

**JICA'S TECHNICAL COOPERATION  
IN  
THE REPUBLIC OF INDONESIA**

1982



**Japan International Cooperation Agency**



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## Introduction

The Japan International Cooperation Agency (JICA) is a governmental organization established in 1974. JICA performs activities related to international cooperation with developing countries.

In order to implement the work smoothly and effectively, JICA obtains extensive cooperation from governmental organs, local autonomous bodies and private enterprises in Japan, keeping in close contact with governments of developing countries and international organizations.

The following is an outline of the operations carried out by JICA:

- (1) to extend technical cooperation to developing areas on a government-to-government basis;
- (2) to carry out the work necessary for the promotion of the activities of the Japan Overseas Cooperation Volunteers;
- (3) to supply funds necessary for the improvement of the facilities related to social development, development of agriculture, forestry, mining and manufacturing, or funds necessary for pilot projects;
- (4) to provide services necessary for smooth emigration of Japanese to South America or other parts of the world;
- (5) to recruit and provide training to qualified personnel for technical cooperation; and
- (6) to provide new services for the implementation of Capital Grant Assistance to developing areas.

## Outline of JICA's Technical Cooperation

### 1. Training Program for Overseas Participants

This program provides overseas participants with technical training in various fields. There are two types of training designed at the request of developing countries; a group training program and an individual training program.

Participants study at JICA training centers, government research organizations, universities and/or training centers of private enterprises.

### 2. Expert Assignment Program

JICA sends Japanese experts to developing countries or international organizations. The experts participate in planning, execution, evaluation and make recommendations for development programs in these government organizations, research institutes, or training centers.

### 3. Equipment Supply Program

In order to make technical cooperation more effective, JICA supplies equipment necessary for the activities of JICA's ex-trainees, Japanese experts, and Japan Overseas Cooperation Volunteers.

The equipment includes machinery, machine tools, etc.

### 4. Project-Type Technical Cooperation Programs

"Project-type" technical cooperation programs combine the above-mentioned three forms of programs and are carried out systematically and comprehensively in the countries concerned.

Under these types of programs, JICA provides technical assistance by dispatching survey teams, assigning experts, supplying equipment, accepting counterparts related to projects, and performing follow-up evaluation after the completion of the projects.

These types of programs include the Overseas Technical Cooperation Center Program, the Health and Medical Cooperation Program, the Agriculture, Forestry and Fisheries Cooperation Program, as well as the Industrial Development Cooperation Program.

#### 4.1 Overseas Technical Cooperation Center Program

Overseas technical cooperation centers are designed to provide training for engineers and for skilled workers whose services are essential to the socio-economic progress of developing countries.

This program aims at development of manpower resources, development and improvement of production methods, and the development of vocational training.

#### 4.2 Health and Medical Cooperation Program

This program is designed to offer medical assistance to developing countries whose people suffer from epidemic or endemic diseases, and emphasizes cooperation in the bettering of the citizens through the improvement of public hygiene and environment.

#### 4.3 Agriculture, Forestry and Fisheries Development Cooperation Program

This program intends to improve living standards through production increases in the fields of agriculture, forestry and fisheries.

The forms of assistance are technical guidance in agricultural extension centers or model extension farms; comprehensive guidance in regional infrastructure of designated project areas; and assistance in enhancing the agricultural research and development capacity of recipient countries.

#### 4.4 Industrial Development Cooperation Program

This program aims at effective utilization of locally available natural or human resources for the development of various mining and manufacturing industries which will expand employment opportunities.

#### 5. Development Survey Program

The "Development survey program" is an advisory service which dispatches survey teams to development projects in the public sector.

#### 6. Development Cooperation Program

JICA offers long-term and low-interest loans to Japanese corporations (including foreign corporations financed by Japanese firms) which require funds for improvement and expansion of facilities, or funds for experimental projects to promote development in various sectors.

