[Appendix 7] Activity report to BUK, Ministry of Forestry

- 7-1 Report on Jan. 2013 (Naganawa)
- 7-2 Report on Feb. 2013 (Toyoda)
- 7-3 Reort on Jun. 2013 (Toyoda)
- 7-4 Report on Jul. 2013 (Naganawa)
- 7-5 Report on Sept. 2013 (Toyoda)
- 7-6 Report on Dec. 2013 (Naganawa)
- 7-7 Report on Mar. 2014 (Toyoda)
- 7-8 Report of Apr. 2014 (Naganawa)

The Project for Facilitating Development of Wood Industry in Small Diameter Logs Processing in Indonesia

Progress report

January 2013

Japan Overseas Forestry Consultants Association (JOFCA)

Working schedule for sub-contract agreement

Mr. Naganawa, Edy and I visited at Lampung Province from 24-27 January

		Date	Work					
1	1 21 Mon		Discussion with BUK for Sub-contract activity					
2	22	Tue	Meeting with Djoko Supomo for Sub-contract activity					
3	23	Wed	AM:Meeting with Sumantri (Division of forest fire prevension) for information gathering regarding situation of Lampung Province PM:Meeting with Teguh Widodo, BP2HP Lamung for candidate organization of sub-contract survey					
4	24	Thu	Move to Lampung					
5	25	Fri	AM:Meeting withWarsito,Head of Dinas kehutanan for explanation of sub- contract, office space and local staff of the project. PM:Meeting with WATALA and Lampung University PM:Field survey to Kab. Lampung timur					
6	26	Sat	AM: Field survey to Kab. Lampung tengah PM:Field survey to Kab. Lampung utara					
7	27	Sun	Back to Jakarta					

★ Meeting with BUK

Discussion point : Consulting about candidate organization for sub-contract

Result of discussion:

- Sub-contract for task 1 and task 3
 - ⇒Discussion with Pak. Teguh Widodo, BP2HP in Lampung Province
- Sub-contract for task 2
 - ⇒Pak. Djoko Supomo is most suitable person for task 2

★ Meeting with Pak. Djoko Supomo Discussion point : Consulting for task 2 of subcontract

Result of discussion:

• Pak. Djoko Supomo agreed submitting proposal of of sub-contract task 2.

• Pak. Djoko Supomo will prepare proposal and draft document for agreement up to end of January.

★ Meeting with Pak. Teguh Widodo Discussion point : Consulting about candidate organization for sub-contract

Result of discussion: Pak.Teguh Widodo recommends three organization for sub-contract

- NGO WATALA
- Lampung University
- •Yayasan Conservasi Sungai Way Seputih

★ Meeting with Pak. Warsito (Dinas Kehutanan) Discussion point : Schedule of the project, contents and candidate organization for sub-contract, office space of the project, local staff of the project

Result of discussion:

- Schedule of the project was approved
- contents and candidate organization for sub-contract was approved
- Office space of the project will provided from February
- •Local staff of the project was nominated. Ms. Yolanda who is in charge of the local staff of the project.

★Meeting with NGO WATALA and University of Lampung

Discussion point : Consulting for task 1 and task 3of sub-contract

Result of discussion:

• NGO WATALA and University of Lampung were interested in the sub-contact. They agreed to submit proposal for the sub-contract.

• They will submit proposal end of January.

26th of January

★ Field survey to Lampung timur Farmers group: MAKMUR





MAKMUR want to join SVLK program. It is one of candidate for project site of implementation stage.

27th of January

★ Field survey to Lampung tengah Farmers group: GIRIMUKTI WANATIRTA





GIRIMUKTI WANATIRTA already got license of SVLK. They want to get wood processing portion of SVLK. JICA project supports introducing small scale wood processing and procedure of wood processing portion of SVLK.

27th of January

★ Field survey to Lampung Utara Small scale sawmill: P.K.ALIPIR



P.K.ALIPIR is small scale saw mill. P.K.ALIPIR doesn't know SVLK program. They want to export their products. They should join SVLK for exporting their products. It is one of target for SVLK extension activity. The Project for Facilitating Development of Wood Industry in Small Diameter Logs Processing in Indonesia

> Progress report of Result for selection of sub-contractor & Result of 2nd field trip to Lampung

February 2013 Japan Overseas Forestry Consultants Association (JOFCA)

Schedule for sub-contract agreement and field trip

		Date		Work				
1	Jan.	n. 28 Mon		Report to BUK for result of discussion with sub-contactors and result of field trip to Lampung. Courtesy call to Embassy of Japan, Mr. Naganawa go back to Japan				
2	Jan.	29	Tue	Submitting draft proposals of sub-contract to BUK.				
3	Jan.	30	Wed	Meeting at JICA Indonesia office				
4	Jan.	31	Thu	BUK agreed draft proposals from sub-contactors.				
5	Feb	1	Fri	Start negotiation with sub-contactor.				
6	Feb	2	Sat	Investigation for small scale wood processing machine.				
7	Feb	3	Sun	Move to Lampung				
8	Feb	4	Mon	Negotiation and making contract agreement with sub-contractor				
9	Feb	5	Tue	Visiting project site for explanation of concept of JICA SDL processing promotion project.				
10	Feb	6	Wed	Traial survey for sub-contator.				
11	Feb	7	Thu	Back to Jakarta				

☆ sub-contract Task 1 is, Survey for basic information on forest and forestry

Selected contractor : University of Lampung Contract period : beginning of Feb.- end of May 2013 Contract budget : Rp 150 million Target of survey : Private plantation owner, Farmers group for plantation, sawmill owner, owner of plywood factory, retailer, distributer, District forestry officer etc. Output : survey report and interview sheet which is filled up result of interview

Result of selection of sub-contract Task 2

☆ sub-contract Task 2 is, Survey for laws and regulations regarding forest, forestry and wood industry in Lampung Province

Selected contractor : Mr. Djoko Supomo

- Contract period : beginning of Feb.- end of May 2013 Contract budget : Rp 100 million
- Output : ① Report and list of laws and regulations regarding forest, forestry and wood industry
- (2) Instruction book "how to start small scale wood factory legally"
- ③ Guideline for approving SVLK for small scale wood factory

Result of selection of sub-contract Task 3

\bigstar sub-contract Task 3 is,

<u>Collection of good examples regarding small scale</u> <u>wood industry using small scale diameter log in</u> <u>Lampung and other Provinces</u>

Selected contractor : University of Lampung Contract period : beginning of Feb.- end of August 2013 Contract budget : Rp 150 million Target of survey : Sawmill owner, owner of wood processing factory

Output : introduction book for good examples regarding small scale wood industry using small scale diameter log

Trial survey for basic information on forest and forestry (Task 1)

Name of sawmill: PK.Anugrah Date of investigation: 6th Feb. 2013 Location: Kec.Abung Barat, Kab. Lampung Utara Production capacity: 3,000m3/month



Interview to sawmill owner



Charcoal making by waste wood

Trial survey for basic information on forest and forestry (Task 1)

Name of plantation owner: Pak. Rudi Date of investigation: 6th Feb. 2013 Location: Kec.Abung Barat, Kab. Lampung Utara Planting species: Maesopsis emini (Kayu Africa, Musizi)



Investigation for plantation



Group photo at trial survey

Preparation for implementation stage

Project team informed to Kelompok Girimukti Wanatirta that the project start to support introducing small scale wood processing to the through the project activity.

