

V. MICROSCOPE ROOM

1.	13 - 7	Universal Research Microscope	1 set
2.	13 - 16	Vertical Illuminator	1 set
3.	13 - 9	Trinocular Research Microscope	3 sets
4.	13 - 12	Neopack Microscope	1 set
5.	13 - 8	Binocular Research Microscope	6 sets
6.	13 - 14	Trinocular Zoom Research Microscope	2 sets
7.	13 - 13	Zoom Stereo Microscope	6 sets
8.	13 - 6	Paraffine Strecher Model PS-51	1 set
9.	13 - 4	Rotary Microtome	1 set
10.	13 - 3	Large Sledge Microtome	1 set
11.	13 - 1	Tissue Processor	1 set
12.	13 - 2	Automatic Staining Machine	1 set
13.	13 - 5	Automatic Microtome Knife Sharpener	1 set
14.	13 - 10	Photomicrographic System Camera	2 sets
15.	13 - 15	Phase Contract Attachment	3 sets
16.	19 - 2	Center Table NCB-360C	2 sets
17.	19 - 4	Side Table NUH-180C	3 sets
18.	19 - 6	Side Table NUG-180C	2 sets
19.	19 - 8	Sink NSB-120	1 set

VI. SILVICULTURE - 1

1.	5 - 7	Vapor Pressure Osmometers	1 set
2.	1 - 22	Direct Reading Analytical Balance	1 set
3.	1 - 21	Direct Reading Top Pan Balance	1 set
4.	4 - 4	Ultra Deep Freezer No. 3190-B	1 set
5.	4 - 3	Illumination Meter Model TOP CON SPI-71	2 sets
6.	4 - 1	Thermostatic Germinator Model 112-C	1 set
7.	19 - 1	Center Table NCB-300C	1 set
8.	19 - 3	Side Table NUH-150C	2 sets
9.	19 - 5	Side Table NUG-150C	2 sets
10.	19 - 8	Sink NSB-120	1 set
11.	19 - 11	Shelf NLD-180	1 set

VII. SILVICULTURE - 2

1.	5 - 2	Green Leaf Meter Model GA-3	.....	1 set
2.	5 - 3	Plant Moisture Potential Tester Model PC-40	.....	1 set
3.	5 - 4	High Pressure Air Compressor Model PHC-AS	.....	1 set
4.	2 - 41	No Weight All Purpose Precise Weighing Machine Model M-4	.....	1 set
5.	2 - 40	Ditto Model SM-2	.....	1 set
6.	2 - 14	Auto Mixer Model M-21	.....	1 set
7.	2 - 12	Mag Mixer Model MH-16	.....	1 set
8.	5 - 1	Plant Assimilation Analyser with Assimilation Chamber	.....	1 set
9.	19 - 1	Center Table	NCB-300C	2 sets
10.	19 - 3	Side Table	NUH-150C	2 sets
11.	19 - 5	Side Table	NUG-150C	1 set
12.	19 - 8	Sink	NSB-120	1 set
13.	16 - 1	Fume Hood	KDS-150	1 set

VIII. SILVICULTURE - 3

1.	1 - 5	Mechanical Convection Drying Oven No. 3852-A	.....	1 set
2.	1 - 33	Drying Oven Model DX-38	.....	1 set
3.	4 - 2	Mechanical Convection Drying Oven No. 3852-B	.....	1 set
4.	2 - 48	Labo Cart	.....	1 set
5.	2 - 22	Water Still	.....	1 set
6.	2 - 22	Demineralizer	.....	1 set
7.	1 - 23	Top Pan Balance Model N-1	.....	2 sets
8.	1 - 24	Top Pan Balance Model N-5	.....	2 sets
9.	1 - 27	Top Pan Balance Model TOP E-200	.....	1 set
10.	2 - 2	Homogenizer Model AM-2	.....	1 set
11.	4 - 5	Automatic Ice Making Machine	.....	1 set
12.	3 - 11	Refrigerator	.....	1 set
13.	3 - 6	Low Temperature Thermostat Model LT-OB	.....	2 sets
14.	19 - 1	Center Table	NCB-300C	2 sets
15.	19 - 3	Side Table	NUH-150C	2 sets
16.	19 - 5	Side Table	NUC-150C	1 set

17.	19 - 8	Sink	NSB-120	.....	1 set
18.	16 - 1	Fume Hood	KDS-150	.....	1 set

IX. CONSTANT ROOM

1.	13 - 16	Vertical Illuminator	.....	1 set
2.	13 - 7	Universal Research Microscope	.....	1 set
3.	13 - 11	Polarizing Microscope	.....	1 set
4.	5 - 5	Ultra Violet Lamp	.....	1 set
5.	1 - 16	Recorder - 2 pen	.....	1 set
6.	1 - 1	Spectrophotometer	.....	1 set
7.	3 - 3	Abbe Refractometer	.....	1 set
8.	1 - 22	Direct Reading Analytical Balance	.....	1 set
9.	1 - 21	Direct Reading Top Pan Balance	.....	1 set
10.	2 - 49	Dry Cart	.....	1 set
11.	13 - 10	Photomicrographic System Camera	.....	1 set
12.	19 - 3	Side Table	NUH-150C	1 set
13.	19 - 4	Side Table	NUH-180C	1 set
14.	19 - 5	Side Table	NUG-150C	2 sets
15.	19 - 6	Side Table	NUG-180C	1 set
16.	19 - 8	Sink	NSB-120	1 set
17.	19 - 12	Balance Table	B-150	1 set
18.	19 - 13	Balance Table with Shock Absorption	.....	1 set
19.	19 - 11	Shelf	NLD-180	1 set

X. DARK ROOM

1.	6 - 1	Dark Room Developing Apparatus	.....	1 set
		Consists of:		
		Enlarger	.....	1 set
		Lens for Enlarger	.....	1 pc
		Eassel	.....	1 pc
		Lamp for Dark Room	.....	1 pc
		Lamp	.....	1 pc
		Safe Light Glass	.....	1 pc
		Keeping Warmer	.....	1 set

	Forcep	6 pcs
	Metal Cutter	1 pc
	Graduate Cup 1.3 l	1 pc
	Polyethylene Bottle Cap 1 L	5 pcs
	" " " 2 L	5 pcs
	Developing Tank	2 pcs
	Spare Belt for the above	2 pcs
	Film Elip	2 pcs
	Thermometer	2 kinds
	Tray	4 pcs
	Tray	4 pcs
	Developer 1 L	100 pcs
	Acetic Acid 1 Kg	10 pcs
	Fixing Solution 4 L	10 pcs
	Printing Paper	200 sheets
	Developer 2 L	50 pcs
	Fixing Solution	50 pcs
	Slide Projector	1 pc
	Developing Paper Cabinet (50 pcs)	2 sets
	Quarter (100 pcs)	2 sets
2. 19 - 6	Side Table NUG-180C	1 set
3. 19 - 14	Developing Table USR	1 set
4. 19 - 19	Shelf NLD-180	1/2 set

XI. DRAWING ROOM

1. 11 - 9	"O-BAC" L Planimeter	6 sets
2. 11 - 13	Electric Calculator	10 sets
3. 11 - 19	Lettering Set	3 sets
4. 10 - 1	Stereo Plotting Instrument	1 set
5. 9 - 1	Drafting Machine Set	1 set
6. 11 - 14	Drafting Machine Set	6 sets
7. 11 - 1	Surveying Compass	6 sets
8. 11 - 2	Mini Surveying Instrument (Builders Transit BD-3)	6 sets
9. 11 - 3	Automatic Level SM-1	6 sets
10. 11 - 4	Hand Level	6 sets

11.	11 - 5	Steel (Tape Measure)	10 sets
12.	11 - 6	Relaskop with Wide Scale	6 sets
13.	11 - 7	Blume-Leiss Altimeter	6 sets
14.	11 - 8	Metal Clinometer with Mirror	6 sets
15.	11 - 10	Increment Borer	6 sets
16.	11 - 17	Forester's Caliper	10 sets
17.	11 - 18	Dial Cord Measure	6 sets
18.	19 - 8	Sink NSB-120	1 set
19.	19 - 11	Shelf NLD-180	1 set

XII. ELECTRON MICROSCOPE ROOM

1.	8 - 1	Scanning Electron Microscope	1 set
2.	8 - 2	Cooled Water Pressure Circulation Machine for Scanning Electron Microscope	1 set
3.	19 - 11	Shlef NLD-180	2 sets
	8 - 1	Consists of:	
		Main Unit	1 set
		Display Unit	1 set
		Oil Rotary Pump	1 set
		Automatic Date Display Unit	1 set
		Dual Magnification Display Unit	1 set
		Roster Rotation, Dynamic Focus & Tilt Compensation Unit	1 set
		Ion Coater Model IB-3	1 set
		Sample Preparation Kit	1 set
		6 X 7 Camera	1 set

XIII. PHYSICS LABORATORY

1.	1 - 25	Torsion Balance	2 sets
2.	1 - 26	Torsion Balance	2 sets
3.	2 - 33	Rotary Vacuum Pump Model MINI VAC PS-20	1 set
4.	2 - 34	Rotary Vacuum Pump Model MINI VAC PD-51	1 set
5.	2 - 35	Rotary Vacuum Pump Model MINI VAC PD-100	1 set
6.	2 - 36	Rotary Vacuum Pump MINI VAC PS-05	1 set

7.	2 - 37	Rotary Vacuum Pump, Two Stage, Horizontal Type	...	1 set
8.	12 - 2	Automatic Table Balance ISHIDA Type	.....	1 set
9.	12 - 1	Automatic Table Balance ISHIDA Type	.....	1 set
10.	1 - 21	Direct Reading Top Pan Balance	.....	1 set
11.	1 - 22	Direct Reading Analytical Balance	.....	1 set
12.	1 - 20	Table Spring Balance (clock type)	.....	18 pcs
13.	12 - 3	Balance	.....	6 sets
14.	12 - 4	Beam Balance	.....	5 sets
15.	2 - 28	Mechanical Analysis Stirrer No. 702	.....	1 set
16.	2 - 29	Bouyoucos Hydrometer No. 703	.....	1 set
17.	2 - 30	Hydrometer Jar No. 704	.....	1 set
18.	2 - 26	Soil Sedimentation APP YAMANAKA Type No. 327	.....	1 set
19.	2 - 3	Soil Sedimentation APP KOHN Type	.....	3 sets
20.	2 - 7	Soil Membrane Pressure APP No. 356-B	.....	1 set
21.	19 - 4	Side Table	NUH-180C	1 set
22.	19 - 5	Side Table	NUG-150C	1 set
23.	19 - 6	Side Table	NUG-180C	1 set
24.	19 - 8	Sink	NSB-180	1 set
25.	19 - 11	Shelf	NLD-180	2 sets
26.	19 - 12	Balance Table	B-150	1 set
27.	19 - 12-a,b	Balance Table	B-180	4 sets
28.	19 - 13	Balance Table with Shock Absorption	.....	1 set

