



# Indonesia's Development and Japan's Cooperation : Building the Future Based on Trust

April 2018

Japan International Cooperation Agency



This brochure summarizes the results of the "Review of Indonesia's Development and Japan's Cooperation: Its Past, Present and Future." The review commissioned by JICA was conducted by a consortium of International Development Center of Japan Inc. (IDCJ), ALMEC Corporation, and Koei Research & Consulting Inc. (KRC). The report can be downloaded from the JICA Library Portal Site.

<https://libportal.jica.go.jp/fmi/xsl/library/public/index.html>





(Photo: Kenshiro Imamura/JICA)

# Introduction

Since its independence in 1945, Indonesia, the world's largest archipelago and a multi-ethnic nation, has developed based on its national motto *Bhinneka Tunggal Ika* (Unity in Diversity).

Under the strong leaderships of President Sukarno and President Suharto, Indonesia worked steadily on national development based on the pillars of "growth," "distribution," and "stability." Japan has supported this effort through official development assistance (ODA). Although the political economy temporarily became disarrayed due to the Asian Financial Crisis, Indonesia continued its stable economic and social development since the mid-2000s, and joined the G20 in 2008. As a leader of ASEAN, Indonesia contributes to the peace and stability of the region, and is a reliable partner of Japan in tackling global issues.

This booklet will look back on the partnership between the two countries for the past 60 years, focusing on Japan's ODA to Indonesia.



The year 2018 marks the 60th anniversary of diplomatic relations between Japan and Indonesia. In commemoration, an official logo has been selected through public competition, and various memorial events will be held. The logo is based on the red and white used in the flags of both countries, and incorporates the symbols of both countries, "Sakura (cherry blossom)" and "Wayang (a shadow puppet)."

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(In this booklet, photos without citation are by the Review Team).

# Facts and Figures on Japanese Cooperation in Indonesia

## Japan's ODA to Indonesia amounted to more than 5.5 trillion yen

Japan provided a cumulative amount of more than 5.5 trillion yen (up to the fiscal year 2016. About 668 trillion rupiahs/US\$49.5 billion\*) for Indonesia. Japan has been the largest bilateral donor to Indonesia, and Indonesia is the largest recipient of Japanese ODA.

## 60% of Trans-Sumatra Highway and toll roads in Jakarta constructed

Development of the Sumatra island has been the driving force for economic development. This was supported by the 2,500 km-long arterial road passing north-south through the island, and roughly 60% of this road was developed by Japanese cooperation. The development of ferry transport between Java and Sumatra islands shortened the one-way traveling time from 5 hours to less than 2 hours, and the number of daily round-trip ferry passages increased from once a day to around 100 round-trips per day. This drastically improved cargo transport between industrial parks surrounding Jakarta and Sumatra island with its rich natural resources (mineral, agricultural, and forestry).

Of the total of 274 km toll roads in the Jakarta metropolitan area, about 60% were developed with Japanese assistance (of which 98 km were for road design).

## Indonesia's first subway

To mitigate traffic jams by promoting public transportation, Japan is supporting the modernization of railways in the Jakarta metropolitan area since the 1980s (126 km, or 55% of the total lengths of 230 km) and more recently, the Mass Rapid Transit project including Indonesia's first subway line.

## 11,000 MW electric power supply facilities constructed, equivalent to 20% of the national capacity of power supply

As of 2016, 3,948 MW power plants have been constructed through Japanese ODA. By adding IPP (Independent Power Producer) power supply in operation by Japanese companies, the total capacity provided by Japanese cooperation amounts to 10,963 MW. This accounts for 20% of the national power supply capacity.

## Agriculture productivity increased through an expansion of 370,000 hectares of irrigated areas

More than 50 ODA loan projects for irrigation facilities have been implemented since the 1970s. As a result, approximately 370 thousand hectares of irrigated areas have been expanded to date. This has contributed to a rice paddy production of more than 2 million tons per year, which has had a significant impact on food security.

## Maternal and Child Health Handbook used by over 80% of mothers nationwide

The Maternal and Child Health (MCH) Handbook introduced by Japan in 1994 was institutionalized in Indonesia and disseminated to more than 80% of expectant and nursing mothers by 2016. This has promoted safe deliveries and immunization. The maternal mortality ratio (per 100,000 live births) was reduced from 430 in 1990 to 126 in 2015 (WHO).

## Timely response to large-scale natural disasters

Japan has provided timely assistance to natural disasters such as the Indian Ocean Earthquake and Tsunami (2004), the Central Java Earthquake Disaster (2006) and the earthquake offshore of Padang (2009). The multi-layered cooperation included a wide range of areas from the dispatch of Japan Disaster Relief Teams to recovery and reconstruction projects. Especially in Aceh, comprehensive cooperation was provided in various fields ranging from infrastructure recovery through the grant aid of 14.6 billion yen (US\$130 million\*) and reconstruction assistance through a yen loan of 11.6 billion yen (US\$103 million\*) to disaster education.

## More than 156 billion yen for climate change and natural environment conservation

Since the 1970s, Japan has continuously supported this sector in various areas including forestry development, biodiversity, forest fire prevention, and coastal conservation. The accumulated total loans and grant aid amount to more than 156 billion yen (about US\$1.4 billion\*). For example, the Mangrove Information Centre was established in Bali and an area of 4,000 hectares was reforested nationwide. A biological development research center was established at the Indonesian Institute of Sciences (LIPI) which today boasts the number of dry plant specimens at more than 730,000 (as of 2010). The above amount includes 95.4 billion yen (US\$850 million\*) through the Climate Change Program Loans (2008-2010).

## Over 40,000 participants received JICA trainings

Since 1954, more than 40,000 government officials and personnel in related institutions have participated in JICA training programs held in Japan and Indonesia (the number includes third country trainees who received training in Indonesia). These training programs contributed to human resource development, which became the important foundation of Indonesia's development. The number of scholarships provided by yen loans and other JICA programs to university lecturers and civil servants amounts to over 3,000.

\* Converted from the cumulative amount in yen at the currency exchange rate as of 1 December 2017. Therefore, the cumulative amount in US dollar here differs from the total disbursement based on the OECD-DAC reporting standard. (Source: The cumulative amount is the sum of the cumulative amount up to FY 2015 shown in the Ministry of Foreign Affairs of Japan "Japan's ODA Data by Country" (loans and grant aid based on Exchange of Notes and technical cooperation disbursed) and the total value of JICA programs of FY 2016 shown in JICA "Annual Report 2017" (including technical cooperation, loans disbursed and grants based on newly concluded Grant Agreements). Other figures: JICA "Review of Indonesia's Development and Japan's Cooperation: Its Past, Present and Future" Final Report, 2018).



# What Is Needed, When It Is Needed

Japanese assistance for democratization — supporting the country in turbulent times

**F**ollowing the Asian Financial Crisis in 1997 and the fall of the Suharto administration in 1998, Indonesia entered a period of economic and political turmoil. This period was a critical turning point for democratization. During these turbulent times, Japan, as an Asian neighbor, stood together with Indonesia against these difficulties and supported economic recovery and democratization.



Campaign for the 2004 presidential election (Photo: EPA=JUI)

## Democratization in Indonesia

The general election in 1999 was the first election in 44 years in which political parties freely participated. This was a major milestone of the political reforms that President Habibie eagerly pursued since his inauguration in May 1998. Following the election, Indonesia went through four constitutional reforms between 1999 and 2002 to reduce presidential power and introduce democratic parliamentary and election systems, as well as citizens' rights. Other reforms were also pursued. For example, the Indonesian National Police was separated from the military. Judicial and legal reforms as well as promotion of the press and media freedom were also underway. The domestic security situation was unstable with regional conflicts and terrorist attacks as represented by the 2002 Bali night club bombing. Under these circumstances, Japan began to support democratization with election assistance in 1999, which accelerated and expanded to other areas such as police and judicial and legal reforms.

Cooperation programs for the elections in 1999 and 2004 were especially notable because they were huge in terms of both financial and manpower contributions. They were profoundly significant in supporting the momentum of democratization. Many development partners also regarded the elections as important and provided various kinds of assistance. Among them, Japan showed its presence as the top donor by contributing roughly one third of all international assistance, or US\$35 million, to the 1999 election, and about one fourth, or US\$23 million to the 2004 elections.

## The "All Japan" Election Assistance

In June 2004, the cover story of "JICA FRONTIER," JICA's public relations magazine at that time, featured a 12-page article entitled "Elections in Indonesia and Assistance for Democratization." It is rare for a JICA PR magazine to focus on one topic concerning one country in major feature articles. The article introduces various and vivid stories of JICA experts dispatched to local election commissions. Together with commission staff members, they handled many difficulties such as voter registration cards or ballot papers not delivered on time, or protecting voting stations and ballot papers from heavy rain and landslides.

The general election in 2004 was the first election after the series of constitutional reforms. Its scale was huge and required complicated administration, as four national and local assembly elections — namely House of Representatives, newly established Council of Regional Representatives, provincial assemblies, and district/municipal assemblies— were to be held at once in April. For about 150 million registered voters, 590,000 voting stations and 660 million ballot papers were prepared nationwide. In July, the first ever direct election of President and Vice President was conducted (the runoff election was held in September). Japanese assistance for this series of elections was a "all-Japan" cooperation to mobilize various schemes and players.

### Japanese Assistance to the Elections

<b>1999</b> Election	<ul style="list-style-type: none"> <li>• Financial contribution of US\$35 million through UNDP (Emergency Grant Aid)</li> <li>• Election monitoring team</li> </ul>	<ul style="list-style-type: none"> <li>• 20 Short-term JICA experts</li> </ul>
<b>2004</b> Elections	<ul style="list-style-type: none"> <li>• 620,000 ballot boxes and 1.22 million voting booths (through Non-Project Grant Aid of US\$22 million)</li> <li>• JICA experts (one long-term expert and 24 short-term experts: 16 in the general election, four in the presidential election and four in the runoff)</li> <li>• 9 projects under the Grant Aid for Grassroots Human Security Projects (for local NGOs to conduct voter education projects) in total US\$490,000</li> </ul>	<ul style="list-style-type: none"> <li>• Election monitoring team</li> </ul> <p>&lt;Related cooperation&gt;</p> <ul style="list-style-type: none"> <li>Support for voter registration list (through cooperation in the statistics sector)</li> <li>Support for public opinion surveys (as part of the Economic Policy Support Program)</li> </ul>

(Source: JICA reports)





1,2: Voting booths with ODA logo  
(Photo: Japan International Cooperation System)

A voting station in East Java (July 2004)

For the 2004 election, Japan provided 620,000 ballot boxes and 1.2 million voting booths. Foldable, metal type designs were chosen so that the same equipment can be utilized for elections in the coming years. The ballot boxes and voting booths with Japanese ODA stickers were distributed to 20 out of 33 provinces, and this "visible Japanese aid" had a significant impact on the success of the election.

In both 1999 and 2004, two JICA experts, one election specialist and one JOCV (Japan Overseas Cooperation Volunteers) OB/OG who knows Indonesia very well, were dispatched to local election commissions. In 2004, they were dispatched to six locations covering 24 provinces. The experts provided critical advice on logistical management and conducted staff training. The government of Indonesia appreciated this saying, "The UN focused its assistance on conflict areas where you get higher media attention. On the other hand, Japan was the only donor country who sent its human resources to various regions. Although this may be an unglamorous work, the situation is very different from province to province in Indonesia. So, we are grateful that JICA experts conducted activities tailored to the needs of each provincial government." (The then Deputy Secretary General of the General Election Commission (KPU). Based on the article in JICA FRONTIER, 2004).