Implementation stage will start May 2013. The project team instructed to the farmers group to prepare draft implementation plan for community based small scale wood processing activity.



Discussion with Kelompok Girimukti Wanatirta

Preparation for implementation stage

★ Study tour to advanced site of community based small scale wood processing activity

<u>Purpose</u>: To absorbed information and technology of attractive and advanced small scale wood industry for our project.

<u>Candidate location for study tour</u>: Gunug Kidur (Near Yogyakarta, Central Java.

<u>Timing of the study tour</u>: early jun 2013.

Number of participants: around 10 persons

The Project for Facilitating Development of Wood Industry in Small Diameter Logs Processing in Indonesia

> Progress report of Project activity of May 2013

> > 4th June 2013

Japan Overseas Forestry Consultants Association (JOFCA) Main activities for project implementation on May 2013

- To check progress of Sub-contract Task 1 and Task 3
- 2 Arrangement for study tour to Gunung Kidul
- 3 Arrangement for technical transfer training for two farmers group
- ④ Preparation equipment, tools and materials for the technical transfer training
- (5) Arrangement for project office condition

①To check progress of Sub-contract Task 1 and Task 2

☆ sub-contract Task 1 is, Survey for basic information on forest and forestry

Selected contractor : University of Lampung Period of termination: end of May 2013 Target of survey : Private plantation owner, Farmers group for plantation, sawmill owner, owner of plywood factory, retailer, distributer, District forestry officer etc. Output : survey report and interview sheet which is filled up result of interview Progress : Almost finish, still remaining translation to

English

Progress of Sub-contract Task 1

Number of visiting for interview Farmers Group: <u>62 groups</u> Individual farmers; <u>140 farmers</u> Small scale factory owners: <u>31 factory owners</u> Distributors: <u>11 distributors</u> Forestry officers: <u>12 offices</u> (All kabupaten of Lampung Province) ★Sub- contractor records interview results by interview sheet, voice recorder, photo and video.





☆ sub-contract Task 2 is,
Survey for laws and regulations regarding forest,
forestry and wood industry in Lampung Province

Selected contractor : Mr. Djoko Supomo Period of termination: end of May 2013

- Output :
- ① Report and list of laws and regulations regarding forest, forestry and wood industry

(2) Instruction book "how to start small scale wood factory legally"

③ Guideline for approving SVLK for small scale wood factory

Progress : Still survey stage. Survey result compiling will be done this month.

Progress of Sub-contract Task 2



One of wood industry in South Lampung has achieved SVLK, it is Greenpia Indah Indonesia. Greenpia produces finger joint and export the product to Japan. They get SVLK on October 2011.

②Arrangement for study tour to Gunung Kidul

Date of Study tour : $5^{th} - 8^{th}$ of June 2013

③ Arrangement for technical transfer training for two farmers group

Date of technical transfer : $17^{\text{th}} - 21^{\text{th}}$ of June 2013 for GMWT

Date of technical transfer : $24^{\text{th}} - 28^{\text{th}}$ of June 2013 for Makumur

*Detail shows with attached sheet.

(2) Study tour in Gunung Kidul (6.5-8, 2013)









Visiting community forest farmer's group and small scale wood industry

②Study tour in Gunung Kidul (6.5-8, 2013)





To Visit fair trade distributor for handy craft

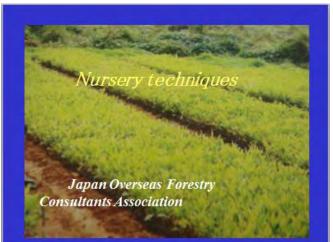




Lectuer by Dr. San Afri Awang in Universuty of Gajah Mada

③ Arrangement for technical transfer training for two farmers group

Technical transfer training program consists four subjects



Nursery technic

Logging techniques







Planting and tending

Wood production techniques



Wood crafting

(4)Preparation equipment, tools and materials for the technical transfer training

The project prepare equipment, tools and materials for the technical transfer training.

NO	Aktivity		Volume		Aktivity		Volume
1	class room			5	Wood craft		
	a. tool class room	20	pcs		a. <u>Hand</u> saw	5	pcs
2	Nursery				bSu <u>gu</u> (<u>Plane)</u>	5	pcs
	a. Bibit Pohon_Karet (rubber seedling + branch)	<u>20</u>	_pcs_		<u>c.</u> S <u>iku-siku (carpe</u> nt <u>er</u> 's <u>square</u>)	5	pcs
	b. <u>ember (bucket)</u>	5	pcs		d. <u>Meteran (mete</u> r)	5	pcs
	c. <u>P</u> isau p <u>ot</u> on <u>g</u> (Knife)	10	pcs		e <u>. timba</u> ng <u>an</u> a <u>ir</u> (water balance)	5	
	<u>d. Plastic tape</u>	5	_pcs_		<u>f. Pensil /potlot (pencil)</u>	5	pcs
	e polibag (Plastik pot)	_ 1	kg		<u>g. Lem kayu (glue wo</u> od <u>)</u>	5	
	f. gunting potong (scissior)	5	psc		h <u>. Cat Plitur (paint)</u>	5	kg
	h. cutter (Clippers)	10	psc		<u>i. Masker</u>	20	pcs
3	logging				j. ku <u>as (brush)</u>		pcs
	a. <u>Chain</u> sa <u>w</u>	_ 1	psc		k. <u>Paku (Nail)</u>	3	kg
	<u>b. Glolok (cleaver)</u>	<u> 10</u>	_ps <u>c</u>		I.Pa <u>lu</u> (h <u>ammer</u>)	5	<u> </u>
	<u>c. Minyak s</u> ol <u>ar (fuel)</u>	<u> 10</u>	liter_		m.Ampla <u>s (san</u> dp <u>aper)</u>	<u> 2</u> 0	
	d. <u>Pohon</u> Kayu (<u>tr</u> ee)	5	tree		n. <u>Kayu (lum</u> be <u>r)</u> 3 <u>x3</u> cm	20	psc
	e. Helm (helmet)	<u>20</u> 25 20	_psc		o.Papan (wooden board)	7	psc
	f. kaca mata (glas <u>s)</u>	<u>25</u>	_psc	6	Other		
	h. <u>Sepatu bot (shoes/boot</u> s)	20	psc		a. <u>Konsumsi</u> p <u>es</u> er <u>ta</u> 5 <u>hari (consump</u> tio <u>n</u> of <u>participan</u> ts)		or <u>an</u> g
	I. kampak (hatchet)	10	psc		b. Snack peserta 25 orang (break /snack)		orang
4	4 Planting and tending				<u>c. air minum mineral botol (dringking water) 5</u>		botol
	a. <u>Ar</u> it <u>(si</u> ck <u>le</u>)	10	<u>un</u> it		dHo <u>m</u> e <u>stay (4</u> d <u>ay) </u>		ru <u>m</u> ah
	b. <u>Pupuk</u> (c <u>ompos</u> t)	<u> 2</u> 50	Kg		e <u>. S</u> ur <u>vey lokasi pela</u> tih <u>an (initial prepara</u> tio <u>n)</u>		hari
	<u>c. Lori (cart)</u>	1	_pcs_		<u>f. P3K Praktis</u>		paket
	d. <u>Cangkul (hoe)</u>	10	pcs		<u>g. Sewa motor Peserta (rent /motorcy</u> lce_par <u>ti</u> sip <u>an</u>)		unit
	e. <u>se</u> ko <u>p (sho</u> ve <u>l)</u>	10	pcs				↓ ↓
	f. bambo panjang 2 meter	5	pcs				