Table 1. Total Expenditures by Type

Upper figure: 1,000 Yen  
Lower figure: U.S.\$1,000

Type	Total F.Y.1954-F.Y.1977 <sup>3)</sup>	F.Y.1978	F.Y.1979	F.Y.1980	F.Y.1981 <sup>4)</sup>	Cumulative Total <sup>4)</sup>
Training Program	2,209,920	397,501	514,533	571,344	584,167	4,277,465
(Number of Participants)	7,309 (2957)	1,889 (265)	2,348 (266)	2,519 (317)	2,649 (318)	16,714 (4123)
Expert Assignment Programs <sup>1)</sup>	5,150,790	1,213,307	1,410,896	1,822,505	2,107,059	11,704,557
(Number of Japanese Experts)	17,413 (816)	5,765 (129)	6,437 (120)	8,036 (164)	9,555 (187)	47,206 (1416)
Survey Mission	5,669,732	1,865,629	1,999,217	2,177,088	2,072,911	13,784,577
(Number of Mission Members)	19,454 (1694)	8,864 (445)	9,122 (390)	9,600 (500)	9,400 (636)	56,440 (3665)
Equipment supply <sup>2)</sup>	3,704,895	751,853	1,092,323	1,362,264	1,099,173	8,010,508
	12,332	3,572	4,984	6,007	4,984	31,879
Japan Overseas Cooperation Volunteers	-	-	-	970	945	1,915
(Number of Japanese Volunteers)	- (-)	- (-)	- (-)	4 (-)	4 (-)	8 (-)
Others	169,948	74,893	79,042	107,931	115,735	547,549
	596	356	360	476	525	2,313
Grand Total	16,905,285 57,104	4,303,183 20,446	5,096,011 23,251	6,042,102 26,642	5,979,990 27,117	38,326,571 154,560

Note: The following exchange rates were used: 1954-1971 ¥360.00/US\$ 1972 ¥308.00/US\$ 1973 ¥272.84/US\$  
1974 ¥291.49/US\$ 1975 ¥297.04/US\$ 1976 ¥296.50/US\$  
1977 ¥268.51/US\$ 1978 ¥210.47/US\$ 1979 ¥219.17/US\$  
1980 ¥226.79/US\$ 1981 ¥220.53/US\$

- 1) Includes expenditures of Project-type technical cooperation programs
- 2) Including expenditures of Project-type technical cooperation programs
- 3) F.Y. indicates the Fiscal Year of Japan which starts on April 1 every year.
- 4) Figures of F.Y. 1981 and Cumulative Total. are provisional.

Table 2. Total Expenditures by Program

Upper figure: 1,000 Yen  
Lower figure: U.S.\$1,000

Program	Total F.Y.1954-F.Y.1977	F.Y.1978	F.Y.1979	F.Y.1980	F.Y.1981*	Cumulative Total*
1. Training Program	2,203,510 7,288	394,931 1,876	514,533 2,348	567,904 2,504	578,711 2,625	4,259,589 16,641
2. Expert Assignment Program	3,350,241 11,334	568,528 2,701	631,479 2,881	736,359 3,247	977,856 4,434	6,264,463 24,597
3. Equipment Supply Program	205,921 706	29,535 140	44,903 205	145,572 642	115,011 521	540,942 2,215
4. Overseas Technical Cooperation Center Program	835,567 2,764	110,756 526	25,689 117	4,730 21	11,192 51	987,934 3,479
5. Health and Medical Cooperation Program	930,549 3,050	211,230 1,004	408,483 1,864	466,212 2,055	354,405 1,607	2,370,879 9,580
6. Agriculture, Forestry and Fisheries Cooperation Program	2,748,490 9,342	1,129,506 5,367	1,424,918 6,501	1,799,055 7,933	1,573,162 7,134	8,675,131 36,277
7. Industrial Development Cooperation Program	1,067,906 3,471	27,271 130	76,183 348	82,241 363	247,350 1,122	1,500,951 5,434
8. Development Survey Program	5,155,821 17,728	1,686,778 8,015	1,799,851 8,212	2,025,245 8,930	1,957,420 8,876	12,625,115 51,761
9. Development Cooperation	186,433 657	68,485 325	88,888 405	105,161 464	43,203 196	492,170 2,047
10. Japan Overseas Cooperation Volunteers	1,419 5	968 5	- -	970 4	945 4	4,302 18
11. Others	219,428 759	75,195 357	81,084 370	108,653 479	120,735 547	605,095 2,512
Grand Total	16,905,285 57,104	4,303,183 20,446	5,096,011 23,251	6,042,102 26,642	5,979,990 27,117	38,326,571 154,560

Note: Refer to Table 1 for exchange rates.

