

**The equipment for  
the Technical Cooperation Project on  
Maize Development in Thailand**

**1976-1984**

August, 1984

Japan International Cooperation Agency

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The Project which started in September, 1976 will terminate in September, 1984.

The Japanese Government provided equipment and materials with a total worth of 423 million yen for the Project implementation. The equipment cost more than 10,000 yen of unit price are shown in this report as well as present condition for each one.

Abbreviation is as follows

CPD	=	Cooperatives Promotion Department
DA	=	Department of Agriculture
DAE	=	Department of Agricultural Extension
BKK	=	Bangkok (The Headquarters of each Department)
Center	=	Cooperatives Demonstration Center (Project Center)

Utilization	A	=	Under fully practical use
	B	=	Under practical use
	C	=	Under practical use sometimes
	D-3	=	Expired

Maintenance	A	=	Under special care
	B	=	Under good care

Reference	A.E.	=	Accompanied with Experts
	Local	=	Purchased in Thailand

Vehicles

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Charge			Stationed	Condition		Reference
						CFD	DA	DOAE		Utilization	Maintenance	
1	77	Jeep, Hard Top Station Wagon, MITSUBISHI - J 38	2	1,877,000	3,754,000	2			BKK	A	B	
2	77	Cargo Truck, ISUZU, SBR - 422	1		2,670,000		1		Center	A	B	
3	77	Land Cruiser Station Wagon, TOYOTA, FJ 55 RV - URHD	1		1,454,000		1		BKK	A	B	
4	78	Micro - Bus, NISSAN, F - 20, GKDE 20 SU	1		1,080,000	1			"	A	B	
5	78	Cargo Truck with Unic, ISUZU, SBR - 422	1		2,942,800		1		Center	A	B	
6	78	Fork Lift Truck, KOMATS, FG - 20	1		1,548,000				"	A	B	
7	78	Motorcycle, YAMAHA, AG - 100	2	122,950	245,900		2		"	A	B	
8	78	" HONDA, CI - 90	10	133,830	1,338,300	2	3	5	"	A	B	
9	79	NISSAN, 160 B, Van	3	927,000	2,781,000	1	1	1	BKK	A	B	
10	80	NISSAN, Patrol Station Wagon, J 160 GSUC	1		1,642,000	1			Center	A	B	
11	80	Double Cab 4 WD Pick - up Truck, NISSAN	2	1,123,600	2,247,200		1	1	"	A	B	
12	80	Bus, MITSUBISHI, K - BE 211 D	1		2,368,000	1			"	A	B	
13	80	Long Panel Van, TOYOTA, HL-ACE, RHB2RV, JR	1		1,131,000	1			"	A	B	
14	80	Cargo Truck, HINO, KM - 540	1		2,538,000			1	"	A	B	
15	80	Motorcycle, SUZUKI, TS - 125 N	2	158,000	316,000	2			"	A	B	
16	80	" " TS - 100 N	4	135,000	540,000	2			"	A	B	
17	82	Pick - up Truck, MITSUBISHI, J-L021-PE	4	810,000	3,240,000			4	"	A	B	
18	82	Dump Truck, ISUZU, SBR - 322	1		2,380,630			1	"	A	B	
19	82	Fork Lift Truck, N.Y.K, FBRI0-4C27C-3508	1		1,389,800			1	"	A	B	
20	82	" TOYOTA, AFG - 150	1		1,576,700				"	A	B	
21	82	" " 35-25	1		499,200			1	"	A	B	
22	82	Cargo Truck, ISUZU, SBR - 372 RI	1		2,231,020	1			"	A	B	
23	82	Motorcycle, HONDA, XL - 125	3	279,000	837,000				"	A	B	

Agricultural machines

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Charge			Stationed	Condition		Reference
						CPD	DA	DOAB		Utilization	Maintenance	
1	77	Tractor, Ford - 6600	1		4,068,000		1		Center	B	B	
2	77	"	2	3,544,500	7,089,000	1	1		"	B	B	
3	77	Buldozer, CATAPILLER D 5	1		13,211,000	1			"	B	B	
4	77	Tractor, YAMMAR, YM - 330 DI	1		1,611,000	1			"	C	B	
5	77	Power cultivator, KUBOTA, 80 - N	2	286,500	573,000	1	1		"	C	B	
6	77	Dump Trailer, DK - 10 D	1		742,000	1			"	C	B	
7	77	Trailer, H - 183	1		493,000	1			"	C	B	
8	77	Disk Plow, H - 112	1		344,000	1			"	C	B	
9	77	" MF - 80	1		585,600	1			"	C	B	
10	77	Bottom plow, TY B22XL	1		276,000	1			"	C	B	
11	77	Subsoiler, H - 142	1		110,000	1			"	C	B	
12	77	Disk harrow, MF - 28	1		462,000	1			"	C	B	
13	77	Rotavator, E - 90	1		856,800	1			"	C	B	
14	77	Cultivator, C - 79	1		340,000	1			"	C	B	
15	77	Rotary cutter, 60 RS	1		693,300	1			"	C	B	
16	77	Power duster, MARUYAMA, CDM - 1	1		924,700	1			"	C	B	
17	77	Power knapsack sprayer, ARIMITS, SD - 6	10	36,000	360,000	2	3	5	"	C	B	
18	77	Power knapsack mist duster, ARIMITS, MD 35	10	35,900	359,000	2	3	5	"	C	B	
19	78	Tractor, FORD 6600	1		3,828,000	1			"	B	B	
20	78	Disk plow, H - 114	2	434,000	868,000	1	1		"	C	B	
21	78	Chisel plow, MF - 24	1		416,000	1			"	C	B	
22	78	Tooth harrow, MLH - 303 A	1		178,000	1			"	C	B	
23	78	Corn planter, T - 3	1		321,000	1			"	C	B	
24	78	Tractor duster, HATSUTA, HD - 100 N	1		1,690,000			1	"	C	B	
25	78	" " HD - 100 P	1		894,000			1	"	C	B	
26	78	Boom sprayer, ARIMITS, BSM - T 402	1		694,000			1	"	C	B	
27	79	Tractor, MF - 185	1		3,214,000	1			"	B	B	
28	79	Disk plow, H - 112	1		336,000			1	"	C	B	
29	79	Subsoiler, BEZZECH	1		195,000	1			"	C	B	A.E.
30	79	Ripper, CATAPILLER, No. 5	1	235,750		1			"	C	B	Local