XIV. COMPUTER ROOM

1.	7 - 1	COMPUTER		
		(Composition of Computer System)		
		C.P.U.	U-1300	1 unit
		Magnetic Disk	.....	1 unit
		System Typewriter	.....	1 unit
		Card Reader	.....	1 unit
		Offline Card Puncher	.....	1 unit
		Line Printer	.....	1 unit
		Floppy Disk	.....	1 unit
2.	19 - 11	Shelf	NLD-180	2 sets

XV. SOIL LABORATORY - 1

1.	1 - 33	Drying Oven Model DX-38	.....	2 sets
2.	1 - 19	Grinding Crusher (coffee mill) No. 4220	.....	1 set
3.	1 - 18	Pulverizer for Laboratory	.....	1 set
4.	2 - 14	Auto-Mixer Model M-21	.....	1 set
5.	2 - 12	Mag Mixer Model MH-61	.....	2 sets
6.	2 - 11	Mag Mixer Model M-66	.....	2 sets
7.	2 - 17	Sieve Shaker, Ro-Tap Type No. 4550	.....	1 set
8.	2 - 16	Soil, Sieve No. 308-C	.....	3 sets
9.	2 - 17	Soil Sieve Set, Round Perforations No. 308 (L)	...	10 sets
10.	2 - 24	Soil Sampling Cylinder, Shibamoto Type No. 600	...	1 set
11.	2 - 25	Soil Sampling Trowel Set No. 601	.....	3 sets
12.	2 - 52	Soil Sampling Cylinder	.....	1 set
13.	2 - 53	Soil Sampler for 100 ml Cylinder	.....	2 sets
14.	2 - 31	Flask Shaker No. 4331-D	.....	1 set
15.	2 - 22	Water Still	.....	1 set
16.	2 - 21	Demineralizer	.....	1 set
17.	2 - 2	Homogenizer Model AM-2	.....	1 set
18.	2 - 20	Aspirator, Metallic	.....	2 sets
19.	2 - 18	Stainless Steel Tank with Handle	.....	1 set
20.	2 - 50	Drying Board	.....	1 set
21.	2 - 4	Soil Tensiometer, THERADA Type No. 345	.....	1 set
22.	2 - 5	Soil Hardness Tester, YAMANAKA Standard Type No. 351	.....	2 sets
23.	2 - 1	Centrifuge Model H-100B	.....	1 set
24.	2 - 46	Sulfur Acid Tank and Basket	.....	1 set
25.	2 - 47	Sulfur Acid Tank	.....	1 set
26.	1 - 23	Top Pan Balance Model N-1	.....	2 sets
27.	1 - 24	Top Pan Balance Model N-5	.....	2 sets
28.	1 - 27	Top Pan Balance Model TOP E-200	.....	1 set
29.	1 - 31	Mixer	.....	3 sets
30.	2 - 15	Filter Apparatus for Soil	.....	5 sets
31.	19 - 1	Center Table	NCB-300C	2 sets
32.	19 - 3	Side Table	NUH-150C	2 sets
33.	19 - 5	Side Table	NUG-150C	1 set
34.	19 - 8	Sink	NSB-120	1 set
35.	16 - 1	Fume Hood	KDS-150	1 set

XVI. SOIL LABORATORY - 2

1.	2 - 39	Kjeldal Digester, Gas Heated No. 402-B	5 sets
2.	1 - 7	Hot Plate Model HK-21	2 sets
3.	2 - 43	Micro Kjeldahl Distillation APP	4 sets
4.	2 - 44	Nitrogen Distilling APP with Stand	5 sets
5.	2 - 45	Titration Set, for Micro and Semi Micro Kjeldahl APP	4 sets
6.	1 - 6	Muffle Furnace Model FM-21	2 sets
7.	1 - 13	Water Bath	1 set
8.	1 - 14	Low Temperature Water Thermostat (water bath)	1 set
9.	2 - 23	Soil of Measuring Centrifuge No. 357	1 set
10.	2 - 6	Soil Exchange Capacity Determination APP No. 375 ..	5 sets
11.	2 - 51	Pipet Case, Plastic	1 set
12.	1 - 5	Mechanical Convection Drying Oven No. 3852-A	1 set
13.	1 - 21	Direct Reading Top Pan Balance	1 set
14.	2 - 13	Touch Mixer Model MT-11	1 set
15.	2 - 8	PH Meter Model HM-5EST	3 sets
16.	2 - 9	PH Meter Model HM-1K	2 sets
17.	1 - 32	Plasma Reactor	1 set
18.	3 - 11	Refrigerator	1 set
19.	2 - 48	Labo Cart	1 set
20.	1 - 22	Direct Reading Analytical Balance	1 set
21.	1 - 21	Direct Reading Top Pan Balance	1 set
22.	1 - 4	Photometer	1 set
23.	2 - 10	Ion Meter Model IM-KB	1 set
24.	1 - 3	Atomic Absorption Spectrometer	1 set
25.	1 - 30	Recorder (1 pen)	1 set
26.	1 - 2	Flame Photometer	1 set
27.	2 - 19	Micrometer, Caliper No. 1222-A	3 sets
28.	1-15-1	Desicator	70 pcs
29.	1-15-2	Desicator with Tubulated Side	8 pcs
30.	1 - 8	Mantle Heater Model FD-5, FD-10, FD-20	2 sets
31.	1-9-10	Labo Thermo Model LH-1000E	1 set
32.	1 - 11	Constant Temp. Water Bath Model BK-42	1 set
33.	2 - 38	Kjeldahl Distillation APP No. 400, Parnas Wagner Type	3 sets

34.	19 - 1	Center Table	NCB-300C	.....	1 sets
35.	19 - 3	Side Table	NUH-150C	.....	2 sets
36.	19 - 4	Side Table	NUH-180C	.....	2 sets
37.	19 - 5	Side Table	NUG-150C	.....	2 sets
38.	19 - 6	Side Table	NUG-180C	.....	1 set
39.	19 - 8	Sink	NSB-120	.....	2 sets
40.	19 - 11	Shelf	NLD-180	.....	1 set
41.	16 - 1	Fume Hood	KDS-150	.....	1 set

XVII. CLIMATE LABORATORY

1.	14 - 2	Thermograph	.....	2 sets
2.	14 - 3	Hygrograph	.....	2 sets
3.	14 - 4	Remote Recording Thermograph	.....	2 sets
4.	14 - 5	Evaporation Pan	.....	2 sets
5.	14 - 6	Rutherford Max - Min Thermometer	.....	2 sets
6.	14 - 7	Aneroid Barometer	.....	1 set
7.	14 - 8	Psychrometer	.....	2 sets
8.	14 - 9	Dewpoint Thermometer	.....	1 set
9.	14 - 1	Automatic Meterological Observation	.....	1 set
10.	14 - 10	Recording Rain Gauge	.....	1 set
11.	14 - 11	Solar Radiation Integrater with Pyranometer	.....	1 set
12.	14 - 12	Sunshine Duration Integrater	.....	1 set
13.	14 - 13	Circumspherical Luxmeter	.....	1 set
14.	14 - 14	Opto Electric Anemeter with Readout Instrument	...	1 set	
15.	14 - 15	Digital Thermometer	.....	1 set
16.	19 - 11	Shelf	NLD-180	6 sets

STORAGE (1),(2),(3)

1.	2 - 42	Mortal and Pestle	125 pcs
2.	11 - 1	Stand for Surveying Compass	6 sets
3.	11 - 2	Stand for Mini Surveying Instrument (Builders Transit BD-3)	6 sets
4.	11 - 11	Staff	6 sets
5.	11 - 12	Measure Pole	6 sets
6.	11 - 15	Million Measurement Rope	3 sets
7.	11 - 16	Com Pole	10 sets
8.	11 - 3	Stand for Automatic Level	6 sets
9.	15 - 5	Chain Saw	4 sets
10.	15 - 6	Brush Cutter	4 sets
11.	15 - 7	Sterilizing Sprinkler	4 sets

STORAGE (1)

1.	17 - 1	Pear Flask	50 ml	20 pcs
2.	17 - 2	Pear Flask	100 ml	20 pcs
3.	17 - 3	Pear Flask	250 ml	20 pcs
4.	17 - 4	Pear Flask	500 ml	20 pcs
5.	17 - 5	Pear Flask	1000 ml	20 pcs
6.	17 - 6	Measure Cylinder	50 ml	20 pcs
7.	17 - 7	Measure Cylinder	100 ml	20 pcs
8.	17 - 8	Measure Cylinder	250 ml	20 pcs
9.	17 - 9	Measure Cylinder	500 ml	20 pcs
10.	17 - 10	Measure Cylinder	1000 ml	20 pcs
11.	17 - 11	Volumetric Pipet	1 ml	20 pcs
12.	17 - 12	Volumetric Pipet	5 ml	20 pcs
13.	17 - 13	Volumetric Pipet	10 ml	20 pcs
14.	17 - 14	Volumetric Pipet	20 ml	20 pcs
15.	17 - 15	Komagome Pipet	1 ml	100 pcs
16.	17 - 16	Komagome Pipet	2 ml	100 pcs
17.	17 - 17	Komagome Pipet	5 ml	50 pcs
18.	17 - 18	Komagome Pipet	10 ml	20 pcs
19.	17 - 19	Measuring Pipet	0.1 ml	20 pcs