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Table 3. Training Program for Overseas Participants  
(Number of Indonesian Participants)

Number of persons

Sector	Total F.Y.1954-F.Y.1977	F.Y.1978	F.Y.1979	F.Y.1980	F.Y.1981*	Cumulative Total*
1. Planning and Administration	379	18	34	37	39	507
2. Public Works and Utilities	690	93	73	95	93	1,044
3. Agriculture, Forestry and Fisheries	691	74	69	80	86	1,000
4. Mining and Industry	410	29	34	35	34	542
5. Energy	60	-	-	14	10	84
6. Commerce and Tourism	176	8	7	7	10	208
7. Human Resources	153	12	19	11	6	201
8. Public Health and Medicine	326	28	27	33	27	441
9. Social Welfare	-	2	2	2	8	14
10. Others	72	1	1	3	5	82
Grand Total	2,957	265	266	317	318	4,123

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Table 4. Expert Assignment Program (Number of Japanese Experts)<sup>1)</sup>

Number of persons

Sector	Total F.Y.1954-F.Y.1977	F.Y.1978	F.Y.1979	F.Y.1980	F.Y.1981*	Cumulative Total*
1. Planning and Administration	50	7	3	4	9	73
2. Public Works and Utilities	260	18	19	26	38	361
3. Agriculture, Forestry and Fisheries	206	58	69	90	96	519
4. Mining and Industry	71	3	2	12	14	102
5. Energy	52	-	-	1	-	53
6. Commerce and Tourism	3	1	-	3	-	7
7. Human Resources	58	28	11	7	8	112
8. Public Health and Medicine	106	14	16	21	21	178
9. Social Welfare	-	-	-	-	1	1
10. Others	10	-	-	-	-	10
Grand Total	816	129	120	164	187	1,416

Note: 1) Includes number of experts of Project-type technical cooperation programs.

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Table 5. Equipment Supply Program (Expenditures)

1,000 Yen

Equipment	F.Y.1978	F.Y.1979	F.Y.1980	F.y.1981*	Total*
1. Soil and Geological Research	19,969	-	-	-	19,969
2. Irrigation Equipment	9,566	-	-	-	9,566
3. Hydraulics Research Equipment	-	40,783	-	-	40,783
4. Rice Production Equipment	-	4,120	3,538	-	7,658
5. Equipment for Respiratory Function Test	-	-	9,196	-	9,196
6. Natural Rubber Research Equipment	-	-	90,007	-	90,007
7. Fisheries Research Equipment	-	-	38,398	-	38,398
8. Equipment for Coastal Fisheries Extension	-	-	4,433	4,701	9,134
9. Equipment for Seamen's Training	-	-	-	23,074	23,074
10. Equipment for Industrial Safety Test	-	-	-	20,732	20,732
11. Equipment for Mine Prospecting	-	-	-	33,560	33,560
12. Equipment for Seismological Research	-	-	-	26,042	26,042
13. Equipment for Chemical Experiment	-	-	-	6,902	6,902
Total	29,535	44,903	145,572	115,011	335,021

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Table 6. Project-Type Technical Cooperation Programs

Table 6.1 Overseas Technical Cooperation Center Program

Project	Cooperation Period	Equipment Supply (1,000 Yen)	Number of Japanese Experts	Number of Counterparts
1. Technical Cooperation in the Field of Fishery Research and Education	Jul.1969 - Jul. 1972	147,071	6	4
2. Sulawesi Industrial Vocational Training Centre	Feb.1974 - Feb. 1980	366,827	16	34
3. Sumatra Chemical Industry Training and Development Centre	Nov.1981 - Nov. 1986	-	3	-
Total		513,898	25	38