## Support for the Population Survey for Voter Registration

For the elections in 2004, there was a concern in the media that preparation of the voter registration list was not on track. At that time, the list was not properly updated and there were many cases of double and missing registration. Therefore, in order to hold a fair election, there was a need for a population survey to recreate the voter registration list.

Meanwhile, Japan had a long history of cooperation with the Central Bureau of Statistics (BPS) which included installation of 79 Optical Character Recognition (OCR) systems at BPS in order to support the 2000 population census. At BPS, there was also a JICA expert dispatched for the census. Considering the success of the 2000 population census and availability of the OCR that can quickly count the results, President Megawati requested BPS to conduct a population survey to develop the voter registration list. In response, Japan decided to support BPS in this important yet challenging task.

In addition to technical advice by the JICA expert who was already at BPS, JICA repaired some of the OCRs and provided 300 computers to accelerate the counting process. To this end, the interim result of the population survey, or the number of registered voters, was officially announced on 1st March 2004. The election was held on 5th April as scheduled. There was hardly any adverse claims against the list, and this was crucial for the election to be recognized as fair and uncontested. Later, this population data was utilized not only in the elections in the following years, but also by the Ministry of Home Affairs to develop the population database.

## Support for the First Public Opinion Survey

Until 2003, there was no nationwide public opinion survey conducted in Indonesia. The methodology utilized in opinion surveys by the newspaper company and others was phone interviews. Since only 5% of the population had phones at that time, the findings of such surveys did not truly reflect what the Indonesian people were thinking.

Under the Program for Economic Policy Support, JICA organized policy dialogues between Indonesian policy makers and six members from Japanese academia since 2001. The dialogues aimed at economic recovery and stabilization, as well as democratization. Through these dialogues, Mr. Heri Ahmadi (Member of Parliament) and Prof. Takashi Shiraishi (President of Institute of Developing Economies, JETRO) proposed establishing an independent institution to conduct reliable public opinion surveys. As a result, Lembaga Survei Indonesia (LSI: Indonesia Survey Institute) was established with support from JICA.

LSI conducted seven opinion surveys from August 2003 to September 2004, including before and after the general and presidential elections. The samplings were 2,200 nationwide. The respondents were randomly selected by category, and face-to-face surveys were conducted. The results were analyzed with cross tabulation to know in detail what the public was thinking. JICA provided advice on survey methodologies and organizational management of LSI, as well as financial support. The results of the surveys were presented at press conferences, which gradually received attention and were taken up in prominent newspapers and TV programs.

The public opinion survey by LSI was the first survey of this kind in Indonesia based on a sophisticated methodology. By this initiative, Indonesian society came to realize the power of the public opinion survey—that it can evaluate the performance of the current administration on a regular basis; it shows what the public expects from the politics; and these results are linked to how the government deals with public needs. As a result of LSI's success, the number of public opinion survey institutions has rapidly increased, many of which have been established by persons who gained experience at LSI.

The elections in 2004 was regarded as a critical event in international politics, or a milestone for firmly establishing democracy in Indonesia. Therefore, it received high attention in the international community. All the elections were conducted freely and fairly with high turnouts. The elections brought about the Yudhoyono administration, and under this administration, Indonesia enjoyed political and economic stability. Furthermore, it has even become the democratic leader of the region. "There was a concern that Indonesia might be torn apart like the Balkans if the transition to democracy did not proceed in a stable manner," said Prof. Jun Honna of Ritsumeikan University who was then engaged in cooperation with LSI and election monitoring. "The role played by Japan in Indonesia's stable transition to democracy was very big. Japan is the oldest democracy in Asia. Indonesia is the largest democratic nation in East Asia. It is important that the two countries as partners promote democracy in Asia and further improve the quality of democracy."

As presented throughout this booklet, the 60-year Japanese cooperation to Indonesia has been tailored to what is needed by Indonesia at the time, be it infrastructure development, regional development, economic policy support, or emergency response and reconstruction from natural disasters. Support for democratization is one of the best examples.

# History of Japan-Indonesia Partnership

Since its independence, Indonesian people, led by President Sukarno, worked hard on nation-building despite countless difficulties. When the reparation agreement entered into force between the two countries in 1958, projects such as multi-purpose dams and plant construction were implemented utilizing compensation funds.

With the inauguration of President Suharto in 1968, infrastructure development that supported the backbone of the national economy became the focus of cooperation, and Indonesia enjoyed stable economic growth for nearly 30 years. Meanwhile, Indonesia was forced to depart from resource dependence and to reform its economic structure; and Japan supported this through the provision of commodity loans.

	Until the <b>1960s</b>	<b>1970s</b> and early <b>1980s</b>	Late <b>1980s</b>	
<b>Indonesia</b>	<b>Period</b>	<b>Nation-State Building</b>	<b>Economic Development</b>	<b>Structural Adjustment</b>
	<b>Events</b>	1945: Declaration of Independence 1955: Hosting the Asian-African Conference 1962: Hosting the 4th Asian Games 1963: Establishment of BAPPENAS 1967: Inter-Governmental Group of Indonesia (IGGI) 1968: Inauguration of President Suharto 1969: The first 5-year development plan (REPELITA)	1971: The first general election since 1955 1975: Pertamina Crisis 1976: Hosting ASEAN's first summit meeting 1982: Political involvement of the National Armed Forces by New Defense Basic Law 1984: Achieved self-sufficiency of rice	1986: Crisis over international balance of payments
<b>Japan</b>	<b>Relationship with Indonesia</b>	1954: Start of training in Japan 1957: Dispatch of Japanese Experts started 1958: Peace Treaty, Reparation Agreement 1960: First reparation-grant students to Japan 1963: Japan Graduate's Association of Indonesia (Persada) 1968: Start of yen loans and grant aid	1970: End of grant period by reparation agreement 1974: Anti-Japanese riot 1977: "Fukuda Doctrine" 1981: Japan-Indonesia Science and Technology Cooperation Agreement	1986: Darma Persada University established by former international students to Japan 1988: Dispatch of Japan Overseas Cooperation Volunteers started
	<b>Prominent Cooperation Projects</b>	1968~: Commodity Loan 1968~: Karangates, Kali Konto and Riam Kanan Multipurpose Dam Projects 1968~: Eastern Microwave System Project 1969: Tanjung Priok Thermal Power Station Construction Project 1969~: Support for Family Planning	1970~: Jakarta Water Supply Project 1972~: Maintenance of Borobudur Historic Site Park 1973~: Establishment of Medium Wave Radio Network 1976~: Asahan Hydroelectric and Aluminum Project 1977~: Jakarta Fishing Port-Market Development Project 1981~: Umbrella Cooperation for Integrated Agricultural and Rural Development 1982~: Upper Komerung Irrigation Project 1983~: Dumai Port Development Project	1986~: Bali International Airport Construction Project 1986~: JABOTABEK Area Railway Project 1986~: Strengthening of Artificial Insemination Center 1987~: Project of the Electronic Engineering Polytechnic Institute of Surabaya 1988~: Sector Program Loan 1989~: Projects for Production of Oral Polio Vaccine and Measles Vaccine
<b>Trends in International Community</b>	<b>Events</b>	The Cold War The Green Revolution 1955: Asian-African Conference 1967: ASEAN	1971: Normalization of diplomatic relations between Japan and People's Republic of China 1973,1979: Oil Crisis 1975: End of Vietnam War 1979: Soviet invasion of Afghanistan	1985: The Plaza Accord 1986: Reverse Oil Crisis 1989: The Tiananmen Square incident 1989: APEC 1989: End of the Cold War



Prime Minister Takeo Fukuda announcing the "Fukuda Doctrine" (Photo: Cabinet Public Relations Office)



Darma Persada University



Engineers pleased with completion of excavation of the dam diversion tunnel (Brantas River Basin Development) (Photo: Nippon Koei Co., Ltd.)



Borobudur Historic Site Park maintenance


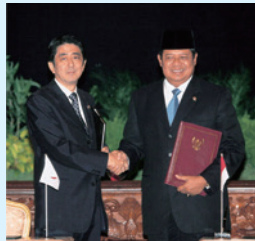





Semanggi intersection flyover project (Photo: Kenshiro Imamura/JICA)



After the Asian Financial Crisis in 1997, the wave of democratization and decentralization came to the fore. Although the political economy of Indonesia was temporarily disoriented, under President Yudhoyono, who was elected in the first direct election in 2004, Indonesia once again returned to a path of stable economic growth. Japan, through policy dialogues, has provided wide-ranging support, such as working on infrastructure development in the metropolitan priority areas towards private-led sustainable growth.

From the mid-2000s, per capita income improved further, and Indonesia joined the G20 as the only member from ASEAN in 2008. It is expected that both countries will work hand-in-hand to deal with the challenges of the Asian region and the international community, such as climate change measures.

<h2>1990s</h2> <h3>Growth until the Asian Financial Crisis</h3>	<h2>From the end of 1990s</h2> <h3>Democratization and Decentralization</h3>	<h2>From the end of 2000s</h2> <h3>Joining Middle Income Countries</h3>
<p>1990: Re-establishment of diplomatic relations with People's Republic of China            1992: Consultative Group for Indonesia (CGI)            1994: Hosting the 2nd APEC Summit Meeting            1997: Transition to floating exchange rate system            1998: Resignation of President Suharto</p>	<p>1999~2002: Amendments of 1945 Constitution (four times)            2000: Separation of the National Police from the National Armed Forces            2003: End of IMF support program            2004: Election of President Yudhoyono by direct election            2004: Indian Ocean Earthquake and Tsunami            2006: Central Java Earthquake Disaster            2007: End of CGI</p>	<p>2008: G20 Accession            2009: Jakarta Commitment            2018: Hosting the 18th Asian Games</p>
<p>1998: New Miyazawa Initiative            1998: Dispatch of Senior Volunteers started</p>	<p>2003: Co-chair the ASEAN-Japan Commemorative Summit Meeting            2004: Japan Indonesia Public-Private Joint Investment Forum</p>  <p>The ASEAN-Japan Commemorative Summit Meeting (2003)            (Photo: Cabinet Public Relations Office)</p>	<p>2008: Japan-Indonesia Economic Partnership Agreement</p>  <p>Prime Minister Abe and President Yudhoyono shook hands after signing on JIEPA            (Photo: Cabinet Public Relations Office)</p>
<p>1991~: Maritime Transportation Sector Loan in Eastern Indonesia            1993~: Ensuring Maternal and Child Health Service with MCH Handbook Project            1994~: Construction of Railway Double Tracking of Cikampek-Cirebon            1995~: Research Cooperation on the Center for Japanese Studies, University of Indonesia            1996~: Bali Beach Conservation Project            1997~: Support for Sulawesi Rural Community Development</p>  <p>MCH Handbook (Photo: Kenshiro Imamura/JICA)</p>	<p>1999, 2004: Assistance to the Elections            2001~: Support for Economic Policies            2001~: Program for Reform of the Indonesian National Police            2003~: ASEAN University Network/Southeast Asia Engineering Education Development Network Project            2004~: Aceh Reconstruction            2005~: Development Policy Loan            2005~: Development of Faculty of Medicine and Health Sciences of Universitas Islam Negeri            2007~: Northeast Indonesia Development Program            2007~: Hasanuddin University Engineering Faculty Development Project</p>  <p>Japan Disaster Relief Team at the Indian Ocean Earthquake and Tsunami (Photo: Kenshiro Imamura/JICA)</p>	<p>2008~: Climate Change Program Loan            2012: Master Plan for Establishing Metropolitan Priority Area for Investment and Industry            2013: Start of Construction of Jakarta Mass Rapid Transit (MRT) Project            2014~: Project for Strengthening Social Security System            2014~: Project on Capacity Building for Information Security            2017~: New Port Development Project in Eastern Metropolitan Area</p>  <p>Tunnel Boring Machine for Jakarta MRT Project            (Photo: SHIMIZU CORPORATION)</p>
<p>1991: Collapse of the Soviet Union            1997: The Asian Financial Crisis</p>	<p>2000: Millennium Development Goals (MDGs)            2001: September 11 terrorist attacks in the United States            2005: The Kyoto Protocol entered into force</p>	<p>2008: The 2008 Financial Crisis            2011: The Great East Japan Earthquake            2015: Sustainable Development Goals (SDGs)            2015: The Asian Infrastructure Development Bank            2015: The ASEAN Economic Community</p>