20.	17 - 20	Measuring Pipet	0.2 ml	.....	20 pcs
21.	17 - 21	Measuring Pipet	1 ml	.....	20 pcs
22.	17 - 22	Measuring Pipet	2 ml	.....	20 pcs
23.	17 - 23	Measuring Pipet	5 ml	.....	20 pcs
24.	17 - 24	Beaker	50 ml	.....	100 pcs
25.	17 - 25	Beaker	100 ml	.....	100 pcs
26.	17 - 26	Beaker	300 ml	.....	200 pcs
27.	17 - 27	Beaker	500 ml	.....	100 pcs
28.	17 - 28	Beaker	1000 ml	.....	50 pcs
29.	17 - 29	Erlenmeyer Flask	100 ml	.....	100 pcs
30.	17 - 30	Erlenmeyer Flask	300 ml	.....	200 pcs
31.	17 - 31	Erlenmeyer Flask	500 ml	.....	100 pcs
32.	17 - 32	Erlenmeyer Flask	1000 ml	.....	50 pcs
33.	17 - 33	Flat-Bottom Flask	500 ml	.....	30 pcs
34.	17 - 34	Flat-Bottom Flask	1000 ml	.....	20 pcs
35.	17 - 35	Round-Bottom Flask	300 ml	.....	50 pcs
36.	17 - 36	Round-Bottom Flask	500 ml	.....	30 pcs
37.	17 - 37	Round-Bottom Flask	1000 ml	.....	20 pcs
38.	17 - 30	Automatic Buret, White	25 ml	.....	2 pcs
39.	17 - 39	Automatic Buret, Amber	25 ml	.....	2 pcs
40.	17 - 40	Buret	25 ml	.....	10 pcs
41.	17 - 41	Buret	50 ml	.....	10 pcs
42.	17 - 42	Separable Funnel	100 ml	.....	10 pcs
43.	17 - 43	Separable Funnel	200 ml	.....	10 pcs
44.	17 - 44	Separable Funnel	500 ml	.....	10 pcs
45.	17 - 45	Mortal and Pestle	120 ml	.....	10 pcs
46.	17 - 46	Weighing Bottle, \emptyset 30 x 40 H		.....	100 pcs
47.	17 - 47	Specimen Vial Bottle \emptyset 18 x 40 H		.....	200 pcs
48.	17 - 48	Specimen Vial Bottle \emptyset 20 x 27 H		.....	200 pcs
49.	17 - 49	Petri Dish \emptyset 90		.....	100 pcs
50.	17 - 50	Watch Glass \emptyset 65 mm		.....	50 pcs
51.	17 - 51	Watch Glass \emptyset 90 mm		.....	50 pcs
52.	17 - 52	Glass Tube 4 mm - 10 mm		.....	100 pcs
53.	17 - 53	Glass Rod 4 mm - 10 mm		.....	30 pcs
54.	17 - 54	Polyethylene Aspirator Bottle with Turbuletire		...	10 pcs
55.	17 - 55	Staining Dish		.....	20 pcs
56.	17 - 56	Slide Glass (100 sheets/pack)		.....	10 pcs

57.	17 - 57	Cover Glass (100 sheets/pack)	10 pcs
58.	17 - 58	Rubber Stopper (No. 1 - No. 20)	100 pcs
59.	17 - 59	Cork Stopper (No. 1 - No. 20)	100 pcs
60.	17 - 60	Cork Borrer	1 pcs
61.	17 - 61	Reagent Bottle wide mouth 30 cc	50 pcs
62.	17 - 62	Reagent Bottle wide mouth 60 cc	50 pcs
63.	17 - 63	Reagent Bottle wide mouth 250 cc	30 pcs
64.	17 - 64	Reagent Bottle wide mouth 500 cc	10 pcs
65.	17 - 65	Reagent Bottle wide mouth 1000 ml	10 pcs
66.	17 - 66	Reagent Bottle narrow mouth 250 ml	50 pcs
67.	17 - 67	Reagent Bottle narrow mouth 500 ml	50 pcs
68.	17 - 68	Reagent Bottle narrow mouth 1000 ml	20 pcs
69.	17 - 69	Retort Support	10 pcs
70.	17 - 70	Test Tube 18 x 180	1000 pcs
71.	17 - 71	Test Tube 16.5 x 160	1000 pcs
72.	17 - 72	Test Tube 15 x 150	1000 pcs
73.	17 - 73	Test Tube Rack for 50 pcs	40 pcs
74.	17 - 74	Test Tube Rack for 100 pcs	20 pcs
75.	17 - 75	Rubber Tube, Black No. 5 - 10	50 pcs
76.	17 - 76	Vinyl Tube, Black No. 5 - 10	50 pcs
77.	17 - 77	Crucible with lid 30 cc	50 pcs
78.	17 - 78	Crucible Tong 30 cm	5 pcs
79.	17 - 79	Vitreous Enameled Beaker with handle 1 L	10 pcs
80.	17 - 80	Evaporating Dish 60 mm	20 pcs
81.	17 - 81	Sand Bath 15 m	50 pcs
82.	17 - 82	Color Solution Bottle 18 cc	50 pcs
83.	17 - 83	Blower Burner	10 pcs
84.	17 - 84	Bunsen Burner	20 pcs
85.	17 - 85	Gas Tube	100 pcs
86.	17 - 86	Round Bottomed Flask Stand 1000 ml	20 pcs
87.	17 - 87	Round Bottomed Flask Stand 500 ml	20 pcs
88.	17 - 88	Round Bottomed Flask Stand 300 ml	30 pcs
89.	17 - 89	Kjeldahl Flask 200 ml	200 pcs

LABORATORY AT FOREST BUILDING

1.	1 - 28	Plate Form Scale Model PA-20S	.....	1 set
2.	1 - 29	Plate Form Scale Model PA-100S	.....	1 set
3.	19 - 4	Side Table	NUH-180C	1 set
4.	19 - 9	Sink	NSB-180	1 set
5.	19 - 1	Center Table	NCB-300C	1 set
6.	14 - 1	Screen, Meteorological Instrument	.....	1 pc

CASIO PERSONAL COMPUTER, 3 Units

1. FP-1100 CPU & Keyboard
FP-1003 Color CRT
2. Dual Floppy Diskete Drive 8" x 2 (1 MB/drive) FP-1028FD
3. Graphic Versatile Printer (FP-1017PR)
4. FP-1030 RAM Pack
5. FP-1031 ROM Pack
6. RS-232C Pack (FP-1035 RS)
7. 4 Slot I/O Expansion Box (FP-106IO)
8. Cable for RS-232C (FP-1083C)
9. Cable for Cassette Tape (FP-1084C)
10. Training for Software and Hard Ware

THE RECORD OF DISCUSSIONS BETWEEN THE JAPANESE
IMPLEMENTATION SURVEY TEAM AND THE
AUTHORITIES CONCERNED OF THE GOVERNMENT OF
THE REPUBLIC OF INDONESIA
ON THE JAPANESE TECHNICAL COOPERATION
FOR THE TROPICAL RAIN FOREST RESEARCH PROJECT

The Japanese Implementation Survey Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as JICA) and headed by Mr.
..... visited
from to for the purpose of working out the details of the technical cooperation program concerning the Tropical Rain Forest Research Project in the Republic of Indonesia.

During its stay in the Republic of Indonesia, the Team exchanged views and had a series of discussions with the Indonesian authorities concerned in respect of the desirable measures to be taken by both governments for the successful implementation of the above-mentioned Project.

As a result of the discussions, the Team and the Indonesian authorities concerned agreed to recommend to their respective Governments the matters referred to in the document attached hereto.

Jakarta, October 1984

Leader of the Japanese
Implementation Team

Director General of Higher Education,
Ministry of Education and Culture,

THE ATTACHED DOCUMENT

I. COOPERATION BETWEEN THE GOVERNMENT OF JAPAN AND THE GOVERNMENT OF THE REPUBLIC OF INDONESIA FOR THE TROPICAL RAIN FOREST RESEARCH PROJECT AT PUSREHUT (STUDY FOR THE TROPICAL RAIN FOREST REFORESTATION & REHABILITATION), MULAWARMAN UNIVERSITY, SAMARINDA, EAST KALIMANTAN.

1. The Government of Japan and the Government of the Republic of Indonesia will cooperate in implementing the Technical Cooperation for the Tropical Rain Forest Research Project JTA - 9a (137) at the PUSREHUT, Mulawarman University, Samarinda, East Kalimantan (hereinafter referred to as "the Project), for the purpose of conducting research in forestry to contribute to the development of forestry science and technology to meet urgent needs to improve tropical forest management.
2. The Project will be implemented in accordance with the Master Plan which is given in Annex I.

II. DISPATCH OF JAPANESE EXPERTS

1. In accordance with the laws and regulations in force in Japan the Government of Japan will take necessary measures through JICA to provide at its own expense services of the Japanese experts as listed in Annex II through normal procedures under the Colombo Plan Technical Cooperation Scheme.
2. The Japanese experts referred to in 1 above and their families will be granted in the Republic of Indonesia the privileges, exemptions and benefits no less favourable than those accorded to experts of third countries working in the Republic of Indonesia under the Colombo Plan Technical Cooperation Scheme, in accordance with the Government of the Republic of Indonesia Regulations, and will include the following :
 - (1) Exemption from income tax in connection with the living allowance remitted from abroad;
 - (2) Exemption from import and export duties in respect of personal and household effects which may be brought into from abroad or taken out of the Republic of Indonesia;

- (3) Exemption from import tax, import sales tax, sales tax, in connection with the purchase in the Republic of Indonesia by the experts of one motor vehicle per each expert;
- (4) Free local medical services and facilities to the Japanese experts and their families as equally provided to the Indonesian Government officials.

III. PROVISION OF MACHINERY AND EQUIPMENT

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to provide at its own expense such machinery, equipment and other materials necessary for the implementation of the Project as listed in Annex III, through normal procedures under the Colombo Plan Technical Cooperation Scheme.
2. The articles referred to in 1 above will become the property of the Government of the Republic of Indonesia upon being delivered c.i.f. to the Indonesian authorities concerned at the ports and or the airports of disembarkation, and will be utilized exclusively for the implementation of the Project in consultation with the Japanese experts referred to in Annex II.