## Agricultural machines

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Charge			Stationed	Condition		Reference
						CPD	DA	DOAE		Utilization	Maintenance	
31	79	Rotary cultivator, KOHASHI, KA 241	2	624,500	1,249,000	1	1		Center	C	B	
32	79	Rear blade	1		161,300	1	1		"	C	B	
33	79	Ridger, MSK, FF - 250	1		183,000	1	1		"	C	B	
34	79	"	3	¥ 20,000	60,000	2	1		"	C	B	Local
35	79	Corn planter, BURCH	1		64,000	1	1		"	C	B	Local
36	79	Bush cutter, XENOAH, FEC - 22	2	25,900	51,800	1	1		"	C	B	
37	79	Power cluster, MARYAMA, CDA 2	1		1,750,000	1	1		"	C	B	
38	79	Power sprayer, MARYAMA, CSD - 1	1		594,000		1		"	C	B	
39	79	Broadcaster	1		287,000	1	1		"	C	B	A.E.
40	80	Mowing machine, KYORITS, RM - 303 E	2	48,400	96,800		2		"	C	B	
41	81	Tractor, Ford 6600	1		405,000	1			"	C	B	Local
42	81	Disk plow	2	¥ 41,000	82,000	2			"	B	B	Local
43	81	Disk Tiller	1		23,400	1			"	C	B	Local
44	81	"	3	¥ 30,000	90,000	3			"	C	B	Local
45	81	Fog generator, MONTAN, SN - 11	1		18,000		1		"	C	B	
46	82	Tractor, FORD 6600, with front loader	2	4,970,000	9,940,000	2			"	C	B	
47	82	Grader, MTG 60 L	1		90,000	1			"	C	B	Local
48	82	Bucket, MT CB 60 L	1		90,000	1			"	C	B	Local
49	82	Rotary, BPE - 2300	2	890,000	1,780,000	2			"	C	B	
50	82	Rotary thresher, HAWARD, 72 - RS	1		1,003,960	1			"	C	B	Local
51	82	Subsoiler, JOHN DEER, 50 Tool Bar	1		38,000	1			"	C	B	
52	82	Rota slashers, 72 RS	1		945,000	1			"	C	B	
53	82	Trailers, DK 10 A	1		560,000	1			"	C	B	
54	82	Disk mowers, NH - 442	2	900,000	1,800,000	2			"	C	B	
55	82	Portable diesel engine, KUBOTA	2	¥ 8,000	16,000	2			"	C	B	Local
56	82	Corn sheller for tractor	4	¥ 18,000	72,000	4			"	C	B	Local

Extension seed equipment

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Charge			Stationed	Condition		Reference
						CPD	DA	DOAE		Utilization	Maintenance	
1	78	Duplex corn sheller, KELLY - 22	1		2,890,000			1	Center	B	B	
2	78	Belt conveyer, TOYO, SA - 4	2	139,000	278,000			2	"	B	B	
3	79	Truck scale	1		2,890,000			1	"	B	B	
4	79	Farcorn bins and belt conveyers control panel	1	33,800,000	33,800,000			1	"	B	B	
		Earcorn Bins (8 units)	1					1	"	B	B	
		Sorting conveyer	1					1	"	B	B	
		Climbing gilled belt conveyer	1					1	"	B	B	
		Belt conveyer	1					1	"	B	B	
		Belt conveyer	1					1	"	B	B	
		Belt conveyer	1					1	"	B	B	
		Belt conveyer	1					1	"	B	B	
		Fan	2					2	"	B	B	
		Jet heater HP 25	2					2	"	B	B	
		Jet heater HP 11	2					2	"	B	B	
5	79	Duplex corn sheller, KELLY	1		6,420,000			1	"	B	B	
6	79	Slope belt conveyer (Intake)	1		870,000			1	"	B	B	
7	79	Belt conveyer (Exhaust)	1		260,000			1	"	B	B	
8	79	Shelled corn bin (2 units)	1		5,410,000			1	"	B	B	
9	79	Intake hopper	1		340,000			1	"	B	B	
10	79	Bucket elevator (Intake)	1		675,000			1	"	B	B	
11	79	Belt conveyer (Exhaust)	1		564,000			1	"	B	B	
12	79	Tank (2 units)	1		1,170,000			1	"	B	B	
13	79	Intake hopper	1		340,000			1	"	B	B	
14	79	Bucket elevator (Intake)	1		558,000			1	"	B	B	
15	79	Belt conveyer (Exhaust)	1		534,000			1	"	B	B	
16	79	Seed cleaner	1		1,905,000			1	"	B	B	
17	79	Intake hopper	1		340,000			1	"	B	B	
18	79	Bucket elevator (Intake)	1		546,000			1	"	B	B	
19	79	" (Exhaust)	1		430,000			1	"	B	B	