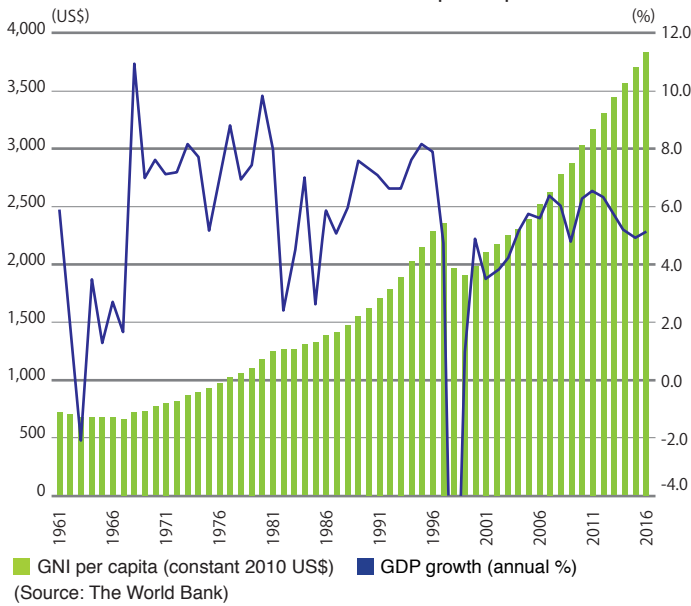
# Socio-economic Development in Indonesia and Japan's Development Cooperation

## Overview

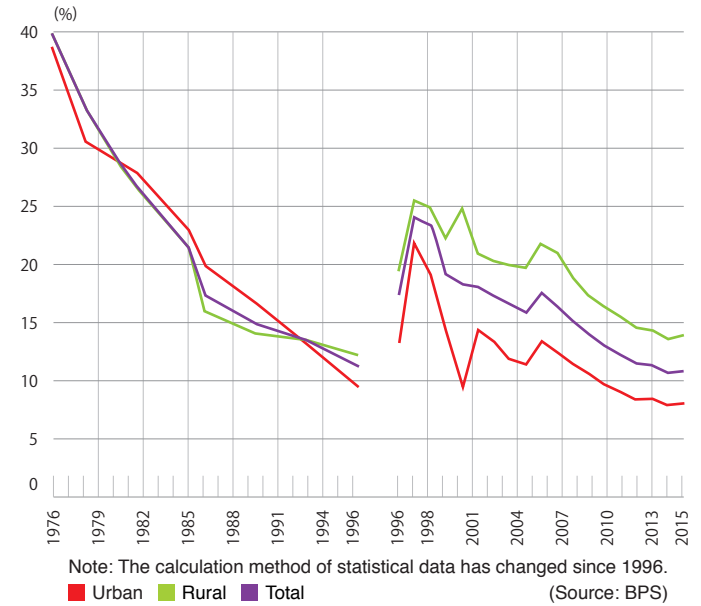
Indonesia was praised as "the East Asian Miracle" based on its achievement of long-term high economic growth (average 7% growth from the 1970s to the mid-1990s). The gross national income (GNI) per capita also increased steadily. It reached US\$1,000 in 1977, surpassed US\$2,000 in 1994, and will soon become an upper-middle-income country (above US\$3,956, based on the 2018 classification) despite the setback caused by the Asian Financial Crisis.

The poverty ratio shows that there is a consistent declining trend in both the urban and rural areas throughout the period. The Human Development Index (HDI) focused on the three aspects of development (health, education, and income) is steadily rising. These figures show that the results of economic development have been widely distributed to the public.

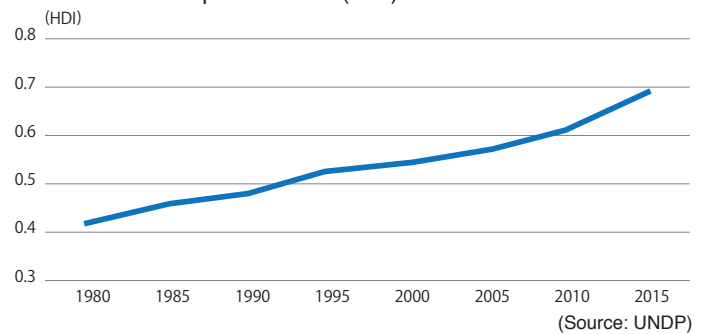
● Trends in GDP Growth Rate and GNI per capita



● Trend in Poverty Ratio



● Human Development Index (HDI)



Kuningan Flyover (2011)



Project on Capacity Development for River Basin Organizations in Practical Water Resources Management and Technology (Photo: Mika Tanimoto/ JICA)



## Japanese Development Cooperation in Indonesia and its Characteristics

The history of the cooperation dates back even before the establishment of diplomatic relations. In 1954, right after its participation in the Colombo Plan, Japan accepted 15 trainees from Indonesia for the first time. The Peace Treaty and Reparations Agreement between the two countries was signed and went into effect in 1958. Since then, Japan has consistently provided support to Indonesia until today.

Japan is the largest donor country in Indonesia (see page 31), accounting for 45% of the cumulative total of ODA to Indonesia since 1960. Meanwhile, among 190 countries and regions where Japan has provided ODA, Indonesia is the largest recipient country (1960-2015, 11.3%). The close ties between the two countries are absolute.

Approximately 90% of Japan's ODA to Indonesia (commitments) was provided as loans (mainly yen loans) which supported development of the nation's infrastructure such as power plants, irrigation, flood control and land reclamation, railways and roads. They were essential to economic growth and enhancing connectivity of the vast country. Moreover, when the future of the Indonesian economy became unclear, as in the Asian Financial Crisis in 1997, Japan immediately provided assistance through non-project type loans, which are not provided for individual projects, but to improve the international balance of payments and the implementation of economic development plans and structural adjustment plans.

In addition to the financial cooperation, technical cooperation has been very effective in human resource development and introduction of new systems and technologies. Such cooperation arguably contributed to the development of bilateral relations based on human connections. Up to FY2016, 44,023 trainees were trained in Japan and Indonesia, and 17,459 experts and 24,432 study team members were dispatched to Indonesia.

The impact and spillover effects of Japan's development cooperation can be summarized as follows.

### ● Enhanced national unity

Through support to develop the fundamental infrastructure such as transportation, electricity, energy and communication throughout the country, Japan assisted in physically connecting the Indonesian archipelago. In addition, Japan contributed to promoting the national language and fostering national identity by establishing public radio and TV stations, and improving the quantity and quality of universal education by constructing new junior secondary schools across the country. Thus, Japan's development cooperation not only laid the foundation for today's Indonesian economic development, but also played an important role in enhancing national unity.

### ● Foundation for steady socio-economic development

During the "Green Revolution" in the 1960s and 1970s, Japan supported improvement of the agricultural infrastructure and technical transfer; and the national rice yield greatly improved. This not only helped Indonesia avoid concerns about a food crisis, but also brought about a series of outcomes not limited to agriculture, such as improving income disparity and shifting the labor force from the traditional sector to the modern sector. In addition, when the Suharto regime collapsed in 1998 and Indonesia underwent major reforms, Japan, by supporting elections, police reform, etc., contributed to the establishment of a democratic system, which is the foundation of the country's economic growth to date.



PT. Brantas Abipraya established as a result of the Brantas River Basin Development Project (Photo: PT. Brantas Abipraya)

### ● Development of Indonesian business and human resources

Japan started implementing large-scale projects in numerous sectors before the growth of local capital, and thus contributed to the development of many state-owned enterprises and their engineers. In the Brantas River Basin Development Project in East Java, which consisted of diversion tunnels, multi-purpose dams, and power plants, nearly 7,000 people were trained over a period of 40 years. At the same time, through the long-term scholarship provision to study in Japan, Japan has been engaged in human resources development at universities and national/local governments. Returnees have contributed significantly to the socio-economic development of Indonesia and strengthened ties between the two countries.

### ● Introduction of innovative concepts and their localization

Through technical cooperation with the National Development Planning Agency (BAPPENAS), the Indonesian Government's awareness of regional development has increased; and this promoted development of integrated regional development plans. In such sectors as basic education and health and medical care, innovative concepts such as the school operational grant program, Lesson Study, and Maternal and Child Health Handbook were introduced through Japanese cooperation and then institutionalized as policies of the Government of Indonesia. Nowadays, these programs have shown their own development, and are no longer simply a copy from Japanese cooperation.

### ● Partnership through South-South and Triangular Cooperation (SSTC)

Counterpart institutions of Japan's technical cooperation have grown and developed in agriculture, health, education and many other sectors, and accumulated SSTC experiences to work with Asian and African countries. In future, when Indonesia becomes a donor country, the presence of these institutions as Centers of Excellence is expected to continuously increase.

### Strengthening trustworthy relationship between the two countries

According to the Opinion Poll on Japan in Seven ASEAN Countries by the IPSOS Hong Kong in 2014, 95% of respondents in Indonesia answered that "friendship exists between the two countries and Japan is a reliable friend." In addition, 92% said that "Japan's economic and technical cooperation has helped develop Indonesia."

Exchange of human resources and deepening of mutual understanding, which have been cultivated over the years, are invaluable assets for both countries. It is expected that Indonesia and Japan will, as a joint partner, continue to work not only on common issues such as maritime development, disaster risk reduction, social security and coping with urbanization, but also on issues in the Asian region and the international community such as climate change.

# Transportation

## Overview

The transport sector has served as one of the foundations for the stable development of the Indonesian economy. Japan's cooperation was in line with Indonesia's development policy in each period. In the regional area, priority was given to the connection of resources and equal distribution of development benefits. In the metropolitan area, priority was given to promoting sustainable economic growth led by the private sector by filling the gap between increasing transport demand and supply caused by population growth and motorization.