IV. TRAINING OF INDONESIAN PERSONNEL IN JAPAN

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to receive at its own expense the Indonesian personnel connected with the Project for technical training in Japan through the normal procedures under the Colombo Plan Technical Cooperation Scheme.
2. The Government of the Republic of Indonesia will take necessary measures to ensure that the knowledge and experience acquired by the Indonesian personnel from technical training in Japan will be utilized effectively for the implementation of the Project.

V. MEASURES TO BE TAKEN BY THE GOVERNMENT OF THE REPUBLIC OF INDONESIA

1. In accordance with the laws and regulations in force in the Republic of Indonesia, the Government of the Republic of Indonesia will take measures to provide :
 - (1) Services of the Indonesian counterpart personnel and administrative personnel as listed in Annex IV.
 - (2) Land, buildings and facilities as listed in Annex V.
 - (3) Supply of replacement of machinery, equipment, instrument, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than those provided through JICA under III above.
 - (4) Transportation facilities and travel allowance for the Japanese experts for the official travel within the research site as agreed upon.
 - (5) Existing furnished accommodations for the Japanese experts and their families.

2. In accordance with the laws and regulations in force in the Republic of Indonesia, the Government of the Republic of Indonesia will take necessary measures to meet :
 - (1) Expenses necessary for the transportation within the Republic of Indonesia from the agreed port of entry of the articles referred to in III above, as well as for the installation, operation and maintenance thereof;
 - (2) Customs duties, internal taxes and any other charges imposed in the Republic of Indonesia on the articles referred to in III above;
 - (3) All running expenses necessary for the implementation of the Project;
 - (4) The safety of the Project;
 - (5) Sufficient number of research staff, in particular the senior staff, to assure the effective, fruitful and

VI. THE MANAGEMENT OF THE PROJECT

1. The Director General of Higher Education as the General Project Manager will be responsible for the policy and management of the Project.
2. The Japanese experts will provide technical advice and guidance for the implementation of the Project.
3. In order to secure smooth operation of the Project, a Joint Committee will be established. The Committee will meet regularly at least once a year and its main task will be to formulate annual operational work plan, to evaluate the progress of the Project, and to deal with special problems. The composition of the Committee is specified in Annex VI.
4. The Project will be implemented with close cooperation extended by the Agencies of the Ministry of Forestry, the Office of the Minister of State for Population and Environment, the Agency for the Assessment and Application of Technology, and the Governor's Office of East Kalimantan. The Project Personnel & Organization Chart is specified in Annex VII.

VII. CLAIMS AGAINST JAPANESE EXPERTS

The Government of the Republic of Indonesia undertakes to bear claims, if any arises, against the Japanese experts engaged in the Project resulting from, occurring in the course of, or otherwise connected with the discharge of their official functions in the Republic of Indonesia except those arising from the criminal acts, the wilful misconduct, and gross negligence of the Japanese experts.

VIII. MUTUAL CONSULTATION

There will be mutual consultation between the two Governments on any major issues arising from or in connection with this Attached Document.

IX. TERM OF COOPERATION

The duration of the technical cooperation for the Project under this Attached Document will be five years from the date of the signing of the Record of Discussion, and could be extended as necessary by mutual consent of the two Governments.

ANNEX I. MASTER PLAN

1. The General Project Manager will be responsible for the policy and management of the Project and will act as the Chairman of the Joint Committee. The composition of the Joint Committee is specified in Annex VI.
2. The JICA will provide the necessary experts, funds, and equipment related to the implementation of the Project as agreed upon.
3. The Joint Committee functions as the policy maker of the Project.
4. A Subcommittee could be organized on behalf of the Joint Committee chaired by the Project Manager. The tasks of the Subcommittee are to execute the policy made by the Joint Committee and to prepare the agenda of the Joint Committee Meeting.
5. A Project Office will be established in Jakarta headed by a Project Manager. The Project Manager will be responsible for the smooth execution of the policy as laid down by the Joint Committee.
6. The JICA Chief Advisor will advise the Project Manager on the smooth execution of the policy as laid down by the Joint Committee.
7. A Project Implementation Office will be established at PUSREHUT, Mulawarman University, Samarinda, East Kalimantan, headed by a Director. The Director of PUSREHUT will be responsible for the research implementation and services of the Project, and will act as the Chairman of the Working Committee.
8. The Team Leader will advise the Director of PUSREHUT on the technical matters for the implementation of the research activities and services.
9. A Working Committee will be organized to advise the Director of PUSREHUT in elaborating the policy made by the Joint Committee into operational terms. The composition of the Working Committee is specified in Annex VI.
10. The Research Area of the Project include the following :
 - 10.1. Research Area I : Forest Land Use Classification and Planning (including Forest Inventory, Remote Sensing, and Soil Survey);
 - 10.2. Research Area II : Natural Forest Management (including Forest Ecology and Biomass Studies);
 - 10.3. Research Area III : Man-made Forest Management;

10.5. Research Area V : Agroforestry (including Socio-economic Impact, Forest Trees and Agricultural Farming Systems, and Effect of Wildlife).

Table 1. Schedule of Activities

	1984	1985	1986	1987	1988	1989
	Oct.	Apr.	Apr.	Apr.	Apr.	Apr. Oct.
Research Area I	—————					
Research Area II	—————					
Research Area III	—————					
Research Area IV		—————				
Research Area V			—————			

ANNEX II. THE JAPANESE EXPERTS

Category	Number	Remarks
1. Chief Advisor	One	Will be attached to the Project Office in Jakarta
2. Team Leader	One	Will be nominated by JICA from among the long-term experts
3. Long-term experts	Five	Maximum
4. Short-term experts	Seven to Eight	Including mechanics and/or operators of research equipment per year
5. Liaison Officer	One	As administrative officer

ANNEX III. ARTICLES TO BE PROVIDED BY THE JAPANESE GOVERNMENT

1. Machinery, equipment, tools, spare parts and materials for the Research Areas I - V.
2. Books, journals, and other references related to the Project.
3. Speedboats and their spare parts.
4. Vehicles and their spare parts.

ANNEX IV. INDONESIAN COUNTERPARTS AND OTHER PERSONNEL

Category	Number
1. General Project Manager	One
2. Project Manager	One
3. PUSREHUT staff :	
3.1. Director	One
3.2. Head, Research Division	One
3.3. Head, Service Division	One
3.4. Program Officers:	
Research Area I	One
Research Area II	One
Research Area III	One
Research Area IV	One
Research Area V	One
3.5. Research staff	PM
3.6. Administration Section Officer	One
3.7. Resource Section Officer	One
3.8. Operational Section Officer	One
3.9. Others	PM

4. Counterparts

- (1) General Project Manager -- Resident Representative of JICA
- (2) Project Manager -- Chief Advisor
- (3) Director of PUSREHUT - Team Leader
- (4) Head, Research Division and Head, Service Division - Liaison Officer
- (5) Program Officers - Long-term Experts
- (6) Appropriate research staff for short-term experts

- Note :
1. For advanced training in Japan the candidates will be selected from the counterparts of the Indonesian side.
 2. Other staff besides 1 can also be nominated as a counterpart for advanced training in Japan.
 3. The candidates, the type and period of the training will be decided jointly by the Director of PUSREHUT and the Team Leader.

5. Selection procedure of the PUSREHUT staff

5.1. POSITION TITLE : Head of the Research Division

EDUCATIONAL REQUIREMENT :

Minimum holder of a Ph.D. degree or equivalent in Forestry or related sciences with a minimum of two years research experience.

PERSONAL QUALIFICATION :

Good spoken and written English and/or Japanese, preferably multilingual.

LIMITATION :

Citizen of Indonesia. Age between 35 - 60 years.

DUTIES :

1. Responsible to the Director of PUSREHUT.
2. Act as the counterpart of the liaison Officer.
3. To develop the plan, coordinate and evaluate the research activities of the Project.
4. To organize seminars on the results of the research activities.
5. Other duties as may be assigned by the Director of PUSREHUT.
6. Willing to be assigned for a minimum of two years at PUSREHUT, Mulawarman University, Samarinda, East Kalimantan.

5.2. POSITION TITLE : Program Officer

EDUCATIONAL REQUIREMENT :

Minimum holder of a M.Sc. degree or equivalent in Forestry or related sciences with a minimum of two years research experience.

PERSONAL QUALIFICATION :

Good spoken and written English and/or Japanese, preferably multilingual.

LIMITATION :

Citizen of Indonesia. Age between 30 - 60 years.

DUTIES :

1. Responsible to the Director of PUSREHUT through the Head of the Research Division.
2. Act as the counterpart to the Japanese experts.
3. To present seminars on the results of the research activities.
4. To publish research results through seminars, scientific articles, etc.
5. Other duties as may be assigned by the Head of the Research Division.
6. Willing to be assigned for a minimum of two years at PUSREHUT.

5.3. Selection procedure for 5.1. and 5.2. :

- (1) Invitations for vacancy will be sent by the Directorate General of Higher Education (Project Office)
- (2) Application including the standard forms enclosures by the candidates sent to the Directorate General of Higher Education.
- (3) Selection will be done by a Committee under the Directorate General of Higher Education.
- (4) Appointment by the Directorate General of Higher Education signed by the General Project Manager.

5.4. Other positions

For other positions the selection procedure will be determined by the Director of PUSREHUT in accordance with the policy of the Directorate General of Higher Education.

ANNEX V. LAND, BUILDINGS, AND OTHER FACILITIES

1. Land

- (1) Land for nurseries, greenhouses;
- (2) Land for trial plantation forests;
- (3) Land for field laboratories.

2. Buildings

- (1) A Project office (in Jakarta)
- (2) Additional laboratories and lecture rooms, if necessary
- (3) Field laboratories, if necessary
- (4) Dormitories for the Indonesian counterparts, Japanese experts, visiting researchers, administrative staffs, and guests.