(5) Arrangement for project office condition

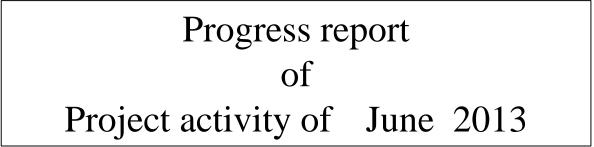








Dinas Kehutanan provide one office space to JOCA project. The project prepare OA supply as printer, scanner, etc. The Project for Facilitating Development of Wood Industry in Small Diameter Logs Processing in Indonesia



2th July 2013 Japan Overseas Forestry Consultants Association (JOFCA)

Main activities for project implementation on June 2013

1.Presentation workshop with GMWT and Makmur

- 2.Technical transfer activity for GMWT and Makmur(1) Subjects of technical transfer program consists are four subject as follows:
- 1 Nursery technical (including grafting and cutting)
- 2 Planting and tending technical

(including branching and thinning)

- 3 Logging and log preparation technical
- (4) Wood crafting technical

1. Presentation workshop with GMWT and Makmur

- ①Purpose : Presentation for report of the study tour
- ②Contents of presentation
- (1)Reported result of the study tour member by Pramono(GMWT) and Sunarto(Makmur)
- •
- (2)Discussed for possibility of what kind of wood processing
- ③Date of presentation workshop:13th of June(GMWT),
- 14th of June (Makmur)

(4)Place : Office of GMWT and Office of Makmur

(5) Time: From 10:30am to 3pm (GMWT and Makmur)

⁽⁶⁾Participants: Companions of study tour (three persons) and 20 farmers(GMWT and Makmur)

7Hajime Naganawa had brief explanation about technical transfer activity from 17 th to 21 th of June and from 24th to 28th

Presentation work shop (GMWT)

Moderator : Pak Sidik



Presenter : Pak pramono



Playen Sub district : Certification of community timber

Paliyan sub district:community forest





Gajah mada university (Lecture from Dr.Awang)



Presentation workshop (GMWT)

Question from famers



Explanation of question



Main question is :1.Management of plantation2.Management of sifting cultivation system3.Wood grafting

Presentation workshop (Makmur)

Opening speech of Director Widodo Lampung BPPHP



Closing speech from Director Widodo Lampung BPPHP



Presentation workshop (Makmur)

Moderator : Pak Abdurahman



chairman



Presenter : Pak sunarto



participants



Presentation work shop

Question from farmers



Explanation of Ibu Dewi of Lampung university



Main question is:1.Sifting cultivation2.Saw mill system3.Making a cooperative,

2. Technical transfer Training

(1)Objective of the technical transfer is,

To make good quality and high value wood material, for producing good quality wood, we should consider forestry activity from nursery stage .If GMWT and Makmur consider collect and careful handling in each stage of forestry activities, they could get much more good quality wood materials.

(2)Technical transfer training program

1.Number of participant for forestry technical transfer training Farmers : <u>40 members (GMWT 20, Makmur20)</u>

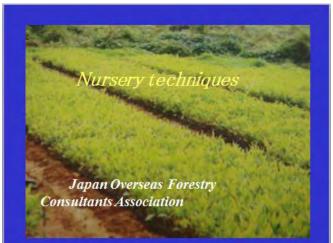
2.Date of technical <u>tansfer:17th -21th of June(GMWT)24th -28th</u> of June (Makmur)]

3.Location of the technical <u>transfer Payung Batu(GMWT),Way</u> <u>Bungur (Makmur)</u>

4.Time of technical transfer :<u>from 9:00AM to 16:00PM</u>

(3) Technical transfer training for two farmers group(GMWT,Makmur)

Technical transfer training program consists four subjects



Nursery technical

Logging techniques



Logging technical



Planting and tending technical



Wood crafting technical

Detail schedule(GMWT)

Time	17	18	19	20	21
1 IIIIe	(Mon)	(Tue)	(Wed)	(Thu)	Fri
9:00-12:00	①Lecture of Nursery ②lecture of Planting & Tending	②Practice of Planting & Tending	③Practice of logging	④Lecture of Wood crafting	④Practice of Wood crafting
12:00-13:00			Lunch Break		
13:00-16:00	③Lecture of logging ①Practice of Nursery	②Practice of Planting & Tending	③Practice of logging	④Practice of Wood crafting	④Practice of Wood crafting
Detail ocation	of technical tran	sfer:			
-	cture of Nursery				
2 Lecture of Pla			fice at Payung E	Batu	
3L	ecture of logging				
(4) Lecture	of Wood crafting				
	ctice of Nursery				
2 Practice of Pla			<i>l</i> la'mur		
-	actice of logging				
(4)Practice	of Wood crafting	→ GMWT offic	e at Payung Bat	u	

Nursery technical lecture and Practice

Lecture



Shade net cover



Grafting (Rubber tree)



Cutting (Rubber tree)



Practice of planting and tending

Clear of preparation and spot preparation



Planting



Line preparation



Branching



Practice of logging



All branches use to firewood



logging



Carry by man power



Practice wood crafting

Making small table with chair



Very useful desk with chair



Making big table with chair



Display chair and with farmers



Result of Training questionnaire(1)

Five evaluation points	5	4	3	2	1	
	Very good	Good	Average	Bad	Very bad	
Contents Evaluation Contents of training	point]	Reason of eva	luation		
1.Use level	4.7	- The training - Giving new I	0			ly activity/very useful
2.Lecture	4.1	Give some ber	nefit for the pa	articipant		
3.Material	3.7	Need addition	al equipment.			
4.Textbook	4.1	Text book can	be a guidance	e for the part	icipants	
5.Time	3.9	-Always on tii -5 days trainin		ıgh to know	more about the lect	ture and practice.
6.Place	3.5	The place of the	raining is far	from the par	ticipant's house	

Result of Training questionnaire(2)

	High	Somewhat	Not
1.Were the course contents beneficial/useful to your current job?	50%	50%	0%
2.Were the course contents clear and understandable?	28%	61%	11%

Detail schedule(Makmur)