Extension seed equipment

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Charge			Stationed	Condition		Reference
						DPD	DA	DOAE		Utilization	Maintenance	
20	79	Precision grader	1		3,680,000			1	Center	B	B	
21	79	Bucket elevator (Exhaust)	1		370,000			1	"	B	B	
22	79	Seed treater, SS - 100	1		3,525,000			1	"	B	B	
23	79	Bucket elevator (Exhaust)	1		489,000			1	"	B	B	
24	79	Reservoir tank	1		450,000			1	"	B	B	
25	79	Balance scale	1		370,000			1	"	B	B	
26	79	Sewing machine, BZ (DS - 211)	1		480,000			1	"	B	B	
27	79	Dust collecting cyclone	1		360,000			1	"	B	B	
28	79	Dust collecting electric cyclone	1		530,000			1	"	B	B	
29	79	Dust collecting dust	1		610,000			1	"	B	B	
30	79	Control panel	1		620,000			1	"	B	B	
31	79	Diesel generator	1		1,900,000			1	"	B	B	
32	79	Packaged air-conditioner, DP - 103 C	2	2,420,000	4,840,000			2	"	B	B	
33	79	Dehumidifier, REF - 130	1		8,530,000			1	"	B	B	
34	79	Duct	1		1,605,000			1	"	B	B	
35	79	Cooling tower, MT-50 E	1		780,000			1	"	B	B	
36	79	Cooling water pump, NO 805 E 3-7	1		160,000			1	"	B	B	
37	79	Pipe and Valve	1		1,312,000			1	"	B	B	
38	79	Control panel	1		1,953,000			1	"	B	B	
39	80	Steel plate	1		36,000			1	"	B	B	
40	80	Timer and buzzer set, 9BT101	2	59,000	118,000			2	"	B	B	
41	80	Vacuum cleaner, AMANO, V - 2	1		392,000			1	"	B	B	
42	80	Water softening system	1		225,000			1	"	B	B	
43	80	Water softener system	1		265,651			1	"	B	B	
44	81	Lift, ELDA, 35 - 25	1		463,000			1	"	B	B	
45	81	Bag cleaner, FORESERG	1		54,000			1	"	B	B	Local
46	81	Belt conveyer, 10 m	1		34,282			1	"	B	B	"
47	81	" 5.7 m	1		19,610			1	"	B	B	"
48	81	Blower 48", 5 rays	3	4,560	13,680			3	"	B	B	"
49	81	Low voltage and Unbalance protector	3	3,200	9,600			3	"	B	B	"

Extension seed equipment

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Charge			Stationed	Condition		Reference
						CFD	DA	DOAE		Utilization	Maintenance	
50	81	Fog generator, MONTAN, SN - 11	1	¥ 18,000	¥ 18,000			1	Center	B	B	Local
51	81	Electric KW meter	2	¥ 4,230	¥ 8,460			2	"	B	B	"
52	81	Air-conditioner, COMET, 30,000 BTU	12	¥ 32,500	¥ 390,000			12	"	B	B	"
53	81	Dehumidifier, GE, DH 25	2	¥ 8,480	¥ 16,960			2	"	B	B	"
54	82	Dehumidifier, SINGER	7	¥ 22,550	¥ 157,850			7	"	B	B	"
55	83	Gravity separator	1		3,649,000			1	"	B	B	"
56	84	Parable Bag Closer 2200 50 H <sub>2</sub>	1		215,000			1	"	B	B	"

Foundation seed equipment

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Change			Stationed	Condition		Reference
						CPD	DA	DOAE		Utilization	Maintenance	
1	78	Prefabricated cold room, NIKEI-ALUMI	1		8,736,000			1	Center	C	B	
2	78	Blower, TABATA, No. 5	1		510,000			1	"	C	B	
3	81	Grain dryer, YAMAMOTO, FB - 38 E	2	242,000	484,000			2	"	C	B	
4	82	Sukup fan and heater with Wayne EGA - SR 6 umer	1		¥ 111,800			1	"	C	B	Local
5	82	Crippen H - 3444 seed cleaner	1		¥ 786,500			1	"	C	B	"
6	82	Universal, C 3 - 175 ED Belt-bucket elevator	1		¥ 96,000			1	"	C	B	"
7	82	Universal, C -175 ED Belt-bucket elevator	2	¥ 105,250	¥ 210,500			2	"	C	B	"
8	82	Gusafson, S 100 - SS seed treater	1		¥ 133,500			1	"	C	B	"
9	82	Bagging-weighing-sewing system, unitized	1		¥ 334,370			1	"	C	B	"
10	82	Scafo, 1803 storage and drying bin	1		¥ 240,250			1	"	C	B	"
11	82	Seedburo, 178-50 belt elevator	2	¥ 45,800	¥ 91,600			2	"	C	B	"
12	82	Seedburo, 816-50 chain and flight elevator	1	¥ 52,100	¥ 52,100			1	"	C	B	"
13	82	Triumph 3 C corn sheller	1		¥ 248,350			1	"	C	B	"