Furthermore, in the past, the predominant way of development in the transport sector was to develop transport in the regional bases, but it has become necessary to pay attention to the surrounding economies as ASEAN countries seek to enhance connectivity within the region. Consequently, anticipation has grown that Indonesia will become part of the international production and trade network. Meanwhile, since Indonesian logistics are still underdeveloped with high physical distribution costs, there is ongoing cooperation from Japan in transport infrastructure development, especially in the Jakarta metropolitan area where manufacturing industries are concentrated, to accelerate economic growth led by the private sector.

Meanwhile, newly formed projects have focused mainly on technical cooperation (including preparation for new yen loan projects) in the subsectors such as road, air, port, and sea transport due to an austerity budget. While government institutions and enterprises in Indonesia have become technically more capable, there is still need for assistance including transfer of Japanese technology for infrastructure development, which involves novel technology such as subway construction. Financial support together with Japanese technologies is an added value of Japan's ODA in the sector.

## Outcomes

- Since the beginning, Japanese cooperation has played a pioneering role for implementing large-scale transport infrastructure projects with high novelty, such as initial development of the toll roads in Jakarta, electrification, elevation and double tracking of railways and most recently, development of the subway system, Mass Rapid Transit (MRT).

- By strengthening Indonesia's infrastructural network, Japanese cooperation has contributed to enhancing domestic connectivity as well as the growth of the Indonesian industry, which occupies a certain position in the international production and trade network.

<Examples of network enhancement through Japanese cooperation>

- ▶ Strengthened road and ferry transport. Most notably, about 60% of the trans-Sumatra highway with a total length of approximately 2,500 km was developed with Japan's ODA. The development of ferry transport between Java and Sumatra islands shortened the one-way traveling time from 5 hours to less than 2 hours.

- ▶ Transport capacity of the Java trunk railway was enhanced.

- ▶ Five airports (Bali, Balikpapan, Surabaya, Padang, and Palembang) constructed/expanded, and safety facilities at 33 airports were developed.

- ▶ Eight out of a total of 28 gateway ports in Indonesia, 12 non-commercial ports in eastern Indonesia, and 10 ferry ports across the country were developed.

- Based on the transport policy (master plan) integrating the regions and transport modes to alleviate transport problems caused by overconcentration in the Jakarta metropolitan area, Japanese cooperation has contributed to infrastructure development in the capital region by improving urban public transport including MRT and development of other infrastructure such as toll roads that alleviate traffic congestion.

- Including maritime education and training improvement (at six schools in total), Japan has also contributed to increasing added value in each subsector of transport, namely, improved safety and security measures, improved quality of infrastructures and transport services, and capacity development of local human resources through cooperation and technology transfer. Especially, in the road sector, overseas activities by Indonesian companies and South-South Cooperation have started.

Semanggi intersection flyover project (Photo: Kenshiro Imamura/ JICA)





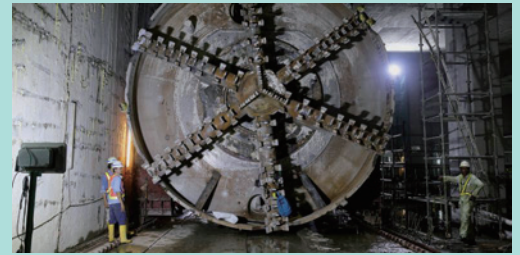
## Jakarta Mass Rapid Transit (MRT) System Project (2006 - present)



1: Construction near Bundaran HI Station



2: Collaboration between engineers of the two countries



3: Shield excavator

1,2,3: (Photo: PT. MRTJ)

The project which is being implemented by Japanese loan aims at increasing the passenger transport capacity in the Jakarta metropolitan area by constructing a mass rapid transit (MRT) system (about 15.7 km) including the first subway line in Indonesia. It will contribute to improving the investment climate of the country including increased efficiency in logistics and reduction of air pollution by alleviating traffic congestion in the metropolitan area. Construction was started in October 2013 and currently works are ongoing with an inauguration target of March 2019.

Improved urban transport services are indispensable for the entire transportation network in the Jakarta metropolitan area. Through the synergistic effect with "Jabotabek Railway Modernization Project," funded by Japan's ODA loan, this MRT project is expected to accelerate the

trend of shifting middle or high-income people toward railway transport, to alleviate road traffic congestion within the central area, and to bring about an improvement in environmental quality.

In addition, in terms of the novelty of this project, new technologies are also being transferred to the Indonesian side such as the shield construction method and the underground continuous wall construction method in the tunnel section and the balanced cantilever method in the elevated section. Furthermore, currently, consulting services for extension of MRT (North-South Line) and engineering services for MRT East-West Line Project (Phase I) are also being implemented with Japanese ODA loans.



Semanggi interchange



Merak Ferry Terminal

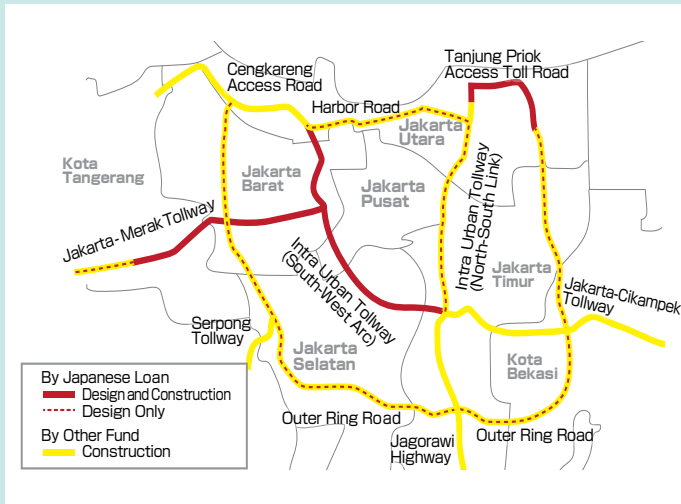
↓ An officer in charge speaking to Japanese experts at Depok depot constructed by yen loan (Photo: Shinichi Kuno/ JICA)





# Transportation (continued)

## Jakarta Metropolitan Transportation Network Improvement (1978 - present)



Toll road aided by Japan in the Jakarta Metropolitan Area

The first Jakarta Metropolitan Area Development Plan (JMDF) was formulated in 1980 with aid from the World Bank. It was intended to develop the metropolitan area with a multipolar structure promoting east-west urbanization, in addition to a southward direction. The road sector master plan by JICA "Arterial Road System Development Study (ARSDS)" in 1987 mainly followed the same concept; for example, Jakarta Outer Ring Road (JORR), for which a feasibility study was conducted by JICA as one of the arterial roads, was meant to restrict further southward development. Even the interchanges on the Jagorawi toll road (opened in 1978) that connects Jakarta and Bogor was limited in number in the southern section of JORR. Instead of southward development, Serpong was planned as a new city and the pressure of southern development was intended to be diverted toward Tangerang (westward) and Bekasi (eastward). In this sense, Jakarta-Merak toll road (Jakarta-Tangerang section opened in 1984) developed by Japanese ODA loan and Cikampek toll road (opened in 1988) developed by the World Bank and Kuwait Fund played an important role of inducing development to the east-west direction.

In the early 1980s there were no toll roads directly connecting the radial toll roads in the Jakarta metropolitan area. From 1978, Japanese ODA funded the study of the inner ring toll road that would connect all the above mentioned radial toll roads. Development of some sections, namely, South-West Arc (Cawang-Pluit) was further implemented including construction of several base flyovers composing the inner ring toll road by Japan's ODA loan; and the sections of Cawang-Grogol and Grogol-Pluit were opened to traffic in 1989 and 1996, respectively. Of the total 274 km toll roads in the Jakarta metropolitan area, about 60% were developed with Japanese assistance (of which 98 km were for toll road design).

South-West Arc (Cawang-Pluit) Toll Road



Pancoran Flyover (2011)

Semanggi Flyover (2011)



Jabotabek railway improvement by ODA loans

Meanwhile, in the railway sector, the "Jabotabek Railway Modernization Project" (1982-2001) was a national project designated in the Presidential Decree and started with an objective to provide a fully-functioning railway system for commuters in the Jakarta metropolitan area. Since the commencement of the Japanese ODA loan, the majority of such projects as rolling stock (the entire train cars) procurement, track improvement, communication facility installation, electrification, railway depot and workshop development, station improvement, automatic signaling system, double tracking, and track elevation on the central line were funded through loan for about 20 years. They were in accordance with the recommendations from the master plan formulated in the development study, "Jakarta Metropolitan Area Transportation Study" (1979-81), conducted by JICA in 1981.

Until 2000, the transport plans in the metropolitan area were separately formulated for the railway and road sectors. However, it was considered important to select projects that would promptly solve the congestion problems. Thus, a comprehensive urban transport approach was introduced, integrating the road and railway sectors through a new master plan study, "The Study on Integrated Transportation Master Plan for Jabodetabek (SITRAMP) Phase 2" (2001-2004). This approach consisted of the formulation and integration of integrated transportation policies across regions and transport modes to alleviate the overconcentration in Jakarta. SITRAMP is not only comprehensive, but also has a large-scale transportation database to support it. SITRAMP has been followed by various cooperation projects including development of the public transport system such as MRT, development of road infrastructure such as flyovers to reduce traffic congestion, and introduction of relevant policies and institutions such as transportation demand management. Furthermore, a follow-up study in the form of the technical cooperation project, "Jabodetabek Urban Transportation Policy Integration (JUTPI) Project" has been conducted, which includes updating the SITRAMP master plan.



## New Padang Airport Development Project (1996-2005)



Passenger terminal building  
(Photo: Lukman F. Laisa)

The old Padang airport (Tabing airport), co-shared with the Indonesian Air Force, had a runway that was as short as 2,200 m with an annual maximum passenger capacity of 400,000. Since the number of air passengers was predicted to increase rapidly and exceed the capacity of the airport soon, the necessity of expanding the airport became high. However, it was difficult to extend the runway and expand the terminal building due to the airport location, which was too close to the urban area of Padang city. Moreover, the south side of the airport was a hilly area that was an obstacle to the takeoff and landing of airplanes, and the airport was not even equipped with an Instrumental Landing System (ILS). Considering all these factors, the new Padang airport (Minangkabau International Airport) development project was implemented with a Japanese ODA loan after going through the feasibility study (F/S) and engineering services (E/S). The new airport included a passenger terminal building that was 12 times larger than the old airport (12,750 sqm), an apron area that was 4-5 times larger, and cargo handling facilities with an annual capacity of 10,000 tons.



Airport access road

After spending a lengthy time for land acquisition because it was a new airport, and due in part to the impact of the Asian Financial Crisis, construction was started in 2002 and the new airport was opened in 2005. Though the new Padang airport was initially designed with an annual capacity of 700,000 passengers, the new airport was developed to accommodate a maximum of 1.7 million passengers per year. In the following year of 2006, the number of passengers exceeded 1.5 million and the growth rate of the regional economy reached 14%; thus, the expansion of the passenger terminal and the extension of the runway (from 2,750 m to 3,000 m) were planned. Furthermore, an airport access road from the nearby national roads was also constructed in accordance with the opening of the new airport. The airport has now been connected with a four-lane road all the way to Padang city including the national road.

The massive earthquake that hit Padang in 2009 caused enormous damage. Many buildings in and around Padang city were destroyed and the roads were severed. However, buildings at new Padang Airport were only damaged slightly with minor cracks. The new airport made a great contribution in rescue and aid activities from the Indonesian government and foreign countries without any ground stop even right after the earthquake.



