12. Agriculture and Fisheries

12.1. Overview

The sector of agriculture including agricultural development, irrigation development, and grant aid for increased food production (2KR): livestock development: and fisheries development. In this report, this sector is referred as Agriculture sector.

The following table shows the overview of initiatives by the government of Indonesia and Japanese cooperation responding to them.

Table 12-1 Issues and Cooperation in the Sector

Decades		1960s	1970s and the Early 1980s	Late 1980s	1990s up to Asian Currency Crisis	After Asian Currency Crisis
Agriculture and Fisheries	Period Background	− Cold War − High economic growth in Japan − Development system had established in Indonesia − Dependent on crude oil production − - Suharto administration started (1965)	− First Oil Shock (1973) − High economic growth in Japan − Balance of payment crisis	− Structural change from oil dependent economy − Plaza Accord (1985)	− Economic growth (up to 1997) − Asian currency crisis (1997) − El Nino(1997) − Birds flu (1997)	− Decentralization − Global financial crisis (2008)
	Sector-wide Issues	− From food import to self sufficiency		− Self sufficiency of food (1984) − Diversification of food intake	− Food import − Income disparity	− Food import − Income disparity
	Priority Development Issues shown in 5-year plan	− Food cop production and self sufficiency		− Self sufficiency of food and its diversification	− Increasing farmers' income	− Stable food supply and enhancing farmers' income
	Japanese Approach for Development Issues	− For food crop production		− For food crop production and its diversification	− For increasing farmers' income. − For urgent food crop production	− For stable food supply and enhancing farmers' income − Part of poverty alleviation program
	Priority Programs/ Projects for Japanese Cooperation	− Technical cooperation and expanding irrigation area − Umbrella program for rice production (1981-85)		− Umbrella program for main food crops (1986-90)	− Umbrella program for increasing farmers' income (1995-2000) − Cooperation to livestock and fisheries	− Sector study of agriculture, fisheries and livestock (2000) − Cooperation to livestock and fisheries

Source：JICA Study Team

(1) Agriculture Sector in Indonesia

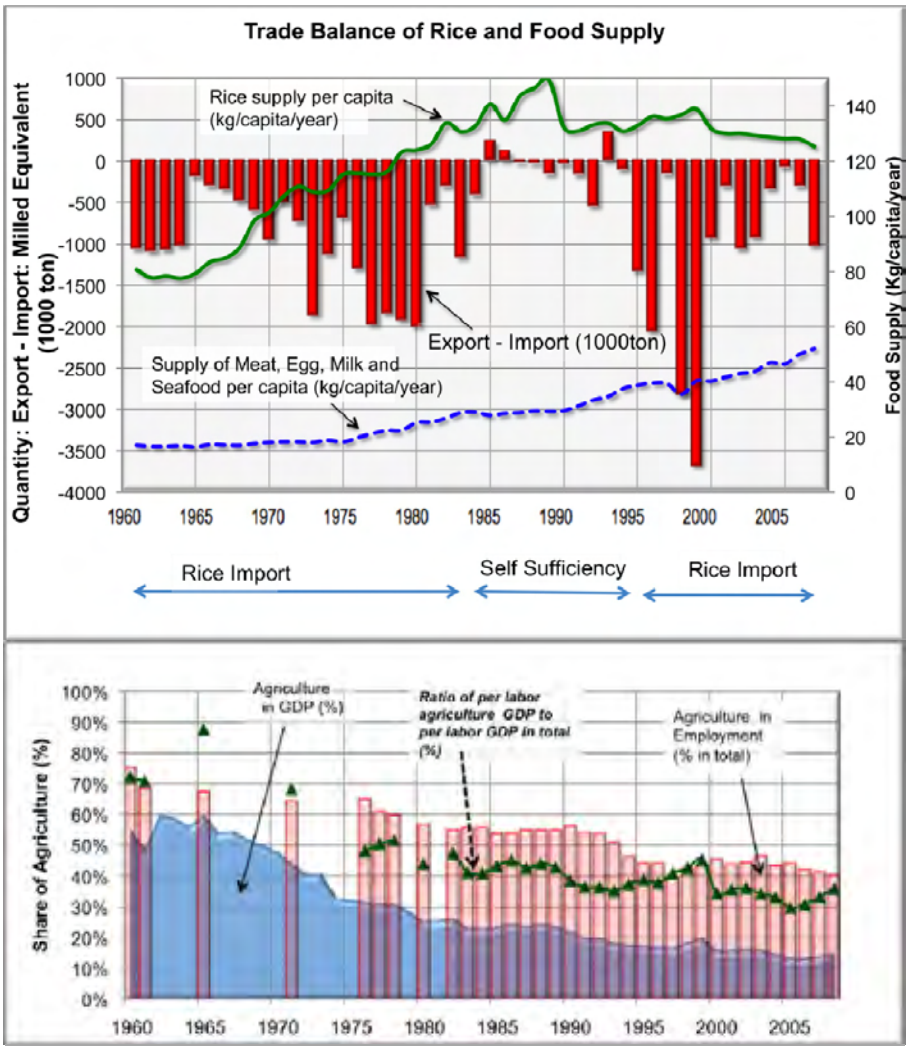
The agriculture sector has played important roles in Indonesian socio-economy. It has supplied staple food to the people; it had been served as one of the major industries; and it has been served as main income source for many people to earn livelihood.

Table 12-2 Changing Roles of Agricultural Sector in Development

Roles in Development		1960s	1970s	1980s	1990s	2000s
						(annual average for each decade)
Food Supply	Export/Import (000 ton)	-700	-1,400	-200	-1,100	-600
Economy	Proportion of Agriculture in GDP (%)	53	33	24	18	15
Livelihood	Proportion of Agriculture in Employment (5)	68	61	55	46	43
Income	Rate of Agricultural Income to Average Income	79	52	43	39	34
Major Roles of Agriculture in Development		Food Supply and Economic Base		Income Increase		Income Increase, Food Supply and Rural Development

Source: JICA Study Team based on statistics provided by FAO and BPS-Statistics Indonesia

In the 1960s and the 1970s, supplying food to the people was the most important. Agriculture was also one of the major industries. The role of leading industries had been diminished as time goes on except for the export commodities such as palm oil and shrimp cultivation. As the economy grew, increasing farmers' income through value added agricultural products has been more important issue than others. In the 2000s, the agriculture sector is expected to ensure stable food supply and to increase farm income by adding value of its products.



Source : FAO, World Bank, ILO, BPS

Figure 12-1 Agriculture in Socio-Economy

(2) Japanese Cooperation in the Sector

Japanese cooperation projects in the agriculture sector are classified by sub-sector, the cooperation mode and the period in the following table. Many of projects are targeted at agricultural development and irrigation development, which aims at increase of rice production.

Table 12-3 Projects by Sub-sector, Cooperation Mode, and Year

	Cooperation Mode							Year					Total
	Technical Cooperation		Grant Aid			Loan							
	Technical Assistance	Development Study	General	Food Aid	Increase of Food Production	Engineering Service	Project/ Program	1960s	1970s	1980s	1990s	2000s	
Agriculture	32	14	20	0	0	0	6	2	10	27	24	9	72
Irrigation	6	22	13	0	0	9	43	0	20	26	36	11	93
Food	0	0	1	14	29	0	0	2	12	10	12	8	44
Livestock	11	0	5	0	0	0	0	0	4	4	1	7	16
Fisheries	11	2	5	0	0	2	10	1	11	2	6	10	30
Total	60	38	44	14	29	11	59	5	57	69	79	45	255

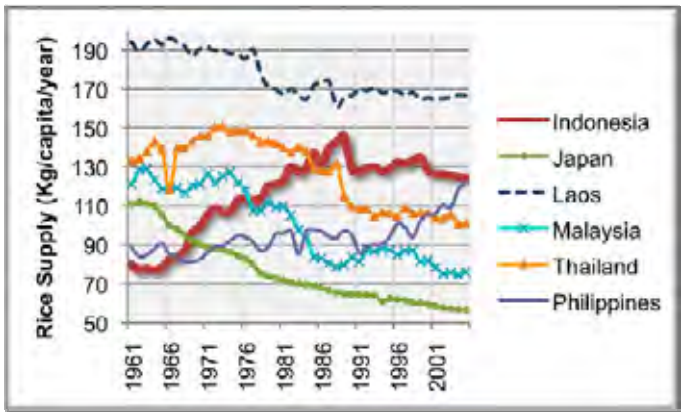
Source: Ministry of Foreign Affairs in Japan.

12.2. Agriculture Sector and Cooperation in each Period

(1) From the 1960s to the 1980s (From nation-building to development)

Issues: In 1960s, the agriculture sector was a major industry that accounted for more than 50% of GDP and 70% of employment. In the 1970s, the sub-sector of food crop accounted for 70% of agricultural GDP; livestock and fisheries accounted for only few percent. Rice production was by far important in the sector in this period.

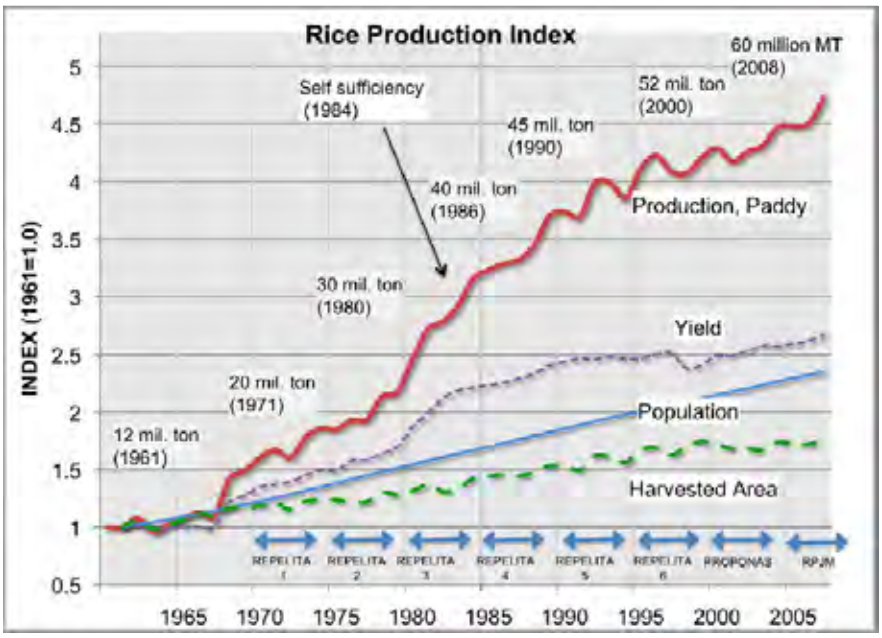
The increase of rice production and its self-sufficiency was an urgent and priority issue for the stability of the country since the independence. In the 1960s and the 1970s, it was an era for nation building and laying a foundation for the development; the stability of the government and the state was the most important issue. Food shortage was one of the most serious factors of instability. In the 1960s, rice supply per capita is 80 kg/capita, which was lower than those of Asian countries. A volume of rice was imported to fill the gap between rice supply and consumption.



Source : FAO

Figure 12-2 Rice Supply per Capita Compared

From 1967, the country succeeded in the increase of rice production at a higher rate than that of population growth. The increase of rice production was accelerated in the late 1960s and the late 1970s; Indonesia achieved self-sufficiency of rice in 1984. This was the result of intensification of rice production, which promoted the Green Revolution. In the late 1990s, Indonesia imported substantial amount of rice due to El Nino, heavy rain, and shortage of agricultural input due to the Asian currency crisis.



Source : FAO

Figure 12-3 Rice Production

Indonesian Initiatives: Economic policies after the independence aimed at quick development where agriculture was not prioritized. However, rice production program such as DEMAS and BIMAS was initiated. The main issues of agriculture and Japanese cooperation are shown in the table below.

Table 12-4 Agricultural Policies and Japanese Cooperation in 1960-80

Period	Agricultural Development Policies	Japanese Cooperation
Before 1969	BIMAS for rice production	● Increase of food production in Java ● Outer islands development ● Umbrella cooperation for rice （1981-85） ● Livestock and fisheries cooperation
1st Five Year Plan (1969-1974)	**Increase of Food Production:** Large scale irrigation, BIMAS, Outer island development, Export of agro-products.	
2nd Five Year Plan （1975-1979）	**Self-sufficiency of Rice and the Increase of Other Food Crop Production:** Technical development, dissemination of technologies, and enhancing productivities of rice and other food crops; Outer islands development; and INMAS program	
3rd Five Year Plan （1980-1984）	**Integrated Crop Development and Integrated Regional Development:** Regional development, local appropriate crop development, farmers group, agro-processing	

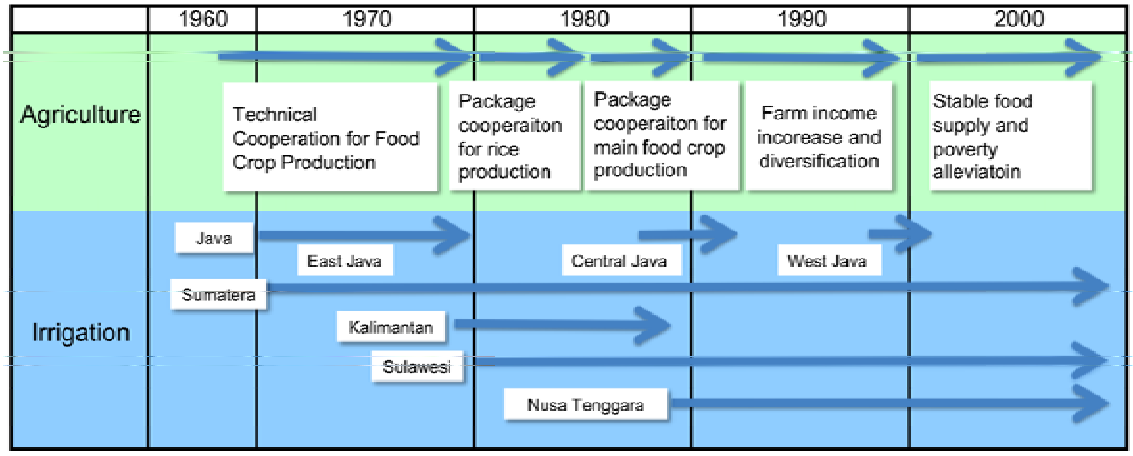
Source: JICA Study Team

Japanese cooperation: Responding to their initiatives, Japanese cooperation gave priority to the increase of food production and stable food supply. The cooperation has been extended responding to the food supply balance. Japan extended food aid in the food shortage period. Japanese cooperation has been contributed to the increase of productivity by promoting the Green Revolution.

Cooperation for Food Production

Japanese cooperation has contributed to the increase of food production and its self-sufficiency. The cooperation was extended in the technical assistance such as dissemination of seeds and improvement of agricultural researches, and the financial aid such as expansion of irrigation area and providing agricultural inputs. From the 1960s to the early 1980s, the cooperation was centred in the increase of food production, mainly for rice. In the late 1980s, program cooperation was given to the main food crops including other crops than rice. The cooperation had been extended for the increase of farmers' income in the 1990s; for food self sufficiency and the increase of farm income in the late 1990s; and for poverty alleviation in East Indonesia as part of the program in the 2000s.

The irrigation development projects were implemented in East Java and Sumatera in the 1970s. The project areas has been moved to Kalimantan and Sulawesi, and East Indonesia.



Source：JICA Study Team

Figure 12-4 Cooperation in Crop Production

In the 1960s and the 1970s, technical cooperation for food production was extended in Java. These were assistances for maize production (1967-74) in East Java, for food production （1968-76） in West Java, and for the pilot project of irrigated rice production （1971-76） in Central Java. In addition, research cooperation for rice and pulses was extended （1970-85）.

The technical assistance projects for outer island development were implemented; these were Lampung agricultural development (1972-1982) and South Sulawesi Agriculture Development (1976-1982) area. The projects for irrigation development were implemented in mainly East Java and Sumatera, and extended to Kalimantan and Sulawesi.

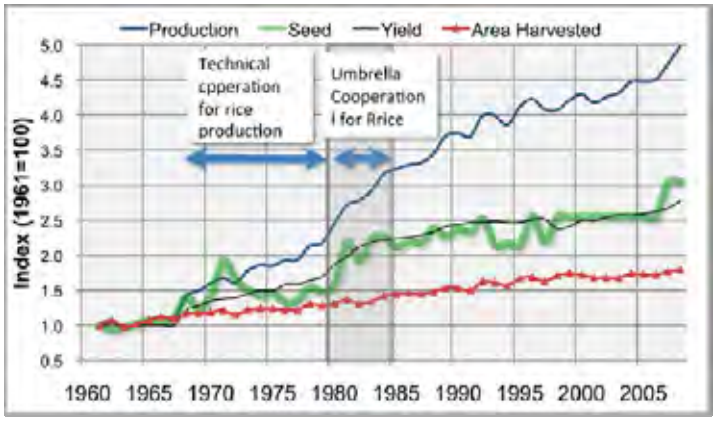
In the intensification of the rice production, the disease and insect damages were spreading, especially the damage by brown plant hopper. Responding to these problems, Umbrella Cooperation for Rice Production (1981-85) was extended.As a result of the cooperation, the productivity of rice was increased rapidly during the period between 1979 and 1982, which made possible to achieve the self-sufficiency of rice.

Umbrella Cooperation for the Increase of Rice Production （1981-85）

This is the packaged program for the increase of rice production by combining the technical and financial cooperation. The program covered various fields: 1) seed mutiplication and distribution, 2) plant protection, 3) demonstration and dissemination of agricultural techniques, 4) irrigation development, and 5) reducing post-harvest losses. The target areas of the program were 8 provinces: Aceh, South Sumatera. Lampun, West Java, Central Java, East Java, South Kalimanta, and South Sulawesi provinces.

In the field of plant protection, technocal cooperation for plant protection (1980-87) supported to establish disease and pest forecasting and guidance network. This was accompanied by a development study to prepare plant protection network paln, and followed by a grant aid for providing necessary facilities and equipment. As a result, technical skill of courterpart personnel was improved, so that they could undertake third-country training courses. The plant protection technologies were disseminated to the field level, which contributed to the increase of rice productivity.

In the field of seed multiplication and distribution, the development study prepared the production and distribution networking plan, which was followed by a grant aid and loan for providing facilities and equipment. Seed production was rapidly increased in the early 1970s and the early 1980s. The latter period is the period of rapid increase of the rice yield and produciton when umbrella cooperation was extended. It implies that there was contribution of the umbrella cooperation to some extent to the increase of rice production.