ANNEX VI. COMPOSITION OF THE JOINT COMMITTEE AND THE
WORKING COMMITTEE

1. The Joint Committee

1.1. Chairman : General Project Manager

1.2. Members : Indonesian side :

- (1) Representative of DGHE/Project Manager
- (2) Representative of the National Planning Board (BAPPENAS)
- (3) Representative of the Cabinet Secretariat (Setkab)
- (4) Representative of the Agency for the Assessment and Application of the Technology
- (5) Representative of the Min. of Forestry
- (6) Representative of the Office of the Minister of State for Population and Environment
- (7) Representative of IPB
- (8) Representative of UGM
- (9) Representative of UNMUL

: Japanese side :

- (1) Resident Representative of JICA, Jakarta
- (2) Chief Advisor
- (3) Team Leader
- (4) Liaison Officer
- (5) Expert(s) designated by the Chief Advisor

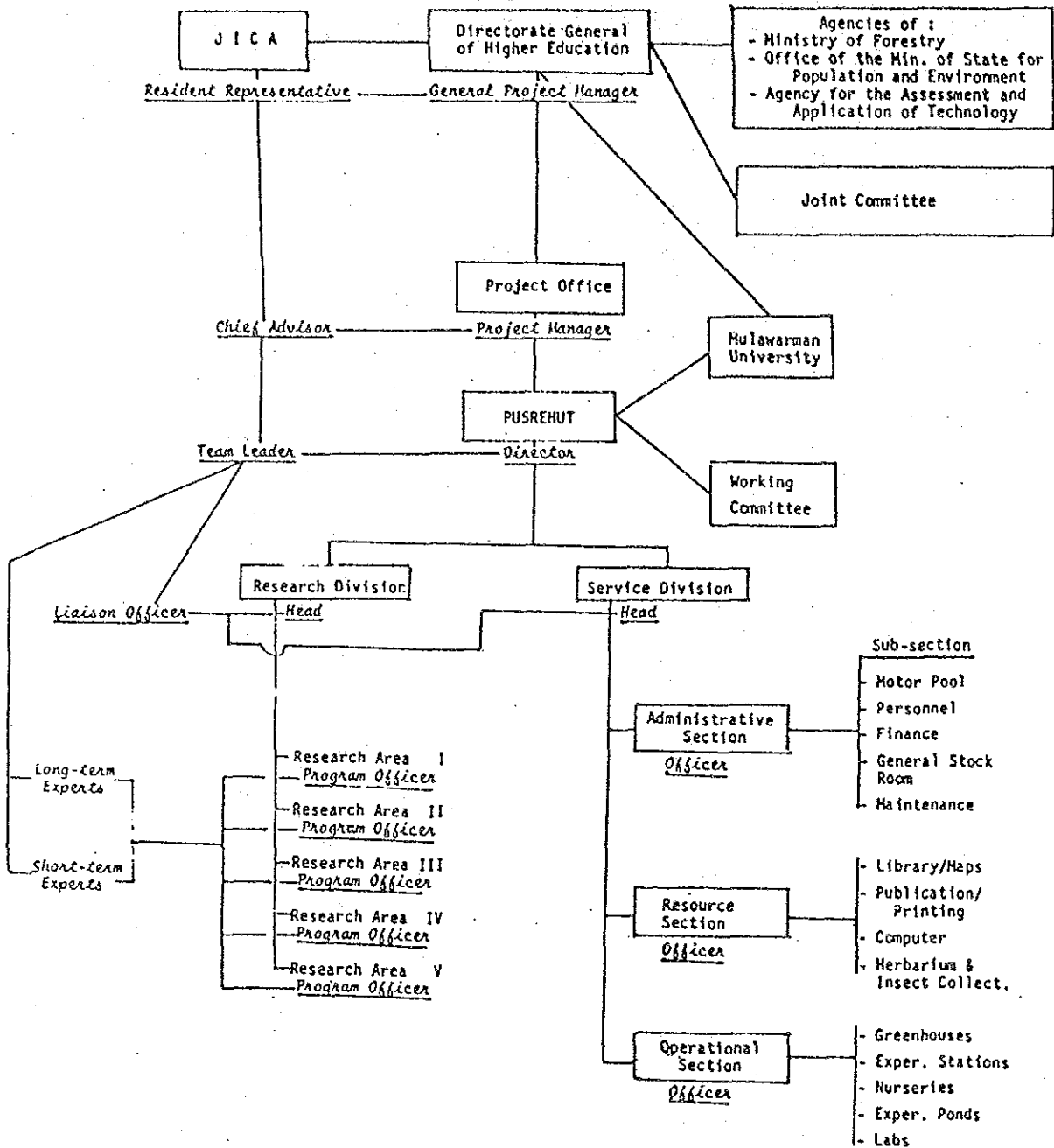
- Note : 1. The Letter of Appointment for the Indonesian representatives will be issued by the DGHE based on the proposals of each Institution.
2. Officials of the Embassy of Japan in Jakarta and the Government of the Republic of Indonesia may attend the meeting of the Joint Committee as observers.

2. The Working Committee

2.1. Chairman : Director of PUSREHUT

2.2. Members : (1) Head of the Research Division
(2) Head of the Service Division
(3) Representative of IPB
(4) Representative of the UGM
(5) Representative of the UNMUL
(6) Team Leader
(7) Liaison Officer
(8) Japanese Expert(s)

ANNEX VII. PERSONNEL AND ORGANIZATION CHART



付属資料-5 提案された研究計画

RESEARCH TOPICS TO BE IMPLEMENTED

U G M

I P B

UNMUL

SHARED FACILITIES

Priority 1 : The Property of Rattan : Remote Sensing. : Natural Forest (Vegetation of Burned Stands)
 Coordinator : - Haryanto Yudodibroto (UGM) : - M. Raymadaya (IPB) : - Ripto Permono (UNMUL)
 -(UNMUL) : - Risman Situmeang (UNMUL) : (UGM)
 Equipment : - Microscope + Photocamera with micrometer : - Additive viewer : - Camera (2)
 - Univ. Testing Machine - 30 Ton : - Still Picture Viewer (Bausch & Lomb) : - Computer (1)
 - Sliding microtome : - Darkroom set.
 - Moisture meter : - Nexus system
 - Binocular
 - Psychrometer
 etc.
 Budget Rp. 2 million + Univ. Testing Machine ¥ 20 million ¥

Priority 2 : Socio-economic impact of forest fire on the people and the environment in the tropical rain-forest : Forest succession : Insect pests & diseases
 Coordinator : - Dr. Achmad Soemitro + graduate students (UGM) : - Suwarno S. + graduate students (IPB)
 - Rachmat Hidayat (UNMUL) : - Achmad Dirmi (UNMUL)
 Equipment : - Camera (Polaroid) :
 - Scientific Calculator (Sharp)

RESEARCH TOPIC TO BE IMPLEMENTED

U G M

I P B

UNMUL

Priority 3 : The study of drought resistance of light demanding species of dipterocarp in East Kalimantan
 Coordinator : Djoko Marsono + graduate students (UGM)
 : Z. Hamzah + graduate students (IPB)
 : J. Siyahaya (UNMUL)
 : Diameter increment of residual stand

Priority 4 : Assessment of biomass change in rain forest
 Coordinator : Soedari (IPB)
 : Sadelii Ilyas (UNMUL)
 : Effect of selective cutting and clean cutting on the micro-climate

Priority 5 : Forest Management Improvement
 Coordinator : Ngadiono (IPB)
 : P.M. (UNMUL)
 : Maintenance of Natural Resources through Agroforestry

Priority 6 : Soil micro-organisms
 Coordinator : Selection of fungi for ectomycorrhizae
 : - Encep Iskandar (UNMUL)

SCHEDULE OF ACTIVITIES

Type of Activity :	Oct. 84	Nov. 84	Dec. 84	Jan. 85	..... June/July
Signing of the Record of ... discussions	.....x				
Submission of Form :					
1 : Experts .....	..... x .....	..... x			
4 : Equipment procurement .....	..... x	(long-term)	.....x.....		..... Instruments from Japan
2 : Training .....	..... x		(car;photo- copy;type- writer)		
Research:					
Preparation { Proposal ...					
{ Selection ...					
Implementation					

Service Section : Car; Books; Speedboat; ¥ 20.000.000
Photocopy; Typewriter:.....

Research Area I (IPB + UNMUL) ¥ 10.000.000

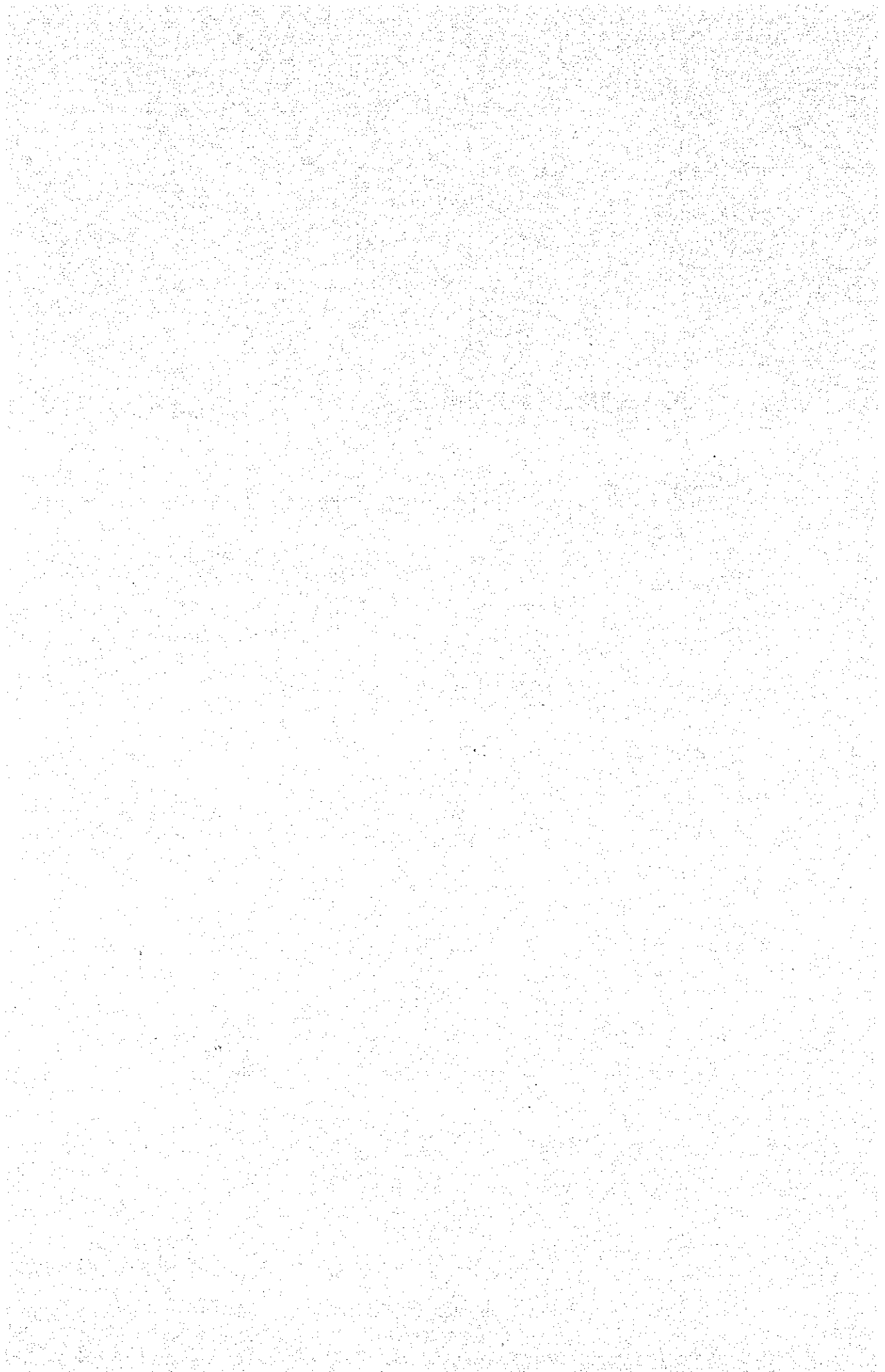
Research Area II (UNMUL + UGM) ¥ 5.000.000