Table 6.2 Health and Medical Cooperation Program

Project	Cooperation Period	Equipment Supply (1,000 Yen)	Number of Japanese Experts	Number of Counterparts
1. Medical Faculty of Padjadjaran University	Jul. 1966 - Mar. 1972	12,401	3	-
2. Medical Cooperation for the Province of Maluku	Apr. 1968 - Mar. 1974	69,640	6	-
3. Central General Hospital, Western Java	Apr. 1968 - Mar. 1972	60,001	16	9
4. The Lung-Surgery Cooperation with the Persahabatan Hospital	Apr. 1969 - Mar. 1974	35,449	16	10
5. The Cardiosurgery Cooperation with the Persahabatan Hospital	F.Y. 1968 - 1969, 1972	10,778	17	-
6. The Central Clinical Laboratory of the Dr. Tjipto Mangunkusumo Hospital	Apr. 1972 - Mar. 1976	49,285	3	-
7. Family Planning	Oct. 1969 - Mar. 1985	637,470*	36	36
8. Centre for Biomedical Research	Apr. 1975 - Mar. 1982	254,053*	40	22
9. Promotion of Health in North Sumatra (Asahan Health Improvement Project)	Apr. 1978 - Mar. 1983	245,349*	35	14
10. Nursing Education	Nov. 1978 - Nov. 1983	81,739*	11	8
Total		1,456,165*	183	99

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Table 6.3 Agriculture, Forestry and Fisheries Cooperation Program

Project	Cooperation Period	Equipment Supply (1,000 Yen)	Number of Japanese Experts	Number of Counterparts
1. Technical Cooperation in the Field of Agriculture in Indonesia (Western Java)	May 1968 - May 1976	210,414	14	-
2. Tadjum Pilot Scheme	Feb. 1971 - Feb. 1976	120,205	9	-
3. Sericulture Development Project in South Sulawesi	Mar. 1976 - Feb. 1983	509,661*	42	24
4. Strengthening of Legumes in Relation to Cropping System Research Project	Oct. 1978 - Oct. 1983	190,482*	23	23
5. Lampung Agricultural Development Project	Nov. 1972 - Nov. 1982	1,043,202*	39	47
6. South Sulawesi Regional Agricultural Development Planning	Dec. 1976 - Jun. 1982	179,389*	44	25
7. Animal Health Improvement Programme	Jul. 1977 - Jul. 1982	276,184*	25	11
8. Agricultural Products Processing Pilot Plant Project	Oct. 1977 - Oct. 1982	297,915*	20	13
9. Mountain Logging Practice Project in Java	Apr. 1978 - Jun. 1982	377,517*	22	21
10. Mariculture Research and Development Project	Aug. 1978 - Mar. 1984	166,371*	23	10

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(To be continued)

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Project	Cooperation Period	Equipment Supply (1,000 Yen)	Number of Japanese Experts	Number of Counterparts
11. Middle Level Agricultural Technician Training Project	Mar. 1979 - Mar. 1984	125,997*	12	14
12. Trial Plantation Project in South Sumatra	Apr. 1979 - Apr. 1984	210,683*	15	8
13. Remote Sensing Engineering Project for the Development of Agricultural Infrastructure	Apr. 1980 - Mar. 1985	305,145*	9	2
14. Plant Protection Project	Jun. 1980 - Jun. 1985	49,984*	8	3
15. Construction Guidance Service Centre Project	Apr. 1981 - Mar. 1986	2,369*	2	3
Total		4,065,518*	307	204

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Table 6.4 Industrial Development Cooperation Program

Project	Cooperation Period	Equipment Supply (1,000 Yen)	Number of Japanese Experts	Number of Counterparts
1. East Java Maize Development	Dec. 1967 - Jul. 1974	256,263	18	4
2. Lampung Agricultural Development	Nov. 1972 - Nov. 1977	338,123	12	-
3. Development for Building Materials	Jul. 1978 - Jul. 1982	294,990*	17	10
<b>Total</b>		<b>889,376*</b>	<b>47</b>	<b>14</b>

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Table 7. Development Survey Program (Expenditures)