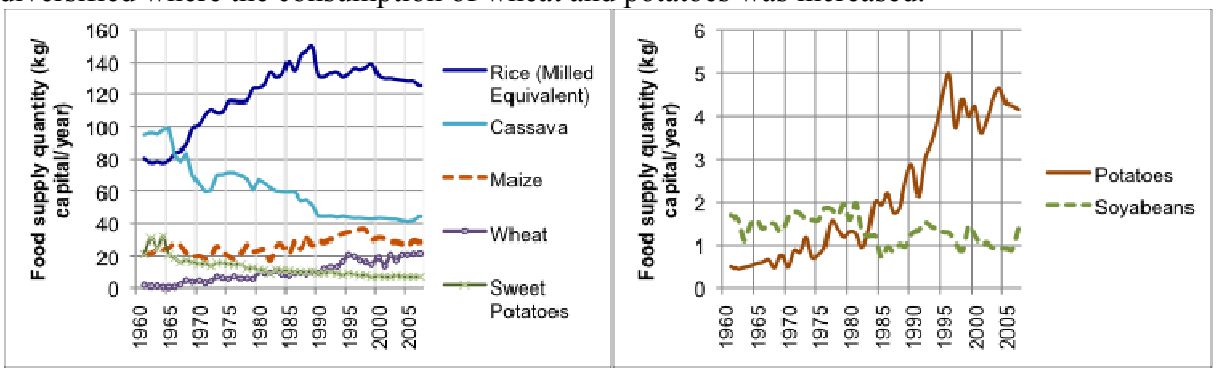


Source: FAO

Figure 12-5 Seed Production of Rice

(2) The late 1980s (Structural adjustment)

Issues: Since the late 1960s, the rice production had increased; self-sufficiency of rice was achieved in 1984. The share of the agriculture sector in GDP was decreased by 23% in 1984, while the share in employment was still 55%. Food consumption was diversified where the consumption of wheat and potatoes was increased.



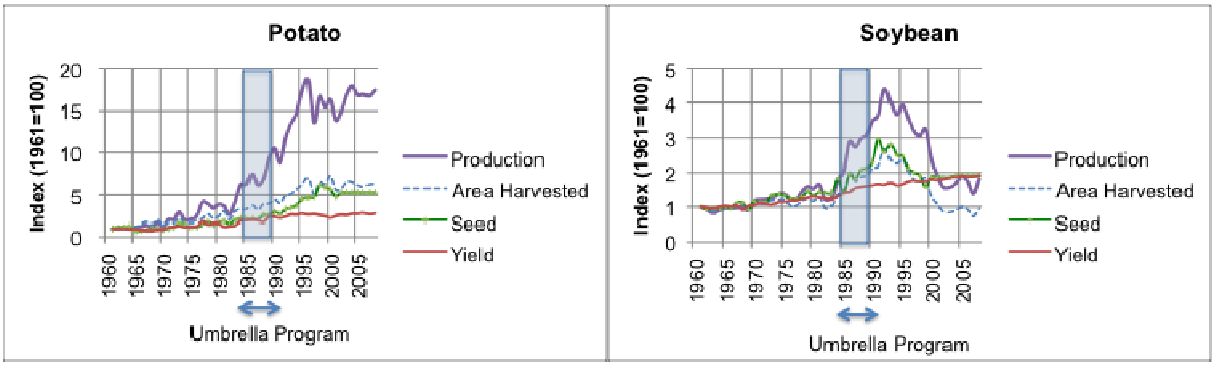
Source: FAO

Figure 12-6 Per Capita Food Supply in Indonesia

Initiative by Indonesia: The Forth National Development Plan (REPELITA IV: 1985-89) has the objectives of the increase of the farm income in addition to the increase of food production. It aimed at achieving self-sufficiency of secondary crops such as soybean, maize and peanuts in addition to rice. It had also policies of the rice

field development in outer islands accompanied by migration from Java.

Japanese cooperation responded to these initiatives flexibly. The Second Umbrella Cooperation (1986-90) was extended for the increase of major crop production including soybean, potatoes and rice. It covered 1) seed multiplication and distribution, 2) plant protection, 3) demonstration of technologies, 4) irrigation and water management, 5) post-harvest management, 6) appropriate agricultural mechanization by combining technical and financial cooperation. The cooperation was extended to Java, Sumatera and Sulawesi. In this period, the seed production of soybeans and potatoes had been increased. It contributed to the increase of the productivity, accordingly the increase of the production.



Source: FAO

Figure 12-7 Production Index of Potato and Soybean

(3) The 1990s (Economic growth up to the currency crisis)

Issues: In the 1990s, the agriculture sector accounted for approximately 20% of GDP and 50% of the employment. However, farm income had been stagnated. For the increase of farm income, livestock and fisheries were promoted.

In 1998, five million ton of rice was imported, which reminded the government of the importance of stable supply of rice. Food consumption was diversified; the consumption of meat, eggs, mile, and seafood was increased.

Initiatives: REPELITA V (1990-94) emphasized the balanced economic structure and reducing regional disparity. REPELITA VI (1995-99) laid stress on balanced development between rural and urban areas for balanced and stable economic growth. The increase of farm income was prioritized. However, the rice import in 1998 changed the government policy into prioritizing food production again.

Japanese cooperation: The Third Umbrella Cooperation (1995-2000) was extended for enhancing farm income. It covers food crops, vegetable, livestock and fisheries for their productivity increase, diversification and adding values. The target areas were South Sulawesi for irrigated agriculture, West Java for highland agriculture, West Nusa Tenggara for low land agriculture, and South Kalimantan for agriculture in swamp areas. After the poor harvest and import of rice in 1998, responding to the change of the

Indonesian policy, the program was modified to urgent food production in model areas in West Java and South Sulawesi.

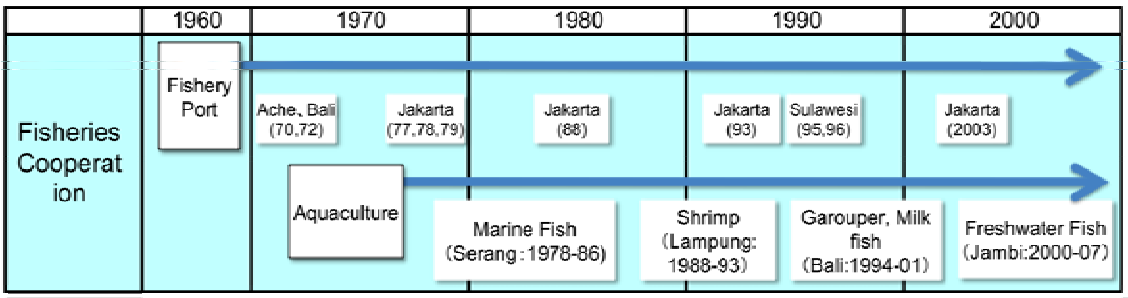
Fisheries Cooperation

Japanese fisheries cooperation was extended in two fileds: fishing ports and aquaculture. Fishing port projects has been implemented from the 1970s to the 2000.

Technical cooperation to acuacultre has been extended from the late 1970s, targeting the fields and areas responded to the needs in each period. The first aquaculture cooperation project (1978-86) in Serang of West Java developed many human resources. The shrimp cultivation project (1988-93) in Lampung province developed disease control and seed shrimp production technologies and provided these technologies to private companeis. As a result, the shrimp industry had been developed. In addition, the seed production technology was developed for garoupers and milk fish by a technical cooperation project in Bali (1993-2001). As a result, it provided jobs for fishermen who had practiced dynamite fishing. Freshwater aquaculture project in Jambi (2000-07) developed tilapia proudction technology.

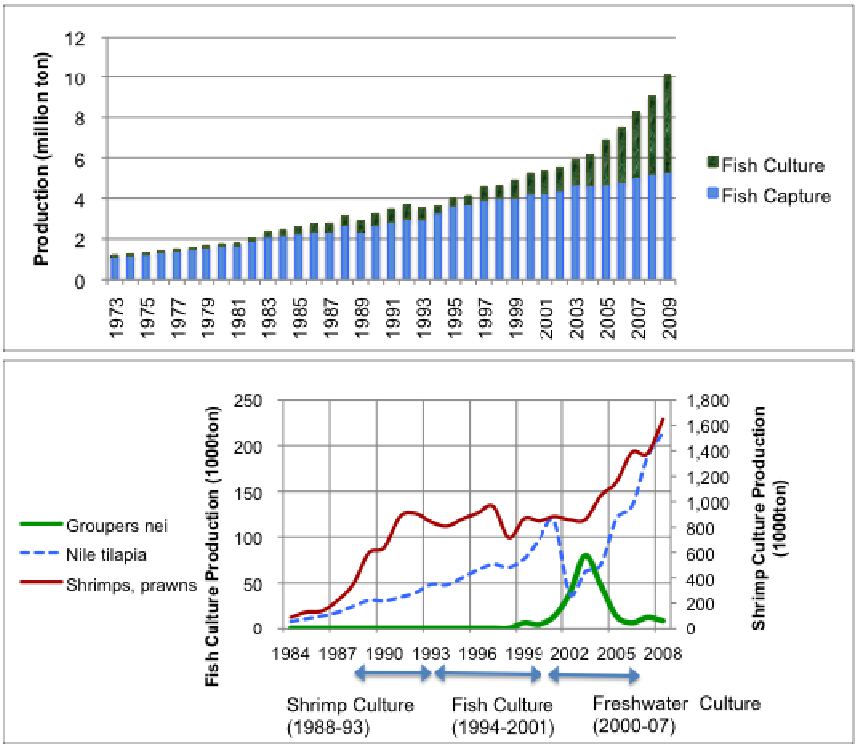
Since 1990s, the aquaculure industry has developed. In 2009, the production volume of aquaculture was as large as that of fish capture. The aquaculture production of shrimp, garoupers and tilapia has grown in the 1990s, the 2000s, and the middle of 2000s respectively.

The fisheries sector accounted for only few percent of agricluture GDP in 1970, while it accouted for 20% in 2009.



Source: JICA Study Team

Figure 12-8 Fisheries Cooperation



Source：FAO, Ministry of Marine Affairs and Fisheries

Figure 12-9 Aquaculture Production

(4) The 2000s (Transform)

Issue: The proportion of the agriculture to the economy in GDP was decreased to approximately 15%, while that in the employment was still 45%. The major issues were the increase of farm income and stable food supply. Among the agriculture sector, the sub-sector of food accounted for 50%, livestock for 12%, and fisheries for 16%.

The calorie based food intake per capita become average in Asian countries, however, that of protein is still below average. As the economy grows, the demands for the source of protein such as meat, eggs, milk and seafood are expected to expand.

Initiatives: PROPENAS (2000-04) set goals of farm income increase and stable food supply. Mid-Term Development Plan (RPJM, 2005-09) emphasized the promotion of the agriculture sector for the job creation in the rural areas and contribution to economic growth. It set goals of food security, agro-industry development, and improving living standard of farm households.

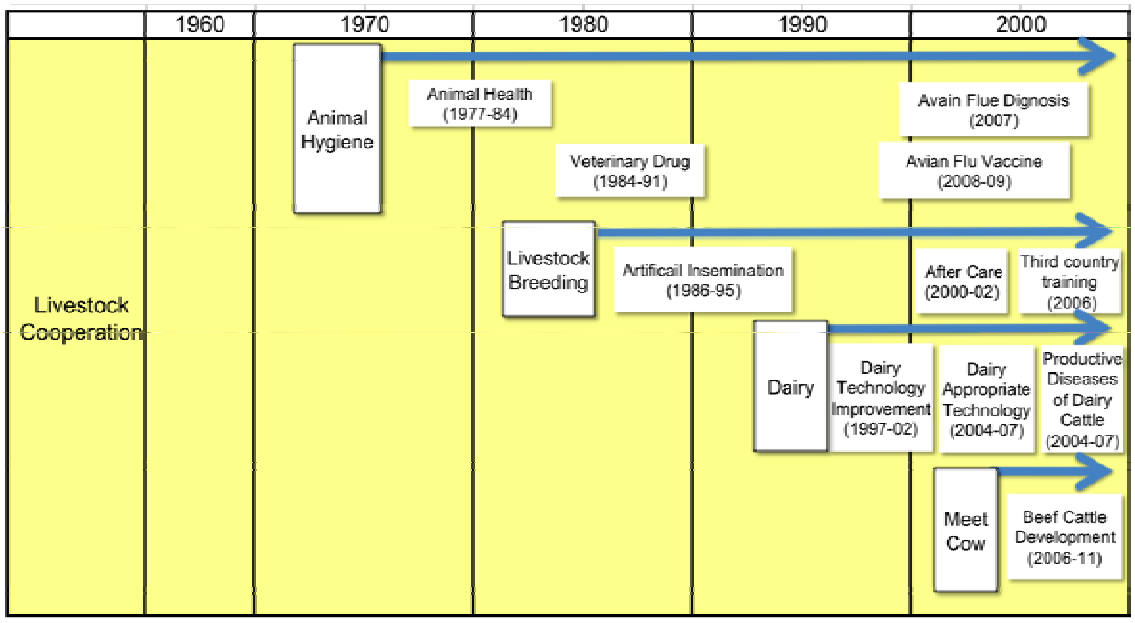
Japanese cooperation: The sector study for the agriculture development (2002-05) was conducted. It proposed programs of institutional reform of the agriculture, infrastructure development, sustainable use of fisheries resources, rural development, and marketing development, which aimed to stable food supply and nutrition improvement as well as farm income improvement and rural economy promotion. In the 2000s, with the introduction of program approach, the agriculture sector development has been extended as part of poverty alleviation and East Indonesia development.

Livestock Cooperation

As national income grew, the demand for livestock products, especially beef and milk, has been expanded. Accordingly, there has been a development need of beef and milk as a source of protein for the people as well as a diversified source of income for the farm households. The share of agricultural GDP to the ecomony increased from 5% in 1977 to 15% in 2007.

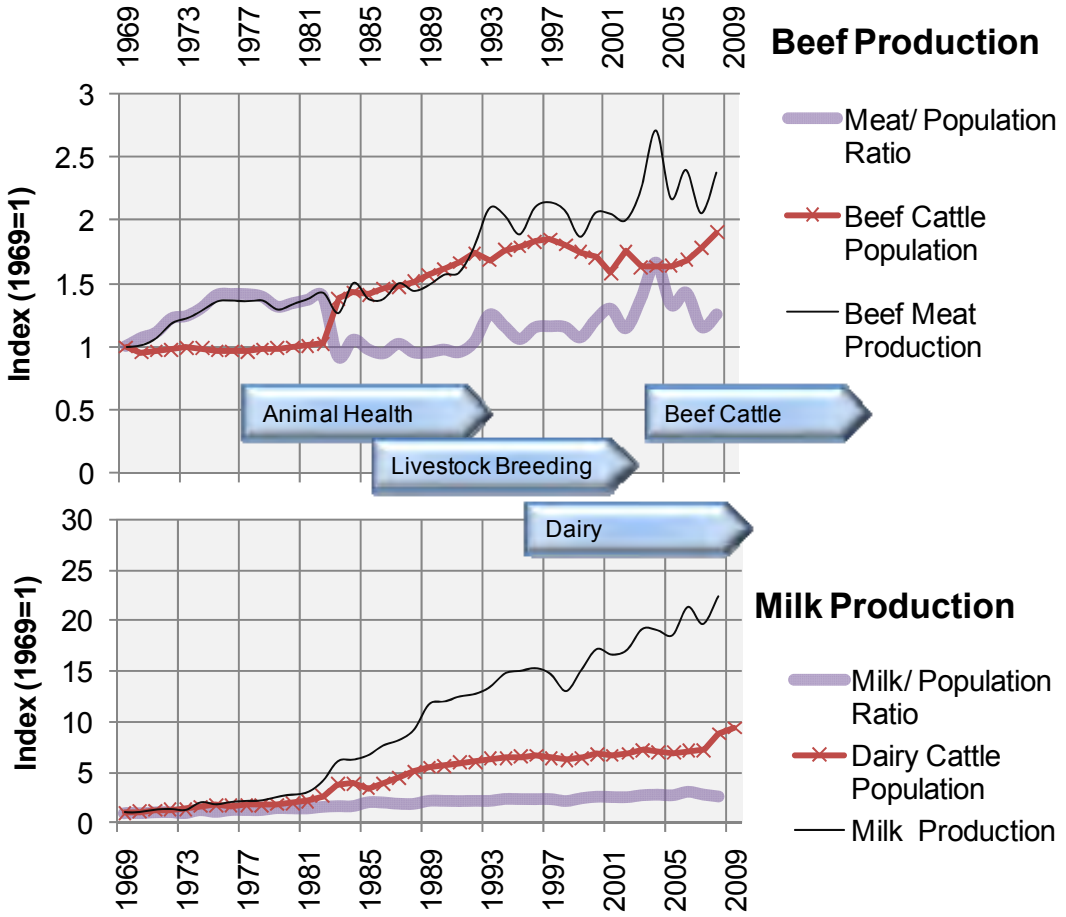
The Japanese cooperation in the livestock sub-sector started with technocal cooperation to the animal health improvement in the 1970s. In the 1980s, technical cooperation to the livestock breeding was commenced. The technical cooperation project for artificail insemination was implemented for improving productivity of livestock. In the 2000s, the technical cooperation projects to dairy sector and beef cattle production were extended responding to their needs.

The number of beef cattle had increased in the 1980s when animal health project commenced. The productivity had increased in the 1990s when the livestock breeding project had born fruit. The number and the productivity of dairy cow has increaesd in the 1980s. Milk production has continuously expanded since the 1980s.



Source: JICA

Figure 12-10 Livestock Cooperation



Source: Ministry of Agriculture

Figure 12-11 Beef Production and Darly Promotion: Trends and Cooperation

12.3. Summary

Responding to the initiatives by Indonesia, Japanese cooperation supported them in two ways. Firstly, to meet the national demand for foods, an integrated assistance to the increase of food production was made, which contributed to achieving self-sufficiency of rice. Secondly, an integrated assistance, combining technical and financial cooperation, supported to strengthen capacities of administrative and research and development institutions in various fields, which contributing to laying a foundation of agriculture development.

Japanese cooperation has been extended in the following ways.

1. Japanese cooperation has been support Indonesian initiative in integrated way, responding to the important issues. The important issues have been changed from the expanding production and self-sufficiency of rice, the expanding production of main food crops, and increasing farm income including livestock and fisheries promotion. In the period of crisis, food aid and assistance to additional food production were made.

2. At the beginning, project base cooperation was extended. Cooperation has been

gradually made in more integrated way combining technical and financial cooperation, then project level to program level.

1) Project level package cooperation has supported to strengthen the capacities of the administrative and research and development institutions in a package combining technical and financial cooperation. Capacities of human resources and organization were strengthened by technical cooperation, and facilities and infrastructure were strengthened by financial cooperation.The capacities of these institutions are strengthened. Many of these institutions such as Singosari Artificial Insemination Center hosted third country training program.