Laboratory equipment

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Charge			Stationed	Condition		Reference
						CPD	DA	DOAE		Utilization	Maintenance	
1	77	Microscope, Olympus V. BHB - 413	1		323,600	1			Center	C	A	
2	77	Photomicrographic system, OLYMPUS FM - 10 A	1		383,000	1			"	C	A	
3	77	Zoomstereo Microscope, OLYMPUS Sz-Tr - 11	2		206,700	1	1		"	C	A	
4	77	Thermostat germinator, KIYA TGL - 10	1		719,000		1		"	B	A	
5	77	Maize moisture meter, KIYA E - 101	2	101,500	203,000	1	1		"	C	A	A.E.
6	77	"	1		88,500	1			"	C	A	A.E.
7	77	" KEIT-AIZER	1		154,000	1			"	C	A	
8	77	Soil tester, YAGI	1		25,600	1			"	C	A	A.E.
9	77	Table spring balance, KIYA 30 Kg	2	10,000	20,000	1	1		"	C	A	
10	77	Micro spring balance, KIYA 103 - F	1		61,700	1			"	B	A	
11	77	Test sieve set, KIYA 4400	1		26,000		1		"	C	A	
12	77	Grain sample divider, KIYA 103 B	2	123,000	246,000	1	1		"	C	A	
13	78	Incubator, SANYO MIR - 150	1		364,000		1		"	B	A	
14	78	Drying oven, IKEDA MR - 160	1	32,900	371,000	1			"	C	A	
15	78	Desicator, CHIYODA TD 400	2	88,000	75,800	2			"	B	A	
16	78	Maize moisture meter, KIYA	2		176,000	1	1		"	C	A	
17	78	Irrigation water tester, TAMAYA	1		17,700	1			"	C	A	
18	78	Soil hardness tester, YAMANAKA	1		39,500	1			"	C	A	
19	78	Irrigation water tester, KOBAYASHI, TAMAYA	1		17,700	1			"	C	A	
20	78	PH meter, IOA, FM-IF	1		52,500	1			"	C	A	
21	78	Platform balance, YOKO HAMA SCALE 150 KG	5	39,000	195,000	1	4		"	B	A	
22	78	" " " " 50 KG	2	31,500	63,000	1	1		"	B	A	
23	78	Balance, 1000 g	5	26,900	134,500	2	3		"	B	A	
24	78	" " 500 g	5	26,900	134,500	2	3		"	B	A	
25	78	Beam balance, 200 g	2	19,000	38,000	1	1		"	B	A	
26	78	Automatic area meter, HAYASHI DENKO, AAM - 7	1		980,000	1			"	C	A	
27	78	Test sieve set, KIYA 6 CPS/Set	2	37,800	37,800	1	1		"	B	A	
28	78	Corn shelter, CHIKUMASHIKI No. 1	2	17,000	34,000	1	1		"	C	A	
29	78	" " No. 2	2	44,500	99,000		2		"	C	A	
30	79	Dryer, KIYA, 3804 - C	1		102,000		1		"	C	A	A.E.

Laboratory equipment

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Charge		Stationed	Condition		Reference
						CFD	DA DOAE		Utilization	Maintenance	
79		Maize moisture meter, PB - IK	1		104,000		1	Center	C	A	
82	79	Soil tester, YAGI	5		139,000		1	"	C	A	A.E.
83	79	Soil plant nutrient tester	1		53,000		1	"	C	A	A.E.
84	79	Hand ogger	1		18,700		1	"	C	A	A.E.
85	79	Seed counter, NIKON NEW HOLLAND, A-Pack 701	1		1,558,000		1	"	C	A	
86	80	Zoom stereo microscope, OLYMPUS	1		240,000		1	"	B	A	
87	80	Soil testing set	1		681,700		1	"	C	A	
88	80	Hook spring balance, SALTER 50 Kg	2	¥ 1,305	¥ 2,610		1	"	B	A	Local
89	81	" "	5	¥ 1,305	¥ 6,525		1	"	B	A	Local
90	81	Automatic precision balance, HISEN, 3301 - 01	1		577,000		1	"	C	A	
41	81	Electric racume cleaner, HITACHI CU - 160 C	2	¥ 2,700	¥ 5,400		1	"	A	A	Local
42	81	Air conditioner, windowtype, NATIONAL 13,000 BTU	4	¥ 13,000	¥ 52,000		2	"	A	A	Local
43	81	Drying oven, MERMERT, U - 40	1		¥ 30,000		1	"	C	A	Local
44	81	Maize moisture meter, IKEDA	3		543,000		1	"	C	A	
45	81	" " SS - 250	1		¥ 43,350			"	C	A	Local
46	81	Infrared moisture tester, KIYA F - 2 A	1		148,000		1	"	C	A	
47	81	Vita scope, FOSS	1		¥ 122,000		1	"	C	A	Local
48	81	Beam balance 311, Cento-o-gram	2	¥ 3,500	¥ 7,000		1	"	B	A	
49	81	Locker, self-type	6	¥ 1,300	¥ 7,800		2	"	A	A	
50	81	Grain sample divider, KIYA 103 B (S)	1		144,000		1	"	C	A	
51	81	Ultra centrifugal mill, UCM	1		820,000		1	"	C	A	
52	81	Gram liner weight tester, KIYA 125	1		85,000		1	"	C	A	
53	81	Thin layer chromatographic hanging TLC chamber	1		36,000		1	"	C	A	
54	81	U-light, UVSL - 58	2	62,000	124,000		2	"	C	A	
55	81	Shaker, YAMATO SA - 31	2	195,000	390,000		2	"	C	A	
56	81	Handy aspirator, YAMATO WF - 33	1		98,000		1	"	C	A	
57	81	Rotary evaporator, YAMATO, RE - 46 A	2	155,000	310,000		2	"	C	A	
58	81	Auto steel distillator, YAMATO WA - 22	1		247,000		1	"	C	A	
59	81	Applicator, YAMATO TL - IA - 25	1		23,000		1	"	C	A	
60	81	Range board, YAMATO TL - IB	1		12,000		1	"	C	A	

Laboratory equipment

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Charge			Stationed	Condition		Reference
						CPD	DA	DOAE		Utilization	Maintenance	
61	81	Drying shelf, YAMATO TL - ID	1		10,000		1		Center	C	A	
62	81	Storage box, YAMATO TL - IE	1		14,000		1		"	C	A	
63	81	Circulator, YAMATO BC - 42	1		246,000		1		"	C	A	
64	81	Date processor chromatopac SHIMAZU C - RIA	1		880,000		1		"	C	A	
65	81	Desiccator, 24 cm	3	15,000	45,000		3		"	C	A	
66	81	Uni pump, NRK UP - 2	1		54,000		1		"	B	A	
67	81	Dispenser, GN - 8	2	42,000	84,000		2		"	C	A	
68	81	" GN - 9	4	48,000	192,000		4		"	C	A	
69	81	Fluorescence spectrophotometer, 650 - 10 S	1		3,320,000		1		"	C	A	
70	81	Auto crane	1		12,000	B	1		"	C	A	Local
71	81	Auto crane, HA - 30	1		55,000	B	1		"	C	A	Local
72	82	Zoom stereo microscope, OLYMPUS, with attachment	1		465,000			1	"	C	A	A.E.
73	82	Maize moisture meter, SS - 250 STEINLITE	1		680,000		1		"	B	A	
74	82	Hand sugar refractometer	2	12,500	25,000		2		"	B	A	
75	82	Magnifying glass, OS - 05	2	31,000	62,000			2	"	C	A	
76	82	Table balance, MURAKAMI US - 1200	2	139,000	278,000			2	"	B	A	
77	82	Refrigerator, MITSUBISHI HR - 160 D	2	B 7,900	B 15,800		1		"	A	A	Local

