



The 2nd Bi-annual Progress Report October 2017 – September 2018

ITTO PD 737/14 Rev. 2 (I)

“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”

Directorate of Production Forest Business Management (UHP),
Directorate General of
Sustainable Management of Production Forests (PHPL)

Starting Date:
October 2017

Duration:
48 Months

Project Cost:
ITTO US\$ 589,863.00
GoI US\$ 197,150.00

Jakarta, October 2018

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Project number	:	PD 737/14 Rev.2 (I)
Project title	:	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
Host Government	:	Government of Indonesia
Executing Agency	:	Directorate General of Sustainable Management of Production Forests (PHPL)
Collaborating Agency	:	Indonesian Sawmill & Woodworking Association (ISWA)
Project Management Unit	:	Established pursuant to the MoU signed by PHPL and ISWA on 18 September 2017
Starting date	:	1 October 2017
Project duration	:	48 months
Total project costs		
• ITTO	:	USD 589,863
• GOI	:	USD 197,150
• Total	:	USD 787,013
YPO I Project Costs		
• ITTO	:	USD 148.600
• Gol	:	USD 63.810
• Total	:	USD 212.410
Submitted to ITTO	:	October 2018

Project Management Unit

Project Coordinator : Jimmy Chandra

Project Secretary : Richma Wahyuni

Field Supervisor : Alamsyah

Technician : Edi Setiarahman

Supervising body : Directorate of Forest Production Business Management (PHPL)

- **Head of Sub Directorate RKUPHT**
- **Head of Sub Division of Legal and Technical Cooperation**
- **Head of Regional Office of Production Forest Development (Medan)**
- **Head of Section of Technical Cooperation, Secretariat Directorate General PHPL**
- **Head of Section of Financial and Administration, Secretariat Directorate General PHPL**

Partners :

- **Forestry Agency of North Sumatera**
- **Simalungun Forest Management Unit**
- **Humbang Hasundutan FMU**
- **Padang Sidempuan Forest Management Unit**

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1. Description of the Work Implemented in the Period

This progress report covers the period of operation from 1 October 2017 to 30 September 2018; the activities implemented during the period are outlined below:

Output 1: Development of sustainable supply of energy wood initiated

Out of 5 activities defined under this output, 3 activities were included in YPO 1 for implementation, namely:

i. Activity 1.1:

To identify suitable lands for development of energy forests in South-eastern of North Sumatra province covering 13 districts (Kabupaten)

This activity was implemented with the assistance of a competent national consultant, Dr Aswandi of Aek Nauli Forestry Research Institute and had been successfully completed. The process on implementation and outcomes of the activity are highlighted below:

- The activity was implemented from January to March 2018, covering the entire FMUs of North Sumatra Province.
- The main materials used were existing maps of land cover, soil type, topography, climate, government administration and watershed; also information on site ecological requirements for growing kaliandra, gamal and lamtoro species, i.e. soil characteristic, climate and altitude data.
- The technique applied was basically a spatial modelling process in the form of overlay of species site requirements on different maps, as appropriate, to arrive at a land suitability analysis include:
 - The extent of production forest land in North Sumatra Province was app. 1,4 M Ha of which 1,3 M Ha are critical lands located in Sei Wampu watershed (0.31 M Ha) and in Asahan – Barumun watershed (0.85 M Ha), respectively, noting that the latter watershed is the target area of the project.
 - Asahan – Barumun watershed, app. 0.85 M Ha of forest land, is very suitable for growing kaliandra, gamal and lamtoro species: 0,27M Ha for kaliandra, 0.29 M Ha for gamal and 0.29 M Ha for lamtoro species, respectively.

ii. Activity 1.2:

To identify suitable lands on 3 FMUs for energy forest development (the FMUs identified were KPH Unit XII Simalungun district, KPH Unit XVII Humbang – Hasundutan district, KPH Unit X Padang Sidempuan) of Tapanuli Selatan district.

The same as Activity 1.1, this activity was implemented with the assistance of a competent national consultant, Dr Aswandi, and had been completed. A brief information on the implementation process and findings of the activity are outlined below:

- The procedure and technique applied were basically matching of site requirements for growing kaliandra, gamal and lamtoro with characteristics of soil, climate and altitude of the production forest lands in 3 target KPHs.

- Results of above works are as shown in Table 1.

Tabel 1. Status of land suitability for growing kaliandra, lamtoro and gamal in KPH Simalungun, Dolok Sanggul and Padang Sidempuan.