2) Program level package cooperation was made by introducing a series of Umbrella Cooperation. It gave a integrated support to respond to the issues, by combining various mode of cooperation such as development study, technical assistance, grant aid and loan.

- Development Study prepared master plan showing a road map to the development. According to the plan prepared, technical and financial cooperation were extended.
- Technical cooperation was extended to the base institution.
- Infrastructure such as irrigation facilities was developed by financial cooperation.
- Grant aid such as the Increase of Food Production (2KR) and loan provided agricultural inputs such as fertilizer, pesticide and agricultural machinery necessary for the development.

3. The characteristics of Japanese cooperation are highlighted as follows:

- Integration: Package type comprehensive support.
- Collaboration and Interaction: Horizontal and interactive cooperation.
- Field Based Activities based on the Japanese Experience: Cooperation by experts who had experience in Japan.
- Networking: Building network in Indonesia as well as Indonesia and Japan.

4. The weaknesses of Japanese cooperation are highlighted as follows.

- Bureaucracy at the Pipeline of the Cooperation: Once projects start, it goes smoothly. But, the pipeline of the project is clogged by strong bureaucracy.
- Information Management and Publicity: Information is not well managed and publicized. There is room for improvement in publicity.

5. With decentralization, technical departments of local government were given responsibilities; technical capacities of local sectoral department need to be strengthened.

6. Cooperation contributed to build a network between Indonesia and Japan. Thorough the collaborative work, Indonesian counterpart personnel have learnt technologies and discipline. Human resources have been developed and organizational capacities have been strengthened. Partnership and network between Indonesian and Japanese institutions has been built. It is desirable to have further interactive and local to local partnership for the future. These sustaining partnerships would contribute to

development of Indonesia, mutual trust of both people, and contribute to the peace and prosperity of the Asia.

13. Private Sector Development

13.1. Outline of the Sector

To develop private sector, it is necessary to promote domestic and foreign private investments and reinforcing industrial competitiveness of the companies. For that purpose, there concerned many factors; political and economic stabilities, economic infrastructures such as transportation and energy, labor force and its qualities, institutional arrangements as a basis of business activities. In this sense, infrastructure development is a tool for private sector development also. It is however, this chapter will focus on Japan's cooperation which directly targeting at the business sectors, and refer to other related factors when necessary.

In this sector, Japan's cooperation consists of 1) Business environment improvement such as fair competition, customs, legal metrology system, 2) manufacturing development, 3) small and medium industry development, 4) vocational training, 5) tourism, and 6) "national projects" on the basis of public-private cooperation such as Asahan Aluminium.

13.2. Transitions of Japan's Cooperation Over Periods

Firstly, the report explains an overview of the 50 years' changes in private sectors.

Regarding changes in import and export, Indonesian import and export values have increased from 1970s' to the present except between 1997 and 1999 when Asian economic crisis hit the country in both non-oil and gas products and oil and gas products. Though oil and gas products exports grew up moderately compared to the stable growth of import and export of other products.

Source: Indonesian statistics office

Figure 13-1 Change in Import and Export Values

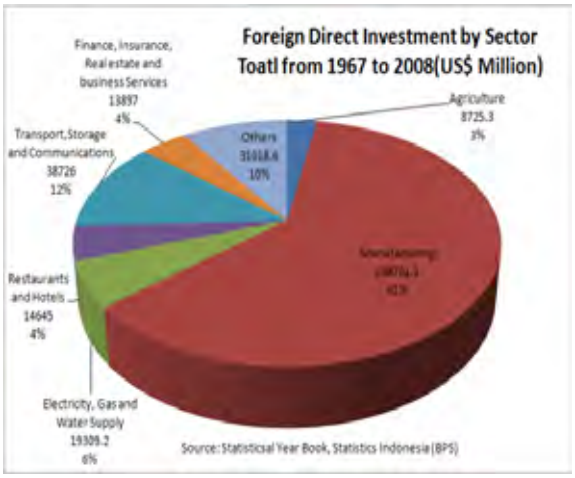


Figure 13-2 Cumulative Total of Foreign Direct Investment by Sectors

Foreign direct investment (FDI) seems one of the reasons behind the difference. Regarding FDI, 61 % of FDI concentrated in industrial sector. As a result, comparison

of export value by economic sector between 1982 and 2008 shows balance among each export sector became more even in 2008 whereas a heavy concentration (83% of export value) in 1982. That situation is what exactly Indonesian government has intended to achieve.

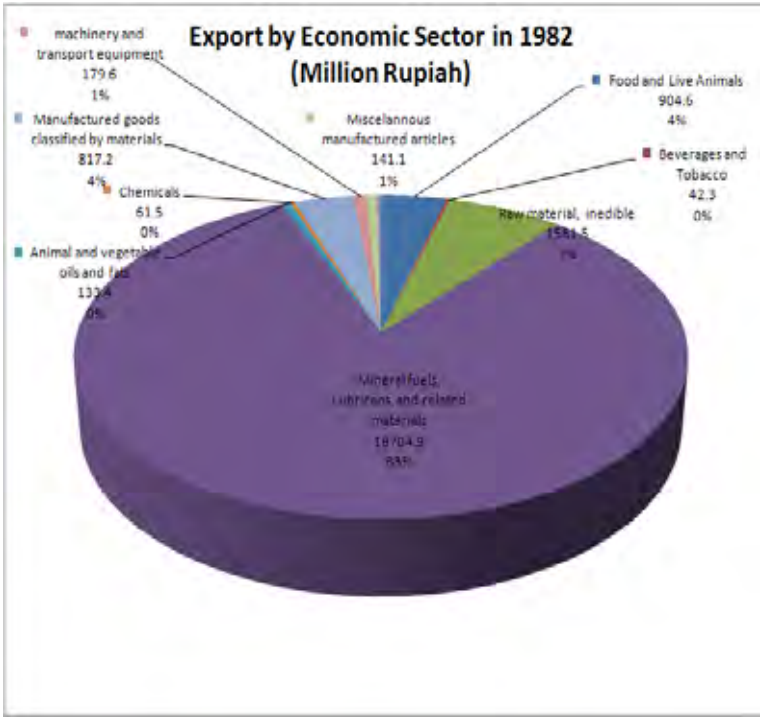
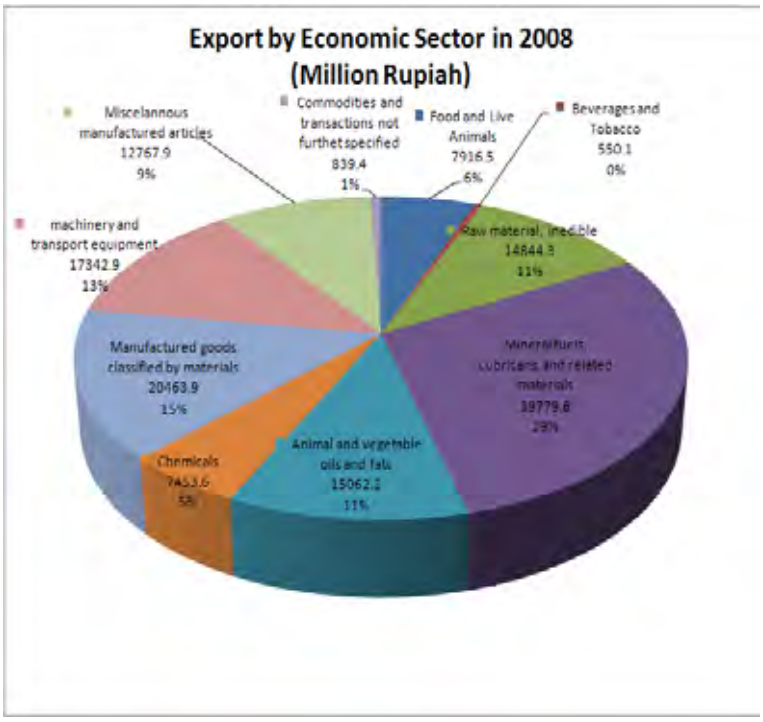


Figure 13-3 Export Value by Economic Sectors in 1982



Source: Indonesian statistics office

Figure 13-4 Export Value by Economic Sectors in 2008

The table 13-1 below show an overview of Japan's cooperation period.

Table 13-1 Private Sector Development and Japan's Cooperation

Decades		1960s	1970s and the Early 1980s	Late 1980s	1990s up to Asian Currency Crisis	After Asian Currency Crisis
Private Sector Development	Period Background	− East and west cold war − Green revolution − From President. Sukarno to President. Suharto − Oil dependent economic development	− The 1st oil crisis (1973) − Crisis of international balance of payments (1982)	− Plaza agreement (1985) − Finish of east and west cold war − Restructure from the oil dependent economy	− Asia currency crisis (1997) − Resignation of President Suharto	− Democratization − Decentralization
	Sector-wide Issues	− Nationalization of major industries − Investment Licensing System − National Import Monopolization − Decrease in FDI − New Law on FDI(1967)	− State-led Industrial Development in Textile, fertilizer, paper − Japanese Companies Investment Started	− Economic Stagnation Caused by Low Crude Oil Price − Japanese Companies Direct Investment Increased	− Amendment in FDI Law (1994): Allowed 100% Foreign Capital − Economic Recovery by Crude Oil Price Increase − Retreatment of Foreign Capitals	− Privatization of National Companies − Negative List Revised(2000)
	Priority Development Issues shown in 5-year plan	− Basic Manufacturing and Oil/Gas Industries − Linkages between Agriculture and Industry	− Focus on Basic Consumer Goods − Labor Intensive Industrial Development	− Industrial Structure Change: Out of Oil Dependency − Capital and Intermediate Goods Production − Industrial Machinery, Fertilizer, Cement, Textile − Linkage between Large Industries and SMEs	− Balanced Economic Structure − Industrial Export − Linkages between Agriculture and Industry − Service Industry Development − Non-oil/Gas Export Promotion − Competitive SMEs	− Globalization and Decentralization − Micro-, SMEs Promotion − Financial Stability and Export Promotion − Non-Oil/Gas Export Promotion − Capital Market Improvement − Industrial Competitiveness
	Japanese Approach for Development Issues	− Wartime Reparations − Core Industry Development		− Export-oriented Industry Development − Foreign Direct Investment Promotion	− Supporting Industries for Large Manufacturing	− Private-led Sustainable Development − Economic Infrastructure for Investment Promotion − Supporting Industry/ SME Promotion − Business Environment I − Financial Sector Reform
	Priority Programs/ Projects for Japanese Cooperation	− Rehabilitation of National Factories	− Rehabilitation/ Renovation of National Factories − National Project − Vocational Training	− Export-oriented Industry Promotion − Vocational Training − Export Promotion	− Supporting Industry Development − Vocational Training − Export Promotion	− SME Promotion − Business Environment Improvement

(1) The 1960s'

After the independence, Indonesian government proceeded to monopolize import by national companies under nationalization of main industries such as mining, agriculture farms, marine transport, insurance; investment licensing system; and import substitution industrialization policy. Although textile, shipbuilding, steel, cement, and fertilizer industries were developed, foreign direct investment decreased. Then, Indonesian government established "Law NO.1/1967 on Foreign Investment" in 1967 and opened its investment market to foreign countries. Japan's cooperation was limited in this period in rehabilitations of caustic soda, paper, and textile factories.

(2) The 1970s' to the early 1980s'

In June 1968, Suharto administration was established. President Suharto declared the New Order (*Orde Baru*) and economic development as a national target. President Suharto assigned Dr. Widjojo Nitisastro, faculty of Economics, University of Indonesia, and other technocrats for economic development. They established a mechanism of economic planning and implementation based on the Five Year Development Plan (Repelita: *Rencana Pembangunan Lima Tahun*) as the National Development Planning Agency (BAPPENAS: *Badan Perencanaan dan Pembangunan Nasional*) taking main roles in. The first five year plan of 1969 clearly stated that Indonesia pursued economic development depending on the foreign direct investments and foreign assistances.

In this period, main economic actor was the government and main industries like textile, fertilizer and paper are dominated by national companies. Japan's cooperation, thus, focuses on these national manufacturing companies and some supporting industry developments such as foundry center in Jakarta and Medan by providing ODA loans.

Center for Vocational and Extension Service Training(CEVEST)

CEVEST is one of the vocational training centers based on the "ASEAN human development concept" put forward by then Japanese Prime Minister Zenko Suzuki in 1981. In this concept, building one vocational training center in each ASEAN country by Japanese grant aid in order to foster vocational training instructors as well as small and medium sized enterprises workers is intended.

In CEVEST, from 1983 to 1990, technical cooperation were provided to foster public training instructors and extension workers in the areas of machinery, automotive, welding, sheet-metal working, electronics, electric, and training methodology. Buildings and equipments were provided by Japanese grant and said the latest and better than universities and polytechnics at the time. The second phase technical cooperation was provided from 1992 to 1997. In this phase, trainings for vocational training center trainers and workers in private companies of machinery, electronics and electric were provided.

It is said that Japanese expert trainers brought the idea of "practical trainings based on practice and exercises" and of "step by step leaning methodology" into Indonesia and gave large impact to theoretical training methodologies common in Indonesia at the

time. It is reported that the idea similar to 5S[33] and millimeter standard, which were introduced through CEVEST project, were new in Indonesia.

B2PLKLN - CEVEST

CEVEST is now called formally as B2PLKLN (*Balai Basar Pengembangan Latihan Kerja Luar Negeri*: The Institution for Manpower Training and Development of Overseas Employment), and is one of the four major training centers under the Ministry of manpower and transmigration. The center provides trainings for workers who plan to go abroad and vocational training instructors of the decentralized public vocational training centers under local governments. It also provides trainings to factory workers based on requests of private companies.

The center is expected to take a major role as a training center for vocational training instructors under the decentralization settings. It also will be the central agency for vocational skill certificate called "Competency test" which has been developed by the collaboration of the Indonesian Professional Certificate Authority (IPCA) and Japan Vocational Ability Development Association (JAVADA). New accommodation for trainees from local areas has been constructed by Indonesian government.

CEVEST

Machinery workshop

New accommodation

Asahan Aluminium Project

A national project, "Asahan Hydroelectric and Aluminium Project (1975)" started in this period. The project was implemented by a joint venture company of the Indonesian government and 12 Japanese private companies as a national project. By using the stream of Asahan river which come down from the Lake Toba located 905m in altitude with 1260km^2 area, hydroelectric power is generated. Then the power is used for an aluminum refinery (production: 225 thousand tonnage per year); the first aluminum refinery in the Southeast Asia. The project was started in 1978 and finished in November 1984 with total investment of 411 billion Japanese Yen. P. T. Indonesian Asahan Aluminium (INALUM), the joint venture, is still only one aluminum refinery in Indonesia and hires 2,311 workers including power plant.

[33] There are 5 primary phases of 5S: sorting (*Seiri*), setting in order (Seiton), systematic cleaning (Seisou), standardizing (Seiketsu), and sustaining the discipline (Shitsuke).

(3) The late 1980s

In late 1980s, Indonesian government started to seek a way out of dependency in oil since economic stagnation caused by crude oil price downturn. Then introduction of foreign capitals as well as technologies were pursued for industrialization and diversifying export products. In this period, Japan continued to support renovations of national companies. Also, small and middle metal industry developments were focused.

The Plaza Accord of 1985 had driven Japanese companies investing in export-oriented industries in ASEAN countries. Japanese government also announced New Asian Industries Development（AID）Plan in 1987, which emphasized the integration of trade, direct investment, and economic cooperation for supporting export-oriented industries development in ASEAN countries.

Regarding Japanese cooperation, “A Study on Industrial Sub-sector Development in the Republic of Indonesia (1989 to 1991)” was implemented and prepared industrial development strategies of prospective export-oriented industries such as handicraft, rubber products, electric products, plastic products, aluminium products, and ceramic products. The study led to other cooperation like promotion center projects focusing on the particular industries, engineer training, metal industry development, export promotion projects.

Indonesia Export Training Center (IETC)

Indonesia Export Training Center (*Pusat Pelatihan Ekspor Indonesia*: PPEI) project was started in 1988. Buildings and equipment were provided by grant aid. Technical cooperation aiming at making IETC providing trainings on necessary knowledge and know-how to private companies was also implemented. Later, IETC project led to the project of "Regional Export Training and Promotion Centers: RETPC".

Indonesia Export Training Center: IETC

Currently IETC is under the National Agency for Export Development (NAFED) and providing exporter trainings and product testing. IETC can independently implement needs surveys and develop training courses. Also, IETC provides trainings based on the contracts with International cooperation agencies such as JICA and AUSAID as well as private companies.

IETC has 11 instructors and organizes 145 specialists as of external instructors. Number of the training participants increased to 2,462 in 2009 from 840 in 1990. The center is economically and organizationally self-sustainable.

IETC

Head and staff

Product testing laboratory

(4) The 1990s'

Balanced industrial structure was pursued. Privatizations of national companies in electricity, communication, highway etc. were implemented. Public companies were established in railway, port operation, shipbuilding etc.

In this period, foreign companies started to face difficulties such as labor cost increases, shortage in engineers, deficit in balance of trade. Also, neighboring countries such as China grow significantly in labor-intensive industrializations. Thus people came to realize importance of upgrading industries. In Japan, Ministry of International Trade and Industry (currently called Ministry of Economy, Trade, and Industry) prepared the paper "Prospects and Challenges for the Upgrading of Industries in the ASEAN Region" and Japan's cooperation moved to supporting industry development mentioned in this paper.

Suharto administration also focused on foreign capital installations and export promotions. Thus, to develop supporting industries and attract manufacturing industries' investments is a suitable strategy to the Indonesian policy.

Following these policies, "The Study on Industrial Sector Development (Supporting Industries)(1995)" and "The Project on Supporting Industries Development for Casting Technology (1996)" were implemented.

(5) The 2000s'

Economic stagnation started from Asian Economic Crisis in 1997/98 and a fall of Suharto regime led to rapid democratization and decentralizations.

Regarding private sector development, Dr. Shujiro Urata was dispatched as a small and medium industry policy advisor to the coordinating minister of economics and finance, Mr. Kwik Kian Gie in response to the request of President Wahid in November 1999. He submitted a report called "Policy Recommendation for SME Promotion in the Republic of Indonesia (so-called as "Urata Report")" in July 2000. The report re-raised awareness on the importance of small and medium enterprises development in economy. Then, based on that notion, some developing studies like "Study on Strengthening Capacity of SME clusters in Indonesia (2001)" which was aiming at forming industrial clusters[34] among micro enterprises, and technical cooperation projects like "Study on Human Resource Development for SMEs Focused on Manufacturing Industries in Indonesia (2003 to 2004, and 2006 to 2008)" and "Study on human resource development for SMEs focused on manufacturing industries in Republic of Indonesia (2005 to 2008)" which were aiming at fostering specialists supporting SME developments were implemented. As a result, small and medium enterprise management consulting system was established in Indonesia and Ministry of Industry has been trained local government officers in charge of SMEs development since then.