Research Area III (UGM + UNMUL) ¥ 5.000.000

T o t a l ¥ 40.000.000
=====

V 熱帯降雨林研究計画

実施協議調査団報告書



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1. 調査団の構成と調査日程

昭和59年12月3日から13日までの11日間、熱帯降雨林研究協力実施協議調査団がインドネシア共和国に派遣された。調査団の構成及び調査日程は表-1、表-2のとおりである。

表-1 調査団の構成

区 分	氏 名	所 属
団 長	土 井 恭 二	林業試験場 場長
林業高等教育	陣 内 巖	筑波大学名誉教授
研 究 企 画	山 根 明 臣	林業試験場保護部昆虫第一研究室長
協 力 企 画	中 道 正	林野庁業務部経営企画課 課長補佐
業 務 調 整	八 戸 英 喜	国際協力事業団農林水産計画調査部特別嘱託

表-2 調査日程

1	12. 3	月	東京→ジャカルタ(団長を除く)
2	4	火	大使館, JICA担当者との打合せ, 林業省, バベナス表敬, 教育文化省表敬・打合せ, R/D討議
3	5	水	R/D(案)問題点の検討, 整理
4	6	木	JICA表敬, 打合せ, 教育文化省R/D討議, R/D(案)整理
5	7	金	ジャカルタ→バリックパパン→サマリンダ
6	8	土	現地打合せと調査
7	9	日	サマリンダ→バリックパパン→ジャカルタ 団長 東京→ジャカルタ
8	10	月	R/D署名(教育文化省)
9	11	火	JICAプロジェクト実行の事務打合せと整理
10	12	水	大使館, JICA表敬, 教育文化省打合せ 帰国ジャカルタ
11	13	木	→東京

2 面会者名簿

Prof. Dr. Sukadji Ranuwihardjo	Director General Directorate General of Higher Education (DGHE)
Prof. Ir. S. Pramoetadi	Director of Academic Affairs, DGHE
Dr. Soenardi Prawirohatmodjo	Faculty of Forestry, Gajah Mada University
Dr. Edi Guhardja	Dean of Graduate School, Bogor Institute of Agriculture
Mr. Purwadi HP	Sub Directorate of Inter Institutional Cooperation, DGHE
Prof. Dr. Soetrisno Hadi	Rector, Mulawarman University
Dr. Sadan Widarmana	Dean, Faculty of Forestry, Bogor Institute of Agriculture
Mr. Moeljana Wirasendjaja	Bureau for Foreign Cooperation, Ministry of Education and Culture
Prof. Dr. Yuhara Sukra	Director for Research and Community Service Development, DGHE
Mr. M. Widodo Gondowardojo	Head, Intergovernmental Technical Cooperation Division, Bureau for Technical Cooperation, Cabinet Secretariat
Dr. H.A.R. Silaar	Head, Bureau of Education and Culture, BAPPENAS
Dr. Ir. Setyono Sastrouamrto	Director General Agency for Forestry Research and Development of Forestry
Mr. Sutarso	Director, Forestry Research Institute in Samarinda

University of Mulawarman

Ripto Permono (Sub Director Pusrehut), Dwi Sitanto, Zainal Muttaqin,
Slamet Mulyono, Muchlis Rachmat, Sadeli Ilyas, Oman Suherman, Deddy
Hadriyanto, Imam Kontjoro, Soepriyanto, Risman Situmeang, Ch Suyanto,
Iskandar, Sutejo.

中村順一	公使	在インドネシア日本国大使館
田辺隆一	一等書記官	〃
若林元	〃	〃
本山芳裕	〃	〃
山村寛	所長	JICA ジャカルタ事務所
吉元清	職員	〃
岡部廣二	首席顧問	南スマトラ森林造成技術協力計画

3 実施協定の内容

3-1 R/D 協定における主要な論点

項 目	イ 側 意 見	日 本 側 意 見	結 論	備 考
<p>[The Attached Document] I-3 established under the Japanese (P. 2)</p>	<p>under → with ○ PUSREHUT は日・イ両国が協力して建設したものであるので、under よりwithの方が適当である。</p>	<p>○ 文法上の表現としては under が正しいと考えているが、文意が変らないのでwithでもよい。</p>	<p>under → with</p>	<p>SEKKAB</p>
<p>II-2 全文 (P. 3) The Government of the Republic of Indonesia in accordance with the laws and regulations in force in Indonesia will grant privileges, exemptions and benefits to the Japanese experts and families. Privileges, exemptions and benefits to be granted by the Government of the Republic of Indonesia to the Japanese experts and their families in the Republic Indonesia will be no less favourable than granted to experts of third countries or of international organizations such of the United Nations Pufarming Similar missions .</p>	<p>○ 本項はイ国の講じる措置であるのでⅥの measures to be taken...の項へ移し、かつ下記の修文をする。</p>	<p>○ R/D に基づく派遣専門家の身分、権利等を保障する基本的項目であり、近年イ国と我が国のR/Dによる協力は本文によっており、個々のプロジェクトのR/Dで文意が異なることは問題である。</p>	<p>原文どおり</p>	<p>SEKKAB</p>

項 目	イ 例 意 見	日 本 例 意 見	結 論	備 考
	<p>○ 移項，修文ができないならば， or of international organization such as the United Nation の項は削除された（国連関係専門家には外交特権を供与している）。</p> <p>○ 本項について強い不満があるので政府として在ジャカルタ大使館に書簡を送り意思表示したい。また，年次協議のときの議題としたい。</p>	<p>○ 上記事由により不可</p> <p>なお，国連関係の専門家に外交特権を供与しているかどうかについて特に追求めしなかった。</p> <p>○ 書簡が出されればしかるべく措置を講じるとともに年次協議等でイ国から議題としてとりあげてくれれば論議されるだろう。</p>		
<p>III-2 at the ports (P. 4)</p>	<p>at the nearest ports</p> <p>○ サマラング港，バリックパバン空港で通関できることでローカルコスト軽減のため日本側の理解，協力をお願いしたい。</p>	<p>○ 単に通関できるかどうかではなく，円滑迅速に通関できかつ通関されるまで安全に保管される必要がある。さらにサマラング港，バリックパバン空港送付の可能性，便数等について現在明確ではないこともあり，原文の方が望ましいのではないか。</p>	<p>at the nearest international ports</p> <p>ただし nearest は単に距離が近いことを意味するのではなく，日本側の主張を踏まえ通関手続等の時間的なものも含むものである。</p>	<p>DGHE</p>
<p>IV-1-(3) for the official</p>	<p>for the agreed official</p> <p>○ 公用の出張に全て旅費を支払うことは困</p>	<p>○ official travel は両国合意されたもの</p>	<p>原文どおり</p>	<p>DGHE</p>

項 目	イ 側 意 見	日 本 側 意 見	結 論	備 考
<p>[Annex] V-2 (ア リ)</p>	<p>難なので、両者で合意されたもののみについて支払うこととした。</p>	<p>を意味しており、イ側の意見は原文で反映されている。</p> <p>○ Buildings の後に and Facilities を挿入したい。</p>	<p>Buildings and Facilities</p> <p>調査チーム</p>	
<p>VI-1-(2)と(3)</p>	<p>the technical cooperation program → the Project</p> <p>○ VI-1-(1)は an Annual Work Plan of the Project となっていることから表現を統一させた方がよい。</p>	<p>○ technical cooperation program は the Project の一部であり、Joint Committee には前者について討議し the Project については例えば年次協議等で話し合ふべきものである。</p>	<p>原文どおり</p>	<p>SEKKAB</p>
<p>VI-2-(2)-(c)と(d)</p>	<p>○ BAPPENAS は全プロジェクトの運営について関与しており、個々のプロジェクトの具体的な運営事項について当事者として加わるつもりはない。なお、observer として意見を述べることがあるので日本大使館員と同じく、下記により note</p>	<p>○ 個々のプロジェクトの運営についても BAPPENAS と SEKKAB の意見を聞きたいが、イ国の問題であるので了承する</p> <p>Note: Officials of the Embassy of Japan in Jakarta, Representative of the National Planning Board (BAPPENAS) and Representative of the Cabinet</p>	<p>BAPPENAS と SEKKAB を削除 note は次のとおり修文</p>	<p>SEKKAB</p>

項 目	イ 例 意 見	日 本 例 意 見	結 論	備 考
<p>Note : Officials of the Embassy of Japan in Jakarta the representatives of Cabinet Secretariat (SETKAB) and representatives of the National Planning Board (Bappenas) may attend the meeting of the Joint Committee as observers.</p>	<p>に移して欲しい。</p>	<p>Secretariat (SEKKAB) may attend the meeting of the Joint Committee as observers.</p>		