Survey equipment

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Charge			Stationed	Condition		Reference
						CFD	DA	DOAE		Utilization	Maintenance	
1	77	Pocket compass	1		56,000	1			Center	C	B	A.E.
2	78	Automatic level, NIKON, AE - 3 M	1		162,700	1			"	C	B	
3	78	Pocket compass	1		15,000	1			"	C	B	A.E.
4	78	Plane table outfits and alidade, TAMAYA	1		43,200	1			"	C	B	
5	78	Polar planimeter	1		20,200	1			"	C	B	

Meteorological equipment

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Charge			Stationed	Condition		Reference
						CPD	DA	DOAE		Utilization	Maintenance	
1	78	Hygro thermograph, KIYA, 1410 B	2	82,200	164,400	1	1		Center	A	B	
2	78	Recording evaporation gauge, TAMAYA	1		57,900	1			"	A	B	
3	78	Assman psychrometer, TAMAYA	1		49,500		1		"	C	B	
4	78	Recording rain gauge, TAMAYA	1		100,000	1			"	A	B	
5	78	Instrument screen, TAMAYA	1		55,600	1			"	C	B	
6	79	Evaporation meter	3	19,500	58,500	3			"	A	B	A.E.
7	79	Auto thermometer	4	17,450	69,800	4			"	A	B	
8	80	Max. Mini. thermometer, KIYA	4	20,000	80,000	4			"	A	B	
9	80	BIRAM's anemometer, KIYA	1		27,800		1		"	B	B	
10	81	Hygro thermograph, KIYA, 1401 - C	4	50,000	200,000		4		"	B	B	
11	81	Distant thermograph, KIYA	1		120,000		1		"	B	B	

Irrigation equipment

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Charge			Stationed	Condition		Reference
						CFD	DA	DOAE		Utilization	Maintenance	
1	77	Volute pump, KUBOTA, SVO - 101 ZZ	2	457,000	914,000	2			Center	B	B	Local
2	78	Submersible pump, CENTURY	1		¥ 113,000	1			"	D-3	-	
3	78	Rain gun set, with pump, OREGON	1		1,032,000				"	D-3	-	
4	80	" , OREGON	1		377,000	1			"	B	B	
5	80	Portable pump	2	74,200	148,400		1		"	B	B	
6	81	Carvanized steel pipe	142	¥ 1,340	¥ 190,280		142		"	A	B	Local
7	81	Farrow gun set, PEROT	1		¥ 102,825		1		"	B	B	"
8	81	Hose with coupling	40	19,890	795,600	40			"	B	B	
9	81	Power starting pump	1	288,000		1			"	B	B	

Audio-Visual equipment

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Charge			Stationed	Condition		Reference
						CPD	DA	DOAS		Utilization	Maintenance	
1	77	Camera, OLYMPUS, OM - 1	1		197,000		1		Center	B	B	A.E.
2	78	" CANON, F - 1	1		328,300	1			"	B	B	
3	78	Movie camera "ELMO" 1000 S	1		175,000	1			"	C	B	
4	78	Movie light, EL - 650	1		11,500	1			"	C	B	
5	78	Spot light set, MATSUMURA, CT - 5	2		74,000		2		"	C	B	
6	78	Editor, 912	1		13,700	1			"	C	B	
7	78	Overhead projector, ELMO, H - 2450	1		117,300	1			"	C	B	
8	78	As opaque projector, MEIWA, 3527 - STD	1		482,600	1			"	C	B	
9	78	Slide projector, Auto CABIN	1		30,300	1			"	C	B	
10	78	" " " III	1		68,700	1			"	C	B	
11	78	" TWIN, CABIN, 900 A	1		51,900	1			"	C	B	
12	78	16 m/m Sound projector, ELMO, 16 - CL	1		298,400	1			"	C	B	
13	78	8 m/m Sound projector, ELMO, ST - 1200 HD	1		230,000	1			"	C	B	
14	78	Screen, CABIN, 900 A	1		15,500	1			"	C	B	
15	78	Daylight screen HW - 4	1		36,200	1			"	C	B	
16	78	Screen for sound projector, ELMO	1		28,300	1			"	C	B	
17	78	Screen 60 x 80 cm	1		27,400	1			"	C	B	
18	78	Micro cassette recorder, OLYMPUS, S - 301	1		53,700	1			BKK	C	B	
19	78	Single corder, CABIN, SC - 3000	1		52,600	1			Center	C	B	
20	78	Stereo cassette recorder, VICTOR, KD - 2 E	2	56,600	115,200	2			"	C	B	
21	78	Stereo cassette deck, SONY, TCK - 7 II	1		84,600	1			"	C	B	
22	78	Full automatic twin table, PIONEER, PL - 570	1		94,400	1			"	C	B	
23	78	Stereo amplifier, SANSUI, CA 2000 & BA 2000	1		214,000	1			"	C	B	
24	78	Microphone mixer, SONY, MX - 710	1		191,000	1			"	C	B	
25	78	Speaker system, PIONEER HPM - 40	4		89,200	4			"	C	B	
26	78	Megaphone, CA - 711, 8 C - 10 P, B - 2	2		78,000	2			"	C	B	
27	78	Hand grip megaphone	2		29,200	2			"	C	B	
28	78	Wireless microphone tuner set	1		37,800	1			"	C	B	
29	78	Radio for fixed operation, SS 15 A SSB	1		487,000	1			Center	B	B	
30	78	Radio for mobile operation, SS 15 A SSB	3		1,920,000	1	2		"	B	B	

