

# INCEPTION REPORT

<b>Project number</b>	<b>:</b>	<b>PD 737/14 Rev.2 (I)</b>
<b>Project title</b>	<b>:</b>	<b>Developing Supply Capacity of Wood-Based Biomass Energy through Improved Enabling Conditions and Efficient Utilization of Degraded Forest Lands involving Local Communities in North Sumatra Province of Indonesia</b>
<b>Host Government</b>	<b>:</b>	<b>Government of Indonesia</b>
<b>Executing Agency</b>	<b>:</b>	<b>Directorate General of Sustainable Management of Production Forests (PHPL)</b>
<b>Collaborating Agency</b>	<b>:</b>	<b>Indonesian Sawmill &amp; Woodworking Association (ISWA)</b>
<b>Starting date</b>	<b>:</b>	<b>1 October 2017</b>
<b>Project duration</b>	<b>:</b>	<b>48 months</b>
<b>Total project costs</b>		
• ITTO	<b>:</b>	<b>USD 589,863</b>
• GOI	<b>:</b>	<b>USD 197,150</b>
• Total	<b>:</b>	<b>USD 787,013</b>
<b>Place and date of submission</b>	<b>:</b>	<b>Jakarta, September 2017</b>

### 1) Intended Starting date :

The project is now ready to commence operation, two weeks behind the initially planned date, 1 October 2017, for unseeable reasons. The project start has experienced serious delay, due mainly to procrastinated administrative processes especially on the formulation and signing of the MoU by PHPL and ISWA officials.

### 2) Proposed Management Unit

Pursuant to the MoU signed by PHPL and ISWA on 18 September 2017, the Executing Agency, Directorate General of Sustainable Management of Production Forests (PHPL) and the Collaborating Agency, the Indonesian Sawmill and Woodworking Association (ISWA), agreed to establish a Project Management Unit (PMU) to implement the project and manage project funds.

#### Executing Agency (EA)

- Name : Directorate General of Sustainable Management of Production Forests (PHPL)
- Address : Manggala Wanabhakti Building  
Block I Floor 5, Jl. Gatot Subroto, Senayan, Jakarta
- Phone number : 62-21 503265 Ext. 242
- E-mail address : andriana\_sau@yahoo.com

#### Collaborating Agency (CA)

- Name : Indonesian Sawmill and Woodworking Association (ISWA)
- Address : Manggala Wanabhakti Building  
Block 4 Floor 8, Jl. Gatot Subroto, Senayan, Jakarta
- Phone number : 62-21 5733018, 5703172
- E-mail address : iswapusat@gmail.com

#### Project Management Unit (PMU)

- Address : Manggala Wanabhakti Building  
Block 4 Floor 8, Jl. Gatot Subroto, Senayan, Jakarta
- Phone number : 62-21 5733018, 5703172
- E-mail address : iswapusat@gmail.com

### 3) PMU Key Personnel

- i. Project Coordinator : Mr. Jimmy Chandra
- ii. Project Secretary : Ms. Richma Wahyuni
- iii. Field Supervisor : Mr. Alamsyah
- iv. Project Finance : Ms. Herlina Lesmana
- v. Management advisor : Dr. Hiras Sidabutar

Honoraria of Key Personnel (i), (ii), and (iii) will be paid with ITTO funds with the prior approval of ITTO; the other key personnel's honoraria will be borne by ISWA.

### 4) Office facilities

A 40 m<sup>2</sup> room has been made available for the project office. The room is located at Manggala Whanabhakti Building, next to ISWA's office; it is air conditioned and fully furnished. Available office facilities include:

- E-mail, telephone
- PCs, printers, and photo copier
- One set of furniture, drawers, working desks and chairs
- Meeting room

## 5) Bank account

Bank Name : PT Bank Negara Indonesia (Persero)  
Branch : Kantor Cabang Senayan  
Bank Address : Jl. Jend. Gatot Subroto, Senayan, Jakarta  
Name of Beneficiary : ITTO PD 737/14 Rev. 2 (I)  
Account Number : 0614250579  
Swift Code : BNINIDJA

## 6) Arrangements of consultants and sub-contractors

- Employment of consultants and sub-contractors is inevitable to assist in the implementation of particular project activities because the PMU does not fully have the resources required to properly implement the activities.
- Selection and employment of consultants, contractors, and other partners will be based on competence and in accordance with the ITTO Guidelines for the selection and employment of consultants, procurements and payments of goods and services, GI Series 16 Second Edition, 2009.
- Preliminary contacts have been made with potential consultants, contractors and partners. Terms of reference of each activity will be formulated by the Project Coordinator and the respective consultants, contractors and partners prior to hiring.