3-2 専門家派遣（長期及び短期）

TIPに示すように長期専門家は60年度より派遣されるが、年度早々の派遣を行うにはA1フォーム手続きを早目に進めておく必要がある。チーフアドバイザー1名、専門家5名、調整員1名について5年間（チーフアドバイザーは2年間）の派遣要請A1フォーム記載内容について協議し、イ側において早目に手続きを進めるよう要請した。

なお、本プロジェクトは59年度（60年1月1日）より開始され、これに伴って、研究計画や機材、施設計画について早急に検討することが必要となり、このため60年度に派遣予定されている長期専門家に先き立ち、今年度内にも、次の短期専門家の派遣の要望がイ側から出された。

内容及び人員：研究計画検討、機材及び施設計画検討 計3名

期 間：3カ月

3-3 供与機材

昭和59年度、60年度分の供与機材について協議した。このうち特に59年度分については残された日数も少ないことから、当面プロジェクト開始時に必要な機材について検討したが、詳細品目のつめは現地JICA事務所と派遣専門家が先方と協議して行う。

4 その他

4-1 モデルインフラ整備事業

熱帯降雨林研究にかかせない演習林についてみると、現地にムラワルマン大学の演習林としてルンパケ地区に約300ha、ブキットスハルト地区に約28,000haの森林があり、これを当研究プロジェクトの演習林として利用できることが明確になっている。

しかしながら、各種実験に必要な苗畑については、移動苗畑程度のものはあるものの系統だてた苗畑実験、経営管理が行えるような苗畑はなく、一方実験林としての演習林についても、若干の歩道があるだけで、実験林、展示林等演習林活動が行えるような施設はない。

インドネシア国にはこれらの苗畑、演習林を、実験計画を樹立し、それに基づいて整備するといった経験に乏しく、また、技術も低いと考えられ、この面で、我が国の協力でモデル的な苗畑、演習林を整備することが望まれる。

なお、本件については、インドネシア側でもまだ構想が明確でないため、今後我が国専門家の派遣後、イ側関係者と打ち合せ、苗畑設置場所、規模、演習林整備内容等を決定する必要がある。

4-2 研修センター

本プロジェクトでは、マスタープランの目的の項にも示すように、熱帯降雨林に関する

研究の推進とともに、大学教育終了者に対する研修も併せ行うことにしている。

しかしながら、PUSREHUTにはこれらの研修に使用しうる十分な研修室はなく、また研修を受ける者の相当数がサマリダ地域外の者となる見込みであるので、効果的な研修を実施するためには宿泊施設付の研修センターの整備が必要であると考えられる。

これらの施設の早期整備はイ側の予算事情から困難と見込まれ、今回R/D交渉時に、我が国の無償資金協力による研修センター建設の要請がなされたものである。

なお、研修センターが建設されるならば、本プロジェクトの効果的な実施に不可欠なボゴール農科大学、ガジャマダ大学から派遣されるカウンターパート及び我が国から派遣される短期専門家も宿泊できるような施設を附加することをイ側から要望があった。

THE RECORD OF DISCUSSIONS
BETWEEN THE JAPANESE IMPLEMENTATION SURVEY TEAM
AND THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF
THE REPUBLIC OF INDONESIA
ON THE JAPANESE TECHNICAL COOPERATION FOR
THE TROPICAL RAIN FOREST RESEARCH PROJECT

The Japanese Implementation Survey Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Dr. Kyoozi DOI visited the Republic of Indonesia from December 3 to December 12, 1984 for the purpose of working out details of the technical cooperation program concerning The Tropical Rain Forest Research Project.

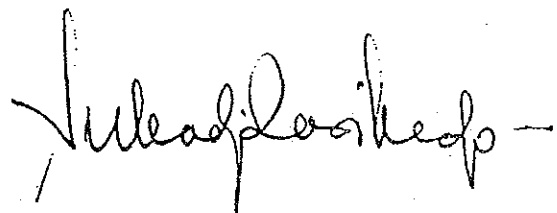
During its stay in the Republic of Indonesia, the Team exchanged views and had a series of discussions with the Indonesian authorities concerned in respect of the desirable measures to be taken by both Governments for the successful implementation of the above mentioned project.

As a result of the discussions, both parties agreed to recommend to their respective Governments the matters referred to in the document attached hereto.

Jakarta, December 10, 1984



Kyoozi Doi
Leader,
Implementation Survey Team
Japan International Cooperation
Agency, JAPAN



Sukadji Ranuwihardjo
Director General
Directorate General of
Higher Education
Ministry of Education and Culture

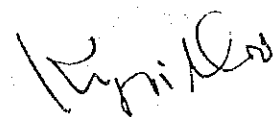
THE ATTACHED DOCUMENT

I. COOPERATION BETWEEN BOTH GOVERNMENTS

1. The Government of Japan and the Government of the Republic of Indonesia will cooperate with each other in implementing The Tropical Rain Forest Research Project, JTA-9a(137), at the PUSREHUT (Center of Study for the Tropical Rain Forest Reforestation and Rehabilitation which is one of the IUCs "Inter University Centers") Samarinda, East Kalimantan (hereinafter referred to as "the Project") for the purpose of conducting research in forestry in order to contribute to the development of science and technology in the management of tropical rain forests in Indonesia.
2. The Project will be implemented in accordance with the Master Plan which is given in the Annex I.
3. The Project will be carried out mainly at PUSREHUT which had been established with the Japanese grant aid scheme agreed between the two Governments by Exchange of Note dated 1, November 1979.

II. DISPATCH OF JAPANESE EXPERTS

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to provide at its own expense services of the Japanese experts as listed in the Annex II through the normal procedures under the Colombo Plan Technical Cooperation Scheme.



2. Privileges, exemptions and benefits to be granted by the Government of the Republic of Indonesia to the Japanese experts and their families in the Republic of Indonesia will be no less favourable than those granted to experts of third countries or of international organizations such as the United Nations performing similar missions, and include the following:

- (1) Exemption from income tax and charges of any kind imposed on or in connection with the living allowances remitted from abroad in relation with the implementation of the project;
- (2) Exemption from import and export duties and any other charges imposed in respect of personal and household effects which may be brought into from abroad or taken out of the Republic of Indonesia;
- (3) Exemption from import tax, import sales tax, sales tax and other taxes and charges of any kind imposed on or in connection with the purchase in the Republic of Indonesia by the Japanese experts of one motor vehicle per each expert;
- (4) Free local medical services and facilities to the Japanese experts and their families.

III. PROVISION OF MACHINERY AND EQUIPMENT

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to provide at its own expense such machinery, equipment and other materials (hereinafter referred to as "the Equipment") necessary for the implementation of the Project as listed in the Annex III through the normal procedures under the Colombo Plan Technical Cooperation

Scheme.

2. The Equipment will become the property of the Government of the Republic of Indonesia upon being delivered c.i.f. to the Indonesian authorities concerned at the nearest international ports and/or airports of disembarkation, and will be utilized exclusively for the implementation of the Project in consultation with the Japanese experts referred to in the Annex II.

IV. TRAINING OF INDONESIAN PERSONNEL IN JAPAN

1. In accordance with the laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to receive at its own expense Indonesian personnel connected with the Project for technical training in Japan through the normal procedures under the Colombo Plan Technical Cooperation Scheme.
2. The Government of the Republic of Indonesia will take necessary measures to ensure that the knowledge and experience acquired by the Indonesian personnel from technical training in Japan will be utilized effectively for the implementation of the Project.

V. SERVICES OF INDONESIAN COUNTERPART AND ADMINISTRATIVE PERSONNEL

1. In accordance with the laws and regulations in force in the Republic of Indonesia, the Government of the Republic of Indonesia will take necessary measures to secure at its own expense the necessary services of Indonesian counterpart and administrative personnel as listed in the Annex IV.



2. The Government of the Republic of Indonesia will allocate the necessary number of suitably qualified personnel corresponding to each Japanese expert to be dispatched by the Government of Japan as specified in the Annex II for the effective and successful transfer of technology under the Project:

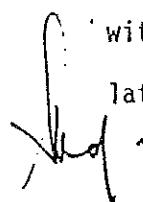
VI. MEASURES TO BE TAKEN BY THE GOVERNMENT OF THE REPUBLIC OF INDONESIA

1. In accordance with the laws and regulations in force in the Republic of Indonesia, the Government of the Republic of Indonesia will take necessary measures to provide at its own expense:

- (1) Land, buildings and facilities as listed in the Annex V;
- (2) Supply or replacement of machinery, equipment, instrument, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than those provided through JICA under III above;
- (3) Transportation facilities and travel allowance for the official travel of Japanese experts within the Republic of Indonesia;
- (4) Suitably furnished accommodations for the Japanese experts and their families.

2. In accordance with the laws and regulations in force in the Republic of Indonesia, the Government of the Republic of Indonesia will take necessary measures to meet:

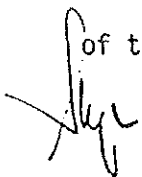
- (1) Expenses necessary for the transportation of the Equipment within the Republic of Indonesia as well as for the installation, operation and maintenance thereof;



- (2) Customs duties, internal taxes and any other charges, imposed on the Equipment in the Republic of Indonesia;
- (3) All running expenses necessary for the implementation of the Project.

VII. ADMINISTRATION OF THE PROJECT

1. The Director General of Higher Education of the Ministry of Education and Culture will bear overall responsibility for the implementation of the Project.
2. The Director of Research and Community service Development who is nominated as the Project Manager will be responsible for the administrative and managerial matters of the Project.
3. The personalities listed below or their representatives, will assist the Project Manager in dealing with the administrative and managerial matters arising in the day-to-day operation of the Project.
 - (1) Rector, Bogor Agricultural University (IPB)
 - (2) Rector, Gadjah Mada University (UGM)
 - (3) Rector, Mulawarman University (UNMUL)
4. The Japanese Chief Advisor will advise the Project Manager on the administrative and managerial matters of the Project.
5. The Japanese Team Leader will advise the Director of PUSREHUT on technical and administrative matters concerning the implementation of the Project.