Policy Recommendation for SME Promotion in the Republic of Indonesia
Linkage between finance and management/technical supports
Supporting industry development

1) Improvement in small and medium enterprise finance
2) Reinforcement of individual SMEs
3) Linkage between corporations
4) Export promotion
5) Policy adjustment among SME policies
6) Strengthening of local administration
7) Monitoring and evaluation of SME promotion measures
8) Public notices of SME promotion

Regarding cooperation projects in business environment improvements, importance of institutional development became significant in 2000s. There are some examples of cooperation by Japanese governmental organizations such as: project of competition policy cooperation by Japan Fair Trade Commission; industrial property rights administration by Ministry of Economy, Trade, and Industry; customs administration by Ministry of Finance; and occupational health and safety by Ministry of Health, Labor, and Welfare. As a result of these cooperation projects, for example, organizational reform of the National Agency for Export Development (NAFED) was proposed, and prepared by Ministry of Trade of Indonesia.

Non-project based cooperation

Dialogues between Indonesia and Japan have taken an important role for private sector development. The dialogue initiated by Jakarta Japan Club (JJC) and Japan Bank for International Cooperation (JBIC, currently became a part of JICA) established 5

[34] Industrial cluster means a situation related companies work together in connection with others like grape clusters.

committees of 1)custom, 2)taxation, 3) labor issues, 4) investment promotion and supporting industries, 5) electricity, then gather voice of private sector for improving business environment and discuss these matters with Indonesian government. It is reported that the activities took a important role of connecting ODA and private sector actors. Proposals passed to Indonesian government were mostly reflected and answered in policy papers of Indonesian government issued in September 2003.

Private company development through ODA projects

There are several examples of newly established "companies" through Japanese cooperation projects.

- National toll way operator, PT. Jasa Marga had received technical cooperation while Jakarta toll way development projects. Later the company became technically competitive and won oversea project in international bidding process.
- Through the long-term technical cooperation provided to Brantas river development, a construction consulting company and construction company were established.
- Production technology of live attenuated measles and poliomyelitis vaccines was provided to national company Bio Farma together with buildings and equipments provided by grant. The company can produce 100% share of these vaccines and even export them to other countries.

13.3. Summary

Japan's cooperation became a catalyst for creating a mechanism of reflecting private sector actors' voice to economic cooperation. At the project sites, the cooperation might contribute to establish solid basis for private sector development by consolidating practical business environment.

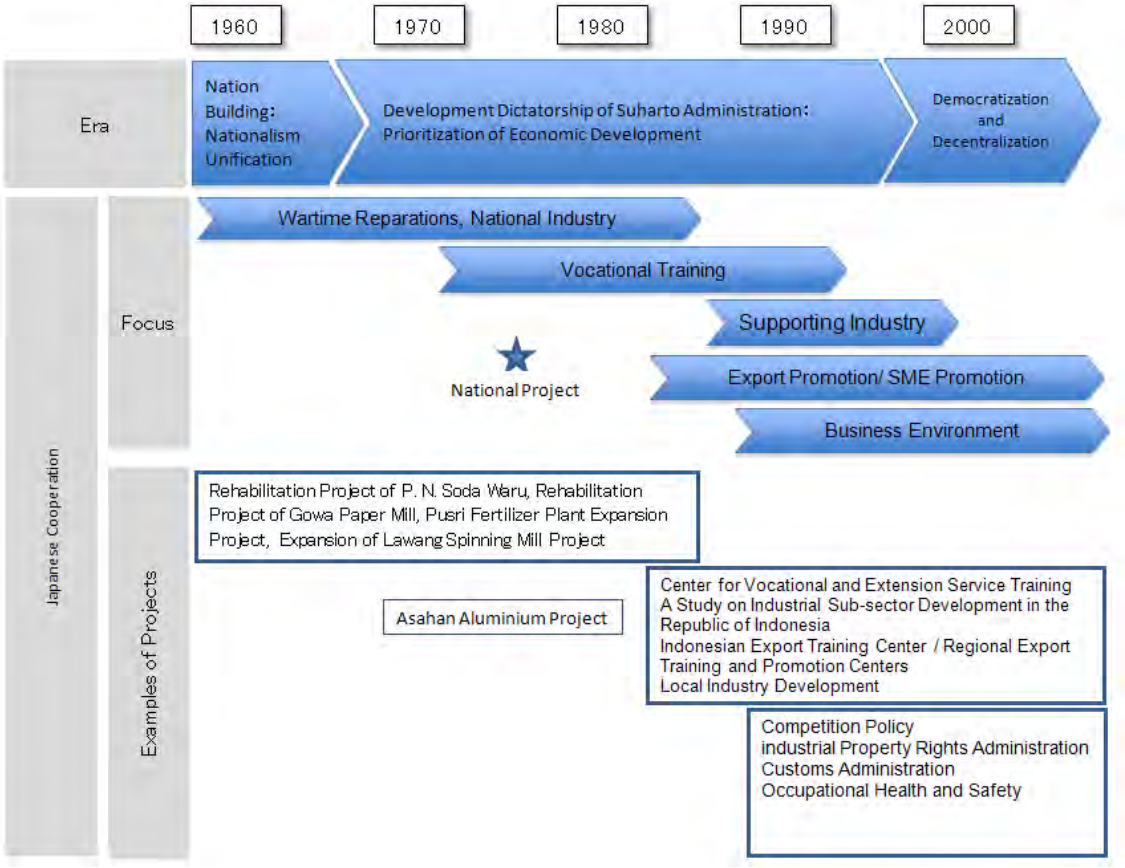


Figure 13-5 Overview of Private Sector Development and Japan's Cooperation

(1) Creating a bridging mechanism between private and government sectors

For developing a national economy, government and economic cooperation can take rather limited roles: it is important to incorporate private actors including foreign direct investments. It is very difficult to measure the contribution or effects of economic cooperation for attracting private investments since there are numeral complicated factors for decision makings for investments. Even though it might be clear that economic cooperation to either directly to industrial sectors or economic infrastructure development would be the solid basis of private sector development. In this sense, Japanese cooperation contributed to private sector development of Indonesia to some extent. Also, it seems a great contribution to business environment improvements that to give private sectors of Indonesia and Japan the opportunity of participating dialogues on economic cooperation between both governments and to establish a mechanism of

incorporating private sector voices into policies of both countries.

(2) Consolidating practical basis in business environment

Especially after the democratization and decentralization processes started in Indonesia, Japan's cooperation has helped Indonesia to create practical contents of new laws and institutional arrangements. Japan's cooperation projects have tried to prepare guidelines as well as to provide trainings for practitioners.

(3) Emphasizing on practices in human resource development

Japan's cooperation projects brought practice-based methodologies into vocational and technical trainings whereas theoretical trainings had been applied normally. Instead of teaching trade theory, the projects focused on practical trade administrations and custom clearance, for example. In industrial sector, step by step practical skill learning system was introduced including keeping workplaces tidy.

14. Education

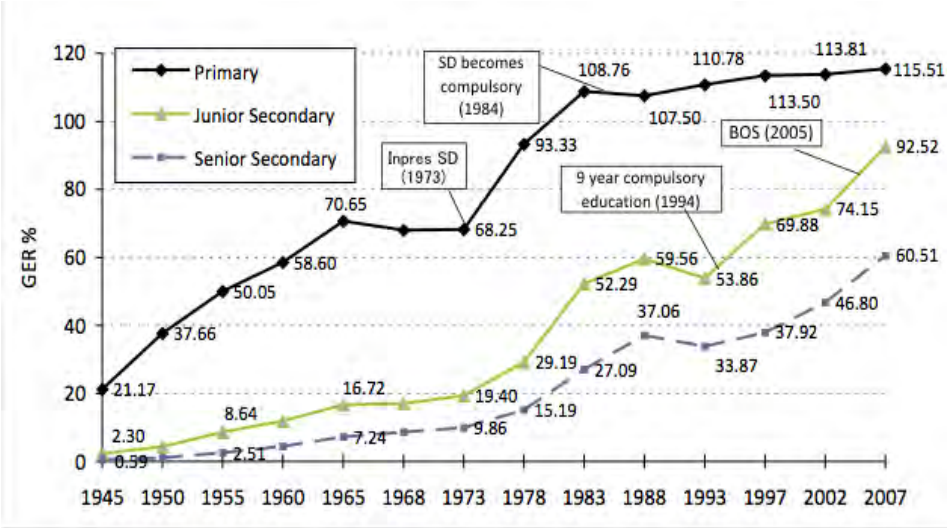
Indonesian maintains 6-3-3 education system. The duration of compulsory education had been six years since 1984, but extended to nine years in 1994. As regards to higher education, there are university (four years), and various junior and vocational colleges (one to four years). Besides formal higher education, non-formal education is systemized as Paket A/B/C, equivalent to primary/junior secondary/senior secondary level, for the dropout and illiterate.

In each education level, madrasah schools registered under the Ministry of Religious Affairs operate in parallel with ordinary schools under the Ministry of National Education; and both of them have public and private schools.

A review of the mid-term development plans indicates that by the middle of 1980s the emphasis was put on the expansion of access to primary education. Once it was accomplished in late 1980s, the emphasis gradually diversified into Junior Secondary, Higher Education, etc. An amendment to the Constitution in 2002 explicitly stipulates, "20% of the National Budget (excluding salary for the staff) is to be allocated to Education".

14.1. Primary and Secondary Education : Scope and Outline of the Sector

Primary and Secondary Education (PSE) consists of primary school, junior secondary school and senior secondary school. PSE is a foundation for social development as it extends people's potential and choices, and promotes capacity development from community to nation. Since Independence, improving access to PSE had been a priority issue. In recent years, however, as the gross enrolment rates of primary and junior secondary schools have increased significantly, improving quality of education becomes new concern.



Note: Data for *madrasah* schools have been reflected since 1978 (primary) and 1983 (secondary).
Source: Ministry of Education and Culture (1996), "Fifty Years' of Education Development in Indonesia"
Ministry of National Education (1999, 2003, 2008), "Indonesia Educational Statistics in Brief"

Figure 14-1 The Trend of GER in PSE (1945-2007)

14.2. Primary and Secondary Education : Development and Cooperation in a Historical Perspective[35]

Japan's cooperation in PSE began recently, in 1995. So far, seven technical cooperation projects, two development studies, two loan projects, and three grant aid projects (total: 14) were implemented. In addition, science and mathematics teachers have been dispatched as Junior Experts.

(1) From the 1960s to the early 1980s

Aiming to secure equal access to education for the nation, the Suharto Administration initiated the special allocation for developing primary education (*Inpres SD)* so that each village would have one primary school. With *Inpres SD*, more than 146 thousand primary school buildings and 166 thousand additional classrooms were constructed; and more than 300 million textbooks were printed and distributed. As a result, GER of primary education topped 100% in the final year of *PELITA III* (1979-84). On 2nd May 1984, it was officially declared that primary education became compulsory.

(2) The late 1980s

While *Inpres* successfully expanded access to primary school, the percentage of students who go on to junior secondary school had been as low as ever, or even declined after *PELITA III*. It was because junior secondary school expenses were so high that people considered it as "school for the elite". With the rise of the middle class after the early 1980s economic development, junior primary school gradually became "school for the general public".

(3) From 1990 to 1998

In *PELITA VI* (1994-99), accomplishing "*9 year compulsory education*" became a policy objective. Construction of new school buildings and classrooms, employment of new staff, distribution of textbooks and teaching materials were undertaken to make all primary school graduates enter junior secondary school.

Japan started its cooperation under these circumstances. After "Junior Secondary School Building Construction Project"

started in 1995, "Project for Development of Science and Mathematics Teaching for Primary and Secondary Education (IMSTEP)" and "Improvement of Science and Mathematics Teaching for Primary and Secondary Education" (grant aid for developing IMSTEP teachers colleges) were launched in 1998 to improve the quality of teachers by supporting the teacher training course of teachers colleges.

Also, "Regional Educational Development and Improvement Program (REDIP)" was

[35] This section refers to *Ministry of Education and Culture (1996),* "Fifty Years' of Education Development in Indonesia".

started to develop the bottom-up model for improving junior secondary education in the decentralization era.

(4) After 1999

The *National Education System Law* was revised in May 2003 to reexamine the overall education system for the more efficient and effective management of education administration, and for the better quality of education service provision.

This education reform kept pace with decentralization after 2001, in which the authority of PSE administration had been transferred to district/municipality government. The mechanism to reflect the socio-cultural diversity of the area and the needs of individual school into local administration was newly introduced.

In 2005, the Yudhoyono Administration started *School Operational Assistance Program* (BOS) for all primary and junior secondary schools, which provides blockgrant in proportion to the number of students. In the same year, the *National Education Standard Law* was enacted, and the Government gradually set forth various standards on facilities, teacher's qualifications, etc. Regarding the quality of teachers, in addition to qualifications, competence standard was set in 2007, and *Teacher Certification Program* was initiated for in-service teachers.

REDIP
Cooperation Period: from 1999 to 2008
Target: North Sulawesi, Central Java and Banten

Decentralization expanded the authority of district/municipality for implementation and management of the schools. Selection of textbooks, personnel matters, developing school environment, etc. were left to the discretion of the area/ individual school. However, district/ municipality lacked experiences in administration management and decision-making, and had difficulty in playing a new role.
Against this backdrop, REDIP, targeting all junior secondary school in the area, provided blockgrant to subdistrict education development team/school team so that educational stakeholders including community could plan and implement activities.
REDIP's progressive approach for school-based management and community participation succeeded in keeping up with the needs after decentralization. Not only the Ministry of National Education but several local governments adopted the fruit of REDIP.

Japan responded to the request of education reform, and started the new phase of REDIP in 2004, intending to strengthen the management capacity of the district/municipality education offices though community participation. Also, based on the results of IMSTEP, "Strengthening In-service Teacher Training of Mathematics and Science Education (SISTTEMS)" was started in 2006, aiming to improve the quality of in-service teachers through lesson study. These two projects were integrated as "Program for Enhancing Quality of Junior Secondary Education (PELITA)" in 2009.

14.3. Primary and Secondary Education：Summary - Establishment of Nationwide Dissemination Model through Pilot Projects

The main goal of Japan's cooperation has been "to improve the quality of education" mainly through "capacity development of teachers" and "strengthening school management with community participation". For the former, Japan has supported teacher education on the whole from teachers college (pre-service) to professional development of teachers (in-service). For the latter, it has promoted school/ community-based education management, and intended to develop capacity through establishing/vitalizing the partnership between community and education administration. In both cases, Japan has focused on the capacity development on the Indonesian side (individual, organization and society).

Table 14-1 Development and Cooperation in Education

Decades		1960s	1970s and the Early 1980s	Late 1980s	1990s up to Asian Currency Crisis	After Asian Currency Crisis
Education	Period Background	− East and west cold war − Green revolution − From President. Sukarno to President. Suharto − Oil dependent economic development	− The 1st oil crisis (1973) − Crisis of international balance of payments (1982)	− Plaza agreement (1985) − Finish of east and west cold war − Restructure from the oil dependent economy	− Asia currency crisis (1997) − Resignation of President Suharto − "Education For All" (1990)	− Democratization − Decentralization
	Sector-wide Issues	− Higher Education Law (1961) − State University in each province	− Primary school construction by INPRES (1973) − 1st Polytechnic (1975) − SPBB-SDN (1977) − Primary school becomes compulsory (1984) − Open University (1984)	− National Education System Law (1989) − Needs for core technicians	− 9 year compulsory education (1994) − Empower local universities. − BAN-PT (1994) − "New Paradigm" (1995) − Education Legal Entity (1999) − Teachers College to University (1999) − MOEC to MONE (1999)	− Special Education Council (2000) − Decentralization (2001) − Board of Education/School Committee (2002) − Competitive block grants: HEIs (2002) − New National Education System Law (2003) − BOS (2005) − National Education Standard Law (2005) − Strengthen R&D

	Priority Development Issues shown in 5-year plan	− Meet the needs for reconstruction	− Expansion in PE − Teachers' welfare − Rehab. of JSE schools, and increase textbooks − Improve quality of teachers − Relevance	− Improve quality and access of PE − Focus on vocational education − Improve HE's role in science/ technology development	− Expand opportunities for Basic Education − 9 year compulsory education − Link to job opportunities − Increase quality in all level	− 9 year compulsory education − Improve academic and professional capacity − Reform based on decentralization − Foster community participation − Expand/ improve quality of HE
	Japanese Approach for Development Issues	− No record	− Key Institutions (equipment, facilities)	− Key Institutions (management, teachers' training, equipment, facilities) − Training core technicians by polytechnics	− Key Institutions (management, teachers' training, equipment, facilities) − Support local engineering dep. by Key Institutions (Sumatra, Kalimantan) − South-South Cooperation (3rd country training)	− Participatory school management − Improve quality of teachers − Key Institutions (management, teachers' training, equipment, facilities) − Support local engineering dep. by Key Institutions (Eastern Indonesia) − South-South Cooperation (3rd country training, dispatch experts, ASEAN Network)
	Priority Programs/ Projects for Japanese Cooperation	− No record	− IPB (Bogor)	− IPB (Bogor) − EEPIS (Surabaya)	− HEDS − IPB (Bogor) − EEPIS (Surabaya)	− REDIP, SISTTEMS − PELITA, SEED-Net − Hi-Link (Gadjah Mada), PREDICT-ITS, Hasanuddin University

As a result of the past cooperation, regarding "capacity development of teachers", the three universities, which used to be counterparts, have established a sustainable system to train teachers, and produce many new teachers every year. Also, these universities are playing a leading role in in-service teacher's training. Regarding "education management", school-based management model with community participation has been established, and received financial commitments from district/municipality.

In Indonesia's PSE cooperation, donors such as Australia, the United States, the Netherlands, the World Bank and the Asian Development Bank have been dominant in terms of the amount of assistance while Japan's share is relatively small. The Ministry's evaluation to Japan's cooperation, however, is quite high. According to the former

Director for Junior Secondary Education[36], donors implicitly referred to Japanese "education management" approach by adopting two-level intervention, that is, school and education administration at the same time. It also influenced the Ministry's policy. The introduction of REDIP-G (Government) by the Directorate General of Primary and Secondary Education Management is a leading example.

The same applies to "teacher's training" where *lesson study*, a school-based training, has been aimed to institutionalize since IMSTEP. The Ministry now takes measures to disseminate *lesson study* to the whole country with its own budget.

Thus, despite the amount of contribution, Japan's cooperation has impacted the Ministry and other donors through establishment of educational management capacity development model.

14.4. Higher Education: Scope and Outline of the Sector

Higher Education (HE) consists of university, institute, and college for specialization, academy and polytechnic. HE assumes human resource development for industries and R & D, and it plays indispensable roles for economic development. HE institutions, therefore, has to be responsive to the needs of changing society.