## 7) Changes made to the project proposal:

The changes made, which will be presented in details in YPO 1, annexed to this report, include:

- i. Location of demonstration plantations, moved from 3 districts (Kabupaten) to 3 KPHPs (Production Forest Management Units) located in south-eastern region of the province.
- ii. Location and number of villages for dialogue moved from 25 districts of North Sumatera Province to 13 districts in South-eastern of the province.
- iii. Definition of particular activities
  - Activity 1.1
    - Original: To identify available suitable lands for development of energy forests in North Sumatra province
    - Adjusted: To identify available suitable lands for development of energy forests in South-eastern region of North Sumatra province covering 13 districts
  - Activity 1.2
    - Original: To formally allocate lands for energy forest development on existing landuse plan
    - Adjusted: To identify suitable lands on 3 KPHPs for energy forest development
  - Activity 1.3
    - Original: To establish energy forest models for purpose of demonstration and training (3 sites, 3 species, 36 Ha in total) in years 1 and 2
    - Adjusted: To establish energy forest models for purpose of demonstration and training (3 KPHPs, 3 tree species, 36 Ha in total) in Year 1
  - Activity 2.1
    - Original: To conduct dialogue with local communities on benefits of energy forest development (50 villages in 25 districts) in Years 1 & 2.

- Adjusted: To conduct dialogue with local communities on benefits of energy forest development (50 villages in 13 districts) in Years 1 and 2 in south-eastern part of the province.
- Activity 2.2
    - Original: To train local communities on technical skills for energy forest development covering planting, tree nursing and harvesting techniques (100 farmers leaders of 50 villages) in Years 2-4
    - Adjusted: To train local communities on technical skills for energy forest development covering techniques for production of planting materials, tree planting, tree nursing and harvesting (100 farmers leader of 50 villages) in Years 2-4
  - Activity 3.2
    - Original: To organize one national workshop on wood-based energy development in Medan
    - Adjusted: To organize one regional workshop on wood-based energy development in Parapat/P. Siantar
- iv. Workplan  
Activity 1.3 originally planned for execution in Q 1-4, Y 1-2 now reduced to Q 1-2, Y 1 only.
- v. Budget
- On sub-contract of Activity 1.3 originally ITTO funds were allocated USD 42,000 for 2 years, now for Year 1 only.
  - On ITTO's administrative costs, originally allocated USD 103,252 now reduced to USD 102,763.
- vi. Logical Framework  
The logical framework that captures above changes (for the entire duration and YPO 1) is detailed in Annex A of YPO1.

## **8) Annex: YPO 1 (The First Yearly Plan of Operation)**

# **THE FIRST YEARLY PLAN OF OPERATION (YPO 1)**

## **October 2017 - September 2018**

<b>Project number</b>	<b>:</b>	<b>PD 737/14 Rev.2 (I)</b>
<b>Project title</b>	<b>:</b>	<b>Developing Supply Capacity of Wood-Based Biomass Energy through Improved Enabling Conditions and Efficient Utilization of Degraded Forest Lands involving Local Communities in North Sumatra Province of Indonesia</b>
<b>Host Government</b>	<b>:</b>	<b>Government of Indonesia</b>
<b>Executing Agency</b>	<b>:</b>	<b>Directorate General of Sustainable Management of Production Forests (PHPL)</b>
<b>Collaborating Agency</b>	<b>:</b>	<b>Indonesian Sawmill &amp; Woodworking Association (ISWA)</b>
<b>Project Management Unit (PMU)</b>	<b>:</b>	<b>Established pursuant to the MoU signed by PHPL and ISWA on 18 September 2017</b>
<b>Starting date</b>	<b>:</b>	<b>1 October 2017</b>
<b>Project duration</b>	<b>:</b>	<b>48 months</b>
<b>Total project costs</b>		
• ITTO	<b>:</b>	<b>USD 589,863</b>
• GOI	<b>:</b>	<b>USD 197,150</b>
• Total	<b>:</b>	<b>USD 787,013</b>
<b>YPO 1 project costs</b>		
<b>ITTO</b>	<b>:</b>	<b>USD 148,600</b>
<b>GOI</b>	<b>:</b>	<b>USD 63,810</b>
<b>Total</b>	<b>:</b>	<b>USD 212,410</b>
<b>Submitted to ITTO</b>	<b>:</b>	<b>September 2017</b>

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## 1. Project Progress Report

Not applicable to YPO 1; the project is yet to start in October 2017.

## 2. YPO 1 Operational Program

### 2.1. Logical Framework Matrix (LFM)

The original and adjusted LFM for the entire duration is presented in Annex A noting that the “means of verification” and “key assumptions” remain the same as the original ones. A few notes on measurable indicators, are presented below.

#### i. On the Development Objective

- Indicator 1:  
Redefined and now reads as “At least 50 villages engaged in energy forest development activities”; reduced from 100 villages in 10 districts (kabupaten).
- Indicator 2:  
Since biomass energy development requires relatively large amount of financial investment, it would be more realistic to expect “investment realized by at least one company instead of 2-3 companies”, 3 years after project completion

#### ii. On the Specific Objective

- Indicator 3:  
Original indicator has been redefined and now reads as “At least one company indicated interest in making investment in woodbased energy industry; reduced from 2-3 companies

#### iii. On Output 1

- Indicator 1:  
Needs to be redefined to clearly capture re-oriented focus on geographic target and it now reads “available suitable lands for energy forest development identified and mapped in 13 districts in year 1; reduced from 25 districts
- Indicator 2:  
Needs to be redefined in order to capture the transfer of project sites from “districts” to “KPHPs” that now it reads “suitable lands for energy forest development on 3 KPHPs identified and mapped in year 1”, “instead of” lands for energy forests formally designated in year 1
- Indicator 3:  
Needs to be clearly and realistically redefined to reflect the change made to the project sites and effectiveness of operation; the adjusted indicator should now read “36 Ha of energy forests trial planted using 3 species in Year 1 on 3 KPHPs in south-eastern region of North Sumatra province”.