6. The Japanese experts will give technical guidance and advice to the Indonesian counterpart personnel on matters pertaining to the implementation of the Project.
7. For the effective and successful implementation of the Project, a Joint Committee and a Research Committee will be established with the function and composition as referred to in the Annex VI and VII respectively.
8. A Project Office will be established at the Directorate General of Higher Education with the responsibility to administer and supervise the Project activities. It will also act as the Secretariat of the Joint Committee.
9. The Project will be implemented in line with an organizational chart as shown in the Annex VIII.

VIII. CLAIMS AGAINST JAPANESE EXPERTS

The Government of the Republic of Indonesia undertakes to bear claims, if any arises, against the Japanese experts engaged in the Project resulting from, occurring in the course of, or otherwise connected with the discharge of their official functions in the Republic of Indonesia except for those arising from the willful misconduct or gross negligence of the Japanese experts.

IX. MUTUAL CONSULTATION

There will be mutual consultations between the two Governments on any major issues arising from, or in connection with this Record of Discussions.

X. TERM OF COOPERATION

The duration of the technical cooperation for the Project under this Attached Document will be five (5) years from 1 January, 1985.



K.S.

A N N E X

I. MASTER PLAN

1. Objectives of the Project

To develop forestry research at PUSREHUT in order to contribute to a sound management of tropical rain forests and, at the same time, facilitate post-graduate training in forestry of the concerned universities (IPB, UGM and UNMUL).

2. Objectives of the Japanese Technical Cooperation

To assist the Indonesian side in planning, implementing and monitoring the Project activities in the research areas to be covered as follows:

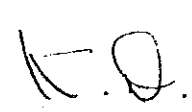
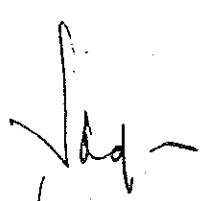
Research Area I : Forest Land Use Classification and Planning
(including Forest Inventory and Remote Sensing)

Research Area II : Natural Forest Management (including Forest Ecology, Wildlife Management and Biomass Studies)

Research Area III : Man-made Forest Management

Research Area IV : Forest Site Classification (including intensive Soil Surveys)

Research Area V : Agroforestry (including Socioeconomic Impact and Forest Trees and Agricultural Farming Systems)



II. JAPANESE EXPERTS

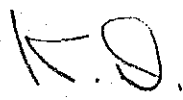
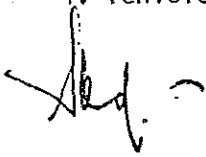
1. Chief Advisor
2. Team Leader
3. Experts in the fields of:
 - (1) Forest Land Use Classification and planning
 - (2) Natural Forest Management
 - (3) Man-made Forest Management
 - (4) Forest Site Classification
 - (5) Agroforestry
4. Liaison Officer

Note: 1. Team leader will be nominated from among the above mentioned Experts.

2. Short-term experts may be dispatched when necessity arises, for the smooth implementation of the Project.

III. LIST OF EQUIPMENT

1. Machinery, equipment, tools, spare parts and materials for the Research Areas I-V.
2. Books, journals, and other references related to the Project.
3. Speedboats and their spare parts.
4. Vehicles and their spare parts.

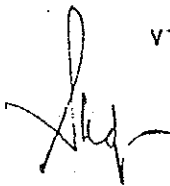


IV. LIST OF INDONESIAN COUNTERPART AND ADMINISTRATIVE PERSONNEL

1. Project Manager
2. PUSREHUT Staff:
 2. 1. Director
 2. 2. Head, Research Division
 2. 3. Program Officers:
 - Research Area I
 - Research Area II
 - Research Area III
 - Research Area IV
 - Research Area V
 2. 4. Research staff
 2. 5. Administrative staff

V. LIST OF LAND, BUILDINGS AND FACILITIES

1. Land
 - (1) Land for PUSREHUT
 - (2) Land for nurseries and greenhouses;
 - (3) Land for trial tree plantation;
2. Buildings and Facilities
 - (1) A Project Office (in Jakarta)
 - (2) PUSREHUT
 - (3) Dormitories for the Indonesian counterparts (including visiting researchers)



VI. THE JOINT COMMITTEE

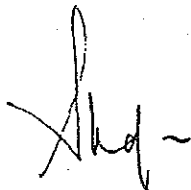
1. Functions

The Joint Committee will meet at least once a year and whenever necessity arises, and work:

- (1) To formulate an Annual Work Plan of the Project in line with the Tentative Schedule of Implementation formulated under the framework of this Record of Discussions.
- (2) To review the overall progress of the technical cooperation program as well as the achievements of the above-mentioned Annual Work Plan.
- (3) To review and exchange views on major issues arising from or in connection with the technical cooperation program.

2. Composition

- (1) Chairman : Director General of Higher Education
- (2) Members : Indonesian side :
 - (a) Director for Academic Affairs
 - (b) Representative of DGHE/Project Manager
 - (c) Representative of the Agency for the Assessment and Application of Technology
 - (d) Representative of the Ministry of Forestry
 - (e) Representative of the Office of the Minister of State for Population and Environment
 - (f) Representative of IPB
 - (g) Representative of UGM
 - (h) Representative of UNMUL



Japanese side :

- (a) Chief Advisor
- (b) Team Leader
- (c) Liaison Officer
- (d) Other experts and personnel concerned to be dispatched by JICA
- (d) Resident Representative of Jakarta Office, JICA.

Note: Officials of the Embassy of Japan in Jakarta, Representative of the National Planning Board (BAPPENAS) and Representative of the Cabinet Secretariat (SEKKAB) may attend the meeting of the Joint Committee as observers.

VII. THE RESEARCH COMMITTEE


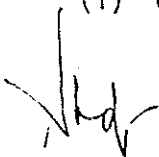
1. Functions

A Reserach Committee will be organized under the Joint Committee, and will meet whenever necessity arises, and work:

- (1) To execute the policy related Research Area made by the Joint Committee.
- (2) To coordinate research activities in the respective field among the three universities.
- (3) To prepare the agenda of the Joint Committee Meeting.

2. Composition

- (1) Chairman : The Project Manager

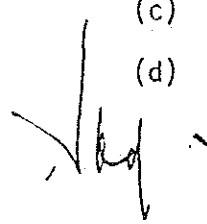


(2) Members : Indonesian side :

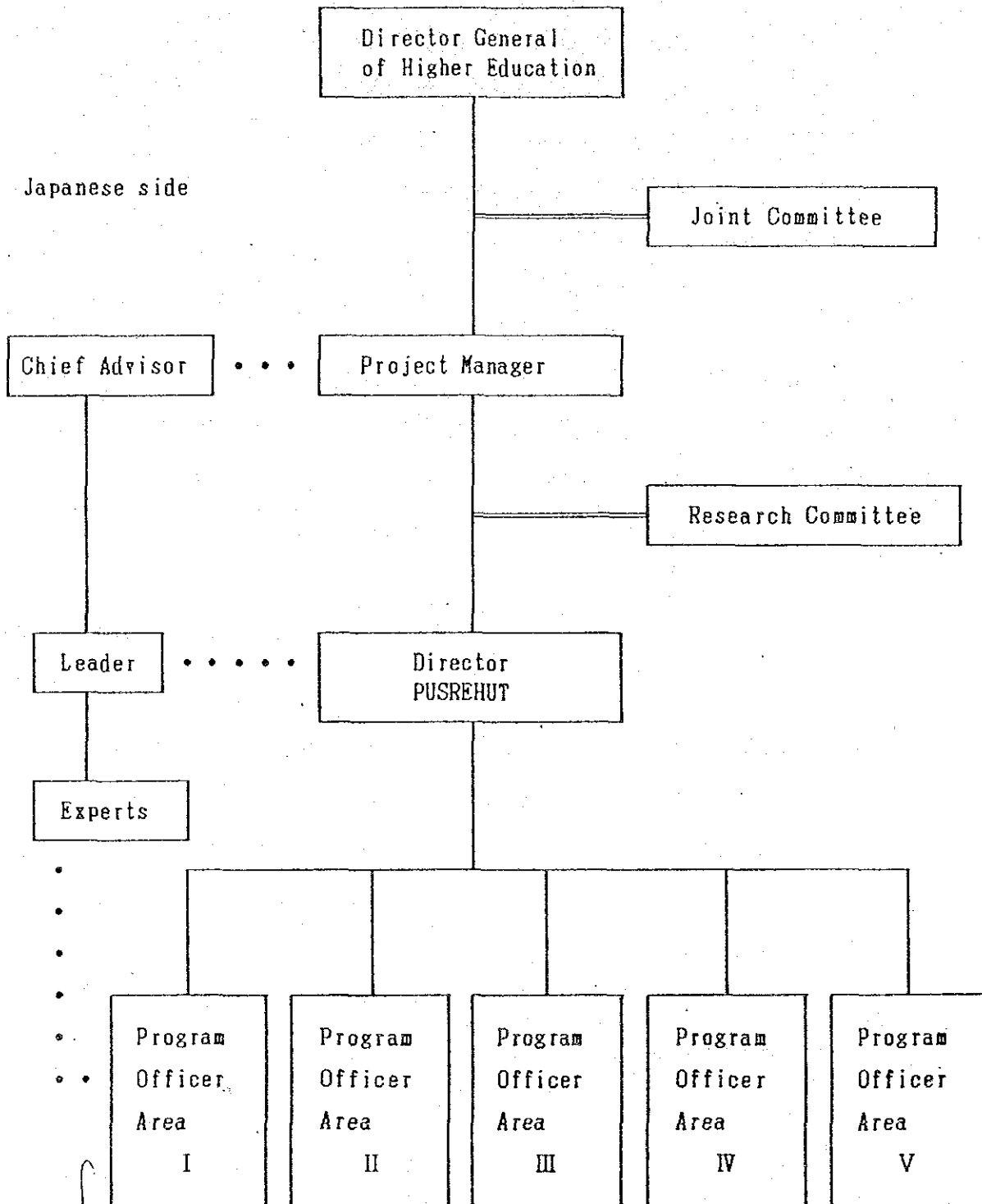
- (a) Representative of DGHE
- (b) Representative of IPB
- (c) Representative of UGM
- (d) Representative of UNMUL
- (e) Director, PUSREHUT

Japanese side :

- (a) Chief Advisor
- (b) Team Leader
- (c) Experts designated by Chief Advisor
- (d) Liaison Officer



VIII. ORGANIZATION CHART OF THE PROJECT



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