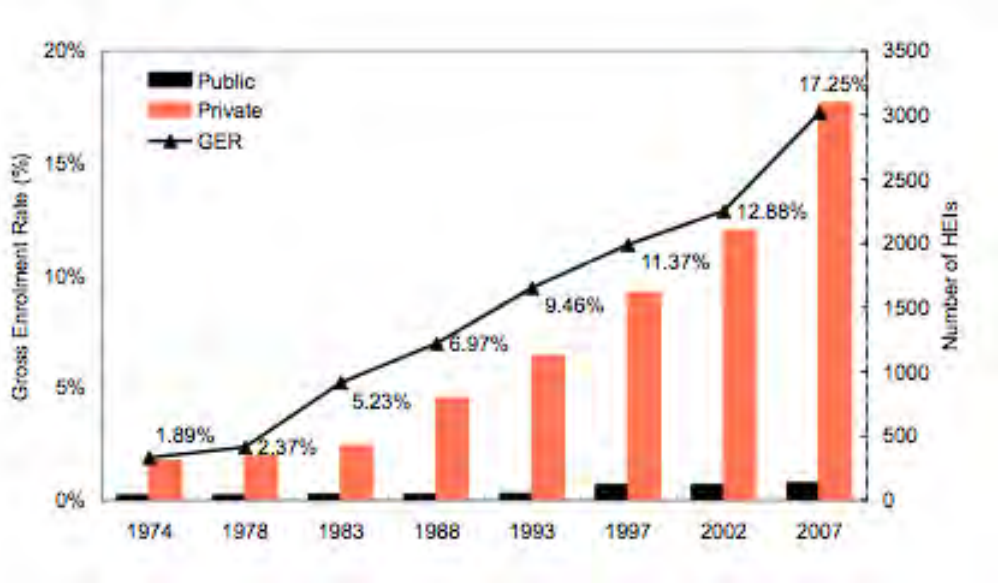
Table 14-2 Number of Higher Education Institutions under MoNE (2008)

	Public	Private	Total
University	48	375	423
Institution	6	37	43
College for Specialization	2	1,186	1,188
Academy	0	884	884
Polytechnic	26	116	142
Total	82	2,598	2,680

Source: Ministry of National Education (2008), "Indonesia Educational Statistics in Brief"

Indonesian HE has been rapidly expanding since 1950. The number of the registered students was only around ten thousand in 1952, but increased to one hundred thousand in 1987, to nearly one million in 1984, and more than 3.8 million in 2007. GER also dramatically increased from 1.89% in 1974 to 17.25% in 2007. The expansion of HE has played a significant role in producing a substantial number of capable human resources, and formulating the middle class in Indonesia.

[36] Interview with Dr. Hamid Muhammad (Directorate General for Non Formal and Informal Education, MONE) on 16th April 2010.



Note: GER: number of registered students divided by the population of 19-24.
Data for institutions under the Ministry of Religious Affairs have been reflected since 1997.
Data for Open University and institutions under technical ministries are not reflected.
Source: Ministry of Education and Culture (1996), "Fifty Years' of Education Development in Indonesia"
Ministry of National Education (1999, 2003, 2008), "Indonesia Educational Statistics in Brief"

Figure 14-2 The Trend of GER and Number of Institutions in HE (1974-2007)

14.5. Higher Education: Development and Cooperation in a Historical Perspective[37]

Japan's cooperation started in the mid 1970s. So far, 15 technical cooperation projects, 18 loan projects, and 36 grant aid projects (total: 69) were implemented. In addition, science or mathematics teachers have been dispatched as Junior Experts. Until the early 1980s, facility development projects by grant aid and loan were dominant. Then, since the late 1980s, teachers training and research assistance by technical cooperation have been combined with facility development. Close collaboration among different cooperation schemes is a salient characteristic of Japan's cooperation in higher education sector.

(1) The1960s

The Sukarno Administration adopted the policy to establish at least one State University in each province in order to raise national leaders. Quality improvement replaced quantitative expansion as the first priority under the Suharto Administration after 1968.[38]

[37] This section mainly refers to *Mitsubishi Research Institute, Inc (2003),* "Sector Study for Higher Education in the Republic of Indonesia".
[38] Approximately three-fourths of currently existing public universities were established by 1964.

(2) From the 1970s to the early 1980s

As the National Development Plan progressed, the needs for higher education increased rapidly. In those days, Indonesia higher education institutions produced only around 3,400 college graduates per year. Even worse, for graduate schools, it was not until 1977 that Indonesian universities were able to offer master's and doctorate degrees. Only around 160 students had acquired postgraduate degrees by 1983. Shortage of human resources with higher degrees was a serious issue in Indonesia.

Although Japan commenced its cooperation to HE in 1975, it only provided equipments until 1983. The support to Bogor Agricultural University (IPB) in 1983 was the first case of building construction.

(3) The late 1980s

As the Suharto Administration attempted to develop industries by introducing foreign capital, polytechnics with practical engineering education to train core technicians became a matter of the utmost urgency in the mid 1980s. Besides, graduate schools of engineering, chemical engineering and electronics have opened since 1986.

Establishment of Electronic Engineering Polytechnic Institute of Surabaya (EEPIS) was a response to meet the needs. Japan fully supported from constructing the buildings to training lecturers, and to developing curriculum.

Simultaneously, Bogor Agricultural University (IPB) received a mixture of loan and technical cooperation to move its main campus to the suburb, and to develop its graduate school.

Support to EEPIS
Cooperation Period: from 1986 to present

EEPIS was established by Japan's cooperation, and received its first students in 1988. Lecturers studied in a Japanese technical college for a year, and returned to Indonesia with the Japanese supervisor to continue training for another year. Face to face teaching, preparing own textbooks, and emphasis on practice became EEPIS's organizational culture.
As a result, by 2009 EEPIS has produced 5,150 core technicians with "craftsmanship". EEPIS is the frequent winner in Indonesian Robot Contest, and ranked higher in the annual World Tournament (first prize in 2001). Now EEPIS is considered as one of the best polytechnic in Indonesia.

(4) From 1990 to 1998

With the drastic change in the industrial structure, a wave of industrial development reached to outside Java. Raising the standard of local universities was recognized as an important issue. At that time, science/engineering departments of local universities had not opened graduate school. Also, many lecturers had not received master's degree. These factors prevented local universities from providing quality education.

Higher Education Development Support Project (HEDS), in cooperation with USAID, was initiated to strengthen the engineering education of 11 universities in

Sumatra and Kalimantan.

During the period, loans were provided for Institute of Technology Bandung (ITB), Syiah Kuala University, IPB, Mulawarman University, Pattimura University, and Gadjah Mada University for their development.

HEDS Project
Cooperation Period: from 1990 to 2002
Target: 11 universities (Sumatra/ Kalimantan)
HEDS intended to improve the quality of Higher Education in the target area by providing domestic scholarship to lecturers and supporting managerial capacity improvement. USAID supported economics /science while Japan supported engineering.
As Japanese lectures dispatched as short-term expert were those in the forefront of each engineering subsector, Indonesian lectures were highly motivated to conduct research. As a result, domestic/international research exchange networks were established.
The success of HEDS influenced the Higher Education policy to adopt the concepts of "Total Quality Management", "principal of competition", etc. Also, the ideas of improving quality through interchange of personnel and domestic scholarship for young lecturers are succeeded to SEED-Net.

(5) After 1999

After the Financial Crisis, the Wahid Administration commenced drastic education reform, and its efforts were realized in the revised *National Education System Law* in May 2003. The main point was to reexamine the overall education system for the more efficient and effective management of education administration, and for the better quality of education service provision.

As part of educational reform, the Ministry phased in the concept of *Education Legal Entity*. Also, in 2002 proposal-based blockgrant mechanism was introduced to improve the quality of education and research, and enhance the efficiency of management.

Southeast Asia Engineering Education Development Network (SEED-Net), which develops and succeeds the fruits of HEDS project, started in 2003. Also, to respond the growing recognition for the role of universities in regional development, Project for Improving Higher Education Institutions through University-Industry-Community Links (Hi-Link) in Gadjah Mada University (Hi-Link) was started in 2006. Cooperation to Sepuluh November Institute of Technology (ITS) and Hasanudin University (UNHAS) began in order to develop these universities as hub institutions for networking Eastern Indonesian engineering education.

In 2008, a new scheme of "Science and Technology Research Partnership for Sustainable Development" was initiated, and ITB has been involved in Multi-disciplinary Hazard Reduction from Earthquakes and Volcanoes. Besides, loans were provided for Syarif Hidayatullah State Islamic University, and University of Indonesia for their development.

14.6. Higher Education：Summary – Evolving Assistance from Core Institution Development to Network Facilitation and South-South Cooperation

Japan has been the largest bilateral donor for Indonesian higher education. While the World Bank and the ADB have taken a sector-wide approach or supported a cluster of universities, Japan has focused its resources on key institutions and been strengthening them consistently[39].

The main goals of Japan's cooperation have been "human resources development for industries" and "capacity development of research and management" by improving the quality of Higher Education Institutions (HEIs), with special emphasis on the fields of science and engineering. Japan had given priority to ITB, IPB, EEPIS, etc. since the 1980s. These institutions are equipped with good facilities for research, increased the number of lecturers with postgraduate degrees, and are active in R&D cooperation with private companies. Under such learning environment, higher education could produce a substantial number of human resources for the industries.

After the 1990s, these key institutions have started assuming the more active role as resources to the local HEIs (mainly science/engineering). ITB received many lecturers from local universities for further education in the HEDS project, while EEPIS became a training institution for vocational high schools and other polytechnics. In the HEDS project, before the project started in 1990, only 17% of the staff of the 11 target universities had master or doctor degree. As of May 2002, it increased up to 58.7%, among them, 35.9% owe the degree program of the HEDS project.

In addition, they have become resources for regional development and South-South Cooperation after the 2000s. In the Hi-Link project, from 2006 to 2008, more than 80 joint researches were conducted, 27 theses were presented in international conference, 6 patents were applied, and 3 research results were put to practical use for industry and community. EEPIS has received 118 trainees from 16 African and Asian countries in the scheme of the Third Country Training Program from 2002 to 2009.

Indonesian side does recognize the change of its role. During the SEED-Net project formulation stage, the former Directorate General for the Higher Education strongly supported Japan's proposal to allocate more budgets to the less developed CLMV[40], mentioning that "Indonesia used to be a recipient country, but from now on, we will become a supporter to other countries".[41]

As part of the host universities in SEED-Net, ITB and Gadjah Mada University, from 2001 to 2007, received 63 international students from the ASEAN Countries into their master and doctor degree programs. In addition, since 2008 the Government of

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[39] According to the World University Ranking (http://www.timeshighereducation.co.uk/) in 2009, three top Indonesian universities are University of Indonesia (201st), Gadjah Mada University (250th) and ITB (351st), all of which have a long cooperation history with Japan.

[40] CLMV stands for Cambodia, Laos, Myanmar and Vietnam.

[41] Interview with Mr. Nobuyuki Konishi (Director of Technical and Higher Education Division, Human Development Department, JICA) on 17th April 2010.

Indonesia had, with its own initiative, started providing scholarships for 25 master's degree students per year. On the other hand, lecturers of the two host universities totaling 122 were given opportunities to study either in Japan or the ASEAN Countries within the framework of SEED-Net.

For the purpose of assuring and improving the quality of higher education and research, it is indispensable to build networks among international universities and researchers. Bilateral networks between Indonesia and Japan had been established through the support to key institutions while multilateral networks between the ASEAN countries and Japan established through SEED-Net.

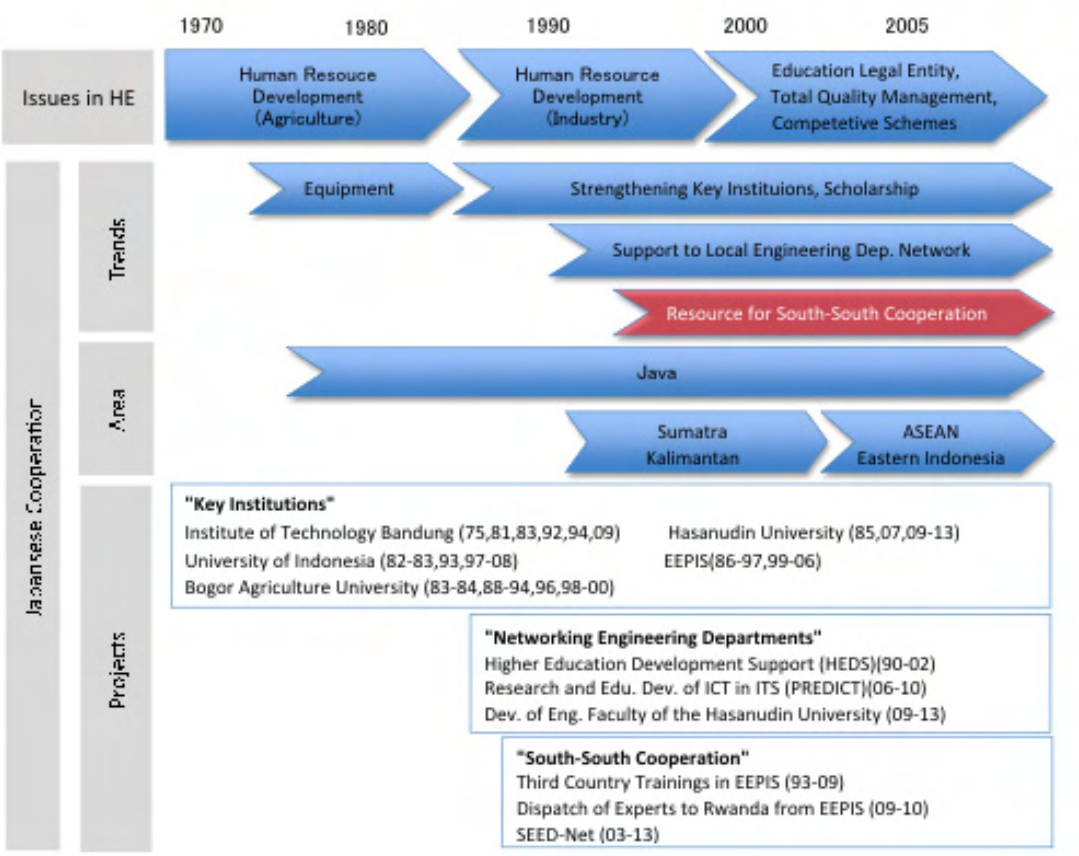


Figure 14-3 The Flow of Japanese Cooperation to Higher Education Sector

15. Health

15.1 Scope and Outline of the Sector

This sector encompasses various issues including medical services (hospitals and nursing), community health (public health, family planning and Maternal and Child Health (MCH), measures against infectious diseases, drugs, and social welfare. Japan provided assistance to this sector though 67 projects in total: 30 in technical cooperation, 28 in grant aid, 7 in ODA loan, and 2 in development study (table 15-1). The sub-sectors to which Japan's cooperation was provided are: medical services (17 projects), community health (23 projects), measures against infectious diseases (17 projects), drugs (5 projects) and social welfare (5 projects), as shown in the table 15-2.

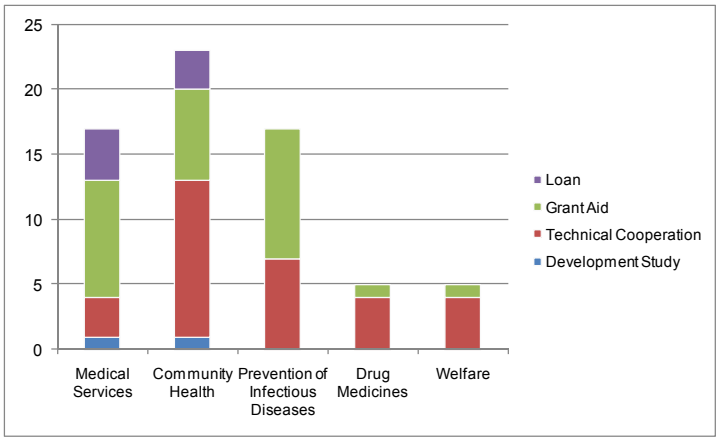


Figure 15-1 Subject-Mix of Projects with Japan's Cooperation in Health Sector

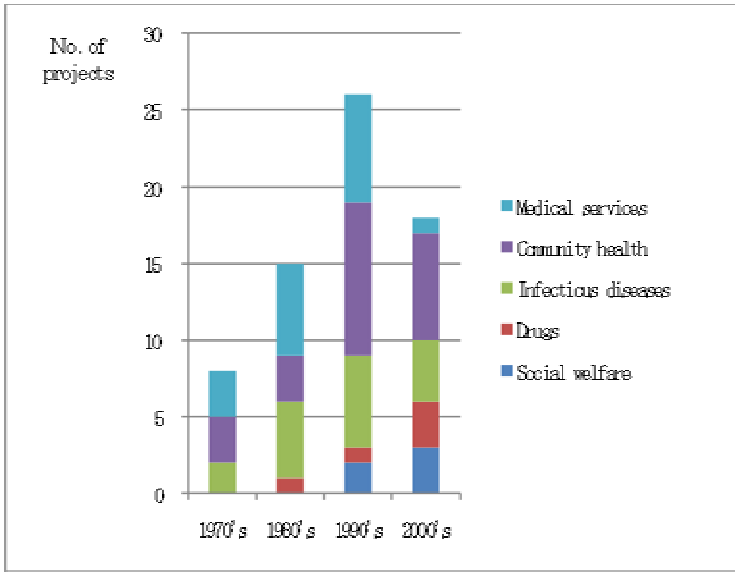


Figure 15-2 Japan's development cooperation in a historical perspective

The health administration in Indonesia consists of the Ministry of Health, Province Health Office , District Health Office, Health Center at sub-district level, Village Health Post or Village Birth Center, and Integrated Community Service Post/Posyandu. Hospitals are categorized as general or specialized (leprosy, tuberculosis, MCH, ophthalmology, orthopedics, psychiatry, cardiopathy, cancer etc.). The national, provincial and district general hospitals are further classified into A, B, C, and D, according to the services provided at the respective hospitals. The proportion of the health sector budget to the national budget was 1.2% in 1994, 1.7% in 1997, 1.0% in 1998, 1.05%[42] in 1999, and

[42] Indonesia Health Profile 1999

2.6%[43] in 2000. These figures are significantly lower than 5%, which is the average of developing countries.

15.2 Development and Cooperation in Historical Perspective

The Table 15-1 oversees the background of a given period as well as the sector issues and Japan's cooperation in the corresponding time.