Audio-Visual equipment

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Charge			Stationed	Condition		Reference
						CFD	DA	DOAE		Utilization	Maintenance	
31	78	Camera, CANON	1		60,000	1			Center	B	B	A.E.
32	79	Flash set	2		110,000	2			"	C	B	A.E.
33	79	Slide projector, ELMO, S - 300	2		57,000	1	1		"	C	B	
34	79	Screen for ELMO, S - 300	2		38,000	2			"	C	B	
35	79	Tape recorder, SONY TCM - 600	2		82,000	1	1		"	C	B	A.E.
36	79	Radio set, SONY, cassette recorder CF - 950 S	1		61,500	1			"	C	B	A.E.
37	79	TV, SONY - 20	1		192,000	1			"	C	B	A.E.
38	79	Walky talky, SONY, ICB - 770	2		139,800	2			"	C	B	
39	79	Video tape recorder	1		581,400	1			"	C	B	A.E.
40	80	Camera, OLYMPUS, OM - 1	2		222,400			2	"	C	B	
41	80	Slide projector, Auto CABIN	2		30,500			2	"	B	B	
42	80	Video camera, SONY HVC - 2000 P	1		479,790	1			"	C	B	
43	82	Zoom lens for OM - 1	1		54,600			1	"	C	B	A.E.
44	82	Slide projector, Auto CABIN	1		69,500			1	"	C	B	
45	82	16 m/m Sound projector, ELMO, 16 - CL	1		303,600	1			"	C	B	
46	82	Blackout curtain, BR - 30	1		134,000	1			"	C	B	
47	82	Slide projector, sound CABIN sp	1		170,000	1			"	C	B	
48	82	Auto belows & slide copy-stand	1		57,000			1	"	C	B	
49	82	Portable calculator, CANON P - 142 D	1		122,000	1			"	C	B	
50	82	Stencil cutter, UCHIDA EC - 700 R	1		414,000	1			"	C	B	
51	82	Stencil duplicating supplies VCHIDA EM - 200	1		422,000	1			"	C	B	
52	82	Steyro tuner, ST - A 35 S	1		38,000	1			"	C	B	
53	82	Dinamic microphone, SONY, F - 420	1		14,100	1			"	C	B	
54	82	Video cassette recorder, SONY, SL - T 7	1		267,400	1			"	C	B	
55	82	Cassett recorder, SONY, TCM - 121	2		33,000	1	1		"	C	B	
56	82	Dinamic microphone, SONY F - 560	3	14,500	43,500			1	"	B	B	
57	84	Slide screen cabin T. V - 100 100 C <sup>2</sup>	1		30,750			1	"	B	B	

Equipment for workshop

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Charge			Stationed	Condition		Reference
						CPD	DA	DOAE		Utilization	Maintenance	
1	77	Hasler tachometer	1		23,750	1			Center	B	B	A.E.
2	77	Hand tools set, Banzai, CV - 403	1		36,000	1			"	A	B	
3	77	Electric drill, Hitachi, BU - PN 3	1		19,500	1			"	A	B	
4	77	Bench drilling machine, Hitachi, BE360A	1		57,500	1			"	A	B	
5	77	Chain block, Iyasaka, HCB - 1	1		16,400	1			"	A	B	
6	77	Steam cleaner, Iyasaka, RF 400	1		280,000	1			"	B	B	
7	77	Garage Jack, Iyasaka, HG - 3	1		61,000	1			"	A	B	
8	77	Portable grinder, Iyasaka, PG - 100 S	1		36,800	1			"	A	B	
9	77	Arc welder, Toyo-Arc, TK-150 W	1		58,000	1			"	A	B	
10	77	Air compressor, Toshiba, CLG-04-5 S	1		116,000	1			"	A	B	
11	77	Vice, Iyasaka, BV - 100 V	1		22,600	1			"	B	B	
12	77	Lubricator, Iyasaka, SKR - 55	1		96,000	1			"	B	B	
13	77	Hydraulic press, Iyasaka, HP - 15	1		83,000	1			"	B	B	
14	77	Parts washing stand, Iyasaka, PC - SG	1		71,800	1			"	A	B	
15	78	Portable generator, Honda, E 2500 E	2	151,000	302,000	2			"	A	B	
16	78	Iron anvil, AN - 70	1		42,000	1			"	B	B	
17	78	Garage jack, M - 1000 M	1		136,000	1			"	A	B	
18	78	Chain block, ZK - 5	1		37,200	1			"	A	B	
19	78	Tool set	1		721,000	1			"	A	B	
20	78	Adjustable wrench, BS - 8/10/12/15	1		12,500	1			"	B	B	
21	78	Hydraulic jack, MH - 10	1		10,800	1			"	A	B	
22	78	Puller set, UP - 5000	1		170,000	1			"	B	B	
23	78	Tap & die set, M - 320	1		44,300	1			"	B	B	
24	78	Gas cutting tool & regulator set, GS - 10	1		83,700	1			"	A	B	
25	78	Nozzle tester, DT - 60	1		37,000	1			"	A	B	
26	78	Battery quick charger, HR-MAX-70 D	1		105,000	1			"	A	B	
27	78	Micrometer set, 1525 MB	1		64,000	1			"	B	B	
28	78	Vernier caliper, BSC - 25	1		16,300	1			"	B	B	
29	78	Reamer set, R - 44	1		62,300	1			"	B	B	
30	78	Tap die set, 114 - R	1		63,900	1			"	A	B	