Overview of Padang Airport and access road (Photo: Lukman F. Laisa)

## Enhancement of Vessel Traffic Service (VTS) in Malacca-Singapore Straits (2008-present)



VTS operator room  
(Photo: Japan Radio Company)



Radar system  
(Photo: Japan Radio Company)

The Malacca-Singapore Straits are one of the busiest sea lanes with many shallow areas, reefs, and sunken ships. On the narrow waterways, large vessels such as tankers and container ships sail in dense traffic, and marine accidents and piracy incidents occur frequently. To improve the safety of vessels navigating in the straits, the development of a vessel navigation safety system, or in this case the Vessel Traffic Service (VTS) system has been undertaken since 2008 through grant aid with a view to improving surveillance of vessel navigation on the sea and at the ports. In addition, a technical cooperation project to train VTS operators has been implemented since 2012.

Against a background of increasing maritime accidents caused by the growing ship traffic, Japan has assisted Indonesia in developing the coast radio stations (shore-base stations for ship-to-shore communications) to cover all the waters of Indonesia for safe maritime navigation since the 1980s. Moreover, sea/port surveillance in the Malacca-Singapore Straits, where the traffic of ships is particularly high in the waters of Indonesia, the VTS that consists of a radar system with GPS and a radar tracking system was developed. The combination of the two systems contribute to the comprehensive safety and security of all ships navigating the waters of Indonesia.

Japan has been assisting Indonesia to play a role in securing navigation safety in the Malacca-Singapore Straits together with Singapore and Malaysia. One of the common traits of Indonesia and Japan is that both are seafaring countries; hence, mutual cooperation is very important for both countries particularly in the field of maritime safety and security.



VTS Center in Batu Ampar  
(Photo: Japan Radio Company)



VTS Radar in Tanjung Medang  
(Photo: Japan Radio Company)

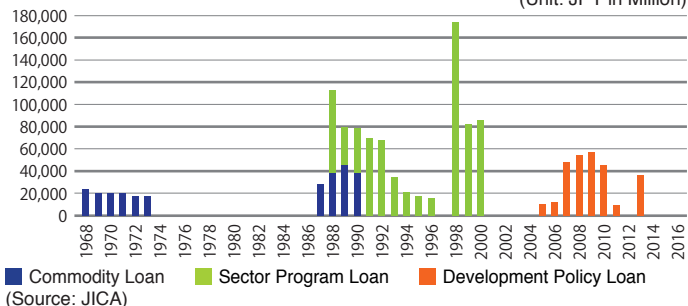
# Economic Policy and Macro-Economic Management

## Overview

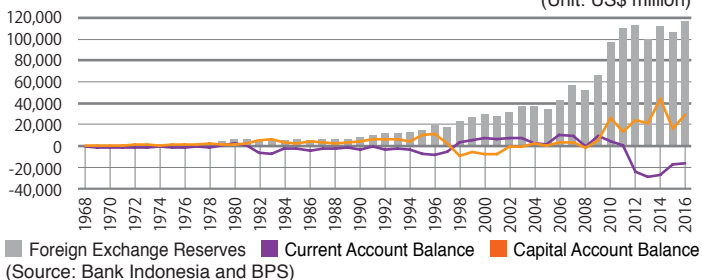
Since the 1960s, Japanese ODA has contributed to macro-economic stabilization and structural adjustment in Indonesia through financial assistance and technical cooperation. Financial assistance includes program loans for balance of payments deficits and structural adjustment during periods of economic shock, such as the balance of payments crisis during the early stage of the Suharto regime (from the late 1960s to early 1970s), the reverse oil crisis (in the second half of the 1980s), and the Asian Financial Crisis (from the late 1990s to early 2000s). Moreover, it includes another type of program loans for financing budget deficits during the Yudhoyono administration (from 2004 to 2014) to facilitate policy reforms through policy dialogue in such areas as business climate, public financial management, poverty reduction, as well as infrastructure reforms and climate change mitigation and adaptation (See Figure 1).

Japan has also implemented technical cooperation to enhance institutional capacity development at BAPPENAS since the 1960s when a policy adviser was sent to support the formulation of REPELITA I (1969-1973). For the 1997 Asian Financial Crisis, Economic Policy Support was undertaken by a Japanese academic team. The Japan Indonesia Policy Forum was also held every five years during the presidential election years since 1999 to discuss policy implications and recommendations to the new administration. Since the 2000s, Japan has started a number of technical cooperation projects in areas such as tax administration, external debt management, monetary policy, Public Private Partnership (PPP) for infrastructure development, performance-based budgeting, treasury and state owned property management and social security. They have supported economic institutional reforms and capacity development to create fiscal space through resource mobilization. This helps enhance macroeconomic stabilization and sustainable economic development for Indonesia to become a higher middle-income country and beyond.

● Figure 1: Japanese Program Loans (Contract Basis) in Indonesia, 1968-2016 (Unit: JPY in Million)



● Figure 2: Balance of Payments and International Reserves in Indonesia, 1968-2016 (Unit: US\$ million)



## New Miyazawa Initiative for the Asian Financial Crisis (1998)

Under the New Miyazawa Initiative, Japan provided financial support for mitigating macroeconomic instabilities and vulnerabilities in Indonesia during the Asian Financial Crisis. It included sector program loans, health and nutrition sector development program loans, and social safety net loans to fill the balance of payments deficits and simultaneously offer a social security net for vulnerable groups. Japan also provided technical cooperation on economic policy support for responding to the crisis through policy dialogues between Indonesian policy makers and Japanese academia. Japan has greatly contributed to overcoming the Indonesian economic crisis.

## Outcomes

- Japanese program loans played a significant role as a buffer for the balance of payments crisis, the reverse oil crisis, and the Asian Financial Crisis through support for macroeconomic stabilization and structural adjustment (See Figure 2):
  - ▶ Program loans for the balance of payments crisis (JPY116.8 billion/ US\$0.35 billion\*) disbursed during 1968-1973 counted for about 12.6% of total current account deficits during the same period.
  - ▶ Program loans for the reverse oil crisis (JPY513.8 billion/ US\$4.0 billion\*) financed during 1987-1996 counted for around 12.8% of the total current account deficits for the same period. It also facilitated economic transformation towards a non-oil-based economy through structural adjustment reform.
  - ▶ Program loans for the Asian Financial Crisis (JPY333.9 billion/ US\$2.8 billion\*) funded during 1998-2000 approximately equaled 55.6% of current account deficits in 1997. It not only mitigated the balance of payments deficits but also provided a social safety net for vulnerable groups.
- Japanese program loans filled budget deficits as well as enhanced policy and regulation reforms through policy dialogue in the fields of macroeconomic stabilization, investment climate and trade facilitation, public financial management, poverty reduction, climate change measures, and infrastructure development reform:
  - ▶ Program loans (JPY266.3 billion/ US\$2.7 billion\*) disbursed for 2005-2013 filled approximately 4.5% of total budget deficits during the same period.
  - ▶ Through policy dialogue on investment climate and trade facilitation, Japan supported amendment of the Investment Negative List, introduction of the Investment One Stop Service, and issuing of transfer pricing regulation.
  - ▶ Indonesia significantly improved the World Bank's Ease of Doing Business ranking from 131<sup>st</sup> (out of 175 countries) in 2006 to 72<sup>nd</sup> (out of 190 countries) in 2017. Foreign direct investment (FDI) increased from US\$195 billion in 2011 to US\$289 billion in 2016. Of the total FDI, Japanese investment share also expanded from 7.7% to 18.7% during the same period.
- Japanese technical cooperation has facilitated economic institutional reforms and capacity development in areas such as the national development plan, economic policy support, tax administration, and PPP for infrastructure development. It has also helped to achieve the program loan outputs by enhancing capacity development.
  - ▶ Japan has enhanced infrastructure development through supporting the establishment of regulatory frameworks, such as PPP regulations (the Presidential Regulation No.38/2015, the BAPPENAS Regulation No. 4/2015 and the LKPP Regulation No.19/2015) and Availability Payment regulations (the Ministry of Finance Regulation No. 190/2015 and No. 260/2016 and the Ministry of Home Affairs Regulation No. 96/2016).

\*Annual average exchange rates for the program period.



Japan Indonesia Economic Policy Support Meeting at Ministry of Finance in 2002 (Photo: JICA (2002). 'Indonesia Economic Policy Support Project Formulation Report')



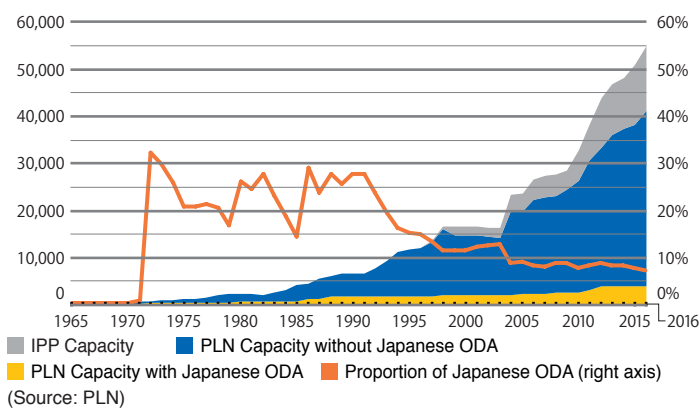
# Electric Power and Energy

## Overview

Since the Brantas River Basin Development Project in the early 1960s, Japan has been the top donor in the Indonesian power sector, and its contribution reached nearly 7.2% (20% by combining Japanese IPP participation) of the total capacity of the Indonesian power supply as of 2016.

In the 1970s, Japan strategically assisted the power system in eastern Java by building baseload hydro and coal-fired power stations and distribution networks. In the 1980s, Japan continuously helped Java power system development, and also supported main power plants in other islands. In the 1990s, Japan strengthened its engagement in the Indonesian power sector by helping to stabilize the power system in Java by supporting a transmission and distribution network system along with the World Bank and other donors. The power supply network was one of the important areas to promote Indonesia's IPP by allowing generated power into the system. In addition, in the early 2000s, in order to support the power sector suffering from insufficient funds to establish sufficient supply to the Indonesian economy recovering from the Asian Financial Crisis, Japan arranged emergency assistance to build power plants to avoid a potential power crisis which would hinder economic recovery. Since the late 2000s, Japan has provided comprehensive assistance including human resource development to promote geothermal and small hydro power development, as well as CCS (carbon capture and storage) and other clean coal technologies, to achieve Indonesia's policy goals towards sustainable growth and a decarbonized economy.

● Generation Capacity and JICA's Cooperation  
Facility Capacity (MW)



Tanjung Priok Power Plant (Photo: Tokyo Electric Power Services Co., LTD.)