#### iv. On Output 2

- Indicator 1  
Needs adjusting to reflect the change of project sites from the entire province of North Sumatra to only south-eastern region of the province; the adjusted

indicator now reads “dialogue with local communities of 50 villages in 13 districts conducted in Years 1 and 2”; reduced from 25 districts

v. On Output 3

- Indicator 2:

Needs to be adjusted to show the change in level and venue of planned workshop from City of Medan to Parapat/P. Siantar; allocated budget is insufficient to organize a national workshop in the City of Medan. It is more appropriate to organize a regional workshop either in Parapat or P. Siantar city in order to allow higher participation of south-eastern district stakeholders.

Reasons for moving the project sites from 3 original districts of North Sumatra to 3 KPHPs in South-eastern of North Sumatra province include:

- In Serdang Bedagai district, unproductive lands are limited in extent. In addition, land owners opt to use lands for palm oil for technical and economical reasons, using land for energy forest development is less likely attractive to land owners.
- Nias Island is situated at a far distance from Sumatra island; high costs for execution of project activities and monitoring of operations were out of sight during the project development stage thus, were not accommodated in the budget plan.
- Mandailing Natal districts is located far away to the east of the province that it may pose serious problem on monitoring of project operations
- To attract investors on wood biomass energy development, it is critical to demonstrate availability of long-term supply of raw material from energy forests planted on large, more concentrated land areas; this condition can be met in South-eastern districts of North Sumatra.
- Long-term supply of wood raw materials is ensured only if a large extent of unproductive lands and trained local communities are available, the conditions that can be met in South-eastern districts.
- Concentrating the project sites in 3 KPHPs, covering several south-eastern districts, is a means to activate the newly established forest institutions and pave the way for generating contribution of forest sector to local economies. In essence, locating energy forests development in KPHPs will improve performance indicator (IKU) as required by the mid-term forestry strategic plan. Planting of energy tree species
- Engagement of district governments nearby Lake Toba in the project is expected to contribute to conservation of Lake Toba water catchment area that has been declared by the state as tourism priority destination.

## 2.2. Outputs and Activities

During the YPO 1 period, 5 activities under 3 Outputs are planned for execution, namely:

i. Output 1

- Act 1.1 To identify suitable lands for development of energy forests in South-eastern of North Sumatra province covering 13 districts
- Act 1.2 To identify suitable lands on 3 KPHPs for energy forest development



Notes: Acts 1.1 and 1.2 will be executed with the assistance of a competent local/national expert

- Act 1.3 To establish energy forest models in Year 1 for purpose of demonstration and training (3 sites, 3 species, 36 Ha in total); the sites are:
  - KPH Unit XII : Simalungun district
  - KPH Unit XVII : Humbang – Hasundutan
  - KPH Unit XX : Karo

This Act will be executed in collaboration with competent local NGOs/small firms

ii. Output 2

- Act 2.1 To conduct dialogue with local communities on benefits of energy forest development (50 villages in 13 districts) in Years 1 and 2

This Act will be executed in collaboration with competent local university/forestry institution


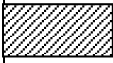

iii. Output 3

- Act 3.2 To organize one regional workshop on wood-based energy development in Parapat/P. Siantar




Output/Activity	Resp. Party	Q1			Q2			Q3			Q4			YPO 2	
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		
Activity 1.3 To establish energy forest models in Year 1 for purpose of demonstration and training (3 sites, 3 species, 36 Ha in total)		[Hatched bar spanning Oct to Sep]													
<ul style="list-style-type: none"> <li>Sub-act 1.3.1: To appoint competent contractors and develop workplans</li> </ul>	PMU	[Hatched bar spanning Oct to Dec]													
<ul style="list-style-type: none"> <li>Sub-act 1.3.2: To procure planting materials</li> </ul>				[Hatched bar spanning Dec to Feb]											
<ul style="list-style-type: none"> <li>Sub-act 1.3.3: To recruit farmers as laborers.</li> </ul>	PMU,CTR				[Hatched bar spanning Jan to Jul]										
<ul style="list-style-type: none"> <li>Sub-act 1.3.4: To establish demo plots</li> </ul>	CTR				[Hatched bar spanning Feb to Sep]										
<ul style="list-style-type: none"> <li>Sub-act 1.3.5: To report on implementation of the activity</li> </ul>	PMU,CTR												[Hatched bar spanning Sep to Oct]		
	PMU, NGO														

Output/Activity	Resp. Party	Q1			Q2			Q3			Q4			YPO 2	
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		
Output 2:															
Activity 2.1 To conduct dialogue with local communities on benefits of energy forest development (50 villages in 13 districts) in Years 1 and 2.		[Hatched bar spanning Oct to Sep]													
• Sub-act 2.1.1: To appoint a competent contractor and develop workplan	PMU, CTR	[Hatched bar spanning Oct to Dec]													
• Sub-act 2.1.2: To conduct dialogues with 27 villages in 7 districts	PMU, CTR			[Hatched bar spanning Dec to Sep]											
• Sub-act 2.1.3: To report on progress in execution of the activity	PMU, CTR												[Hatched bar spanning Sep]		
Output 3:															
Activity 3.2 Act 3.2 To organize one regional workshop on wood-based energy development in Parapat/Balige		[Hatched bar spanning Oct to Dec]													
• Sub-act 3.2.1: To identify competent	PMU, EO	[Hatched bar spanning Oct]													

