K3).
- Comply with all standard operating regulations and procedures (SOP) applicable at the internship location.

# 3.5. Stages of Activities During the Internship

After arriving at the location of the internship partner institution, the stages that must be carried out by students are:

- Report yourself to the manager of the internship partner institution by submitting a cover letter, internship guidebook, intern biodata, field evaluation and assessment form, and other necessary files.
- 2. Carry out the initial presentation to explain the internship content and synchronize the internship content with the activities available at partner institutions to achieve learning outcomes and internship competencies in sustainable forest management. The results of the initial presentation and input from the manager of the partner institution should be reported to the internship supervisor and or internship manager.
- 3. Study the regulations and rules that apply in partner institutions for student interns to comply with.
- 4. Coordinating with partner institution managers to compile schedules and programs/activities in a more planned manner, including coordinating the use of facilities, infrastructure and equipment, as well as field supervisors from partner institutions.
- 5. Carry out internship activities in accordance with the content of the internship as explained in the previous chapter (Organizing work areas, forest planning, forest development, collecting forest products, conservation of forest resources, community empowerment around the forest, forest protection and security, and thematic activities). In carrying out activities, the internship manager and or supervisor can supervise and monitor the internship location.
- 6. Presenting the results obtained during the internship in front of the managers of partner institutions and related stake holders. In this activity, interns ask for input and evaluation related to the implementation and results of internship activities.
- 7. Intern partners through field supervisors or apprentice managers are expected to evaluate and assess each intern through the form provided (see appendix).
- 8. Take care of the administrative files for the return of interns to campus.

### 3.6. Reporting and assessment

- Students are required to make internship reports for each individual and also make group reports. The internship group report contains a compilation of individual reports. The group report will be submitted to the internship partner institution as a form of contribution to the internship student's thoughts for the improvement of the internship institution.
- 2. In preparing the report, students can ask for guidance from the appointed supervisor.

- 3. The assessment of the Sustainable Forest Management Internship course is carried out through the following assessment components:
  - Debriefing
  - Implementation of field activities (assessment is carried out by partner institutions)
  - Report
  - Internship exams
- 4. The internship supervisor is also an intern examiner lecturer.

# IV. CONCLUSION

This Sustainable Forest Management Internship Manual was created with the hope that it can be used as a reference for internship students, managers of partner institutions, the Department of Forestry and supervisors/examiners so that the implementation of the internship can be directed and in accordance with the learning outcomes that are cool. This manual is certainly still incomplete and detailed, so that in the implementation of the internship, internship students and supervisors can enrich this guide so that the implementation of the internship can run as expected.

# **APPENDIXES**

# STUDENT BIODATA SUSTAINABLE FOREST MANAGEMENT INTERNSHIP DEPARTMENT OF FORESTRY, UNIVERSITY OF BENGKULU

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# FORMAT OF THE SUSTAINABLE FOREST MANAGEMENT INTERNSHIP REPORT

TITLE PAGE
ATTESTATION PAGE
FOREWORD
TABLE OF CONTENTS
LIST OF TABLES
LIST OF FIGURES
APPENDIX LIST
CHAPTER I INTRODUCTION

# 1.1. Background

Describe what is the background and basis for the implementation of the internship

# 1.2. Purpose and benefits

Describe the goals, expectations and benefits to be achieved in the internship, both for interns (students), the Department of Forestry, and institutions related to internships.

# CHAPTER II ACTIVITY LOCATION PROFILE

Contains important things that need to be described about the location of the internship: the vision and mission of the agency / company, organizational structure, human resource profile (HR), history of the agency / company, description of the area (map, location, area, function, etc.), and other things that are considered necessary to be described.

# **CHAPTER III LITERATURE STUDIES**

Theoretical studies contain concepts and theories that are relevant to internship activities. Reading sources used in theoretical studies can be taken textbooks, journals of research results and from various other sources such as laws and regulations, activity reports, manuals in the internship location, etc. Students in the literature study section are expected to explain concepts or theories related to internship activities, the relationship between one concept and another. This aims to increase students' understanding of theories relevant to the type of internship assignment and train creative thinking.

### CHAPTER IV METHODS OF CARRYING OUT ACTIVITIES

The chapter on the method of carrying out activities consists of several sub-chapters: the time and location of the activity, tools and materials, the scope of assignment in the internship (explaining the description of the part of the work that is the object of the internship, as well as the description of the work given to students), work procedures, as well as work plans and scheduling (can be made in the form of a table).