1: Surface survey for geothermal development (Photo: Geological Agency)



2: Java-Bali Transmission Line: Depok-Tasikmalaya 500kV (Photo: PT. Perusahaan Listrik Negara)

## Outcomes

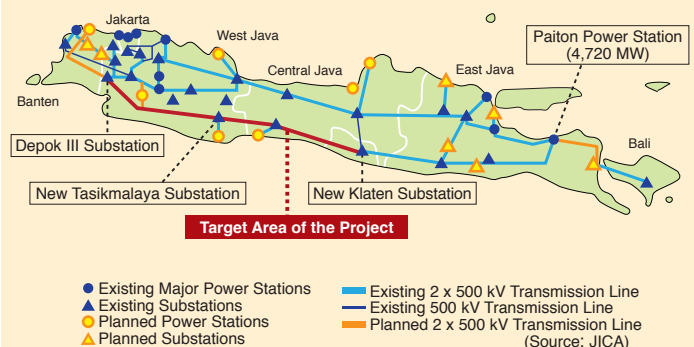
- Japan supported capacity installation of 10,963 MW as Indonesia's main baseload power stations (20% of the total national capacity) as well as extensive distribution networks around Java and Sumatra, contributing to Indonesia's high economic growth.
- By supporting the three major power plants near Jakarta in the early 2000s, Japan contributed to mitigating the frequent blackouts that used to hit the Jakarta metropolitan area.  
 (note)  
 In 2012, when the new gas fired power plants funded by JICA started its operation, the number of blackout days (estimates) dropped to 2 days (as of 29 October 2012), compared to 32 days in 2006.
- Japan contributed to the promotion of geothermal development and mitigation of carbon dioxide gases in Indonesia through multiple technical cooperation projects by helping to improve the data accuracy of surface surveys for geothermal development and by dispatching experienced consultants to more than five geothermal power station projects.
- Japan supported optimal supply planning over the vast country through development of several master plans which contributed to regional economic development with 92.85% rural electrification (in the first half of 2017).

## Transmission Line Construction Project in Java-Bali (1995 - 2005)

In 1995, due to rapid economic development, there was a significant supply and demand gap between western and eastern parts of Java in the Java-Bali grid. Based on the future demand projection and supply planning, this geographical gap was expected to expand. Moreover, it was necessary to expand the capacity of the electricity network in Java to connect the new power plants under construction to the grid.

Under such circumstances, donors such as the World Bank and Japan decided to support preparing the new 500 kV transmission line by dividing the responsible areas. Of the grid running south from the Paiton Power Station on the east coast of Java to the Jakarta metropolitan area, where the main electricity demand is, Japan undertook the responsibility of the construction between the Klaten substation and the Depok III substation near Jakarta together with new substations. The new transmission line, as expected, successfully mitigated the geographic imbalance in power supply and demand, and achieved stable and efficient power supply that met the increased power demand in Java.

### ● 500kV Java-Bali Transmission System and the New Route under JICA's Responsibility



# Private Sector Development

## Overview

During the period from the 1960s to the 1980s, Japan's ODA had mainly supported rehabilitation or expansion of the existing state-owned factories (such as paper, yarn, textile, shipbuilding, and fertilizer industries), as well as new industry development (steel and chemical) in the areas of research and planning. The majority of this cooperation was implemented in Java and Sumatra islands, and later shifted to Sulawesi island to develop a large-scale industrial area in the late 1970s. This built the foundation for national economic development.

Until the Asian Financial Crisis in the late 1990s, under Indonesia's national policy for foreign investment promotion, Japan supported institutional development for vocational training and industrial human resource development. It also supported the capacity development of export-oriented industries, in line with the national policy aimed at breaking away from the oil-dependent economic structure. Meanwhile, a series of policy advisory services were provided for institutional improvement in foreign investment promotion, which then encouraged Japanese companies to develop large-scale industrial estates around Jakarta.

In the 2000s, in the reform period of democratization and decentralization, the mainstream of Japanese assistance in private sector development shifted to technical cooperation programs to support industry promotion and SME promotion, to meet the national policy of strengthening the private sector nationwide. After the nation joined the middle income countries around 2010, given the increased internationalization of its citizens' economic and consumption activities, technical cooperation for institutional improvement in such areas as intellectual property rights protection and consumer protection was implemented. In addition, JICA supports a study for strengthening value chain in three strategic fields, or automobile, electric and electronics, and food processing, to improve the international competitiveness of the manufacturing industry.

## Outcomes

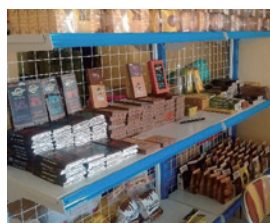
- Industrial development was established through implementation of research study or planning (about 20 titles), and financial assistance (more than JPY 130 billion in total, equivalent to around 14 trillion rupiahs). Consequently, the manufacturing sector was strengthened in terms of its contribution to the national GDP (less than 10% until the 1960s, lifted to around 16% in 1985).
- A large-scale industrial area was established in Sulawesi, i.e. Ujung Pandang Industrial Estate of 200 hectares, where around 220 enterprises (occupancy rate was 90% in 2017) were engaged in food processing and distribution. This became an important hub for expanding economic activities to the eastern part of Indonesia.
- Key functions for vocational training and industrial human resource development were established through a series of financial assistance and technical cooperation. The Center for Vocational and Extension Service Training (CEVEST: as of 2017, around 4,000 trainees accepted annually), Indonesia Export Training Center (IETC) and Regional Export Training Promotion Center (RETPC) are the notable cases.
- Effective institutional arrangements were made for foreign investment and business activity through a number of experts who were dispatched and public-private policy dialogue. Consequently, Indonesia's position in the World Bank's international investment climate ranking improved from the 131<sup>st</sup> in 2006 to the 72<sup>nd</sup> in 2017.
- An activity model was formulated for product development and marketing promotion under the initiative of the local industry (SMEs), in collaboration with the relevant stakeholders such as central/local governments and supporting institutions. This model has been disseminated to the rest of the country through the initiative of the Ministry of Industry.



Building of IETC



Design Development Center in IETC



Chocolate products made with cacao of Sulawesi



CEVEST

## Indonesia Export Training Center (IETC) and Regional Export Training Promotion Center (RETPC) (1987 - 2006)

IETC was established in 1989 as a national center for providing training programs and product test services to the export-oriented industry, under the Ministry of Trade. Currently, IETC provides four training programs, i.e., export training program (targeting 3,500 trainees in 2007), SME promotion program, R&D program and marketing promotion program. The original space utilized as the product testing facility has been converted recently to the Design Development Center meeting the shifting demand of the users. In the early 2000s, the functions of IETC had been copied by several regional centers in the form of RETPC (Surabaya, Medan, Makassar, and Banjarmasin), which have been providing similar services to the local industries in each region. After the completion of the cooperation, the Ministry of Trade supported a local government (West Nusa Tenggara Province) for establishing a new regional center based on the lessons learned/ experiences obtained through the operation of IETC/ RETPC.



# Telecommunications

## Overview

Cooperation in the telecommunications sector has been implemented in the communications and the broadcasting fields.

In the communications field, Japan was the first development partner to assist the improvement of the inter-islands communications lines with the Communication Network Development Project in 1969. At the same time, Japan also supported improvement of the microwave network, and renewal of the aging telephone network. In 1979, Japan provided assistance in formulating the first master plan in the Indonesian telecommunications sector. From the late 1980s, to expand the telephone network, Japan supported the laying of Indonesia's first optical fiber submarine cables between Surabaya and Banjarmasin with a total length of 410 km. In the 1990s, Japan began supporting human resource development in the field of telephone line maintenance by establishing the Telephone Outside Plant Maintenance Center, and contributed to building the backbone of the state-owned enterprise PT. Telkom Indonesia.

In the broadcasting field, Japan supported the establishment of public radio stations and TV stations in the 1970s. From the 1980s, Japan actively worked on human resource development in institutions such as the Multi Media Training Center (MMTC) in Yogyakarta.

As participation of the private sector was allowed from the late 1980s, Japan shifted its focus from financial assistance for infrastructure development to technical cooperation and policy recommendations. MMTC changed its role according to the times and became a training institute for public servants; then from the late 1990s it received trainees from private sectors, and finally became an international training institute.

Recently, to cope with global issues, JICA has started new efforts in the information security field in Indonesia, along with neighboring ASEAN countries.

## Outcomes

- Japan assisted the improvement of inter-island communication lines and telephone network, as exemplified by the 410 km long distance optical fiber submarine cables connecting Java and Kalimantan. These contributed to connecting the Indonesian archipelago, and facilitating economic activities.
- Through the establishment of public radio stations and TV stations, and improvement of broadcasting skills, Japanese cooperation contributed to the social integration of Indonesia, which is home to numerous ethnic groups, languages and religions.
- MMTC has provided training programs to more than 2,700 technicians at both public and private broadcasting stations including RCTI and Trans TV. With a high reputation for its practical, hands-on training program utilizing the latest facilities and equipment in Southeast Asia at that time, it has grown into a training institute, which serves as a resource for South-South Cooperation to accept trainees from other countries.



1: A lesson at MMTC (Photo: Jotaro Tateyama)  
 2: A studio set up by students at MMTC  
 3: Recording/ editing equipment at MMTC



Training for ASEAN countries (cyber security exercise) (Photo: JICA)



Discussion between a Japanese expert and government officials of the Special Region of Yogyakarta (Photo: JICA)

## Project on Capacity Building for Information Security (2014 - 2017)

With the rapid development and spread of Information Technology, the damage of cyber attacks is increasing internationally, and strengthening information security measures through cooperation among countries has become an urgent issue.

Against this backdrop, Japan, through a bilateral cooperation framework with Indonesia, provided technical cooperation such as strengthening functions of the department in charge and raising awareness. Moreover, third country training programs, targeting Cambodia, Laos, Myanmar, Vietnam, Brunei and East Timor, were held to improve the capacity as a region. With the success of this project, which was the very first of its kind by JICA, similar projects were introduced in other countries.

# Agriculture and Food Security

## Overview

Japanese cooperation in the agriculture and food security sector has responded to the priority and needs of the times, reading the changing situations of the country and its people. Irrigation projects were closely related to increased rice production, and their effects were enormous from the viewpoint of agriculture and food security. From "Brantas Delta Irrigation Rehabilitation Project" in the 1970s, more than 50 ODA loan projects, and approximately 300-billion-yen (US\$2.7 billion\*) support for irrigation facilities have been implemented. Also, a comprehensive agricultural project, "Umbrella Cooperation," was carried out three times in total.

In the livestock subsector, technical cooperation has mainly targeted hub institutions, which has steadily produced results. In particular, the "artificial insemination" technology was used in the South-South Cooperation after the completion of technical cooperation.

Cooperation in the fisheries subsector has aimed at improving protein intake from the aquaculture cooperation. In the development of fishing ports, most notably, Jakarta Fishing Port has a 40-years history of support since the 1970s which totaled approximately 16 billion yen (US\$142 million\*), including design and construction.

The administration of President Joko Widodo continues to prioritize food security and reduction of disparities. It focuses on the development of agribusiness, sustainable agriculture and benefits to farmers. In addition, it has set up the "National Sea Policy," and positioned economic development based on sustainable marine fishery resources and increased international presence as a maritime nation, as important strategies. Thus, it is expected that Japan will contribute to achieving these policy objectives by applying advanced technologies, where Japan has comparative advantage, and experience in public-private partnerships in this prioritized sector.

\*The rate as of 1 December 2017.