1,000 Yen

Project	Total F.Y.1954-F.Y.1977	F.Y.1978	F.Y.1979	F.Y.1980	F.Y.1981*	Cumulative Total*
1. Malacca and Singapore Strait (Indonesia and others)	(32,131)	(44,568)	(11,042)	22,480	4,019	(87,741) 26,499
*Tidal and Current Studies	(32,131)	(34,573)	(11,042)	22,480	4,019	(77,746) 26,499
*Hydrographic Survey in the One Fathan Bank Area	-	(9,995)	-	-	-	(9,995)
2. Central South Surawesi Water Resources Development	156,170	370,381	144,165	-	-	670,716
3. Overall Urar River Improvement	284,990	54,824	-	-	-	339,814
4. Basic and Practical Study for Master Plan in Land Erosion and Volcanic Debris Control in Area of Mt. Merapi	201,738	123,074	80,970	152	-	405,934
5. Jakarta Ring Road	144,176	8,039	-	-	-	152,215
6. Northern and Western Sumatra Tourism Development	187,868	1,287	-	-	-	189,155
7. Extension Project of the Bitung Port	98,925	63	-	-	-	98,988

\* Provisional

(to be continued)

(Continued)

1,000 Yen

Project	Total F.Y.1954-F.Y.1977	F.Y.1978	F.Y.1979	F.Y.1980	F.Y.1981*	Cumulative Total*
8. Forestry Inventory for Management and Logging Plan to Central Java	97,135	454	-	-	-	97,589
9. Technical Cooperation Survey (Indonesia and Others)	3,683	1,267	1,388	1,255	3,287	10,880
10. Construction Project of Semarang Port	80,945	20,941	-	-	-	101,886
11. Shipping Industry Development in Indonesia	20,156	48,559	69	-	-	68,784
12. Feasibility Study and Planning of Riam-Kanan Irrigation	44,627	185,596	18,803	-	-	249,026
13. Management Plan of Upper Musi Water-Shed in South Sumatra	21,518	127,373	195,965	-	-	344,856
14. Borobudur - Prambanan National Archeological Monument Parks	-	149,885	10,967	-	-	160,852
15. Salvage Survey of Wrecks and Underwater Obstacles	-	1,841	72,984	159	-	74,984
16. Nurse Education Facilities	-	38,853	26	-	-	38,879

\* Provisional

(to be continued)

(Continued)

1,000 Yen

Project	Total F.Y.1954-F.Y.1977	F.Y.1978	F.Y.1979	F.Y.1980	F.Y.1981*	Cumulative Total*
17. Reforestation Technology Facilities, Mulawarman University	-	38,353	1,044	-	-	39,397
18. Hospital Facilities Improvement	-	22,476	-	-	-	22,476
19. Construction of Port Facilities in Balikpapan	-	40,566	59,013	-	-	99,579
20. Lower Jeneberang River Flood Control Project (Phase I, Phase II)	-	4,728	114,256	75,612	111,937	306,533
21. Improvement of Telephone Network System in Jakarta	-	3,813	112,877	133,692	575	250,957
22. Upper Komering River Basin Agricultural Development	-	12,132	181,870	165,911	122,924	482,837
23. Low Cost Housing Project in Depok	-	3,882	65,869	118,309	106	188,166
24. Construction of Guidance Service Centre in Irrigation, Drainage Engineering	-	10,285	3,368	-	-	13,653

\* Provisional

(to be continued)

(Continued)

1,000 Yen

Project	Total F.Y.1954-F.Y.1977	F.Y.1978	F.Y.1979	F.Y.1980	F.Y.1981*	Cumulative Total*
25. Southern Coast Development Project in Eastern Java	-	66,241	47,084	213	-	113,538
26. Jakarta-Merak Link Road (Jakarta-Tangerang Tollway System)	-	2,741	10,938	-	-	13,679
27. Solo River Basin Irrigation and River Improvement	-	6,794	-	-	-	6,794
28. Combined Transportation Survey in Medan	-	5,421	118,308	61,629	-	185,358
29. Makassar Shipyard	-	-	2,188	96,083	-	98,271
30. Standard Package Water Supply Treatment Plan for Medium and Small Scale Cities	-	-	16,973	57,219	-	74,192
31. Pelabuhan Ratu Fish Port	-	-	5,334	807	-	6,141
32. Telecommunication Network in Developing Areas Surrounding Medan and Ujung Pandang	-	-	4,795	53,374	46	58,215
33. Jakarta Harbour Road	-	-	3,182	155,904	68,634	227,720