[43] Indonesia Health Profile 2000

Table 15-1 Issues and Cooperation in the Health Sector

Decades		1960s	1970s and the Early 1980s	Late 1980s	1990s up to Asian Currency Crisis	After Asian Currency Crisis
Health	Period Background	− East and west cold war − Green revolution − From President. Sukarno to President. Suharto − Oil dependent economic development	− The 1st oil crisis (1973) − Crisis of international balance of payments (1982) − Alma-Ata Declaration (PHC) (1978)	− Plaza agreement (1985) − Finish of east and west cold war − Restructure from the oil dependent economy	− Asia currency crisis (1997) − Resignation of President Suharto − "Education For All"（1990） − Asian Avian Flu (1997)	− Democratization − Decentralization
	Sector-wide Issues	− *IMR (145)(1967)	− IMR (112)(1980)	− IMR (71)(1986)	− IMR (50)(1995) − **MMR(425) (1993)	− *IMR (145)(1967)
	Priority Development Issues shown in 5-year plan	− Public health − Improvement of health infrastructure − Family planning − Training of health personnel	− Promotion of family planning (Establishment of National Agency for Family Planning: 1970) − Rehabilitation of hospitals − Rehabilitation of health centers − Introduction of village midwives	− Improvement of medical services − Improvement of nutritional status − MCH − Infectious disease control − Expansion of health centers − PHC	− Improvement of quality of care − PHC	− Public health − Improvement of health infrastructure − Family planning − Training of health personnel
	Japanese Approach for Development Issues	− Family planning (69-85)	− Regional health in North Sumatra (76-89) − Development of medical care and hospital facilities equipment supply (78) − Family planning (82) − Construction of the emergency medical centre of Dr. Cipto Mangunkusumo Hospital (84)	− Bio Farma measles and poliomyelitis vaccines (85-01) − Central Java family planning & MCH(89-94) − Construction of the emergency hospital at Bali (89)	− Improvement of community health centers (93) − Construction of the new emergency unit at Dr. Soetomo Hospital (93-00) − Ensuring the quality of MCH services through MCH handbook (98-03) − Strengthening provincial laboratories for food and drug quality control (94) − National vocational rehabilitation center for disabled people (97-02)	− Family planning (69-85)
	Priority Programs/ Projects for Japanese Cooperation	− Family planning	− Family planning − Community health − Construction of hospitals	− Family planning − Community health − Infectious disease control − Construction of hospitals	− Community health − Infectious disease control − Construction of hospitals − Drugs − Social welfare	− Family planning

*IMR: Infant Mortality Rate per 1,000 live births, **MMR: Maternal Mortality Ratio per 100,000 live births (UNFPA, UNICEF, DHS)

The 1960s

The health situation in Indonesia during the 1960's was marked by a high infant mortality rate (145/1,000 live births, 1967), and an establishment of health infrastructure as well as an improvement of public health was imperative. At the same time, considering the adverse impact of population increase in the future on the economic development, the government initiated family planning projects in some model provinces in Java and Bali. The First Five-year Development Plan promoted family planning with the view that families should reconsider their welfare and receive social assistance under the government's protection. In this context, the first bilateral cooperation in the area of population and family planning, namely "Family Planning Project (1969-1985)" was launched in cooperation with the Japanese Organization for International Cooperation in Family Planning (JOICFP) The project focused on the production of audio-visual/educational software that aimed at popularizing family planning and the implementation of educational campaign in Jakarta using the produced materials. Japan's cooperation included a provision of contraceptives, light-duty vehicles and audio-visual equipment.

It had only taken 20 years after the World War II before Japan successfully reduced infant mortality and fertility rates and achieved a high acceptance rate of family planning. The family planning project was implemented therefore in response to an increasing expectation of developing countries, such as Indonesia, to transfer Japan's experiences and know-how to them.

The 1970s and the Early 1980s

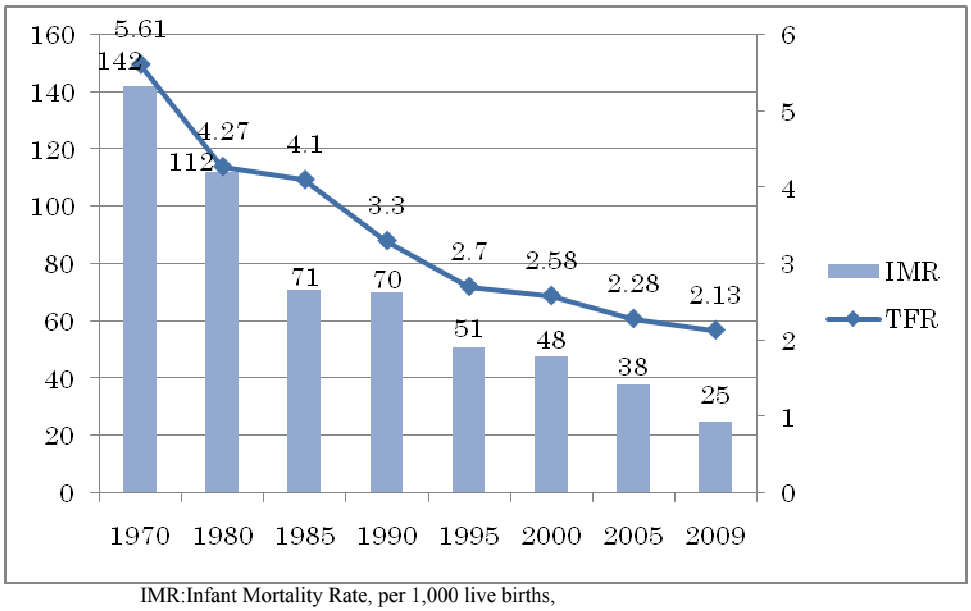
Starting from the 1970's, the Indonesian government established National Family Planning Agency (BKKBN) in order to continue promoting family planning on a wider scale and started implementing some national programs in this area. With a strong political commitment, BKKBN was placed directly under the President, not under other ministries. Family planning instructors (both public servants and volunteers) worked actively at provincial, district/ municipality, sub-district and village levels.

Moreover, in 1978, the International Conference on Primary Health Care (PHC) was hosted jointly by World Health Organization (WHO) and United Nations Children's Fund (UNICEF) in Alma-Ata, and the PHC strategy was proposed to achieve "Health for All by the Year 2000". The purpose of the PHC was to improve the provision of preventive and curative services at the community level, in a timely manner and at a lower cost. In Indonesia, community Moternal and Child Health (MCH) activity was initiated in 1985, which was called "Integrated Service Post/Posyandu). Its aim was to reduce high infant and maternal mortality rates and to promote family planning for a population control purpose. In 1989, the government put up a policy to place one village midwife in each village. The Posyandu activity was a health service provided once a month and its beneficiaries included infants, children under 5 years old and pregnant women. The Posyandu was mainly driven by health volunteers living in the communities who worked with health center staff, village midwives and women's group called PKK. JICA's assistance in this period focused on family planning, community health, and a rehabilitation of hospitals. Regional Health in North Sumatra Project (1976 ― 1989), originally started as a complementing project for the Asahan Hydroelectric Project. Nevertheless, it is noteworthy that a project focusing on

community health had started before 1978, when the concept of Primary Health Care (PHC) was brought to the international arena. In addition, a Grant Aid Project for the Construction of Nurse Education Facilities (1979) was implemented in Jakarta and Ujungpandang in South Sulawesi (then Makasar) in order to train health personnel. Moreover, assistance was given to construct A-class emergency medical centers that were to be responsible for sophisticated medical services. Such facilities existed in 4 places nationwide. A Grant Aid Project for the Construction of the Emergency Medical Centre of Dr. Cipto Mangunkusumo Hospital (1984) was the first of this kind of assistance.

The Late 1980s

The health sector policies in the 1980s continued to weigh on the establishment of health system, the efforts of which were lead by the central government, and the improvement of health standard through the community health policy that was based on the idea of PHC. The Third Five-year Development Plan stressed the importance of reducing mortality rates, ameliorating nutritional status and improving health services. While family planning should be actively promoted, people would not make efforts to control their fertility unless due and simultaneous attention was paid to the reduction of infant mortality rate (IMR) and the improvement of average life expectancy. As the below chart shows, IMR and total fertility rate in Indonesia steadily decreased through such a focused policy approach.



IMR:Infant Mortality Rate, per 1,000 live births,
TFR:Total Fertility Rate (births per woman)References: DHS, UNFPA

Figure 15-3 Infant Mortality Rate and Total Fertility Rate

Moreover, from the late 1980's, a concept of "safe motherhood" was becoming mainstreamed in the area of population policy worldwide, as an alternative to family planning. In this context, the Project to Improve Family Planning and MCH (1989-1994) was implemented, in cooperation with Boshi-Aiiku-Kai and the Institute of Public Health, with the aim of improving the quality of MCH services. A promotion of family planning and MCH as well as an improvement of referral system was aimed in Central Java, the model community of this project. The Director-General of the Province Health Office who was the counterpart of this project had seen MCH

handbook in Japan while visiting the country for training. He thought it was a good idea and later made a strong request to the Japanese government that an Indonesian version of MCH handbook should be developed, given the fact that it had greatly contributed to the improvement of MCH in Japan. More than a year was spent to make MCH handbook more applicable to the Indonesian context. The MCH handbooks were distributed in Indonesia on a trial basis, and it has been proven that there was a high demand from mothers.

The Japan's cooperation in the late 1980s aimed at the construction of regional hub hospitals as part of the efforts to strengthen the health system. The A-class Sanglah Emergency Hospital in Denpasar in Bali Province (Project for the Construction of the Emergency Hospital at Bali (1989) were the examples of such assistance. Furthermore, in order to respond to the health sector's priorities set out by the Fourth Five-Year Development Plan, specifically the reduction of infant and under-5 mortality rates, a series of assistance was provided to the national pharmaceutical company, Bio Farma which was solely responsible for the production of vaccines in the country. The detail of the assistance given is as follows. As a result, Bio Farma has managed to become a self-sustained enterprise that has 100% of domestic share and exports vaccines to overseas.

Cooperration for Vaccine Production

＜Target＞National Pharmaceutical Company: PT. Bio Farma (Persoro)

＜Address＞West Java, Bandung (Jl. Pasteur No.28, Bandung)

＜Details of assistance＞ Technical Cooperation: Fundamental Technology Transfer for Production of Live Vaccines: (1989－1996), Training on Quality Assurance for Vaccines (1998-2007) Third Country Training Program (TCTP), Grant Aid: Project for the Construction of the Facilities for Live Attenuated Oral Poliomyelitis and Measles Vaccine production (1989, 1990), Project for the Improvement of the Equipment (1991)

＜Cooperating organizations in Japan＞

The Research Foundation for Microbial Diseases of Osaka University (BIKEN) and Japan Polio Research Institute (JPRI)

＜Background of Japan's cooperation ＞ Indonesian government made a policy that it would improve immunization coverage and fully produce the vaccines domestically, in order to prevent polio and measles. These two diseases were among the major causes for the death of infants and children under 5 in Indonesia. Based on this policy, request was made to the Japanese government to provide above-mentioned assistance.

＜Outcome＞ Measles and poliomyelitis vaccines were approved domestically in 1993 and 1994 respectively. The domestic shares then were 100%. With the approval of WHO, the export of Poliomyelitis vaccines started in 1998. Currently, the domestic share of poliomyelitis vaccine is 100%. It accounted for 30% in the international market in 2009[44]. according to Mr. Dori Ugiyadi in the production unit of the company. The production volume steadily increased, as shown in the below Table.

Year	1996	1998	2010	2011
Production of poliomyelitis vaccine (doses)	20,000,000	800,000,000	1,100,000,000	1,400,000,000 (projected)

44 Mr. Dori Ugiyadi in the production unit of the company.

The domestic share of measles vaccine was also 100% and accounted for 10% in the international market (2009). The production volume of measles vaccine has also increased since the final year of the project.

Year	1996	2010
Production of measles vaccine (doses)	7,500,000	40,000,000 (projected)

Moreover, by domestically producing vaccines that are required to cover 5 million children born every year in Indonesia, it has made it possible to supply vaccines in a more stable and inexpensive manner. Bio Farma applies the technology and the quality system of polio and measles vaccines to the production of vaccines by other bacteria. Currently the company produces vaccines against rabies and other kinds of drugs, and such efforts are highly appreciated. Bio Farma built and expanded the facility for poliomyelitis vaccine production in 2007 with its own finance.

Facilities for Poliomyelitis and Measles Vaccine Production and Quality Control

Expansion of the Facilities for Poliomyelitis and Measles Vaccine Production

- Initially, BIKEN and JPRI started their assitance on the basis of government cooperation, however, from 2007 they shifted their fosus to the technology transfer on a commercial bassis. Currenlty, Bio Farma organizes training in Japan (BIKEN and JPRI) every year and works on seasonal influenza vaccine in cooperation with BIKEN. There is a memorial tree in the company compound for Professor Fukai (Dr. Konosuke Fukai) of BIKEN who made a great contribution to Bio Farma. The future-looking relationship was developed over time between Bio Farma and two Japanese counterparts.

- "The characteristic of JICA's assistance is that it provides a whole package of necessary elements including facilities and technical assistance. Solid technological capabilities and strong friendship has lead to the self-sustainability of Bio Farma.

The 1990s

The Five-Year Development Plan in the 1990s highlighted the need for reducing population increase and strengthening health and social welfare as a social foundation for the improvement of human resources. JICA's assistance in this period included

"Support for the Tropical Disease Center of Airlangga University（1990-1993）" in East Java which was part of the measures against infectious diseases. There were also the construction of the New Emergency Unit at Dr. Soetomo Hospital at Surabaya in East Java (1993), which was a grant aid project to rehabilitate an A class hospital, and a technical cooperation project "Upgrading the Emergency Medical Care System of the Dr. Soetomo Hospital"（1995-2000）. As for the drug-related assistance, a grant aid project of "Strengthening Provincial Laboratories for Food and Drug Quality Control" was implemented. Furthermore, at the international conference on population and development held in Cairo in 1994, a consensus was made on a comprehensive approach to population issues. It was argued that both economic development and family planning were required to control population increase. A paradigm shift was also observed from macro (national level) to micro (individual level) perspectives and from number to quality. Family planning was redefined as a measure that enables people to decide their own pregnancies and childbirths, more specifically as a part of reproductive health/rights, rather than a means to control population increase. As for JICA's assistance, the Project for Ensuring the Quality of Mother Child Health (MCH) Services through MCH Handbook (1998-2003 Technical Cooperation) started. The project used MCH Handbook that had been developed in the above-mentioned family planning & MCH project in Central Java (implemented at the end of the 1980s). The project stagnated slightly at the time of Asian currency crisis in 1997. Nevertheless, due to the efforts of the government to ensure necessary budget and to work in collaboration with other donors such as the World Bank, the project continued to be implemented successfully. In addition, the Ministry of Health in Indonesia announced in March, 1999, the "Healthy Indonesia 2010" which set forth the strategic objectives of health administration for the next 10 years. The objectives are 4 folds; (1) health-oriented national development, (2) professionalism, (3) community health insurance system(JPKM), and (4) decentralization.

Development of MCH Handbook in Indonesia[45]

1994	MCH Handbook began on a trial basis in Salatiga City in Central Java. "Central Java Family planning & MCH" (1989-1994 Technical Cooperation）	Pilot period
1997	The Ministry of Health adopted the national version of MCH as part of national program. Provision of special population related, World Bank equipments (1996-2001). MCH Handbook programs implemented in cooperation with UNFPA. MCH handbook gradually adopted in 5 provinces (Central Java, Western Sumatra, Eastern Java, South Slaweshi, Bengklu).	Programming period
1998 — 2003	MCH Handbook expanded nationally. "Maternal and Child Health Handbook Project" (1998-2003 Technical Cooperation) implemented in 2 priority provinces (Western Smatra, North Sulawesi） and in 6 semi-priority provinces (Bengkulu, Eastern Java, Yogyakarta, Bali, Western Nusutenga, South Sulawesi).	
1999 —	Japan Overseas Cooperation Volunteers specialized in community health dispatched to the semi-priority provinces under a loose cooperation with the above mentioned proejct.	Policy support period

[45] http://www.jica.go.jp/project/indonesia/0600435/02/ (accessed on 5 July 2010)

2004	Decree of the Minister of Health on MCH Handbook <No.248/Menkes SK/ III/2004>	
2005	MCH Handbook distributed to 33 provinces, Special Budget for reducing IMR and MMR (2006-）	
2006 — 2009	Support for the establishment of a system to maintain MCH services through MCH Handbook. "Improving Maternal and Child Health with MCH Handbook II"(2006-2009 Technical Cooperation)	Support for the national adoption period
2007 — 2011	TCTP (Lao, Morocco, Afghanistan, Vietnam, Bangladesh, Palestine, Timor-Leste）	
2008	56% of projected number of newly pregnant women in Indonesia per year received antenatal care with MCH Handbook (data taken from 12 out of 33 provinces).	
2010	5 million (projected number of newly pregnant women in Indonesia per year) are to be provided with MCH Handbook (Central government's budget, the Global Alliance for Vaccines and Immunization).	

MCH Handbook in Indonesia using photos from various regions

In Indonesia, the utilization of MCH Handbook increased the knowledge of mothers about health, improved antenatal care attendance rate as well as the frequency of receiving health education. In this sense, it is faire to think that MCH Handbook is one of many reasons for the reduction of IMR. Dr. Azrul Azwal, the former Director-General of Community Health Bureau in the Ministry of Health, stated that "MCH Handbook has become a national program, although some budget issues still remain" (interview conducted in April, 2010). Moreover, according to Ms. Keiko Ozaki (currently JICA expert), who was one of many experts involved in the series of MCH projects, the project[46] "used MCH Handbook as an entry point for improving MCH system" and "MCH Handbook has now become the public goods of Indonesia". Dr. Lily Gracediani, Director of Community Health in Province Health Office in Western Sumatra, stated that "with the decree of the Governor of Western Sumatra Province, MCH Handbook has become ours, after 10 years of time". Japan provided its assistance so that its support would be incorporated into Indonesia system while respecting the ownership of Indonesian counterparts. As a result of such assistance, many issues have been achieved including, the expansion of MCH Handbook, both in terms of geography and number of people (5 million per year), a strong commitment of the government, wider participation of other donors, support from a broad range of actors in health and medical service fields (public, private and educational), and that mothers and children have the record and information about their health.