-	24	25	26	27	28
Time	(Mon)	(Tue)	(Wed)	(Thu)	Fri
9:00-12:00	①Lecture of Nursery	②Lecture of Planting & Tending	③Lecture of logging	④Lecture of Wood crafting	④Practice of Wood crafting
12:00-13:00			Lunch Break		
13:00-16:00	①Practice of Nursery	②Practice of Planting & Tending	③Practice of logging	④Practice of Wood crafting	④Practice of Wood crafting
Detail ocation	of technical tran	sfer:			
(1)Leo	cture of Nursery	٦			
②Lecture of Pla	nting & Tending	🛏 Makumur	office at Way B	ungur	
3Le	ecture of logging				
4 Lecture	of Wood crafting	J			
(1)Pra	ctice of Nursery	ר ר			
2 Practice of Pla	nting & Tending	🗕 🕨 🛏 🖌	gur (near Makum	ur office)	
3Pr	actice of logging				
4 Practice	of Wood crafting	\rightarrow Makumur of	fice at Way Bung	gur	

Practice of Nursery technical

Preparation seeds bed



Cutting scion



Grafting(Acacia mangium)



Cutting



Practice of preparation and planting

Line preparation



Planting tree





Marching



Practice of banching

Branching









Practice of logging

Set saw



Cutting tree



Carry by man power





Practice of Wood crafting

Making chair



Display table



Display chair



Pencil stand from branch



Result of Training questionnaire(1)

Five evaluation points	5	4	3	2	1
	Very goo	d Good	Average	Bad	Very bad
Contents Evaluation Contents of training	point		Reason of eva	luation	
1.Use level	5.0	-Very useful f -Giving some wood craftin	information a	-	, planting & tending, logging and also
2.Lecture	4.7	Can be applie	d by farmer.		
3.Material	4.5	Need addition	al equipment		
4.Textbook	4.0	-Can be under -The explanat			ranslated.
5.Time	4.1	-On time and -5 days are to	-	or the training	5
6.Place	3.8	The place of t	raining doesn'	t fulfill the s	tandard.

Result of Training questionnaire(2)

	High	Somewhat	Not
1.Were the course contents beneficial/useful to your current job?	85%	15%	0%
2.Were the course contents clear and understandable?	40%	60%	0%

Technical transfer Training of evaluation

Most of participants for this training are new to the technical transfer training such as grafting and cutting, logging, wood crafting .Therefore, they faced some difficulties during the practical training of the each technical above because and lack of understanding on how to operate and manage. However, after clear explanations on how to operate and setup the technical and with many practices on the field, participants were able to operate the technical better. As for training on how to use the other material s such as Chain saw , and other technical almost all of the participants were able to use the materials and specific technical of grafting cutting without any problem because they have experience and good understanding of the material in this training. However, after the trainings are completed five team should have discussion and share their idea together on the problems and difficulties when using the material in order to improve their understanding on how to use forest technical materials.

The Project for Facilitating Development of Wood Industry in Small Diameter Logs Processing in Indonesia

> Progress report of Project activity of Aug-Sept 2013

6th September 2013 Japan Overseas Forestry Consultants Association (JOFCA)

Schedule of the project (20,Aug-7 Sep)

	Date		Toyoda	Accommodation
1	20-Jan	Tue	Move to Jakarta from Narita	Jakarta
	U		AM:Visit and meeting at JICA office,	
2	21-Jan	Wed	PM: Meeting with Pak Dwi, BUK of Ministry of Forestry	ditto
3	22-Jan	Thu	Move to Lampung	Lampung
4	99 T	D ₁ ,	AM:Courtesy call to new director of Dinas Kehutanan di Lampung	1:
4	23-Jan	Fri	PM:Meeting with local staff for SVLK workshop	ditto
5	24-Jan	Sat		ditto
6	25-Jan	Sun		ditto
			AM: Courtesy call to Director Pak Teguh Widodo BP2HP	
7	26-Jan	Mon	PM:Preparation work for SVLK workshop	ditto
		_		Lampung
8	27-Jan	Tue	Preparation work for SVLK workshop	Jakarta
9	28-Jan	Wed	Preparation work for SVLK workshop	Lampung Overnight fligh
10	29-Jan	Thu	Visiting project site (GMWT, Lampung Tengah) for evaluation of folloup activity and information of SVLK workshop	Jakarta
10	20 Jan	IIIu	Visiting project site (Makmur, Lampung Timur) for evaluation of folloup activity	Janarta
11	30-Jan	Fri	and information of SVLK workshop	Jakarta
12	31-Jan	Sat		ditto
13	1-Feb	Sun	SVLK workshop (1st day)	ditto
14	2-Feb	Mon	SVLK workshop (2st day)	ditto
15	3-Feb	Tue	Meeting with local staff for preparation of SVLK application	Lampung
16	4-Feb	Wed	Meeting with local staff for preparation of SVLK application	ditto
17	5-Feb		AM:Meeting with local staff for preparation of SVLK application PM:Move to Jakarta	Jakarta
11	0 1 60	IIIu	AM:Visit and meeting at JICA office,	Janaria
18	6-Feb	Fri	PM: Meeting with BUK, Sub-contractor for Task2	Overnight fligh
19	7-Feb	Sat	Arriving at Narita	

Main activities for project on Aug.-Sep 2013

(1) To evaluate follow up activities of technical transfer activities (2) Holding SVLK workshop (3) Preparation of SVLK application activity (4) Check for progress of sub-contract activity

① To evaluate follow up activities of technical transfer activities

Management for tool and equipment storage

GMWT





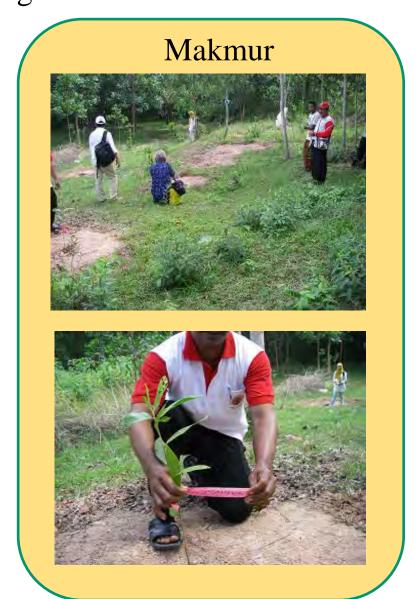
① To evaluate follow up activities of technical transfer activities Wood crafting using equipment of project supply