## Outcomes

- More than 50 ODA loan projects for irrigation facilities have been implemented. As a result, the irrigated areas have been expanded by approximately 370 thousand hectares, which is 5.2% of the irrigated areas of 2014 (7.14 million hectares), contributing to the rice paddy production of more than 2 million tons per year.
- Japanese cooperation including Umbrella Cooperation contributed to increased production of rice (from approximately 30 million tons (1981) to 52 million tons (2002)) and major crops such as potato (approximately 200 thousand tons (1981) to 1 million tons (2002)).
- In the livestock subsector, the production of frozen semen increased drastically from 200 thousand doses (1985) to 3.5 million doses (2015), which contributed to an increase in the national cattle population from 8 million to 13 million.
- Jakarta Fishing Port contributed to job creation for more than 50,000 employees by private seafood processing companies, and it earns 100 million yen (US\$890,000\*) a day.
- In the field of rice crop and animal husbandry, Japanese cooperation has developed into South-South Cooperation. Its target has expanded to Africa, Central Asia and South America.



Jakarta Fishing Port (Photo: Sadao Orishimo / OCG)



Ranau regulating dam constructed by Komerang-I Irrigation Project (Photo: Nippon Koei Co.,Ltd.)



Rice planting at paddy fields in the irrigated area (Photo: Nippon Koei Co.,Ltd.)

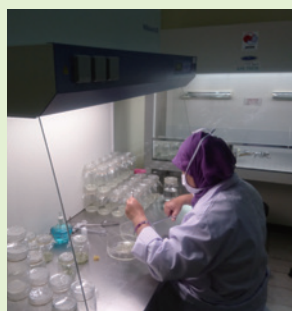
## Umbrella Cooperation (1981 - 2000)

Umbrella cooperation, which was implemented three times from 1981 to 2000, is a pioneering cooperation program that is a comprehensive package of projects, to achieve wider inter-sectoral policy objectives that are difficult to achieve by a single project. The first phase of the program contributed to a rapid increase in rice yields from 1979 to 1982 and the achievement of self-sufficiency in 1984 through production and distribution of quality seeds, strengthened crop protection, irrigation development, and improved post-harvest processing.

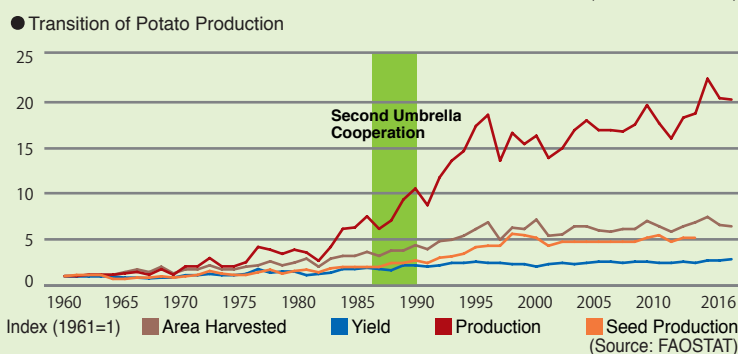
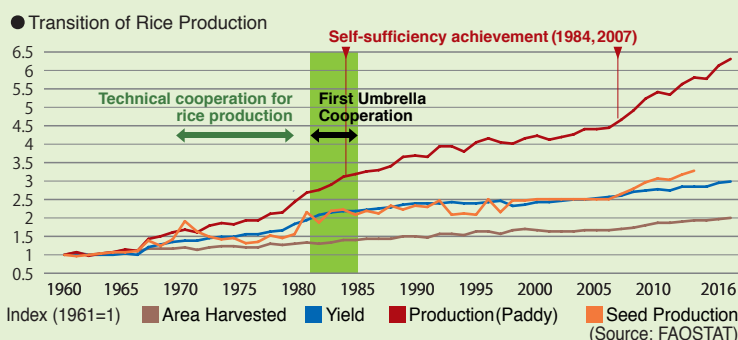
Moreover, in the following phases which expanded the target crops, the program also increased production of potatoes and soybeans, transferred and popularized cultivation technology, and contributed to improving the living standards of farmers. The technology established painstakingly by the Potato Seed Project is still utilized today. The Center supported by Japan has become a base for potato cultivation in Indonesia through distribution of inexpensive potato seeds and successful development of new disease-resistant varieties.



Potato Seed Center established by Japanese cooperation



Laboratory of the Potato Seed Center





# River Basin Development and Management

## Overview

Japanese cooperation for river basin development and management can be largely divided into the following three periods.

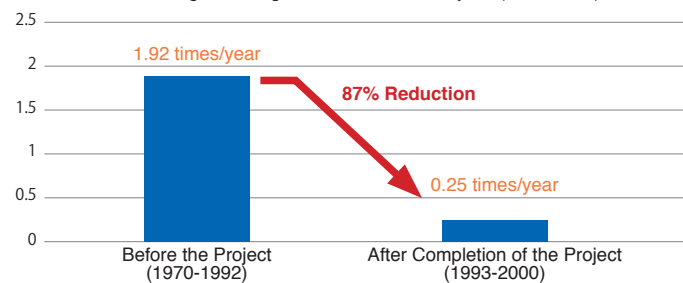
During the 1950s and 1960s, Indonesia pursued food production increase and rapid development of its electric power sector for industrialization. Accordingly, Japan assisted in the development of three representative multipurpose dams—the Karangkates Dam and Kali Konto Dam in the Brantas River basin and the Riam Kanan Dam in South Kalimantan.

During the 1970s to 1990s, serious flood damage occurred nearly every year in many major river basins of Indonesia. Japan responded by conducting studies for comprehensive river basin development that included flood control, hydropower generation, and development of irrigation and domestic, municipal and industrial water. These studies resulted in the implementation of projects centered on three river basins (the Brantas River, Solo River and Jeneberang River). In river basin development, the first step involved formulating a comprehensive master plan. Then, based on this plan, long-term projects were systematically implemented to build multipurpose dams, develop irrigation, generate hydroelectric power, and river improvement among other activities.

Entering the 2000s, Japanese cooperation began to place priority on rehabilitating existing flood-control and water resource facilities and strengthening the capabilities of government agencies and users' organizations concerned with river basin management. In addition, Japanese cooperation in this sector began incorporating new issues such as integrated water resources management (IWRM), ground subsidence and climate change measures since 2008.

In the area of flood control, Japan has continuously provided yen loans for flood prevention in major regional cities since the 1970s.

● Outcome of "Krueng Aceh Urgent Flood Control Project" (1980-1993)



■ Number of major floods per year (Source: JICA)

## Outcomes

- As a result of comprehensive river basin development at the Brantas River, Solo River, and Jeneberang River, flood damage was significantly reduced in the targeted river basins, which stabilized the residents' lives. Moreover, construction of power and irrigation facilities and provision of water brought about industrial development and better livelihood.
- Collaboration by Indonesian and Japanese technicians resulted in technical transfer through JICA's long-term cooperation ranging from the formulation of master plans to the implementation of each project. (Example: PWS Bengawan Solo (Design) and PT. Brantas Abipraya (Construction Work)).
- The concept of integrated water resources management was introduced through strengthening practical watershed management capacity.
- The flood control projects supported by Japan significantly reduced the frequency and scale of flood damage in Medan, Padang, Bandung, and Banda Aceh (according to the residents' questionnaire survey).



Karangkates Dam (Photo: Nippon Koei Co., Ltd.)



New Lengkong Barrage (Photo: Nippon Koei Co., Ltd.)

## Comprehensive River Basin Development on the Brantas River (1961 - 2002)

The Brantas River has the second largest basin area in Java island. Cooperation started with the formulation of comprehensive master plans, followed by more than 20 yen loan projects from the 1960s including construction of multipurpose dams, irrigation facilities, and hydropower stations, as well as river improvements. Among others, the Karangkates Dam was the largest dam in the Brantas River basin in terms of active storage capacity and power-generating capacity, and therefore was a symbolic project. The dam was completed in 1973, and irrigation facilities were constructed to use the water effectively. The increase in power-generating capacity by 105 MW benefited agricultural and other industrial development. The dam also reduced flood cases in Surabaya, the major city downstream, together with river improvements of the Surabaya and Porong Rivers.



Karangkates Dam (looking up from downstream) (Photo: Nippon Koei Co., Ltd.)

# Disaster Risk Reduction and Post-Disaster Reconstruction

## Overview

Indonesia has one of the largest numbers of volcanos in the world, including 130 active volcanos. It has faced natural disasters related to volcanic eruption and mudflow for a long time. In this sector, Japan has actively contributed to both disaster risk reduction and emergency response.

Japan has continuously supported volcanic erosion control including that of Mt. Merapi and Mt. Semeru since the 1970s through construction of protection facilities including dams. In response to the recent eruptions of Mt. Merapi, Japan has supported revisions of erosion control plans and new facility construction. Japan also supported human resource development in this field by establishing the Sabo Technical Centre (Sabo is a Japanese word meaning erosion control. The word has become an Indonesian word). As for flood control, the Japanese government has supported comprehensive river basin development as well as flood protection in major cities.

In the 2000s, Indonesia was hit by a series of large scale natural disasters including the Great Earthquake off the Coast of Sumatra and Tsunami in the Indian Ocean in December 2004, the Earthquake Disaster in Central Java in May 2006, and the Earthquake in Offshore Padang in September 2009. Starting with a dispatch of Japan Disaster Relief Teams, Japan's response to these disasters covered emergency relief, recovery, and reconstruction.

After the experiences of those catastrophic damages and in response to international discussions on disaster preparedness, the Indonesian government became focused more on pre-disaster measures to mitigate, prevent and prepare for coming natural disasters. Japan has implemented cooperation in this area even prior to the establishment of the National Agency for Disaster Management (BNPB) in 2008. JICA assisted BNPB to prepare disaster management plans both at national and local levels by using risk indicators. Moreover, Japan also supported development of the early warning system and institutional capacity building for anti-seismic buildings. In recent years, joint research projects are implemented by universities and research institutes of the two countries under the Science and Technology Research Partnership for Sustainable Development (SATREPS) program for a stronger observation system on tsunami and volcano, disaster education, and disaster management planning.

## Outcomes

- In times of major disasters, Japan contributed to quick restoration through seamless cooperation from dispatch of the Japan Disaster Relief Team to rehabilitation and reconstruction. The relief team has been dispatched 28 times since 2001.
- Japanese cooperation in volcanic disaster management at Mt. Merapi, Mt. Semeru, Mt. Galunggung and Mt. Kelud has built the technology and capacity of Indonesia in the sector (250 Sabo dams were built including the ones funded by the Indonesian government).
- Japan contributed to the capacity development of over 300 work-ready engineers in the areas of volcanic erosion control, "Sabo," and disaster risk reduction in general through capacity development at the Sabo Technical Centre and SATREPS joint research projects.
- The flood control projects supported by Japan significantly reduced flood damage in Medan, Padang, Bandung, and Banda Aceh (Based on the results of residents' questionnaire survey).
- Japan supported the establishment of BNPB (2008) and pre-disaster measures as well as capacity development of local governments on preparation of regional disaster management plans, Hazard-Risk maps and community disaster management in two provinces and 25 municipalities and districts.



Sabo dam constructed by Japanese ODA loan (Photo: Yachiyo Engineering Co., Ltd.)

## Disaster Response and Reconstruction in Aceh (2004 - present)

In response to the Great Earthquake off the Coast of Sumatra and Tsunami in the Indian Ocean that occurred in December 2004, the Japanese government promptly dispatched the Japan Disaster Relief Team, followed by multi-layered cooperation by using different cooperation schemes. This included development of the Banda Aceh City Reconstruction Master Plan through the Urgent Development Study scheme, support for community reconstruction, emergency rehabilitation of infrastructure, and yen loan for restoring the transportation and water resource infrastructure. Following the emergency rehabilitation and restoration projects, JICA started the Project on Self-Sustainable Community Empowerment Network Formulation in 2007. The project supported income generation of the community, disaster education, and capacity development of local government officials.