46 "Indonesia Boshi Techo kanren project* ODA ga haha to kono inochi wo mamoru"(2009, 6), JICA Professional no Chosen Series 6, JICA Training Center for International Cooperation

The 2000s[47]

With the onset of the 2000s, the Five-Year Development Plan underlined the need for improving the environments such as healthy and clean (both physically and mentally) communities, households and workplaces as well as individual health behavior and community empowerment, and the expansion of equitable health services centering around the health centers. However, the Asian currency crisis in 1997 followed by the decentralization policy had negative effects on the health administration system, human resource development, and the functions of community participation, and created regional disparity in terms of various health services. Currently, the "Strategic Plan of the Ministry of Health (RESTRA DEPKES 2005-2009) plays a central role as a health policy. Nonetheless, with the decentralization of power, local governments have been given responsibility for providing health services, therefore it is imperative to improve their capacity in planning and implementation of programs. Measures against infectious diseases remain as a challenge that requires international response, because, in addition to tuberculosis and HIV/AIDS, Indonesia has generated the greatest number of incidences and deaths from avian flu in the world. Furthermore, the Strategic Plan prioritizes a program for strengthening Integrated Community Service Posts (Posyandu) which have been run by communities. The plan also stresses the importance of Desa Siaga (Alert/Prepared Village) program that aims at empowering communities to have a healthy life, including strengthening the measures against disasters. JICA's assistance in the 2000s has so far included the above-mentioned project of "Improving Maternal and Child Health with MCH Handbook" (2006-2009) which has developed well with the collaboration of the Ministry of Health. Currently, more than 60% of pregnant women are provided with MCH Handbook nationwide. In addition, Project for Improvement of District Health Management Capacity in South Sulawesi Province (2007-2010) in Eastern Indonesia was implemented with the aim of building capacity of local governments in formulating health policies and implementing programs. The project also focused on the health centers and the promotion of activities conducted by community residents who were to play a central role in primary health care. A project to enhance surveillance system for Avian Influenza (2007-2010) was also conducted as part of the supports for newly-emerging and reemerging infectious diseases, in addition to a project to support for National Tuberculosis Program (2008-2011).

47 "Indoneisia Kyowakoku ni okeru Hoken Iryo no Genjo to Kadai" (2009), Kazuhiro Sakamoto, Journal of International Health vol. 24, No.2

15.3 Summary

The table 15-4 shows the development of Japan's cooperation in the health sector.

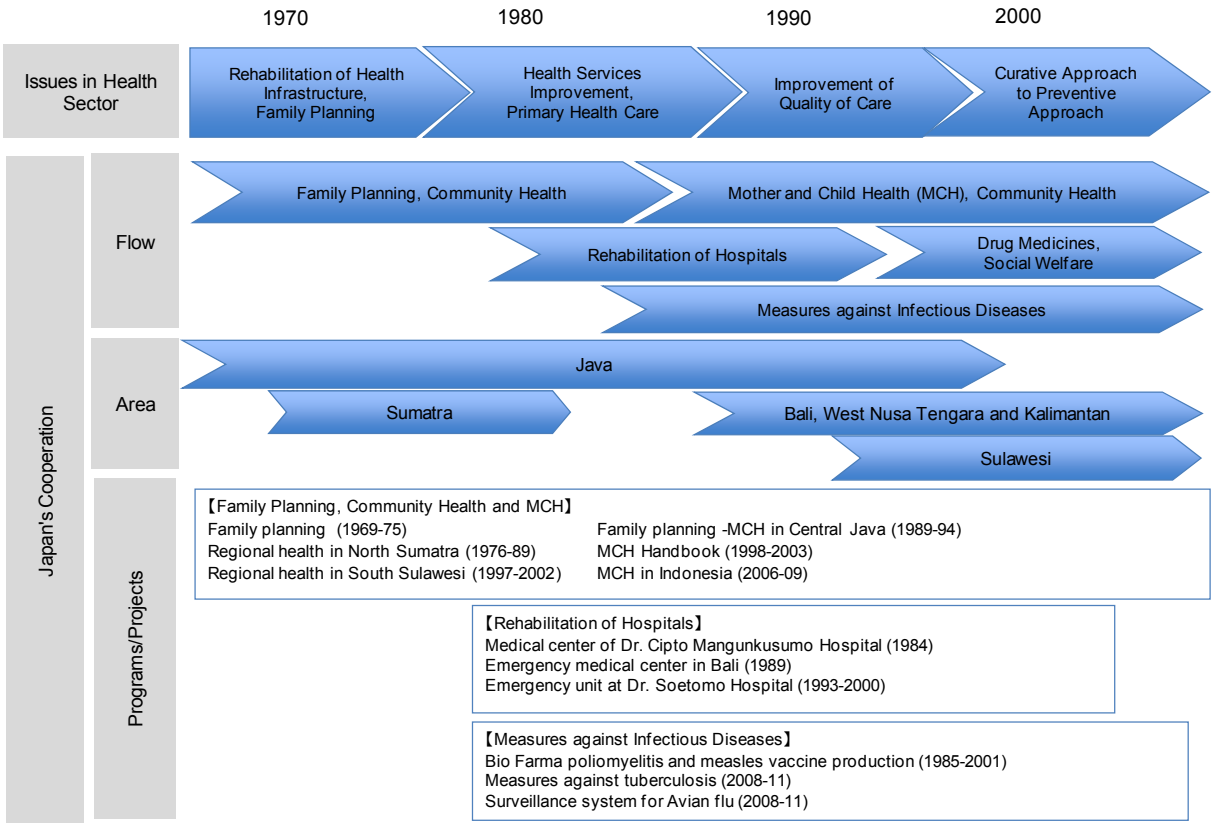


Figure 15-4 Development of Japan's Cooperation in the Health Sector

Japan's cooperation to the health sector started in the form of family planning program as a support to population policy which was an important issue in Indonesia in the late 1960's. From the 1970's, stemming from the family planning programs, community health programs were initiated which later lead to the development of MCH interventions centering around MCH Handbook. At the same time, from the early 1980's, emergency medical centers of hub-hospitals in the capital and major cities were constructed. In addition, from the late 1980's, production of vaccines, malaria control, measures against tuberculosis, and strengthening of surveillance system for avian flu were focused. From the late 1990's, issues related to the improvement of drug quality system and the welfare of disable people were addressed.

As a result of Japan's cooperation , MCH Handbook in Indonesia, which had started in 1994, lead to the issuance of a decree by the Minster of Health in a decade, and the Handbook has expanded to 33 provinces in 2005. In 2010, the Handbook is projected to be provided to 5 million newly pregnant women per year. Indonesia has been receiving trainees from 7 countries including Afghanistan, Laos, and Palestine, as part of a third country training program. Furthermore, the Japan's cooperation from 1985 made it

possible for the National Pharmaceutical Company, Bio Farma, to become self-sustained in terms of the production of poliomyelitis and measles vaccines and to achieve 100% of domestic share from 1994, 30% (poliomyelitis) and 10% (measles) of overseas share in 2009 respectively. Bio Farma has managed to apply the technology and the quality system of polio and measles vaccines to the production of vaccines by other bacteria. Furthermore, the company shares its technology and know-how with other countries though the third country training program.

Japan's cooperation in the health sector can be summarized as "necessary things were carried out, together with Indonesian people, at a time of necessity". There are always newly emerging issues in the health sector as the sector is given the proposition of ensuring people's health. As the time changed, the health situation in Indonesia has also changed. If we were to consider disease control currently, there would be a double burden to tackle both environmentally-related infectious diseases and malnutrition, which are the main health issues in developing countries, and the chronic diseases such as hypertension and diabetes as well as non-communicable diseases. For the past 50 years, Japan continued to provide assistance which was adapted to the changes over time and worked with Indonesian people. As a result of such efforts, everything has now rooted in Indonesia. A significance of strong ownership of Indonesian people is clearly shown in the cases of MCH Handbook and Poliomyelitis vaccine.

16. Training / Scholarship / Interaction

16.1 Scope and Outline of the Sector

This sector deals with the Japan's cooperation in the areas of trainings, scholarships and volunteers, namely Japan Overseas Cooperation Volunteers (JOCV).

Training activities have unique characteristics in JICA's operations. They are conducted either in Japan, in the recipient's country or in the third country. Trainings conducted in Japan are considered as "Technical Cooperation in Japan". As it is said in a proverb, "seeing is believing". Being in the Japanese society or in a Japanese organization, and experiencing and discussing the situation, values and problems, one can better understand the "wisdom" that the Japanese society has cultivated and share the information with people in their own countries. To this end, Japan accepts approximately 38,000 individuals from various institutions including central and local governments, public organizations and non-governmental organizations (NGOs). There are more than 500 training courses, covering a wide range of issues including agricultural technology, science and technology, health, and local administration system. There are different training schemes such by-country, by-issue and the ones for young leaders.

With regard to the scholarships, the following section reviews a long-term training and a loan-based scholarship in the light of the trend of Indonesian exchange students to Japan. As for the volunteer activities, the following section looks mainly at the trend of JOCVs dispatched to Indonesia.

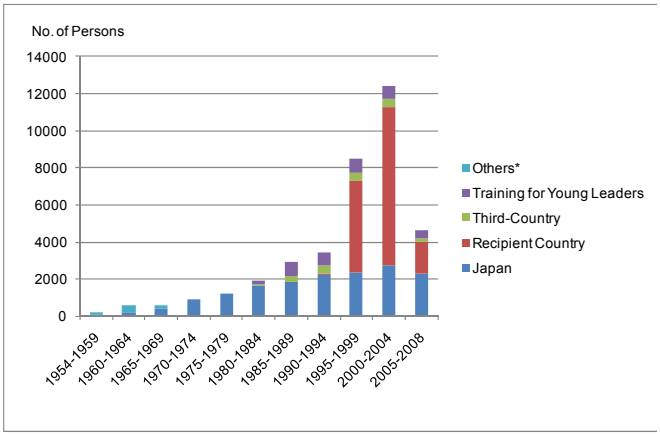


Figure 16-1 Number of Indonesian Participants for JICA Trainings

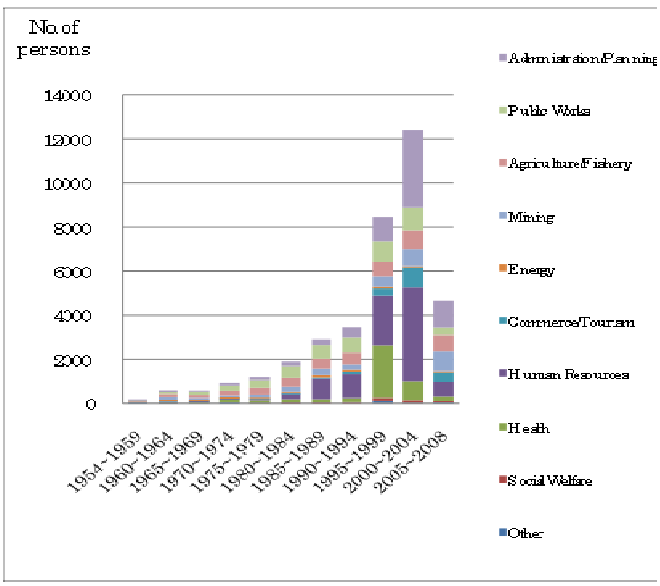


Figure 16-2 Areas of training for Indonesian Participants

16.2 Development and Cooperation in Historical Perspectives

(1) Training

The Table 16-1[48] details the training activities for Indonesia that JICA conducted between 1954 and 2008. JICA's training activities started from general trainings in Japan in 1954 and Joint US-Japan Training (Other). From 1981, the Third-Party Country Training (TPCT) which was carried out outside Indonesia started, followed by Youth Invitation Program in 1984 that aimed mainly at the interaction between Asian youths. From 1993, some training began to be conducted in Indonesia. This type of training activities conducted in the recipient country had started in 1993, and it now accounts for a large portion of the overall number of trained people, totaling 15,231 by 2008. These training were given by the people in Indonesian institutions who had already been trained through Japan's cooperation. JICA provided financial support when such institutions would give training to the staff of the relevant organization so that the acquired skills would be transferred to other people. Starting from 1999, a long-term training started as part of in-Japan training, the purpose of which was to attain academic degrees. Such training has been given to 5-17 people a year, totaling 102 participants by 2008. Moreover, since 2008, loan-based training has been added as part of Japan's loan assistance. Looking at the total number of people trained between 1954 and 2008, those who were trained in the general technical training were 15,798, those who trained in the Youth Invitation Program and the Training for Young Leaders were 3,554, and those who participated in the TPCT were 1,872. During the past 54 years, the Indonesians who received training in Japan totaled 20,170 ('the total number of Indonesian trained' minus 'the number of those who were trained in Indonesia and a third-party country'). The grand total of the Indonesians participated in the training programs is 37,273.

The Table 16-2 shows the areas of training for Indonesian participants. Overall, sectors related to human resources such as education and science are predominant. Since 1995, sectors such as health and education, and since 2000, the areas of planning and administration have seen a largest number of trainees, due largely to decentralization efforts in Indonesia. Furthermore, the total number of trainees who were trained in Japan in FY2009 was 819. The figure is the second largest in the world; however, on a cumulative basis, Indonesia has by far the largest number of trainees in the world.

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[48] JICA Office in Indonesia

*Other: Japan-US joint training program (US aid program for Asian countries in which Japan provided support as a third-country training site. http://www.mofa.go.jp/mofaj/GAIKO/bluebook/1962/s37-4-3.htm), Scholarship program as war reparation (training program for Indonesia as part of war reparation)

The Table 16-3 also demonstrates the breakdown of sectors of the top five of training participants countries. It is clear that sectors related to human resources such as education and science as well as public works are predominant in Indonesia.

Reflecting on such a rich track record of Indonesia in the field of training, there are multiple alumni associations amongst JICA trainees in Indonesia.

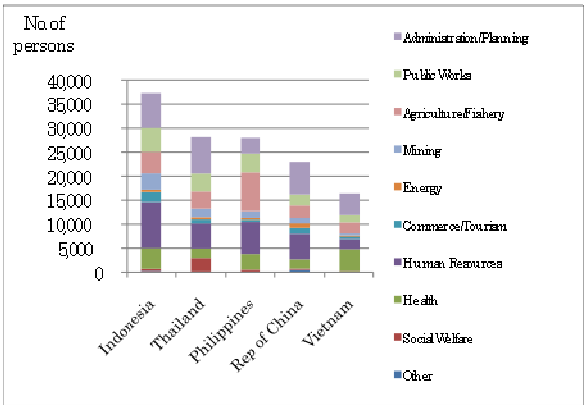

Figure 16-3 Areas of Training: Top five Countries Compared in cumulative total of the number of trainees

■ **JICA Alumni Association of Indonesia (IKA JICA INDONESIA: Ikatan Alumini JICA Indonesia)**

Alumni association of returned trainees. Established on 22 Feb, 1981. Has 6,270 registered members (as of Jun, 2009) with 6 branches (Bandung, Bogor, Surabaya, Makassar, Manado, Medan,). Its members are public servants and main actives are: to organize seminars, annual meetings, executive boards, angs with local network、to publish newsletters d meetinand directory. Member of Asia JICA Alumni Association (ASJAA) Website：http://www.ikajica.or.id/

■ **The Alumni of Indonesia-Japan Friendship Program for 21st Century (KAPPIJA-21:Keluarga Alumni Program Persahabatan Indonesia Jepang Abad21)**

Alumni association of the Youth Invitation Program: The Japan-ASEAN Youth Friendship Program for 21-Century. Established on 18 March, 1985. Has 3,636 registered members with 13 branches (West Jawa, Jakarta, Central Jawa, Yogyakarta, Eastern Jawa, Ache, North Sumatra, South Sumatra, West Sumatra, Kalimantan, Nusatenggara & Bali, Eastern Indonesia, South Sulawesi). Its members are teachers, doctors, lawyers, public servants, business persons, journalists, and people involved in NGO activities. They are in late 30's and 40's of age who have been participating in the activity since the beginning. The association organizes annual meetings, executive boards, and orientation for young leaders before they are dispatched to Japan. The association publishes newsletters and pamphlets and has implemented the 20th anniversary project of the association (blood donation, essay contest). It also organizes social contribution activities of respective braches and receives delegations from ASEAN. It is a part of ASJAA. Its Jakarta branch is active in organizing social contribution activities. South Sulawesi branch (established in Feb. 2010) also organized health education session in a primary school, and JOCVs participated in it. Website： http://www.kappija-21.or.id/

Alumni Associations by Ministry/Agency

■ **Japan Alumni & Returnee, DGT, Indonesia (Ministry of Finance)**

Organized by the past trainees of JICA programs. The most recent meeting was held in April 2008 in which Principal of National Tax College in Japan participated. Website： http://alumnijepangdjp.wordpress.com/

■ **Police: Ikatan Sakura Indonesia (ISI)**

The association was organized by the former trainees of the Program to support national police reform. The members of the association used to participate in the special country training (currently in the 9th term, a total of 190 trainees), counterpart training, and group training (held in Japan). It was the former participants in the special country training who voluntarily took the initiative to create this association. Given that the participants of the special country training were supposed to be at the levels of captains/majors and between 30 – 40 years old of age, they are now reaching at the levels of a police branch head, a section chief of the police department, or a section head of the headquarters. In fact, some former trainees have started to gain the positions as colonel; therefore some might even become a general (head of provincial police headquarters or director at central police agency) in the near future. These people have been trained in Japan and have developed positive ways of thinking. As they get promoted and have more important positions, ISI will be able to have more influence over the police. There is a sense of solidarity within the group as well as a strong sense of seniority. This is effective in terms of their future networking. Moreover, JICA F-COP (follow-up activities of JICA for former trainees) targeting at ISI began two years ago, and some projects which the members of the association had proposed were approved and implemented. Ms. Rosmita, a head of a local police office, is now working to construct a police post in the Pesisir Selatan District in West Sumatra Province as part of the second phase of the special country training. Apart from this, proposals relating to the construction of a police post, rehabilitation of police station, or provision of motorbikes are being made. This signifies the aspiration of former trainees that they would like to utilize, in their own communities, the experiences they gained from the training in Japan and what they have learned from the on-going projects. Website：http://www.isiindonesia.com/index.php

Through such alumni activities, the former JICA trainees improve their lives and workplaces and make social contribution, by reflecting upon Japanese experiences and values, utilizing what they gained from the training.

Furthermore, in the political arena of Indonesia, there are three sitting ministers and two vice ministers in the second Yudhoyono administration who were the returned trainees.