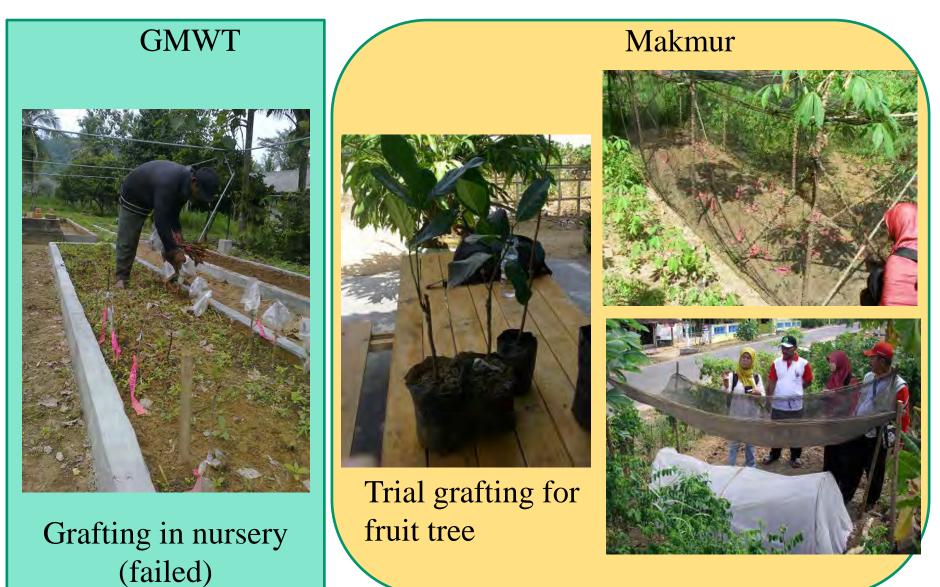


① To evaluate follow up activities of technical transfer activities Tending Activity for planted seedling





① To evaluate follow up activities of technical transfer activities Grafting activity



(2) Holding SVLK workshop

- Date: 1-2, September 2013
- Place: Arinas Hotel, Bandar Lampung
- Objectives: Promotion of SVLK system Participants:
- ♦BUK, MOF (Pak Dwi, Director of BUK),
- BP2HP Lampung (Pak Teguh Widodo, Dorector of BP2HP), Scofindo (Pak Yuki),
- Dinas Kehutanan (Pak Syaiful, Head of Dinas Kehutana di Lampung),
- ♦ Officer of district office of Dinas Kehutanan),
- Extention Assosiation di Lampung Province
- ♦ Member of GMWT
- Member of Makmur

(2) Holding SVLK workshop

Program of the workshop

Hari Pertama : Minggu / 1 September 2013		
14.00 - 18.00	Check in dan Registrasi Peserta	
18.00 - 19.30	Makan Malam	
19.30 - 20.30	Pembukaan (Kepala Dinas Kehutanan Provinsi Lampung :	
	Ir. Syaiful Bachri, MM.)	
20.30 - 21.00	Penjelasan tentang Kegiatan JICA (Senior Director JOFCA :	
	Takiaki Toyoda, Ph.D.)	

Hari Kedua : S	enin / 2 September 2013
08.30 - 10.00	Materi I : Kebijakan SVLK (Direktur Pengolahan dan Pemasaran Hasil
	Hutan : Dr. Ir. Dwi Sudharto, M.Si.)
10.00 - 10.15	Coffe break
10.15 - 11.45	Materi II : Pedoman Pelaksanaan SVLK di Provinsi Lampung (Kepala
	Balai Pemantauan dan Pemanfaatan Hutan Produksi Wil. VI :
	Ir. Teguh Widodo, M.Si.)
11.45 - 13.00	Ishoma
13.00 - 14.30	Materi III : Pedoman Penilaian Kinerja dalam rangka Sertifikasi Legalitas
	Kayu (Sucofindo)
14.30 - 14.45	Coffe break
14.45 - 15.30	Diskusi dengan Sucofindo
15.30 - 16.00	Penutupan

2 SVLK workshop







③ Preparation of SVLK application activity





Explanation for two farmers group



Preparation of schedule and budget estimation for apply activity of SVLK

(4) Check for progress of sub-contract activity

☆ sub-contract Task 1

Survey for basic information on forest and forestry

 \Rightarrow Output summited

 \Rightarrow sub-contract Task 2

Survey for laws and regulations regarding forest,

forestry and wood industry in Lampung Province

- \Rightarrow Output will be summited at September
- \bigstar sub-contract Task 3

Collection of good examples regarding small scale

wood industry using small scale diameter log in

Lampung and other Provinces

 \Rightarrow Output will be published at October

The Project for Facilitating Development of Wood Industry in Small Diameter Logs Processing in Indonesia

> Progress report of Project activity of December 2013

23th December 2013 Japan Overseas Forestry Consultants Association (JOFCA) Main Activities for Project Implementation on December 2013

1.Technical transfer training for GMWT and Makmur

(1) Subjects of Technical transfer training program consists are four subject as follows:

 Forest Survey Technic (Tree diameter measurement and tree height measurement)
 GPS Technic (measurement position and Measurement boundary)
 Forest Register Technic
 Joint Wood Production Technic

2. Technical Transfer Training

(1)Objective of the technical transfer is,

SVLK require forest survey technic. All participants should get such technic for SVKK license.

Joint wood production technic is one of good attraction for wood processing. If participants have this technic, it is useful for wood processing. Especially, small diameter wood. (2)Technical transfer training program

1.Number of participant for forestry technical transfer training

Farmers : 51<u>members (GMWT 20, Makmur31)</u>

2.Date of technical <u>tansfer:14th -15th of December</u> (GMWT) 20th -21th of December (Makmur)]

3.Location of the technical <u>transfer</u> <u>Payuung(GMWT)and Way Bungur (Makmur)</u>,

4. Time of technical transfer : From 9:00AM to 16:00PM

(3) Technical transfer training for two farmers group (GMWT,Makmur)

Technical transfer training program consists three subjects



③Forestry Register Technic



(4) Joint Wood Production Technic







Detail schedule(GMWT)

Time	14 Sat	15 Sun		
9:00-12:00	 Forest survey technic (including tree measurement) How to use GPS (Measurement for boundary) Forest Registration 	Joint wood production technic		
12:00-13:00		n Break		
13:00-16:00	Field practice above subjects	2 Practice of Joint wood production technic		

Technical training in GMWT



Lecture



Before starting practice ,we lecture to GMWT participants.

① Forest Survey Technic(GMWT)

How to measure tree diameter by diameter



Diameter tape





How to measure tree height by vertex 4







Digital clinometer



② GPS Technic(GMWT)



Measure of boundary

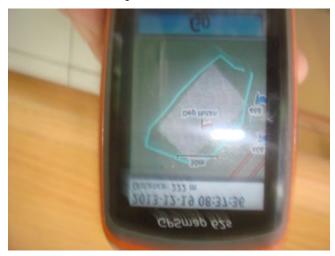
Measure position





GPS calculation

Boundary calculation



Satellite map



Boundary data



After survey, you can calculate area and position.