Output/Activity	Resp. Party	Q1			Q2			Q3			Q4			YPO 2
		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
EO and develop a workplan														
• Sub-act 3.2.2: To make administrative and logistical arrangements	PMU, EO													
• Sub-act 3.2.3: To execute the workshop	PMU, EO													
• Sub-act 3.2.4: To report on the workshop	PMU, EO													

Notes:

- PMU : Project Management Unit
- KPHP : Production Forest Management Unit
- NC : National Consultant
- CTR : Contractor
- NGO : Non-governmental Organization
- EO : Event Organizer
-  : The activity continued in Year 2

## 2.4. YPO 1 indicators and assumptions

The indicators presented in Table 2 take into account the changes made to the project sites and definition of activities as outlined in Section 7 of the inception report.

Table 2: Indicators of achievement during YPO 1

Output/activity	Indicator of achievement	Means of verification	Key assumption
<p>Output 1:</p> <ul style="list-style-type: none"> <li>• Activity 1.1 To identify suitable lands for development of energy forests in South-eastern of North Sumatra province covering 13 districts</li> <li>• Activity 1.2 To identify suitable lands on 3 KPHPs for energy forest development</li> <li>• Activity 1.3 To establish energy forest models in Year 1 for purpose of demonstration and training (3 sites, 3 species, 36 Ha in total);</li> </ul>	<p>Suitable lands for energy forest development in 13 districts of South-eastern North Sumatra province identified and mapped in Q1-2, Y1</p> <p>Suitable lands for energy forest development in 3 KPHPs identified and mapped in Q 1-2, Y1</p> <p>36 Ha of demo energy forest plantations established in 3 KPHPs using 3 tree species (lamtoro, kaliandra and gamal)</p>	<p>Technical report of Consultant</p> <p>Maps produced by KPHPs</p> <p>Technical report of Contractor; Field check</p>	<p>Secondary data available</p> <p>Secondary data available</p> <p>Cooperative local communities</p>
<p>Output 2:</p> <p>Activity 2.1 To conduct dialogue with local communities on benefits of energy forest development (50 villages in 13 districts) in Years 1 and 2</p>	<p>Dialogues with 27 villages on energy forest development in 7 districts of South-east province of North Sumatra completed in Year 1</p>	<p>Technical report of Contractor</p>	<p>Cooperative local communities</p>
<p>Output 3:</p> <p>Activity 3.2 To organize one regional workshop on wood-based energy development in Parapat/Balige</p>	<p>One regional workshop on energy forest development conducted in Parapat/Balige in Q1, Y1</p>	<p>Workshop report by EO</p>	<p>Regional stakeholders interested in the workshop</p>

## **2.5. Monitoring and reporting**

- i) Monitoring
  - To ensure proper implementation of planned activities in terms of quantity, quality and timing, progress of work must be continuously monitored covering inputs and outputs of individual activities. Monitoring work will be carried out by the Project Coordinator or his/her staff or any other person assigned, to do it and also by the Field Coordinator stationed in the project sites.
  - Outcomes of any activities will be measured against the achievement indicators as defined in Table 2.
- ii) Reporting
  - Progress in implementation of planned activities will be prepared using real time data collected by the Project Coordinator, Field Supervisor or any staff doing the monitoring work.
  - The reports/documents that need to be submitted to ITTO during the YPO 1 period include:
    - 2 bi-annual progress reports for submission in April and October 2018, respectively
    - YPO 2 for submission in September 2018
    - Report of the regional workshop for submission in December 2017.

## **3. Personnel Planning, Coordination and Institutional Relations**

### **3.1. Project personnel, partners and support organizations**

- Project key personnel, whom are members of the Project Management Unit, comprise: Project Coordinator, Project Secretary, Project Finance, Field Supervisor, Management Advisor and Management Advisor.
- Partners will consist of: national consultant, local contractors and Event Organizer
- Supporting organizations consist primarily of Provincial Forestry Agency, 3 KPHPs and the relevant district government agencies.

### **3.2. Involved organizations, stakeholders and communities**

- Partners in the public sector include:
  - PFMUs: provide lands suitable for demo plots in the short-run and for energy forest development in the mid-term
  - PLN (State Electrical Company): prospective buyer of electricity power made of biomass wood
  - North Sumatra Provincial Forestry Agency: coordinates planning of energy forest development
  - District governments: Provide extension services on promoting participation of local communities in energy forest development on unproductive state and community lands
- Partners in the private sector include:
  - Local NGOs and universities having competence on rural economic development, environment conservation, energy forest development, technology transfer, etc.

- Local communities residing in and around the PFMU targets will be trained to become entrepreneurs or productive workforce for wood-based industry development.

### **3.3. Consultant**

- One competent national consultant will be hired for 2 months to assist in the execution of Activities 1.1 and 1.2
- Competent local contractor(s) will be hired to execute Activities 1.3 and 2.1 on a turn-key basis.
- An event organizer will be hired to organize a regional workshop on biomass wood-based energy development.
- Terms of reference of the Consultant and Contractors are presented in Annex B.