Equipment for workshop

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Charge			Stationed	Condition		Reference
						CPD	DA	DOAE		Utilization	Maintenance	
31	78	Tap die set, 117 - R	1		238,900	1			Center	A	B	
32	78	Torque wrench, 4200 F	1		23,000	1			"	A	B	
33	78	Electric grinder, HITACHI EBX, bench and floor type	1		33,000	1			"	A	B	
34	78	Ac arc welder, ATSS5, 220 V, 50 Hz	1		72,100	1			"	A	B	
35	78	Electric drill, HITACHI, BU - PN 3	1		26,800	1			"	A	B	
36	78	Precision thread cutting bench laths, PH 61 - 5	1		547,000	1			"	A	B	
37	79	Tachometer	1		22,000	1			"	B	B	A.E.
38	79	Cutting scissors for metal	2	10,000	20,000	2			"	B	B	A.E.
39	79	Wrench	2	11,000	22,000	2			"	A	B	A.E.
40	79	Megger	1		18,500	1			"	B	B	A.E.
41	79	Electric drill kit for metal	1		19,500	1			"	A	B	A.E.
42	79	Electric grinder for metal	1		16,200	1			"	A	B	A.E.
43	79	Electric drill kit for concrete	1		35,300	1			"	A	B	A.E.
44	79	Sub relay	1		47,500	1			"	B	B	A.E.
45	80	Electric saw, KISLER 250	1		824,000	1			"	B	B	A.E.
46	80	Bench drilling machine, ESD - 350 S	1		79,500	1			"	A	B	
47	80	Valve refacer, MB - 145	1		451,200	1			"	A	B	
48	80	Valve seat grinder, VSG - 1000	1		206,000	1			"	A	B	
49	80	Ac arc welder, DAIDEN, B - 500	1		290,000	1			"	A	B	
50	80	Radial drilling machine, IKEDA, ACE - 9	1		2,153,000	1			"	A	B	
51	80	Cylinder boring machine, NWA - NO 2	1		1,287,500	1			"	A	B	
52	80	Air compressor, CT - 222 NEA	1		267,800	1			"	A	B	
53	80	Hydraulic press, HP - 100 A	1		888,900	1			"	A	B	
54	80	Work bench, Y - 1000	1		128,700	1			"	A	B	
55	80	Leg vice, TM - 6	1		60,700	1			"	A	B	
56	80	Electric grinder, KBT - 10	1		114,400	1			"	A	B	
57	80	Cut grinder, HCW - 16 M	1		92,700	1			"	A	B	
58	80	Garage jack, M - 1000 M	1		123,600	1			"	A	B	
59	80	Hand wire winch, ZPR - 1500	1		71,000	1			"	A	B	
60	80	KITO sling chain, 5 S - ES	2	19,600	39,200	2			"	B	B	

Equipment for workshop

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Charge			Stationed	Condition		Reference
						CPD	DA	DOAE		Utilization	Maintenance	
61	80	KITO ditto, 5 D - GS	2	35,900	71,800	2			"	B	B	
62	80	Towing wire-rope, PR - 24	4	12,100	48,400	4			Center	B	B	
63	80	Electric drum pump, EP - 60 D - O	2	99,400	198,800	2			"	A	B	
64	80	Tire bead remover, TR - 200 D	2	15,500	31,000	2			"	B	B	
65	80	Tire bead breaker, TB - 15 C	1	18,500	18,500	1			"	B	B	
66	80	Bench vice	1	36,500	36,500	1			"	A	B	
67	80	Timer & buzzer set, 9 BT 101	2	59,000	118,000	2			"	B	B	
68	80	Universal joint valve lifter & compressor, VL - 500	1	18,800	18,800	1			"	B	B	
69	80	Gas cutting & welding tool set, GS - 10	1	124,500	124,500	1			"	B	B	
70	80	Curting roller, GT - 2 S	1	11,200	11,200	1			"	B	B	
71	80	Tune-up tester, DACS - 1 V	1	146,300	146,300	1			"	B	B	
72	80	Spark plug service set, SP - 30 G	1	73,100	73,100	1			"	A	B	
73	80	Battery quick charger, HR - MAX 70 D	1	114,500	114,500	1			"	A	B	
74	80	Booster cable, BC - 243	1	19,000	19,000	1			"	A	B	
75	80	Air valve lapper, T - 510 C	1	31,900	31,900	1			"	A	B	
76	80	Valve lifter, VL - 300	1	12,850	12,850	1			"	A	B	
77	80	Compression tester, G - 24 B	1	23,500	23,500	1			"	B	B	
78	80	Nozzle tester, DT - 60 V	1	43,200	43,200	1			"	A	B	
79	80	Cylinder liner puller, CLP - 75	1	60,500	60,500	1			"	A	B	
80	80	Air impact wrench, AW - 4000	1	134,900	134,900	1			"	B	B	
81	80	Jet chisel, JC - 20	1	50,400	50,400	1			"	B	B	
82	80	Dynamic chisel, A - 302	1	48,900	48,900	1			"	B	B	
83	80	Dynamic chisel set	1	38,200	38,200	1			"	B	B	
84	80	Electric disc sander, PDH - 205	1	54,900	54,900	1			"	B	B	
85	80	Electric hand shear, NUC - RN	1	75,600	75,600	1			"	A	B	
86	80	High Pressure grease pump, K 2 - KH	1	59,700	59,700	1			"	B	B	
87	80	Mechanic tool set, CU - 601	1	184,300	184,300	1			"	A	B	
88	80	Torque wrench, 1200 QF	1	17,700	17,700	1			"	A	B	
89	80	Pitman arm puller, H - 228	1	15,200	15,200	1			"	B	B	
90	80	Universal wheel puller, UP - 5000	1	221,500	221,500	1			"	B	B	