Survey note

Registration of survey data



	Catatan Hadii I	Pengamata	n Hutan	Hutan Nama Pemilik:				
Tempet	Terpgel			No. Lember	1			
	Jaria Tanaman	Dismeler (cm)	Tinggiện)	Jumish Pohon	Kaleorgan			
01								
02								
03								
04								
05								
05								
07								
08								
09								
10								
11								
12								
13								
14								
15								
15								
17								
18								
19								
20								
21								
22								
23								
24								
23								
28								
27								
22								
25								
30								

③Forest Register Technic(GMWT)

Forestry Register

After survey, registration on Forest register



Registrasi Hutan										
 Bagian Lahan	Sub-bagian Lahan	Keseluruhan Lahan (ha)	Jenis Tanaman	Lahan yang Ditanami (ha)	Usia Lahan yang Ditanami	Diameter Pohon	Tinggi Pohon	Jumlah Tamanan		



Materials

Joint cutter



Bisket

Aqueous glue





Plane a board



Adjusting each boards



Check right angle



Make a hole by Joint cutter



Adjusting three boards



Making a hole by joint cutter



Made a hole



Put on aqueous glue to



Put in bisket in a hole



Set up each board



Tighten the each boards by binder(about 3 hours)



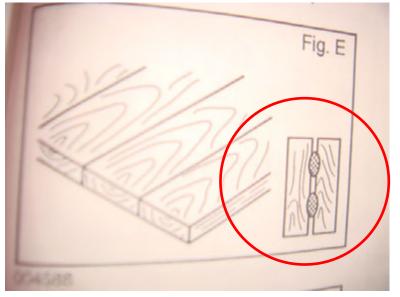


Before





You can join many boards by bisket about small diameter wood which become big diameter board



After

After 3 hours one big diameter board



Butt joint



Made jointed small diameter table



Miter joint



GMWT paticipants



Result of Training questionnaire(1)

Five evaluation points		5	4	3	2	1		
	Ve	ery good	Good	Average	Bad	Very bad		
Contents Evaluation Contents of training	Reason of evaluation							
1.Use level	4.4	Giving no	ew informa	ation and know	vledge they d	lidn't know before.		
2.Lecture	4.3	They know	Now they can use waste product (wood) to become useful products. They know how to measure the height and diameter of trees, make boundary of their lands.					
3.Material	3.9	Detail, cl	Detail, clear and understand					
4.Textbook	3.6	Detail, cle	Detail, clear and understandable					
5.Time	4.2.	Discipline and on time. Always on time						
6.Place	3.7	Strategic	to the obse	ervation place a	and comforta	able.		

Result of Training questionnaire(2)

	High	Somewhat	Not
1.Were the course contents beneficial/useful to your current job?	55%	45%	0%
2. Were the course contents clear and understandable?	15%	85%	0%

Detail schedule(Makmur)

Time	20 Fri	21 Sat		
9:00-12:00	 Forest survey technic (including tree measurement) How to use GPS (Measurement for boundary) Forest registration 	④Joint wood production technic		
12:00-13:00	Lunc	n Break		
13:00-16:00	Field practice above subjects	④Practice of Joint wood production technic		

Technical training in Makmur

Ibu.Dewi Professor of Lampung university



Before starting practice ,we lecture to Makmur paticipants.



① Forest Survey Technic(Makmur)





How to measure tree diameter by diameter tape





How to measure tree height by vertex 4







Recorder write about survey results. Important is answer 3 times to result no miss take .

After survey ,recorder write in forestry register



Survey note



(2) GPS Technic







They are walking around boundary of forest.

③Forest Register Technic(Makmur)

After survey, registration on forest register



	Registrasi Hutan									
Bagian Lahan	Sub-bagian Lahan	Keseluruhan Lahan (ha)	Jenis Tanaman	Lahan yang Ditanami (ha)	Usia Lahan yang Ditanami	Diameter Pohon	Tinggi Pohon	Jumlah Tamanan		

Raw materials



Small diameter board joint



Plane a board



Making a hole by joint cutter



Mr.widodo use joint cutter



Hole to joint



Insert bisket in board

Each board jointed





Binder joint



Mr.widodo assist technic



Completed board



Binder of made in Indonesia



All of small diameter board joined Making of a leg of table with bamboo nail



Painting on table





Finished



Frame Joint





Butt Joint, Miter Joint



Makmur mpaticipants and Mr.widodo



Result of Training Questionnaire(1)

Five evalua	tion points	5	4	3	2	1	
		Very good	Good	Average	Bad	Very bad	
Contents Contents of	Evaluation training	point		Reason of eva	luation		
1.Use level		4.2 Understa	indable and g	giving new kn	owledge		
2.Lecture		•		-	-	er own self especia tix and area width u	•
3.Material		3.8 Detail ar	nd understan	dable			
4.Textbook		3.5 Good an	d giing new	knowledge			
5.Time		3.7 Need me	ore time, too	shortDiscip	line		
6.Place		4.1 Good and	l needed fasi	ilities are avail	able		

Result of Training questionnaire(2)

	High	Somewhat	Not
1.Were the course contents beneficial/useful to your current job?	63%	37%	0%
2.Were the course contents clear and understandable?	120/	970/	00/
	13%	87%	0%

The Project for Facilitating Development of Wood Industry in Small Diameter Logs Processing in Indonesia

> Progress report of Project activity of Feb-Mar 2014

17th March 2014 Japan Overseas Forestry Consultants Association (JOFCA)

Schedule of the project (27 Feb-19 mar)

	Date			Toyoda	Accommodation
1	27-Feb	Thu	Narita-Jakarta	Move to Jakarta from Narita	Jakarta
2	28-Feb	Fri	Jakarta	AM:Visit and meeting at JICA office, PM: Courtesy call to Ministry of Forestry	ditto
3	1-Mar	Sat	Ditto	Meeting with sub-contractor (Pak Dojoko)	ditto
4	2-Mar	Sun	Jakarta-Lampung	Move to Lampung (GA074/12:40Jakarta)	Lampung
5	3-Mar	Mon	Lampung	Meeting with Local coordinator	ditto
6			Ditto	Meeting with DINAS and BP2HP Field activity (Investigation for progress of SVLK application activity, Preparation for technical transfer	ditto
7	5-Mar		Ditto	training)	ditto
8			Ditto Ditto	Ditto Field observation to Lampung Utala (for collection of good examples of wood industry)	ditto ditto
10	8-Mar	Sat	Ditto		ditto
11	9-Mar	Sun	Ditto		ditto
12	10-Mar	Mon	Ditto	Meeting for preparation of final workshop on May	ditto
13	11-Mar	Tue	Ditto	Field observation to Lampung Utala (for collection of good examples of wood industry)	ditto
14	12-Mar	Wed	Ditto	Arrangement for wood crafting display in Unila	ditto
15	13-Mar	Thu	Ditto	Wood crafting display in Unila	ditto
16	14-Mar	Fri	Ditto	Report to DINAS and BP2HP	ditto
17	15-Mar	Sat	Ditto	Move to Jakarta from Lampung	Jakarta
18	16-Mar	Sun	Lampung-Jakarta	Meeting with sub-contractor (Pak Dojoko)	Jakarta
19	17-Mar	Mon	Jakarta	Report to Ministry of Forestry, JICA office, Embassy of Japan Move to Tokyo	ditto
20	18-Mar	Tue	Jakarta-Tokyo	Meeting with Mr. Naganawa for the activity	Overnight Flight
21	19-Mar	Wed		Back to Japan	

Main activities for project on Feb.-Mar 2014

(1) Investigation for progress of SVLK license application activity (2) Confirmation activities for Sub-contracts (3) Meeting with participants for preparation of training in japan on April (4) Preparation of final workshop on May (5) Marketing approach for wood products made by farmers group

① Investigation for progress of SVLK license application activity

Makumur:

- Application documents already submitted to Sucofindo.
- Field verification for Audit activity also finished on end of February.
- Documents from Makmur is approved internally.