## **4. Budget**

### **4.1. Master budget schedule**

- Planned budget by activity for year 1 is exhibited in Annex C noting that Activity 1.3 will be implemented in Year 1 only.
- Budget by component of YPO1 is shown in Annex C which totals to USD 211,630 comprising contributions of ITTO, in the amount of USD 147,820, and of GOI, in the amount of USD 63,810 (after re-allocating Year 2 budget of Activity 1.3 to Year 1).

### **4.2. Orders of equipment**

- No procurement of equipment is planned during the first year of operation.
- Materials to be ordered is seed of 3 species needed to establish demo plots. Two origins of seed have been identified: i) seed purchased from different producers in North Sumatra, and ii) seed produced by Perhutani Inc. in Java.



## ANNEX A. Original and adjusted LFM for the entire duration

Project elements	Measurable indicators	
	Original	Adjusted
<p><b><u>Development Objective</u></b> To increase contribution of the forest sector to renewable energy supply and regional economic development through increased supply of wood-based biomass energy</p> <p><b><u>Specific Objective</u></b> To improve enabling conditions for building up capacity to supply wood-based biomass energy in North Sumatra region</p>	<p><u>3 years after project completion:</u></p> <ul style="list-style-type: none"> <li>a. At least 100 villages in 10 districts engaged in energy forest development activities</li> <li>b. 2-3 companies realized investment in wood-based biomass energy</li> </ul> <p><u>By end of project:</u></p> <ul style="list-style-type: none"> <li>a. Approximately 36 Ha of energy forest established and used for demonstration and training</li> <li>b. At least 100 farmers leaders trained on skills for energy forest development and 50 leaders on community cooperative management</li> <li>c. 2-3 companies indicated interest in making investment on wood-based energy industry</li> </ul>	<p><u>3 years after project completion:</u></p> <ul style="list-style-type: none"> <li>a. At least 25 villages in 5 districts engaged in energy forest development activities</li> <li>b. At least 1 company realized investment in wood-based biomass energy</li> </ul> <p><u>By end of project:</u></p> <ul style="list-style-type: none"> <li>a. Approximately 36 Ha of energy forest established in 3 KPHs and used for demonstration and training</li> <li>c. At least 1 company indicated interest in making investment on wood-based energy industry</li> </ul>
<p><b>Output 1:</b> Development of sustainable supply of energy wood initiated</p>	<ul style="list-style-type: none"> <li>a. Available suitable lands for energy forest development identified and mapped in year 1</li> <li>b. Lands for energy forests formally designated in year 1</li> <li>c. 36 Ha of energy forests trial planted using 3 species in years 1-2</li> </ul>	<ul style="list-style-type: none"> <li>a. Suitable lands for energy forest development in 13 districts identified and mapped in Year 1</li> <li>b. Suitable lands for energy forest development on 3 KPHs identified and mapped</li> <li>c. 36 Ha of demo energy forests trial planted using 3 species in Year 1 on 3 KPHs.</li> </ul>

	<ul style="list-style-type: none"> <li>d. Estimates of sustainable energy wood supply planted on degraded lands available in year 4</li> <li>e. Potential supply of energy wood from non-forest sources assessed in year 3</li> </ul>	
<p><b>Output 2:</b> Skillful manpower for development of wood-based biomass energy available</p>	<ul style="list-style-type: none"> <li>a. Dialogue with local communities of 50 villages in 25 districts conducted in year 1</li> <li>b. 100 farmer leaders trained on energy forest development techniques in years 2-4</li> <li>c. 50 farmer leaders trained on community cooperative management</li> <li>d. 2 comparative studies on wood-based energy development conducted in years 2-3</li> <li>e. 3 technical manuals on energy forest development using suitable species formulated in year 4</li> </ul>	<ul style="list-style-type: none"> <li>a. Dialogue with local communities of 50 villages in 13 districts in south-eastern region of North Sumatra province conducted in years 1 and 2</li> <li>b. 100 farmer leaders trained on techniques for production of planting materials, tree planting, nursing of plantation and harvesting in years 2-4</li> </ul>
<p><b>Output 3:</b> Investment in wood-based energy industry development promoted</p>	<ul style="list-style-type: none"> <li>a. Website of wood-based energy operational since year 1</li> <li>b. One national workshop on wood-based energy development organized in Medan in year 1</li> </ul>	<ul style="list-style-type: none"> <li>b. One regional workshop on wood-based energy development organized in Pematang Siantar town in year 1</li> </ul>

	<ul style="list-style-type: none"><li>c. Data on caloric properties of 3 planted tree species available in year 4</li><li>d. Feasibility studies on investment in wood-based energy industry completed in year 4</li><li>e. Existing policy on wood-based energy development reviewed and enhanced in year 2</li><li>f. A stakeholder consultation forum operational since year 2</li></ul>	
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## ANNEX B. TERMS OF REFERENCE