\* Provisional

(to be continued)

(Continued)

1,000 Yen

Project	Total F.Y.1954-F.Y.1977	F.Y.1978	F.Y.1979	F.Y.1980	F.Y.1981*	Cumulative Total*
34 Development of Lang Keuame Irrigation	-	-	2,697	147,236	164	150,097
35 Rural Road Development	-	-	19,161	46,977	-	66,138
36 The Urban/Sub-Urban Railway Transportation Study in JABOTABEK Area	-	-	4,288	138,850	121,082	264,220
37 Urgent Improvement of Madiun River	-	-	26,795	64,655	-	91,450
38 Middle Level Agricultural Technical Training Centre - Basic Design	-	-	13,232	17,136	-	30,368
39 Indo-China Refugees Centre (Indonesia and Others)	-	-	9,225	-	-	9,225
40 Master Planning and Pre-design of Sorong Port	-	-	6,590	106,317	8,321	121,228
41 Sumatra Chemical Training and Development Centre - Basic Design	-	-	13,115	20,261	-	33,376
42 Domestic Airport Development Project (Padang)	-	-	-	3,685	93,429	97,114

\* Provisional

(to be continued)

1,000 Yen

(Continued)

Project	Total F.Y.1954-F.Y.1977	F.Y.1978	F.Y.1979	F.Y.1980	F.Y.1981*	Cumulative Total*
43 Development of Marine Telecommunication System	-	-	-	12,007	82,569	94,576
44 Electrification of Mainlines in Java	-	-	-	-	4,235	4,235
45 Volcanic Debris Control and Water Conservation Project in the South- Eastern Slope of Mt. Semeru	-	-	-	-	39,301	39,301
46 Telecommunication Net- work Development Project for Eastern Part of the Republic of Indonesia	-	-	-	-	40,611	40,611
47. North Banten Water Resources Development Project	-	-	-	-	2,945	2,945
48. Long-term Development Project of Internation- al Telecommunications	-	-	-	-	4,514	4,514
49. Development Plan of Bali International Airport	-	-	-	-	44,868	44,868
50 Surabaya Metropolitan Area Structure Plan	-	-	-	-	119,768	119,768

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(to be continued)

(Continued)

1,000 Yen

Project	Total F.Y.1954-F.Y.1977	F.Y.1978	F.Y.1979	F.Y.1980	F.Y.1981*	Cumulative Total*
51 Urban Renewal Housing Project in Jakarta	-	-	-	-	5,402	5,402
52 Construction Project of Radio and Television Broadcast Training Centre	-	-	-	3,192	38,141	41,333
53 Establishment Project of Quaternary Geology Laboratory	-	-	-	-	21,030	21,030
54 Irrigation Facilities Project on Pilot Scheme in Riam Kanan	-	-	-	-	15,364	15,364
55 Rice Seed Production and Distribution Project	-	-	-	-	67,453	67,453
56 Sunrego Irrigation Project	-	-	-	-	4,434	4,434
57 North Banten Irrigation Project	-	-	-	-	4,541	4,541
58 Rice Self Sufficiency Program	-	-	-	-	6,366	6,366
59 Biomass Energy Research and Development Centre	-	-	-	19,905	25,787	45,692
60 Study on Post-Harvest Losses	-	-	-	5,154	118,439	123,593

\* Provisional

(to be continued)

(Continued)

1,000 Yen

Project	Total F.Y.1954-F.Y.1977	F.Y.1978	F.Y.1979	F.Y.1980	F.Y.1981*	Cumulative Total*
61 Rice Pest Forecasting and Control Project	-	-	-	4,346	28,841	33,187
62 Utilization of Lesser- Known Wood Species	-	-	-	5,844	1,013	6,857
63 Marunda Timber Estate and Terminal	-	-	-	3,681	561	4,242
64 Bila Irrigation Project	-	-	-	4,736	56,838	61,574
65 Forest Inventory for the Management Plan for Upper-Musi Water- shed in South Sumatra	-	-	-	2,901	-	2,901
66 Project Finding-Mining, Industry and Power Production (Indonesia and others)	-	591	795	472	384	2,242
67 Mineral Resources Development in Central Kalimantan	438,251	79,304	-	-	-	517,555
68 Rehabilitation of Ombilin-Coal Mines	39,156	111,085	67,582	92,807	4,164	314,794
69 Thermalelectric Power Development of Bukit Asam	56,247	2,520	-	-	-	58,767
70 Geological Survey in Uranium Minerals in Sumatra	871	2	2,291	-	29	3,193