GMWT:

- Wood processing machine (band saw) and building were installed on January.
- Trial operation already started on February.
- Field verification for Audit activity by Sucofindo will be started from 23rd of March.
- GMWT expect to get SVLK license on April.

① Investigation for progress of SVLK license application activity





(2) Confirmation activities for Sub-contracts

Visiting wood industry for collection information good examples





Factory in Lampung Utala (PT Karya Abadi)

Output of Sub-contract is final compiling on middle of March, it will finished middle of April. Output will be distributed at final workshop. (3) Meeting with participants for preparation of training in japan on April

Participants from Lampung
• Pak Hendro Widjanarko
(BPPHP Lampung)Pak Grisman Medy Putra

Pak Grisman Medy Putra
 (Dinas Kehutanan di Lampung

Project explain detail schedule to them, and request submit application form as soon as possible.

No	Date		Time	Program	Person in charge	plece of study	Place of accommodation		
1	2013-04-15	Tue		Alive in Japan(April 16)			Tokyo		
			11:00 ~ 12:00	bulifing	JICA				
2	2013-04-16	Wed	13:30 ~ 14:00	Courtesy Visit to Forestry Agency	Jofca Toyoda		Tokyo		
			15:30 ~ 16:30	Courtesy visit to Embassy of Indonesia	Jofca Toyoda	Tokyo/meguro			
3	2014-04-17	Thu	10:00 ~ 12:00	Tama forest sience Garden	Jofca Toyoda	Tama Forest sience Garden	Kochi		
				(Day Trip from tokyo toKochi)	Jofca Tovoda				
			10:30 ~ 12:00	Day Trip from kochi~ ~Umaji village ~ Kochi	Jofca Toyoda				
4	2014-04-18	Fri	13:00 ~ 15:00	Ecoas Co,ltd in umaji town New development wood utiization in small village	Jofca Toyoda	Ecoas Co.ltd	Kochi		
				Day Trip from Kochi to Tokyo					
5	2014-04-19	sta					Tokyo		
			14:00 ~ 17:00	wood and plywood museam in kiba and antenna shop ecoas Co,ltd in ginza	Jofca Toyoda				
				Day trip from tokyo to Obihiro			Obihiro		
6	2014-04-20	Sun		Leave to Indneia(Mr.Dwi) From Narita toIndonesia			Leave to Indonesia		
			10:00 ~ 12:00	(Day Trip to Memuro) tokachi wide area forestry cooperative	Forestry	Mr. Etsuro Murakami President of Tokachi Wide Area Forestry Cooperative			
/	7 2014-04-21 Mor	2014-04-21	2014 04 21	Mon	13:00 ~ 16:00	toyokoro tawn Sawmill (small class)	(Day Trip to Memuro) *Forestry Cooperative in Japan	Mr. Etsuro Murakami President of Tokachi Wide Area Forestry Gooperative	Obihiro
			10:00 ~ 12:00	Forestplan system and Forest register	East Tokach iNational Forest Office	East Tokach iNational Forest Office			
8	2014-04-22	Thu	13:00 ~ 16:00	Management of National forest	East Tokach iNational Forest Office	East Tokach iNational Forest Office	Obihiro		
			10:00 ~ 12:00	Timber storage management	Sato Co LTD	Sato. Co LTD	01.11.1		
9	2014-04-23 Wed 13:00 ~ 16:00		13:00 ~ 16:00	sawmill (midl class)	Sato Co LTD	Sato. Co LTD	Obihiro		
10	2014-04-24	Thu	9:30 ~ 12:00	(Morning Trip to Churui, Makubetsu) Preparation of Seedlings and cutting	Mr. Kazuo Osaka, Osaka Ringyo	Mr. Kazuo Osaka, Osaka Ringyo	Obihiro		
			13:30 ~ 15:00	Evaluation Meeting	JICA Obihiro	JICA Obihiro			
11	2014-04-25	Fri		Leave to Indonesia					

(4) Preparation of final workshop and ceremony for SVLKon May

Date: 20-22, May 2014

Place: Arinas Hotel, Bandar LampungObjectives: Project output presentationParticipants:

- BUK, BP2HP Lampung, Scofindo, Dinas Kebutanan Provinci, Dinas Kebutanan
- Kehutanan Provinsi, Dinas Kehutanan
- Kabupaten, Government of lampung, JICA, JOFCA, GMWT, Makmur, Farmers group, Owner of wood industries, etc.

(4) Preparation of final workshop and ceremony for SVLK on May

Draft schedule of Workshop and ceremony

Date	Time	Agenda	Presenter
20-May	19:30-	Opening address	Dinas kehutanan
		Speech form JICA	JICA
		Speech form JOFCA	JOFCA
		Introducing project activity	Project
		In <u>troducing t</u> ec <u>hnical</u> tr <u>an</u> sf <u>er</u> tr <u>aining</u>	Pr <u>oj</u> ec <u>t</u>
21-May	09:00-12:00	Introducing output of sub-contract	<u>Ibu Dewi, Ibu R</u> ini
		Introducing output of sub-contract	Djoko Supomo
		Validation activity for SVLK	Sucofindo
		Lunch break	
	14:00-18:00	Introducing output of project in GMWT	GWMT, YKWS
		In <u>troducing output of proj</u> ec <u>t i</u> n <u>Makmu</u> r	Makmur, Unila, Watala
22-May	09:00-12:00	Spe <u>ec</u> h form BUK	<u>Pak D</u> wi
		Ceremony for SVLK	All Participants

(5) Marketing approach for wood products made by farmers group



Workshop for marketing approach with university students and Makmur members in University of Lampung

(5) Marketing approach for wood products made by farmers group



Exhibition of wood crafting in entrance lobby of University

3rd Technical transfer training

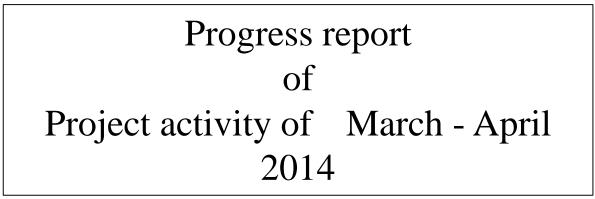
Period: For Makmur 22-26 March (5days) For GMWT 28-31 March (4 days)

Trainee: Hajime NAGANAWA (JICA Expert)

Contents of training

- •Forest survey technic (tree measurement etc.)
- Fire control and forest fire fighting
- Natural wood Drying
- •Safety sawmill
- Patrol communications
- •Wood crafting (Using Joint cutter)

The Project for Facilitating Development of Wood Industry in Small Diameter Logs Processing in Indonesia



^{8th} April 2014

Japan Overseas Forestry Consultants Association (JOFCA) Main Activities for Project Implementation on March and April 2014

1.Technical transfer training for Makmur and GMWT

Subjects of Technical transfer training program consists are six subject as follows:

 Forest Survey Technic (Tree diameter measurement and tree height measurement by Digital Clinometer)
 GPS Technic (Measurement Boundary)
 Forest Register Technic(After survey, Data record on forest register)
 Forest Fire Prevention Technic (including of making Flapper by Bamboo and small diameter wood)
 Natural Wood Drying Technic
 Wood crafting Technic
 Technical support of sawmill Technic (Safety, sawmill

2. Technical support of sawmill Technic (Safety sawmill technic and conversion wood technic)

3. Marketing approach wood products made by Makmur Farmers group in Lampung Forestry 1.Technical transfer training program

1.Number of participant for forestry technical transfer training Farmers : 60<u>members (GMWT 20, Makmur40)</u>

2.Date of technical <u>tansfer:22th</u> -26th of March (Makmur) 28th - 31^{th} of March (GMWT)]

3.Location of the technical <u>transfer Way Bungur (Makmur)and</u> <u>Payuung(GMWT)</u>

4.5days(Makmur) ,4days(GMWT)

5.Time of technical transfer : From 9:30AM to 15:30PM

Technical transfer training for two farmers group (Makmur and GMWT)

Technical transfer training program consists six subjects

①Forest Survey Technic

②GPS Technic



Measure of tree height by Digital clinometer Measure of forest boundary by GPS







Forestry registry Technic



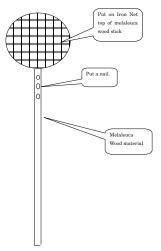


					Forestry	Register	note
 famer	Compartment	Sub	Total Area	Planted	Planted	Planted year	TreeDiameter
name		compartment	(ha)	Spiecis	Area(ha)		av.diameter min.diameter-max.diameter

(4)Forest Fire Prevention Technic







(5) Natural Wood Drying Technic



(6)Wood Crafting Technic



Technical transfer training for Makmur

Detail Schedule

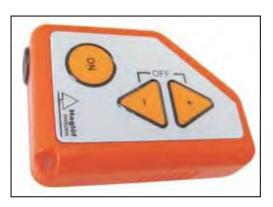
Time	<mark>22</mark>	<mark>23</mark>	<mark>24</mark>	<mark>25</mark>	<mark>26</mark>
	(Sat)	(Sun)	(Mon)	(Tue)	(Wed)
9:30-12:00	 Lecture of Forest Survey Lecture of Forest Fire Protection Wood dry 	Fire Materials(Makin		Forest Fire Practice	Wood Crafting
12:00-13:00		Lunc	h Break		
13:00-15:30	,	Practice of Forest Fire Materials(making of Iron net Flapper)	Practice of Forest Fire Materials(For est fire Board)	Wood Crafting	Wood Crafting

1 Forest Survey Technic

How to measure tree Height by Digital Clinometer

How to measure Diameter by diameter tape











②GPS Technic



How to measure Forest boundary by GPS



3 Registration of Forest Survey data





(4) Forest Fire Prevention Technic

Making Flapper of bamboo and small diameter wood









Forest fire fighting training





Forest Fire Prevention Board









(5)Wood Crafting Technic









Final announcement from Mr.Hendro widjanokoof DPPHP in Lampung Province



Mr.Costantinus Hendro widjanako of DPPHP in Lampung Province and Mr.Grisman of Lampung Forestry Officer are joined

JICA Mr.. Yuki Arai



Result of Training questionnaire(1)

Five evaluation points	2	5	4	3	2	1	
	Ver	y good	Good	Average	Bad	Very bac	1
Contents Evaluation Contents of training	point		R	eason of eva	luation		
1.Use level	4.5	4.5 Giving new information and knowledge they didn't know before.					
2.Lecture		Now they can use waste product (wood) to become useful products. They know how to measure the height and diameter of trees, make boundary of their lands.					
3.Material	4.2 I	Detail, clear	and under	rstand			
4.Textbook	4.0	Detail, clear	and unde	rstandable			
5.Time	4.1 I	Discipline ar	nd on time	e.Always on	time		
6.Place	3.9 s	Strategic to the	he observa	ation place a	nd comfortal	ole.	

Result of Training questionnaire(2)

	High	Somewhat	Not
1.Were the course contents beneficial/useful to your current job?	78%	22%	0%
2. Were the course contents clear and understandable?	35%	65%	0%

Technical transfer training for GMWT

Detail schedule

Time	<mark>28</mark>	<mark>29</mark>	<mark>30</mark>	<mark>31</mark>	
	(Fri)	(Sat)	(Sun)	(Mon)	
9:30-12:00	Forest Survey	Forest Fire Materials (making of Bamboo	Practice of Forest Fire Activity	Wood Crafting (Sign board for the factory)	
12:00-13:00			Lunch Break		
13:00-15:30	0	Practice of Forest Fire Materials (making of Iron net Flapper	Practice of Forest Fire Activity	Wood crafting (Sign board fo r the factory)	

Lecture



Before starting practice ,we lecture to GMWT participants.



① Forest Survey Technic



How to measure tree height by digital clinometer How to measure tree diameter by diameter tape





How to measure Forest boundary by GPS





3 Registration of Forest Survey data





(**4**) Forest Fire Prevention Technic

Making bamboo flapper and iron net flapper with small diameter wood









Forest Fire Prevention board









Forest Fire Fighting







(5)Wood Crafting Technic









Result of Training Questionnaire(1)

Five evaluation points	5	4	3	2	1	
	Very good	Good	Average	Bad	Very bad	
Contents Evaluation Contents of training	n point		Reason of eva	luation		
1.Use level	4.5 Understar	ndable and	giving new kno	owledge		
2.Lecture	4.1 Very useful for for comunity commonly and thier own self especially. They know how to measure tree hight using batix and area width using GPS.					
3.Material	4.0 Detail and	d understan	dable			
4.Textbook	4.0 Good and	l giing new	knowledge			
5.Time	3.6 Need mor	e time, too	shortDiscipl	ine		
6.Place	3.8 Good and	needed fasi	ilities are avail	able		

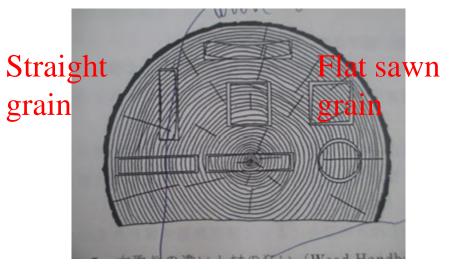
Result of Training questionnaire(2)

	High	Somewhat	Not
1.Were the course contents beneficial/useful to your current job?	85%	15%	0%
2.Were the course contents clear and understandable?	40%	60%	0%

Sawmill Technic(Safety and Conversion of wood)

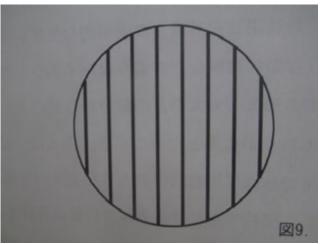


Wood Twist





Through and Through Sawing



Marketing approach wood products by Makmur Farmers group in Lampung Forestry(Display and Demonstration)