(2) Scholarships[49]

The number of universities in Indonesia during the 1950's was 16, which increased to 23 in the 1960's and to 30 (national universities) and 131 (private universities) in the 1980's. Many issues still remained to be unsolved including a lack of competencies of teachers in the country, a shortage of facilities both in terms of quantity and quality, a regional disparity of educational research, and a gap between public and private schools. In this context, those who wish to aim for a higher quality of education or are fortunate enough to have opportunities (including having better economic means) tend to opt for going abroad for studying. Prior to the Independence, two most popular destinations were the Netherlands and the Middle East. Nonetheless, the number of students studying abroad exceeded 10,000 in the 1980's and according to the statistics of

[49] References: "Koutou Jinzai Kaihatsu Jigyo (2) Jigo Hyoka" (2006), Tomohiro Kuroda, Kazuhiro Yoshida, JBIC, "Nihon no Ryugakusei Seisaku no Indonesia ni okeru Eikyo – Jinzai Yousei no Kanten kara" (2002), Yuriko Sato, Nihon Hyoka Kenyu, "Nihon Ryugaku no Gakushu Seikatsu Taiken ga Shokumunouryoku no Koujou ni ataeru Kouka ni Kansuru Kenkyu – Indonesia no Siehugyoseikan no Nihon Ryugaku wo Jirei to Shite" (2005), Ito Ayako, Hiroshima University, Kokusai Kyoryoku Kenkyuka Shushi Ronbun

UNESCO, the most popular country became the United States with 7,000, followed by the Western Germany with 2,000, Australia and the Netherlands. Since 1990, Japan exceeded the Netherlands and ranked 4th, while in 2000 it dropped to be 5th with a fast increasing number of the students going to Malaysia.

The following section explains Japanese scholarships to Indonesian according to the time and contents.

■ 1944-1945 Special scholarship program for students from South East Asia in the end of the World War II

Japanese government invited youths from South East Asia including Indonesia, which was under Japanese occupation at the time. The purpose of the program was to make the administration of the occupied lands go smoothly, by training the youths as the leaders of the region, to help them acquire Japanese language skills and to make them become friendly towards Japan. When the war ended, the program was suspended. The total number of the students invited to Japan from Java, Sumatra, Celebes, and Borneo, reached 116. Japanese embassy in Indonesia has a list of the students (Daftar Almuni Penerima Beasiswa Pemerintah Jepang 2003) and there are 63 names of those who went to Japan under this program. There are many individuals who succeeded in business upon returning to Indonesia.

■ 1960-1965 Scholarship program as war reparation

The program was implemented based on the agreement signed in 1958 "Treaty of Peace and Reparations Agreement between Japan and the Republic Indonesia". The program was conducted from 1960 over 5 different phases. There were 389 war-reparation students between 1960 and 1965 and 238 war-reparation trainees between 1960-1963. A half of these war-reparation students majored in engineering. Both the students on the special scholarship for the South East Asia and the war-reparation students came to study mainly as undergraduate students and went to Waseda, Keio and Nihon universities among others. Upon returning to Indonesia, many of them were employed in the public and private sectors.

■ 1966- Scholarship program by the Ministry of Education

The program started from 1966. The participants were 74 in 1977, 100 in 1982, and 160 in 1987. The number grew rapidly after the 1980's. Since then, a large number of national university professors and staff of the Ministry of National Education, who were both public servants, came to Japan under this program. The number totaled 6,083 by 2009.

■ 1985- Scholarship through ODA loan

Indonesian government recognized in the 5th and the 6th Five Year Development Plan that human resource development was imperative in order for the country to achieve economic development. The government therefore highlighted as policy agenda the development of human resource with a high level of knowledge and expertise in the area of science and technology as well as policy formulation and implantation. In addition, as the higher education and training institutions in the country were still underdeveloped, Indonesia government has implemented various scholarship programs with the support from the World Bank and Jana Bank for International Cooperation (JBIC), which has joined with JICA.

1985-	The Overseas Fellowship Program: OEP	Through the loans from the World Bank, the program was implemented for human resource development in science and technology. Approximately 1,350 staffs from the Agency for the Assessment and Application of Technology (BPPT) and governmental research institutions including the Institute of Technology Bandung were sent to university/research institutions in Japan (about 300), the USA, and European countries.
1988-1995	The Science and Technology Manpower Development: STMDP	With the loan funding from the World Bank (ended in 1989) and Overseas Economic Cooperation Fund (OECF),which has joined with JICA, the above-mentioned OEP was maintained. The size of the loan was ¥5.73billion in total. The total number of students dispatched was 608. The destinations included the USA, Britain, Canada, Australia, Germany, France, the Netherlands, Australia, Philippines and Japan.
1990-1998	Program for Human Resource Development: PHRDP I	A total of ¥12.35 billion in loan was provided by OECF. Staffs from the State Ministry of National Development Planning (BAPPENAS), the Ministry of Finance (MOF), and the BPPT were sent to Japan, the USA, Britain, Germany, Australia, Malaysia, Thailand and Philippines. The total of 312 came to Japan.
1995-2004	Program for Human Resource Development: PHRDP II	A loan of ¥8.5 billion in total was provided by JBIC. Students studied or were trained (short-term) either overseas (mainly in Japan) or in Indonesia. Students were generally sent to Japan (502 students), however, some went the USA (6), Britain (4), and Australia (12), if their courses were not attainable in Japan. In Japan, staffs from BAPPENAS took bachelor, masters or PhD courses in administration, management/economics, international development, and development planning. Staffs from MOF learned economics/management and international studies (international administration, international development, and international relations). Personnel from BPPT studied technological engineering and other related fields.
2006-	Program for Human Resource Development: PHRDP III	JBIC (currently JICA) provided a total amount of 9,717 billion yen of loan. With this program, the government staffs continued to receive education and trainings in and outside the country.

■ 1999- JICA's long-term training

The program was designed to attain masters and PhD degrees. Students stayed abroad to study for 2-3 years. The areas of their major ranged from development planning, economic and engineering to agriculture and education.

■ 2003-2006 JDS: Japanese Grant Aid for Human Resource Development Scholarship

JDS started with an objective to provide opportunities for conducting research and establishing a network to the students from Indonesia, including public servants, who

came to study in the tertiary institutions in Japan. JDS was also expected to strengthen and expand the bilateral relationship between Japan and Indonesia. The period of JDS was 4 years (4 terms), and the selection process was open to public servants (both central and local) and professors at the national and public universities. A total of 120 were to be selected (30 per term). The areas covered by JDS were administration, law, economics, management, international relations, and Information and Technology (IT). The significance of this scheme was that the Japanese side including the Ministry of Foreign Affairs (MOFA), embassies, JICA and receiving universities and the Indonesia side such as State Secretariat, MOFA and other relevant ministries, established a "management committee" and JICA researched on the desires of major universities with Masters degree courses in terms of whether they wish to accept trainees or not, their track records and systems. It was noteworthy that the candidates for the training were decided only after certain universities were selected and propositions were made to Indonesia on the courses that those universities could offer to the students.

The result of the individual and group interviews to the returned trainees and students, totaling 29, (4 from Youth Invitation Program/Training Program for Young Leaders, 23 from technical trainings (group, special country, CP), 1 from JDS, 1 from loan projects) shows that all the respondents felt that experiences in Japan were extremely useful. The respondents stated that such experiences had positive effects on their motivation, ways of thinking and the improvement of various knowledge and skills. They also learned in Japan about discipline, hygiene, efficiency at work, importance of detailed planning, comprehensive adjustment capability, and professionalism. The respondents also talked about episodes in which some kind Japanese delivered their wallets or bags when they left the items on the train or some Japanese people even took them to the final destination when they asked for directions on the street. Reponses were also made that Japanese people were found to be friendly although the respondent had a strong image of Japan during the the World War II and that Japanese community was very disciplined and highly socialized. Also, respondents were impressed by how Japanese made efforts to maintain its tradition, how Japanese were sincere and hardworking, and that even people with high positions rode a bicycle to go to work in Japan. Respondents also stated that there were no negative experiences although they had hard time getting used to Japanese food, the public signs were only in Japanese, and that they became homesick. JDS program was thought to have a good management, and the participants hoped that this kind of program that supports students in management be continued. This kind of positive feedback is due to the selection process in which the courses offered to the trainees had been carefully selected with the participation of universities themselves. The respondents also commented that they were well-supported while being in Japan, which made it possible for the training to become meaningful and their experiences to be relevant and useful for their work. Some also wished to see a strategic scholarship to Japan in light of the significance of studying in Japan for the staff at the relevant ministries and universities. The purpose of training programs can be seen either "external" (intellectual international cooperation = human resource development in developing countries) or the realization of national interests (by increasing the number of pro-Japan people, mutual understanding and friendship with other countries can be promoted, strengthening Japanese intellectual influence over international community), and it is said that these two purposes were mostly effective in Indonesia (Sato, 2002a, 2002b). For the results of training and scholarship programs to remain longer, however, it will be important to strengthen networking and a support system.

(3) Volunteers[50]

Japan Overseas Cooperation Volunteers (JOCV)

JOCV started in April 1965 as a government program. In Indonesia, JOCV agreement was made in Jakarta in 1987, making Indonesia 43rd country to sign such an agreement. In 1988, three JOCVs (two nurses and one Judo instructor) were dispatched. Since then, during the next 22 years, a total of 536 JOCVs went to Indonesia, and 46 are currently dispatched. The areas covered by JOCVs are as much as 120. In Indonesia, JOCVs are working actively in areas like agriculture and fishery (cultivation of vegetables and cattle husbandry), Japanese language, education including science and mathematics, health including nursing and midwifery, cooking, culture (youth activity) and sports (Judo and physical education). Moreover, a program of Senior Volunteers (SV) began in 1990 and they were sent as Senior Cooperation Experts, which was part of the joint effort made by JICA and MOFA. The program was officially renamed to SV in 1996. The program scaled up in the following years, and a total of 3,817 SV have been dispatched to 62 countries (as of 31 May 2009). In Indonesia, since 1998, SV have been operating in a broad range of areas including homemaking, nursery education, shipbuilding technology, freshwater farming, turbine, metallic mold casting and Japanese language, totaling 224 (by 2009). Currently 16 SV are working in Indonesia.

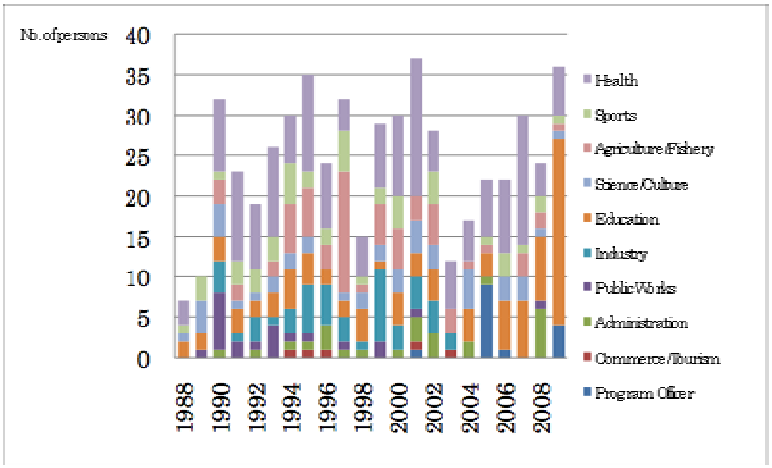

Figure 16-4 Number of JOCVs and their areas of involvement

The figure 16-4 shows the number of JOCVs dispatched and the areas of their involvement in Indonesia. In around 1990, as part of public works project, JOCVs specialized in telephone wiring were dispatched while maintaining their professions[51] at the Nippon Telegraph and Telephone Corporation (NTT). From 1995 to 2000, particularly in 1997, the first team dispatch in Indonesia was materialized for the Integrated Area Development Project in Barru, South Sulawesi, increasing the number of JOCVs dispatched to such areas as agriculture engineering, cattle husbandry, rural development, agriculture (vegetable, food crops and rice cultivation). Furthermore, following a series of social instabilities including the Asian Economy Crisis in 1997, a riot in Jakarta and Jawa in 1998, evacuation of Chinese-Indonesians, temporary evacuation of foreign nationals including Japanese, and a resignation of the Suharto

[50] Reference: JICA Volunteers no Ayumi, Kyoryoku Tai Hossoku no Keii to Rekishi (http://www.jica.go.jp/volunteer/outline/history/)

[51] "Genshoku Sanka" : Individuals take a leave and participate in volunteer activities while maintaining their status within the company

administration, one of the batches of JOCVs in 1998 was suspended. From 2001, the first JOCVs in environmental education were sent as administrative assistance. In 2005, in an effort to promote the dispatch of JOCVs in South Sulawesi (part of the assistance for the regional development in the Eastern Indonesia), 9 general/short-term JOCVs were posted in the areas related to agriculture, education and health. In addition, in 2006, 12 JOCVs were sent to Yogyakarta Province in order to assist the rehabilitation efforts of aftermath of the earthquake. A total of 22 JOCVs were dispatched to Padang in West Sumatra with the same objective in 2009. Health-related personnel such as nurses, midwives, nutritionists, public health nurses and practitioners of acupuncture and massage have been constantly dispatched, with the total number of 170.

JOCVs in the Health Sector

Coordination between JOCVs and other schemes such as Technical Cooperation can be observed in a number of cases. The two nurses who were dispatched at the beginning of 1988 worked at the Emergency Medical Center of Dr. Cipt Mangungkusumo Hospital which was constructed by the Japanese grant aid in 1984. Later, hospital nurses were also dispatched to the emergency medical center at the National Sanglah Hospital in Bali which was also constructed through Japanese grant assistance in 1989. Such cases later expanded to other major hospitals outside Java (namely, North Sumatra Province Medan, East Kalimantan Province Balikpapan, South Sulawesi Province Makassar, Maluku Province Ambon, East Nusa Tenggara Province Kupang). In the late 1990's, in relation to the project on Maternal and Child Health Handbook (1998-2003, Technical Cooperation), a midwives for community health, a nutritionists and a nurses were dispatched to the District Health Offices in the semi-priority areas of the project, specifically Bungkulu (RejangLebong), East Jawa (Lumajang), Yogyakarta (Gunung Kidul), Bali (Singaraja), West Nusatenggara (Lombok). Later, in order to promote a program on the public health nurses (equivalent to Japanese public health nurses) in South Sulawesi, JOCVs were posted to multiple District Health Offices. At the same time, a process of decentralization started in 2001, the health policy in Indonesia, "Healthy Indonesia 2010" (announced in 1999) shifted its attention from curative approaches to health promotion and a prevention of diseases. Moreover, issues related to the difference of views in terms of nursing, life and death as well as a scope of medical interventions constantly became a source of concerns while JOCVs operated in the hospitals. In this context, the dispatch of hospital nurses ended with those who worked at the Tabanan Hospital, Bali, in 2008.

Dr. Azrul Azwal, who was the former director-general of community health bureau in the Ministry of Health,and the counterpart of the project of MCH Handbook, stated that JOCV program is beneficial for both JOCVs themselves and the staff of the organizations in which JOCVs are dispatched to. He added that he was very impressed by the JOCVs who were enthusiastic about their work and keen to learn the Indonesian language. A combination of a volunteer program and other project schemes is hardly done by other donors.

The sole example of JOCV Team Project in Indonesia：Integrated Area Development Project in Barru, South Sulawesi (PPWT BARRU-JICA)

1995-1999 Integrated Area Development Project in Barru, South Sulawesi

2000-2001 Following-up period

This project was implemented as the first JOCV team project in Indonesia. The aim of the project was to support the Regional Comprehensive Development Plan which was managed by the Ministry of Internal Affairs and to contribute to the improvement of agricultural incomes in the 6 villages[52] in Barru, South Sulawesi. From January 2001, follow-up activities were conducted to complement a part of the project which fell behind the schedule. The follow-up activity ended at the end of December 2001.

Mr.H.A.Muhammad Rum, the District Governor of Barru and a key person of the project, made a remark that "Japanese came to the village, and farmed and lived with the residents. Those Japanese worked on the farm with the villagers and spent the time together; therefore the local people started to feel close to them. At the onset of the project, the commitment of the Barru government was weak. I was an assistant to the Governor at that time and felt that was unfortunate. Having become the Governor, I made efforts to promote the project. PPWT BARRU-JICA achieved a lot. Of course, the fields for raising seedling, water tanks and buildings were examples of such achievements. Furthermore, the project made positive impacts on the way people think and how people live".

Comments from former JOCVs dispatched to Indonesia

Out of 554 JOCVs who have been dispatched to Indonesia for the past 22 years, questionnaires were given to 35, and 26 responded. With regard to the most memorable things through JOCV experiences, they responded that "relationship between people (in Indonesia) is deep" and "people are close to each other". They also made remarks on "the way Indonesia people live", "the stress due to the difference of climate and environment", and "vitality". JOCV experiences were considered to be "encounters", "a chance that made their current path", "something that changed their lives (including their counterparts)", "opportunity to have expanded their potential" and "highlights and turning point of their lives". Currently they maintain the relations with Indonesia as "friends", or though their jobs (receiving trainees in agriculture, taking care of nurses-to-be through EPA arrangement". Some commented that they don't have any relations for the moment, but whenever they think of Indonesia, they feel at ease. Moreover, upon returning to Japan, JOCV stated that they should become domestic volunteers or they can offer vitality to Japan. In addition, some said "through the experiences of 2 years in different culture and values in which their common sense cannot be applied, they improved their adaptability and are better able to deal with issues in a more flexible way. JOCV experience can lead to a practical way of thinking. The contribution JOCVs can make to the Japanese society is that by using such flexibility, they are able to improve Japanese society from different perspectives". By being in a different culture, JOCVs open their eyes and have opportunity to look back on their own culture. Some said "in order to really understand the experiences as an important contribution to their lives, they would have to review the experiences over time and organize them.

52 Tompo, Galung, Palakka, Anabanua, Harapan, Libureng

16.3 Summary

This chapter looked at JOCV, training and scholarships programs though the achievements in terms of number and the thoughts of relevant people. From this, it can be recognized that technology and system are the part of a country's culture, and though trainings and studying in Japan, participants can experience the cultural and social backgrounds in which such technology and system are being utilized. This facilitates their understanding even further. Though trainings and studying in Japan, Indonesian people experience Japanese organizations and culture. This enables them to invent an applicable way to Indonesia when they utilize Japanese technology and system, as they can understand the cultural and social difference between Indonesia and Japan. In addition, "attitude towards work (or research", "importance of sharing information and coordination within the organization" which are hard to teach as clear-cut "skills", can be more easily understood though trainings and studying in Japan. There are many returned trainees who work hard to improve their workplace and society upon returning to the country. Relations with the individual have developed into a strong tie, which gave a rise to a network with vitality. This can be exemplified by vital activities of KAPPIJA-21 regional branches and the construction of local police stations by ISI members of the JICA's training alumni.

Same goes with JOCVs. JOCVs eat, work and live like local residents and experience Indonesian society and culture. In such a process, people from two different countries start communicating, out of the needs to understand each other. It can be said that the experiences and understanding JOCVs have developed in a different country offer an important opportunity and make significant difference on their lives thereafter. At the same time, this becomes an important experience for the Indonesian organizations and society that received JOCVs. There are many Indonesians who feel close to Japan or Japanese in general. A number of former JOCVs dispatched to Indonesia stated that the two years they spent in Indonesia were "a chance and an encounter".

Through the training, scholarship and volunteer programs which started in 1954, 1960 and 1988 respectively, many Indonesians and Japanese have developed and communicated, which has solidified the tie between the two countries.