Location	Total area (ha)	S1 (very suitable) (ha)	S2 (moderately suitable) (ha)	S3 (marginally suitable) (ha)	N (not suitable) (ha)
KPHP Unit XII Simalungun					
Kaliandra	37,650.63	2,909.90	2,273.18	12,125.00	20,342.55
Lamtoro		2,211.52	1,728.61	9,217.00	24,493.50
Gamal		2,326.00	1,792.52	8,992.30	24,539.81
KPHP Unit XVII Dolok Sanggul					
Kaliandra	32,798.00	3,326.00	3,142.00	10,874.00	15,456.00
Lamtoro		2,695.10	2,645.01	8,872.00	18,585.89
Gamal		2,945.40	2,862.30	9,025.80	17,964.50
KPHP Unit XXVII Tapanuli Selatan and Padang Sidempuan					
Kaliandra	20,401.29	2,605.00	2,742.00	8,831.00	6,223.29
Lamtoro		2,892.20	2,832.10	8,825.00	5,851.99
Gamal		2,755.80	2,742.00	8,253.70	6,649.79

iii. Activity 1.3:

To establish energy forest models for purpose of demonstration and training (3 sites, 3 species, 36 ha in total)

- Site identification:

- A great deal of time during November 2017 – February 2018 period was spent for site identification in several FMUs, namely: Simalungun, Karo, Dairi, Phakphak, Humbang Hasundutan, and Padang Sidempuan.
- Unproductive lands classified and mapped as production forest lands under individual FMUs are large in extent but most of the lands are under use or occupied by local communities.
- After visiting a number of sites and consulting with local communities as well as FMU Management, clean and clear lands were finally identified in Simalungun FMU (12 Ha), Humbang Hasundutan (12 Ha) and Padang Sidempuan (12 Ha).
- Identified lands were reported to the Heads of FMUs and to the Director of North Sumatera Province Forestry Agency for endorsement. Operations of the establishment of energy forest demonstration plots (demplots) commenced simultaneously in the 3 sites in February 2018

- Identification of local partners for demplots establishment

- To establish demplots of energy forest, competent local partners, either small firms or NGOs had to be identified which proved not easy because only a few local firms or NGOs had the experience in forest plantation development. In fact, the Project Field Supervisor was unable to identify a

single firm or NGO that has the experience in growing kaliandra, gamal and lamtoro, the energy species aimed by the Project to develop.

- What the Project did was to select local firms or NGOs that had the richest experience in working with forest and land rehabilitation projects funded with state funds. The local partners identified in this manner were: CV. Rio in Simalungun FMU, UD Tunas Rimba in Humbang Hasundutan FMU, and CV Anggi in Padang Sidempuan FMU.
- Progress of work in demplots establishment
As of 30 September 2018, progress in the establishment of demplots on energy forest can be summarized as follows:

Simalungun FMU

- Land clearing on 12 Ha of land had fully completed in March 2018
- Planting of 3 target species had been started but then halted by end of March due to absence of rain; planting can be carried anytime now as rain falls in the area
- Planting of the entire 12 hectares of land has been completed by end of September 2018.

Humbang Hasundutan FMU

- Land clearing on 12 Ha of land had been fully completed in March 2018.
- All needed inputs, planting materials and fertilizer, have been ready on-site.
- Planting of the entire demplot was completed in July 2018

Padang Sidempuan FMU

- Land clearing on 9 Ha of land had been completed in March 2018; the remaining land, 3 Ha in extent, was fully cleared by end of April 2018
- All needed inputs, planting materials and fertilizers, are now ready at the planting site.
- The entire demplot, 12 Ha in extent, was fully planted by end of August 2018.

Output 2: Skilful manpower for development of wood-based biomass energy available

- The only activity to be implemented under YPO I is Activity 2.1: To conduct dialogue with local communities on benefits of energy forest development (50 villages in 13 districts). Out of this volume of work, dialogue will be implemented with 28 villages in 7 districts under YPO I; the remaining 22 villages in 6 districts will be executed under YPO 2 that starts in October 2018.
- The Project Field Supervisor had finally identified University of Simalungun in Pematang Siantar as partner to conduct the dialogue based on competence assessed using 3 criteria, namely:
 - Experience in conducting similar works.
 - Proposed workplan for execution of the activity consistent with the ToR defined by the Project.