### B.1. Project key personnel

- **Project Coordinator**
  - To manage project operations on a day-to-day basis
  - To prepare plans of operation, progress reports on implementation and final reports and submit the documents to ITTO and Executing Agency
  - To select consultants, contractors and auditors based on competence
  - To organize periodic technical meetings
  - To coordinate with ITTO, Executing Agency and other relevant institutions
  - To lead PMU and direct the work of PMU personnel
  - To apply for funds and manage funds in a prudent manner
  - To supervise field operations.
- **Project Secretary**
  - To assist PMU leader in managing project operations
  - To organize internal and external meetings
  - To arrange duty travels by consultants and other official visits to project sites
  - To manage PMU office, maintain equipment and facilities
  - To help PMU leader in preparing project documents
  - To input data to information system and handle project files.
  - To assist PC in preparation of documents for instalment of fund
- **Project Finance**
  - To carry out technicalities of budget accounting in accordance with ITTO's fund GOI's procedures and techniques
  - To assist PC in the management of project funds covering installments, use and reporting in accordance with GOI's and ITTO's rules and procedures.
- **Field Supervisor**
  - To assist in developing operational plans
  - To report to PC on progress of works on a regular basis
  - To coordinate with local partners and stakeholders
  - To supervise implementation of activities by consultants, contractors and other parties, as appropriate
  - To assist in soliciting competent local partners.

### B.2. Project Management Unit

- To implement ITTO Project PD 737/14 Rev. 2 (I) in accordance with the Project Agreement, Project Document and the prevailing laws on grant mechanism
- Apply, receive, disburse and manage the ITTO project PD 737/14 Rev. 2 (I) funds in accordance with the prevailing laws on grant mechanism and ITTO policy
- Prepare and submit regular and final report on technical and financial aspects of the ITTO project PD 737/14 Rev. 2 (I). Reporting outline and mechanism in accordance with the regulation on grant mechanism.

- Handover the ITTO project PD 737/14 Rev. 2 (I) outputs to the Executing Agency. The minutes of Handover (Berita Acara Serah Terima – BAST) in accordance with the prevailing laws on grant mechanism.
- Responsible for preparing technical and financial reports of the ITTO project PD 737/14 Rev. 2 (I). The reports are delivered to the parties, ITTO and PSC in high quality standard and timely manner.
- All elements in the project designs shall changed with the approval of the PSC and ITTO.

### **B.3. National Consultants & Sub-contracts**

#### **National Consultant(s)**

##### **i. Activity 1.1**

- To review existing land suitability map of North Sumatra
- To identify suitable lands for lamtoro, gamal and kaliandra species
- To identify suitable lands in terms of distribution and size in North Sumatra province
- To map suitable lands in the project titles in close consultation with KPHP authorities
- To produce and disseminate the maps to prospective users
- To report on the implementation of the activity

##### **ii. Activity 1.2**

- To assist KPHP target in identification of suitable and available lands for development of plantations using lamtoro, gamal and kaliandra species.
- To accomplish the activity in parallel with implementation of Activity 1.1.

#### **Sub-contract(s)**

##### **i. Activity 1.3 (NGO(s))**

- To develop a demo plantation design for each species in close consultation with an exp-design expert
- To mark boundaries of demo plots
- To identify farmer groups as trainers and laborers.
- To procure planting materials of 3 species
- To establish demo plots totalling 36 Ha in 3 KPHPs using 3 tree species.
- To develop tally sheet for reporting growth and development of trees on individual demo plots
- To report on implementation of the activity

##### **ii. Activity 2.1 (University or NGO)**

- To develop a workplan for implementing dialogue with local communities on energy forest development.
- To develop materials for dialogue in close consultation with PC emphasizing potential benefits of energy forests accruable to local communities
- To conduct dialogue using most productive method and effective strategy in Year 1 covering 30 villages in 8 districts
- To identify communities interested in energy forest development as source of livelihood
- To report on progress in implementation of the activity

**iii. Activity 3.2**

- To identify workshop participants in close consultation with PMU
- To identify speakers and develop TOR for individual speakers
- To make administrative arrangements, invitation letters and attribute formats
- To make logistical arrangements
- To assist in execution of workshop work programme
- To report on execution of the workshop

## ANNEX C. YPO 1 OPERATIONAL BUDGET

### i. YPO 1 budget by activity

Output/Activity	Quarter	Budget Component	Inputs	Unit	Quantity										Unit Cost	ITTO Contribution					Gol Contribution (Executing Agency + ISWA)					Grand Total
					ITTO				GOI				Total	Year 1		Year 2	Year 3	Year 4	Total	Year 1	Year 2	Year 3	Year 4	Total		
					Year 1	Year 2	Year 3	Year 4	Year 1	Year 2	Year 3	Year 4														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	
<b>Output 1: Development of sustainable supply of energy wood initiated</b> Activity 1.1.: To identify available suitable lands for development of energy forests in North Sumatra province	Q1-Q2, Y1	16 31.2 33 51 61	a. National Consultant (NC) b. DSA, NC c. Local transport d. Consumables e. Miscellaneous	MM MD TD Package Meeting	2	-	-	-	-	-	-	-	2	2.000	4.000	-	-	-	4.000	-	-	-	-	-	4.000	
<b>Sub-total Activity 1.1</b>															10.100	-	-	-	10.100	500	-	-	-	500	10.600	
Activity 1.2: To formally allocate lands for energy forest development on existing landuse plan	Q1-Q2, Y1	51 33 61	a. Consumables b. Local transport c. Miscellaneous	Package TD Meeting	1	-	-	-	1	-	-	-	2	1.500	1.500	-	-	-	1.500	1.500	-	-	-	1.500	3.000	
<b>Sub-total Activity 1.2</b>															3.900	-	-	-	3.900	3.900	-	-	-	3.900	7.800	
Activity 1.3: To establish energy forest models for purpose of demonstration and training (3 sites, 3 species, 36 Ha in total)	Q1 - Q4, Y1 Q1-Q2, Y2	21	a. Sub-Contract No.1 NGO b. Seed procurement	Ha kg	24	-	-	-	12	-	-	-	36	1.750	42.000	-	-	-	42.000	21.000	-	-	-	21.000	63.000	
<b>Sub-total Activity 1.3</b>															44.880	-	-	-	44.880	22.440	-	-	-	22.440	67.320	