Equipment for workshop

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Charge			Stationed	Condition		Reference
						DPD	DA	DOAE		Utilization	Maintenance	
91	80	Adjustable hook wrench, FW - 150	1		18,000	1			Center	A	B	
92	80	Motor pulper set, E - 24	1		79,800	1			"	B	B	
93	80	Square, SS - 30	1		70,000	1			"	B	B	
94	80	Timing light, KTL - 12	1		12,500	1			"	A	B	
95	80	Water gun set, WG - 1520	1		11,200	1			"	B	B	
96	80	Air fix, 6 - 124	2	128,500	257,000	2			"	B	B	
97	80	Tube vulcanizer, AR - E 3S	1		44,800	1			"	B	B	
98	80	Tire service tool set, T - C	1		34,000	1			"	B	B	
99	80	Tube flaring & cutting tool, TF - 200 W	1		26,500	1			"	A	B	
100	80	Service creeper, SC - 12	1		13,000	1			"	B	B	
101	80	Slide hammer puller, G - 61	1		17,500	1			"	B	B	
102	81	Ultrasonic cleaners	1		678,000	1			"	B	B	
103	81	Valve sheet cutter, R - 3500	1		263,000	1			"	B	B	
104	81	Quick riveter, HAR - 612	1		68,000	1			"	B	B	
105	81	Lining drill, 3.6 - 8.0	1 set		43,000	1			"	B	B	
106	81	Ditto drill, 3.2 - 8.0	1 set		50,000	1			"	B	B	
107	81	Vacuum cleaner, JE - 40	1		270,000	1			"	A	B	
108	81	Disk sander, PO - 125 SI	1		29,000	1			"	A	B	
109	81	Jigsaw, JH - 60	1		28,000	1			"	A	B	
110	81	Car washer, BANZAI, CW - 3 B	1		484,000	1			"	A	B	
111	81	Cylinder bowling machine, BANZAI, NWA - 2	1		1,250,000	1			"	B	B	
112	81	High speed precision lathe, WASHINO, LE - 19 K	1		5,085,000	1			"	A	B	
113	84	General service tool for inch rulli	2	85,000	170,000	1		1	"	A	B	
114	84	Wheel balancer S/NO. 7638 H - 55	1		66,500	1			"	A	B	
115	84	Torque set 1800 S.L.	1		20,000	1			"	A	B	
116	84	Pipe bender TB - DI 380 V 50 Hz	1		533,000	1			"	A	B	

## Office equipment

No.	Year	Name of Equipment	Quantity	Unit cost (Yen)	Total cost (Yen)	Charge			Stationed	Condition		Reference
						CFD	DA	DOAE		Utilization	Maintenance	
1	77	Copying machine, RICOPI, PT - 730	1		580,000	1			Center	A	B	A.E.
2	77	Air conditioner, TOSHIBA, RAC 15 CE 44	3	119,000	357,000	1	2		"	A	B	Local
3	77	" KELVINATOR, ACR 50029	2	¥ 34,450	¥ 68,900	2			"	A	B	
4	77	Refrigerator, TOSHIBA, GR - 2608	1		155,500	1			"	A	B	
5	77	Vacume cleaner, TOSHIBA, VC 60 FA	1		20,500	1			"	A	B	
6	77	Paper cutter	1		10,900	1			"	A	B	A.E.
7	78	Typewriter, HERMES, Ambassador V - Z	1		191,400	1			"	A	B	
8	78	" "	1		228,000	1		1	"	A	B	
9	78	Electric calculator, CASIO, R - 320	2	78,900	157,800	1		1	"	A	B	
10	78	Copying machine, RICOPI, PT - 730	1		341,000	1			"	A	B	
11	78	Auto stencil duplicator, HOR 11, 255	1		273,000	1			"	A	B	
12	78	Instrument screen, TAMAYA	1		55,600	1			"	B	B	
13	79	Typewriter, ADLER, SE 100 CD	1		310,000	1			"	A	B	A.E.
14	79	Stencil maker, GEST FAX, 1100	1		498,000	1			"	B	B	A.E.
15	79	Stencil duplicator, GESTEINER	1		425,000	1			"	B	B	A.E.
16	79	Refrigerator, KELVINATOR, TCE 190 KN	1		¥ 37,500	1			"	A	B	Local
17	79	Electric fan, MITSUBISHI, stand	10	¥ 1,500	¥ 15,000	6	2	2	"	A	B	Local
18	79	" "	6	11,000	66,000	6			"	A	B	A.E.
19	79	Washing Machine, HITACHI, PS - 5200	1		58,000	1			"	B	B	A.E.
20	80	Typewriter, ADLER, SE - 100 CD	2	468,600	937,200		1	1	"	B	B	
21	80	Electric calculator, CASIO, JR - 210	5	23,000	115,000	1	2	2	"	B	B	
22	80	Black board, TH - 12	5	22,600	113,000	2	1	2	"	B	B	
23	81	Air conditioner, NATIONAL	2	¥ 19,800	¥ 39,600		2	2	"	A	B	Local
24	81	" "	4	¥ 15,500	¥ 62,000	2		2	"	A	B	"
25	81	Vacume cleaner, TOSHIBA, VC 60 FA	2	¥ 2,700	¥ 5,400		1	1	"	A	B	"
26	81	Locker, shelf type	6	¥ 1,300	¥ 7,800	2	2	2	"	A	B	"
27	81	Locker, drawer type	2	¥ 1,420	¥ 2,840	2			"	A	B	"
28	82	Copying machine, RICOH, DT - 5700 R	1		1,281,900	1			"	A	B	
29	82	Refrigerator, MITSUBISHI, MR 160 - D	2	¥ 7,905	¥ 15,810		1	1	"	A	B	Local

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						CPD	DA	DOAE		Utilization	Maintenance	
30	82	Locker, shelf type	3	¥ 1,300	¥ 3,900			3	Center	A	B	Local
31	82	Telephone system, NATIONAL	12	¥ 8,250	¥ 99,000	7		5	"	A	B	"
32	84	Air conditioner HITACHI RA - 2289 c.p.	1		22,970	1			"	A	B	"
33	84	Black board LION HM - Q 900 X 1800 mm <sup>2</sup>	1		51,210	1			"	A	B	"