- Owned resources to implement the activity, especially availability of human resource.
- The preparatory process was completed in April 2018 and field work commenced by early May 2018.
- The dialogue with 28 village in 7 districts was completed by end of September 2018

Output 3: Investment in wood-based energy industry development promoted

- Only Activity 3.2 “To organize one regional workshop on wood-based energy development in Parapat/Balige” is to be implemented under YPO I; this Activity had been implemented in the form of One-day Workshop on “Initiation of new renewable energy (EBT) development in North Sumatera Province, on 4 December 2017 in Pematang Siantar.
- The workshop was attended by 53 participants representing the primary stakeholders and had successfully achieved its planned objectives.
- A separate technical report on the workshop is now available with the Project.




2. Execution of YPO 1

2.1. The workplan review

Progress in implementation of YPO I

Outputs/Activity	Resp. Party	Schedule (in months)													
		1	2	3	4	5	6	7	8	9	10	11	12	YPO2	
Output 1: Development of sustainable supply of energy wood initiated Activity 1.1.: To identify available suitable lands for development of energy forests in North Sumatra province	PMU NC FMU														
Activity 1.2: To formally allocate lands for energy forest development on existing land use plan	PMU NC FMU														
Activity 1.3: To establish energy forest models for purpose of demonstration and training (3 sites, 3 species, 36 Ha in total) 1.3.1: To identify lands and appoint contractors 1.3.2: To procure inputs of planting 1.3.3: To recruit farmers as laborers. 1.3.4: To construct demo plots	PMU FMU LC CTR														
Output 2: Skilful manpower for development of wood-based biomass energy available 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	PMU LU														
Output 3: Investment in wood-based energy industry development promoted Activity 3.2: To organize one national workshop on wood-based energy development in Medan	PMU														

Notes:

	: Planned
	: Realized
	: No action

PMU	: Project Management Unit
FMU	: Forest Management Unit
NC	: National Consultant
CTR	: Contractor
LC	: Local Community
LU	: Local University

2.2. Progress in implementation of the activities

Activity	Percentage Executed	Completion date	
		Originally Planned	Realized Completion
Activity 1.1.: To identify available suitable lands for development of energy forests in North Sumatra province	100%	March 2008	March 2018
Activity 1.2: To formally allocate lands for energy forest development on existing land use plan	100%	March 2008	March 2018
Activity 1.3: To establish energy forest models for purpose of demonstration and training (3 sites, 3 species, 36 Ha in total)	100%	Sept 2018	Sept 2018
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	100%	September 2018	September 2018
Activity 3.2: To organize one national workshop on wood-based energy development in Medan	100%	December 2017	January 2018

Notes:

*) Excl. Monitoring of growth

**) Preparatory works underway

2.3. Inputs applied

The financial and cash flow statements appear as Annexes 1 and 2. To implement Activities 1.1 and 1.2 a competent national consultant, Dr Aswandi of Aek Nauli Forestry Institute was hired with the prior expressed approval of ITTO.

2.4. Achievement of outputs

None of the defined outputs has been delivered due to the fact that only 5 activities have been implemented under 3 outputs. Achievements of the activities implemented are summarized in Section 2.2

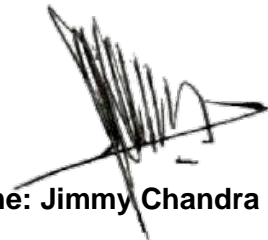
3. Critical Analysis of Project Progress

- Overall, project operations have been going on smoothly. The only problem confronted was in the identification of clean and clear lands for the establishment of energy forest demonstration plots. With the support of FMU Chiefs and Staff, the problem was resolved in time.
- All five activities planned for execution under YPO I, have been completed, namely Activities 1.1, 1.2, 1.3 and 3.2.
- The FMU hosting the energy forest demplots had been supportive of the project which helped ensure the generally smooth project operations.

4. Conclusions

- The project is progressing on track and on schedule to achieve defined outcomes of the activities implemented and, in due time, should deliver planned outputs of the project.
- The problem on identification of clean and clear lands in 3 FMUs had been resolved in time through dialogues between the Project, FMUs, and local communities.
- Five activities, namely Activities 1.1, 1.2, 1.3, 2.1 and 3.2 have been completed in time; technical reports on implementation of the activities are now available with the Project,

Responsible for the Report



Name: Jimmy Chandra

Position held: Project Coordinator

Date: April 2018