Output/Activity	Quarter	Budget Component	Inputs	Unit	Quantity									Unit Cost	ITTO Contribution					Gol Contribution (Executing Agency + ISWA)					Grand Total
					ITTO				GOI				Total		Year 1	Year 2	Year 3	Year 4	Total	Year 1	Year 2	Year 3	Year 4	Total	
					Year 1	Year 2	Year 3	Year 4	Year 1	Year 2	Year 3	Year 4													
<b>Output 2: Skillful manpower for development of wood-based biomass energy available</b>																									
Activity 2.1: To conduct dialogue with local communities on benefits of energy forest development (50 villages in 25 districts)	Q1-Q4, Y1 Q1-Q4, Y2	23 61	a. Sub-contract No.3 University b. Miscellaneous	Village Meeting	21 1	19 1	- -	- -	6 1	4 1	- -	- -	50 4	1.000 500	21.000 1,000	19.000 -	- -	- -	40.000 1.000	6,000 1,000	4.000 -	- -	- -	10.000 1.000	50.000 2.000
<b>Sub-total Activity 2.1</b>														<b>26.000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>41.000</b>	<b>7.000</b>	<b>4.000</b>	<b>-</b>	<b>-</b>	<b>11.000</b>	<b>52.000</b>	
<b>Output 3: Investment in wood-based energy industry development promoted</b>																									
Activity 3.2: To organize one national workshop on wood-based energy development in Medan	Q1, Y1	26 61	a. Sub contract - No.6, Local Event Organizer (LEO) b. Miscellaneous	Contract meeting	0,75	-	-	-	0,25	-	-	-	1 2	12.000 500	9.000 -	- -	- -	- -	9.000 -	3.000 1.000	- -	- -	- -	3.000 1.000	12.000 1.000
<b>Sub-total Activity 3.2</b>														<b>9.000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>9.000</b>	<b>4.000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4.000</b>	<b>13.000</b>	
<b>Non Activity based</b>			<u>Key Personnel</u>																						
		11	Project Coordinator	MM	12	-	-	-	-	-	-	-	12	1.750	21.000	-	-	-	21.000	-	-	-	-	-	21.000
		12	Project Secretary	MM	12	-	-	-	-	-	-	-	12	650	7.800	-	-	-	7.800	-	-	-	-	-	7.800
		17	Field Supervisor	MM	12	-	-	-	-	-	-	-	12	400	4.800	-	-	-	4.800	-	-	-	-	-	4.800
			<u>Monitoring</u>																						
		32	Air tickets	Trip	4	-	-	-	-	-	-	-	4	250	1.000	-	-	-	1.000	-	-	-	-	-	1.000
		31	DSA Monev	MD	16	-	-	-	-	-	-	-	16	70	1.120	-	-	-	1.120	-	-	-	-	-	
			<u>Office</u>																						
		53	Consumables/Sundries	Month	1	-	-	-	-	-	-	-	1	250	250	-	-	-	250	-	-	-	-	-	250
			<u>Miscellaneous</u>																						
		63	Report Printing	Copy	50	-	-	-	-	-	-	-	50	15	750	-	-	-	750	-	-	-	-	-	750
			PSC/PTC Meeting	Meeting	1	-	-	-	-	-	-	-	1	1.500	1.500	-	-	-	1.500	-	-	-	-	-	1.500
			Financial Audit	Year	1	-	-	-	-	-	-	-	1	1.500	1.500	-	-	-	1.500	-	-	-	-	-	1.500
<b>Sub-total NonActivity Based</b>														<b>39.720</b>				<b>39.720</b>						<b>39.720</b>	
<b>TOTAL YPO I</b>														<b>148.600</b>				<b>148.600</b>						<b>148.600</b>	