## CHAPTER V RESULTS AND DISCUSSION

Describe in sub-chapters that describe in detail the realization of the stages / areas of activity implementation starting from the process of planning, preparation, implementation, and evaluation of the results of activities. Provide a critical review of the achievement of results by providing arguments for supporting factors, obstacles, problems and constraints on the implementation and achievement of results. In addition, students are expected to provide exposure to theories that are in accordance with the internship activities briefly and then connect with the internship activities carried out, so that a description of the relevance of theory and practice can be made.

### CHAPTER VI RECOMMENDATIONS

Made in the form of a description of recommendations / improvements to the existing processes / workflows in the agency / company where the internship is carried out, as explained in the chapter on the results of the activity. Recommendations are made based on data and information obtained during the implementation of activities so that the agency / company where the internship is held can receive benefits for internships carried out by students.

## **BIBLIOGRAPHY**

Write about the reference sources used by the author in the internship report

## **ATTACHMENT**

- 1. Daily journal of internship activities
- Files/data obtained in internship activities that need to be attached, for example: tally sheets, field forms/from-fields, field notes, data analysis results, supporting maps, SOPs, etc.
- 3. Documentation of activities (divided into each stage of activity and given an explanation)

# Writing rules:

- 1. The front page of the internship report uses Times New Roman letters size 14 bold, and student names and NIM use size 12 bold ....
- 2. The Chapter title uses Times New Roman letter size 14 with the provision of using all capital letters, placed in the middle and without an underscore. As for the sub-chapter headings using a size of 12 bold (bold) placed on the left edge where each initial letter is written with a capital letter (except conjunctions), without underscores and without any reading marks.
- 3. The body of the paragraph uses times new roman letters size 12.
- 4. Typing each new paragraph starts from the seventh tap of the left margin
- 5. The margins are as follows: top 3.5 cm, left 3.5 cm, right 3 cm and bottom 3 cm.
- The page numbers are small roman numerals for the beginning (delivery words, table of contents, etc) and latin numerals for the body and end of the internship

- report. Page numbers are placed to the right of the bottom of the space on each page with times new roman letter size 12
- 7. The internship report is written on 70 milligrams of HVS paper, in white, A4 in size.

# Example of a title page:

# REPORT ON THE IMPLEMENTATION OF ACTIVITIES SUSTAINABLE FOREST MANAGEMENT INTERNSHIP



NAME: NPM:

**ACTIVITY LOCATION:** 

DEPARTMENT OF FORESTRY FACULTY OF AGRICULTURE UNIVERSITY OF BENGKULU 2022

# **Example of an attestation page:**

# **ATTESTATION PAGE**

# REPORT ON THE IMPLEMENTATION OF ACTIVITIES SUSTAINABLE FOREST MANAGEMENT INTERNSHIP

NAME:

NPM:
ACTIVITY LOCATION:
Approved by:
Supervisor/Examiner

**Head of Department** 

NIP.

Ir. Edi Suharto, MP. NIP. 19690831 199403 1 009

# DAILY JOURNAL (*LOG BOOK*) SUSTAINABLE FOREST MANAGEMENT INTERNSHIP DEPARTMENT OF FORESTRY, UNIVERSITY OF BENGKULU

NAME	:	
NPM	:	
PARTNER INSTITUTIONS	:	
IMPLEMENTATION TIME	:	s/d

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# STATEMENT COVERAGE OF SAFETY RISKS AND WORK ACCIDENTS SUSTAINABLE FOREST MANAGEMENT INTERNSHIP ACTIVITIES DEPARTMENT OF FORESTRY, UNIVERSITY OF BENGKULU

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BEFORE	:		
Place of birth	:		
Address	:		
Parent/Guardian Name Partner Institutions Implementation Time	: : :		/d
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Thus, this statement I ma	ade, s	that it can be used as i	t should be.
Parent/guardian		Student	
		NPM.	

# **FORMULIR FIELD SUPERVISOR ASSESSMENT\*)**

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	IER INSTITUTIONS:	
IMPLE	MENTATION TIME :ss_	
No	ASSESSMENT ASPECTS	VALUE
1.	Attitude (behavior, responsibility, cooperation)	
2.	Discipline (presence)	
3.	Mastery of the material	
4.	Field abilities/skills	
4.All	ise do not cooperate with students in setting grades.  data collected by participants during the internship dorsement from a field supervisor appointed by the partner	
	Field Advisors	

<sup>\*)</sup> Can be made a separate format by field supervisors / partner institutions

# REPORT AND EXAM ASSESSMENT FORM SUSTAINABLE FOREST MANAGEMENT INTERNSHIP

	MENTATION TIME :	S		
No	ASPECTS	WEIGHTS (%)	SCORE	WEIGHTXSCOR
1.	Report	30		
2.	Presentation	30		
3.	Mastery of the material	40		
		 Superv	isor/Exam	iiner

NIP.