\*Provisional

(To be continued)



(Continued)

1,000 Yen

Project	Total F.Y.1954-F.Y.1977	F.Y.1978	F.Y.1979	F.Y.1980	F.Y.1981*	Cumulative Total*
71 Construction of Urea Plant in Aceh	46,937	42,751	-	-	-	89,688
72 Energy Supply-Demand Data Bank System	5,806	17,494	29,025	22,899	-	75,224
73 Energy Data Bank System for Petroleum Exploration and Development	-	35,970	51,469	82,198	24,368	194,005
74 Maung Hydro-electric Power Development	-	36,902	158,318	57,535	-	252,755
75 Pulp and Paper Mills	-	10,290	3,833	-	-	14,123
76 Metallic Mineral Explora- tion in West Kalimantan	-	-	63,142	106,852	66,942	236,936
77 Feasibility Study for North Sumatra Transmis- sion	-	-	34,331	1,115	-	35,446
78 Volcanological Survey (Geothermal Development Project)	-	-	10,068	31,771	-	41,839
79 Industrial Standardiza- tion	-	-	4,795	-	-	4,795
80 Development of Small Scale Industry	-	-	5,866	414	-	6,280

\* Provisional

(to be continued)

(Continued)

1,000 Yen

Project	Total F.Y.1954-F.Y.1977	F.Y.1978	F.Y.1979	F.Y.1980	F.Y.1981*	Cumulative Total*
81 Follow-up Survey (Indonesia and others)	-	-	797	-	-	797
82 Asahan Hydro-electric Power Development Project	-	-	-	21,005	77,146	98,151
83 Medan Foundary Centre Development Project	-	-	-	30,470	6,671	37,141
84 Condom Supply and Local Production	-	-	-	11,926	40,976	52,902
85 Riam Kiwa Hydro-electric Power Development Project	-	-	-	16,099	150,043	166,142
86 Strengthening of Data Processing and Informa- tion on Trade and Cooperation	-	-	-	-	20,335	20,335
87 Lempur Geothermal Development Project	-	-	-	-	236,122	236,122
88 Kotapanjang Hydro-electric Power Development	-	-	-	-	35,209	35,209
89 Energy Supply-Demand Planning System Development	-	-	-	-	27,486	27,486
Others	3,226,622	-	-	-	-	3,226,622
<b>Total</b>	<b>5,155,821</b>	<b>1,686,778</b>	<b>1,799,851</b>	<b>2,025,245</b>	<b>1,957,420</b>	<b>12,625,115</b>

\* Provisional

Table 8. Development Cooperation Program (Expenditures)

1,000 Yen

Project	F.Y.1978	F.Y.1979	F.Y.1980	F.Y.1981*	Cumulative Total*
1. Basic and Development Survey					
(1) Forestry Development Project in South Sumatra	45,297	18,493	5,216	732	69,738
(2) Forestry Development Project in Central Sulawesi	5,688	-	-	-	5,688
(3) Forestry Development of the Barito River Upper Basin	-	11,351	24,239	25,903	61,493
(4) Lesser-Known Species Development Project in Central Kalimantan	-	9,092	-	-	9,092
(5) Forestry Development Project in North Sulawesi	-	7,753	-	-	7,753
(6) Agricultural Development of Togian Islands	-	13,583	2,549	-	16,132
(7) Cilacap Cement Development Project	-	-	34,609	-	34,609
(8) Sago Palm Development Project (Indonesia and others)	-	-	2,548	-	2,548
2. Financial Cooperation Survey	4,333	6,978	4,944	5,657	21,912
3. Technical Guidance Service	13,167	21,638	31,056	10,911	76,772
Total	68,485	88,888	105,161	43,203	305,737

\* Provisional