## ii. YPO 1 ITTO budget by component

Category	Description	Total	YPO 1
<b>10</b>	<b>Personnel</b>		
11	Project Coordinator	84.000,00	21.000,00
12	Project Secretary	31.200,00	7.800,00
13	Financial staff	-	-
14	Technicians	3.750,00	-
15	International Consultant	15.000,00	-
16	National Consultant	8.000,00	4.000,00
17	Field Supervisor	19.200,00	4.800,00
18	National Expert	-	-
<b>19</b>	<b>Sub total</b>	<b>161.150,00</b>	<b>37.600,00</b>
<b>20</b>	<b>Sub contracts</b>		
21	Sub contract No. 1, NGO (Planting)		
	- Planting	42.000,00	42.000,00
	- Seed Procurement	2.880,00	2.880,00
	Sub contract No. 2 (Specialist)		
22	- Sub contract No. 2A	4.000,00	-
	- Sub contract No. 2B	6.000,00	-
	- Sub contract No. 2C	8.000,00	-
	- Sub contract No. 2D	8.000,00	-
23	Sub contract No. 3, University (Dialogue)	40.000,00	40.000,00
24	Sub contract No.4, NGO (training)	-	-
	- Planting	40.000,00	-
	- Harvesting	40.000,00	-
25	Sub contract No.5 (cooperative)	9.000,00	-
26	Sub contract No.6, LEO (National Workshop)	9.000,00	9.000,00
27	Sub contract No.7 (wood properties)	18.000,00	-
<b>29</b>	<b>Sub total</b>	<b>226.880,00</b>	<b>93.880,00</b>
<b>30</b>	<b>Duty Travel</b>		
31	Daily Subsistence Allowance		
	31.1. DSA International Consultant	4.950,00	-
	31.2. DSA National Consultants	11.600,00	1.400,00
	31.3. DSA Monev	4.480,00	1.120,00
	31.4. DSA National Expert		-
32	Air ticket		
	32.1. Air Ticket International Consultant	3.000,00	-
	32.2. Air Ticket	10.000,00	1.000,00
33	Local Transport	8.840,00	2.100,00
<b>39</b>	<b>Sub total</b>	<b>47.420,00</b>	<b>5.620,00</b>
<b>40</b>	<b>Capital Items</b>		
41	IT Devices (PC, Printer, etc)	3.000,00	-
		-	-
<b>49</b>	<b>Sub total</b>	<b>3.000,00</b>	<b>-</b>

<b>50</b>	<b>Consumables items</b>		
51	Consumables	12.300,00	4.500,00
52	Document, material	1.600,00	-
53	Sundries	1.000,00	250,00
54	Utilities	-	-
55	Office Space and Facilities	-	-
<b>59</b>	<b>Sub total</b>	<b>14.900,00</b>	<b>4.750,00</b>
<b>60</b>	<b>Miscellaneous</b>		
61	Meeting	8.500,00	3.000,00
62	Rental provider	6.000,00	-
63	Report Printing	7.250,00	750,00
64	PSC/PTC Meeting	6.000,00	1.500,00
65	Financial Audit	6.000,00	1.500,00
<b>69</b>	<b>Sub total</b>	<b>33.750,00</b>	<b>6.750,00</b>
<b>70</b>	<b>Total Project</b>	<b>487.100,00</b>	<b>148.600,00</b>

### iii. YPO 1 GOI budget by component

Category	Description	Total	YPO 1
<b>10</b>	<b>Personnel</b>		
14	Technicians	27.750,00	6.000,00
18	National Expert	2.500,00	-
<b>19</b>	<b>Sub total</b>	<b>30.250,00</b>	<b>6.000,00</b>
<b>20</b>	<b>Sub contracts</b>		
21	Sub contract No. 1, NGO (Planting)		
	- Planting	21.000,00	21.000,00
	- Seed Procurement	1.440,00	1.440,00
22	Sub contract No. 2 (Specialist)		
	- Sub contract No. 2A	1.000,00	-
	- Sub contract No. 2B	1.500,00	-
	- Sub contract No. 2C	2.000,00	-
	- Sub contract No. 2D	-	-
23	Sub contract No. 3, University (Dialogue)	10.000,00	6.000,00
24	Sub contract No.4, NGO (training)	-	-
	- Planting	20.000,00	-
	- Harvesting	20.000,00	-
25	Sub contract No.5 (cooperative)	-	-
26	Sub contract No.6, LEO (National Workshop)	3.000,00	3.000,00
<b>29</b>	<b>Sub total</b>	<b>79.940,00</b>	<b>34.220,00</b>
<b>30</b>	<b>Duty Travel</b>		
31	Daily Subsistence Allowance		
	31.3. DSA Monev	2.240,00	560,00
32	Air ticket		
	32.2. Air Ticket	2.000,00	500,00
33	Local Transport	3.720,00	1.380,00
<b>39</b>	<b>Sub total</b>	<b>7.960,00</b>	<b>2.440,00</b>
<b>40</b>	<b>Capital Items</b>		
41	IT Devices (PC, Printer, etc)	3.000,00	-
<b>49</b>	<b>Sub total</b>	<b>3.000,00</b>	<b>-</b>
<b>50</b>	<b>Consumables items</b>		
51	Consumables	16.500,00	2.700,00
53	Sundries	1.000,00	250,00
54	Utilities	9.600,00	2.400,00
55	Office Space and Facilities	32.400,00	10.800,00
<b>59</b>	<b>Sub total</b>	<b>59.500,00</b>	<b>16.150,00</b>
<b>60</b>	<b>Miscellaneous</b>		
61	Meeting	9.500,00	3.500,00
63	Report Printing	1.000,00	-
64	PSC/PTC Meeting	6.000,00	1.500,00
<b>69</b>	<b>Sub total</b>	<b>16.500,00</b>	<b>5.000,00</b>
<b>70</b>	<b>Total Project</b>	<b>197.150,00</b>	<b>63.810,00</b>