After Japan experienced the Great East Japan Earthquake in 2011, the long-term Japanese commitment in Aceh and the relationship built along the way developed into a project between local governments of Banda Aceh City and Higashi Matsushima City of Japan in 2013 that aimed to achieve mutual reconstruction through experience sharing. Moreover, upon launching of "World Tsunami Awareness Day," which is November 5, the relationship between Japan and Aceh province has further developed since 2016 by supporting disaster education and evacuation drilling in Aceh Province on that day, and inviting students of the province to the High School Students Islands Summit on World Tsunami Awareness Day 2017 held in Okinawa. Japan's cooperation focuses not only on immediate disaster relief but also long-term support, based on the idea of "Build Back Better," strengthening disaster response capacity by working together with Aceh Province aimed at disaster-resistant regional development.



Tsunami evacuation drill during the World Tsunami Awareness Day organized by JICA in Aceh in 2016 (Photo: JICA)



"Kamishibai (picture-story show)" on tsunami at the tsunami risk reduction seminar in Aceh (Photo: JICA)



# Water and Sewerage Systems/ Waste Management

## Overview

Japanese cooperation in this area started in the water supply subsector, and it has responded to the policies of the government of Indonesia. In the early 1960s, Japan supported the formulation of a master plan for water supply development in Jakarta. Following the creation of the master plan, assistance to develop the water supply system was provided in the 1970s. In the 1980s, capacity development of the technical staff in the design and maintenance of the water supply system was implemented through the Water Supply and Environmental Sanitation Training Center (WSESTC). Simultaneously, support to develop the water supply system was extended to provincial cities and in the 1990s, to rural towns. In line with decentralization in the 2000s, Japan supported improvements in the operation and management of provincial water works public corporations (PDAMs).

Support for drainage and sewerage development in response to flood as an urban disaster and to improve the water environment started in the 1980s in Jakarta. Drainage development was supported after the drainage and sewerage master plan was prepared. It was then extended to Denpasar and Yogyakarta in the 1990s. In the 2010s, the ODA Loan program for sewerage development in Jakarta is formulated after the master plan was revised.

Moreover, in the area of environmental management related to river and air pollution, Japan's ODA supported the establishment of the Environmental Management Center in the 1990s to provide such functions as environmental monitoring, research and training. Since then, technical cooperation has continued for over 20 years. Furthermore, development of laboratories and research institutes under local authorities were implemented in combination with capacity development of local government officials.

As for solid waste management, Japan supported the development of a basic structure that included collection to final landfill in Jakarta and Surabaya, where concerns over waste management became serious and urgent in the 1990s. In the 2010s, JICA has supported the 3R initiative (reduce, reuse and recycle) activities, capacity development in waste management, and establishment of the Act on Solid Waste Management (No.18/2008) and other related rules and regulations at the national and regional levels in the pilot cities.

## Denpasar Sewerage Development Project (1991 - 2016)



Wastewater treatment facility in Denpasar (Photo: JICA)

When the project was formulated in 1991, there was no sewerage system in Denpasar, the central city of Bali, a major tourist destination. Thus, there was growing concern over the serious negative effects of a large quantity of polluted water directly discharged into waterways and the sea that serves as a resource for tourism. At that time, development of

modern sewerage systems had just begun in Indonesia, as only eight cities in the nation had some kind of sewerage system, including seven developed during the Dutch administration.

Although progress was affected by the Asian Financial Crisis in 1997 and the Bali nightclub bombing in 2002, the construction of sewerage facilities was completed in 2008. According to a beneficiary survey, around 80% of the beneficiaries believe the project was effective for improving sanitation in the area. It is expected that the project will further contribute to improving the environment, as the second phase of the project to expand the target area was also completed in 2016.

## Outcomes

- 3.4 million people have access to a new water supply in Jakarta as a result of urban environmental improvements that included water supply, drainage and solid waste management. Development of the final dumping site, intermediate base for collection and transport system were supported.
- Surabaya water system was developed under the urban environment development program, and benefited 60,000 households. In Makassar (61,000 water connections were developed) and in other cities, the water system was developed under water supply development projects.
- In the water supply sector, Japanese assistance contributed not only to infrastructure development, but also to institutional capacity building such as the training of technical staff (4,471 staff members in total) of PDAMs and improved water supply management.
- Japan's cooperation for sewerage development in Denpasar and Yogyakarta contributed to improvements of the water environment (see the article in the box below).
- A network for environmental monitoring of river and air pollution centered around the Environmental Management Center was established. This contributed to the collection of air and water quality data. Japan's cooperation has also developed a foundation for environmental management led by regions through capacity development of local government institutions in charge of research, measurement, and environmental monitoring.



The Water Supply and Environmental Sanitation Training Center (WSESTC) today



Pluit East Pump Station (Photo: JICA)

# Governance

## Overview

Following the end of the Suharto administration, Indonesia entered a critical turning point for democratization and decentralization. In response, Japan expanded its cooperation in the governance sector from the end of the 1990s to the 2000s in such areas as elections, police reform, and legal and judicial reform, in addition to the long-time cooperation in the statistics subsector. The cooperation in the statistics subsector included assistance in line with democratization and decentralization such as the 2000 population census, voter registration, and small area statistics. Assistance in the general elections in 1999 and 2004 included providing expert advice to the election commission and provision of ballot boxes and voting booths. Police cooperation has supported the Indonesian National Police, which was separated from the armed forces, to mainstream the concept of community policing. In the area of legal and judicial reforms, technical cooperation was provided for court-based mediation. This series of assistance had profound historical and diplomatic significance because it supported the momentum of democratization in Indonesia. During the same period, JICA also worked on cooperation in peacebuilding such as promotion of community reconciliation through school activities in post-conflict Maluku.

Japanese cooperation to promote democratization stabilized in the 2010s. In contrast, Indonesia has come to play a role as the center of excellence in the South-South Cooperation, especially in the area of statistics and community policing. Further improvements in the quality of democracy is important for the stable development of Indonesia, a country where multiple religions and ethnicities coexist. JICA continues to cooperate in the governance sector in such areas as police cooperation, intellectual property rights aimed at improving the business and investment environment, and cooperation to implement Sustainable Development Goals (SDGs).



Police box built by Japanese cooperation

## Outcomes

- Provision of 79 Optical Character Recognition (OCR) systems enabled 100% aggregation of the 2000 population census results for the first time in Indonesia. This formed the basis of effective policymaking in government offices. The OCRs were also utilized in the development of the voter registration list for the 2004 elections.
- Japanese cooperation for the elections in 1999 and 2004 amounted to 1/3 (US\$35 million) and 1/4 (US\$23 million) of overall external assistance. The latter included providing 620,000 ballot boxes and 1.2 million voting booths. These contributed to the achievement of free and fair elections. This led to a stable society and allowed democracy to take root.
- 15 police boxes were built as models. Over 700 police officers were trained in Japan. The community policing model was developed through technical cooperation, and is now reflected in the policy of the Indonesian National Police.
- Japanese cooperation has developed into South-South Cooperation in the statistics, elections and police subsectors.



OCR (Photo: Ministry of Internal Affairs and Communications of Japan)



Visit to the control room during training in Japan (Photo: JICA)

## Support Program for Reform of the Indonesian National Police (2001 - present)

Turning the once-feared police into a police for citizens— Japan has supported this critical reform for a long time. Setting up Bekasi on the outskirts of Jakarta as a pilot site, the model for community policing was developed through on-the-job training by Japanese police experts.

A key feature of the model is the Japanese-style police box "Koban." The Koban is in charge of public safety in the jurisdiction, in close cooperation with the community through such activities as house-by-house visits and resolving various community problems such as domestic violence or feuds.

Presently, many police officers on the ground actively work with the community. The head of a village comments, "We used to fear the police. But now, if something happens, we go to them. We feel our community is safer now." Today, police boxes modeled on Bekasi have emerged nationwide.



Police officer talking to school children on safety issues



# Regional Development

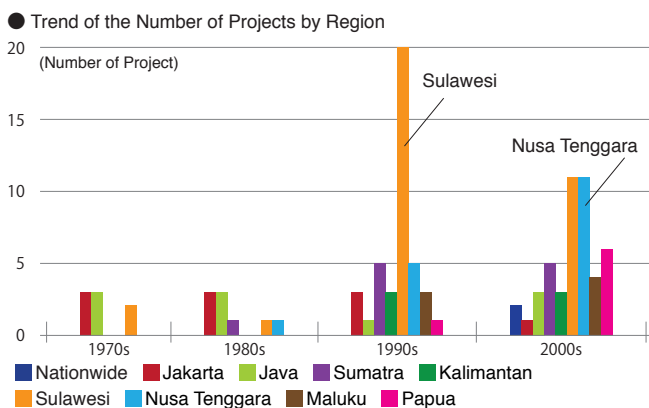
## Overview

From the 1960s up to the 1980s, Japan's cooperation in this sector mainly focused on the development of integrated regional master plans including the macroeconomic management plan targeting Java, Bali and Sumatra.

In the 1990s, the eastern part of Indonesia including Sulawesi became a priority area for Japan's cooperation, where regional development studies and projects were implemented. Improvement of the rural infrastructure was carried out through yen loans targeting a large area of the eastern part of Indonesia. Regarding housing development, several cooperation projects on planning low-cost housing were implemented.

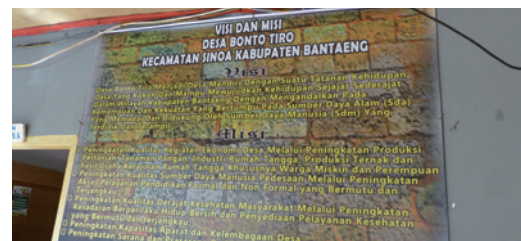
After the Asian Financial Crisis in 1997, in response to decentralization, JICA focused on the capacity building of local governments, and reinforced coordination between local governments and local communities. Following the international agenda in the 2000s, such as improving aid effectiveness and poverty reduction, JICA promoted a program approach combining several supporting schemes, in order to generate synergistic effects in regional development.

In 2014, the Village Fund was launched under the new law. This showed that Indonesia entered into a new phase of regional development. As emphasized in the medium-term development plan under the new government, how to provide balanced support between regional/ local development and urban area development is a critical issue that needs to be addressed.



## Outcomes

- Cooperation to develop integrated regional masterplans that started in the East Java Province was extended to 40% of the overall 27 regions (at that time) before the 1980s. Through this cooperation process, central and local technocrats deepened their understanding on regional development. Their planning methodology was utilized in the Provincial Spatial Design Structure Plan (RSTRP) based on the Spatial Planning Law in 1992.
- The regional development approach based on regional needs contributed to the development of well-balanced National Five-Year Development Plans.
- Capacity building projects for local administrations contributed to human resource development in both the public and private sectors. For example, about 6,000 administrative staff members and 4,700 facilitators, including 1,800 sub-district heads (Camat) which account for 35% of the total sub-districts, participated in the training programs given by these projects.
- The Research Institute for Human Settlement (RIHS) was established and developed through successive cooperation in the housing sector since the 1970s. This contributed to the development of low-cost housing and seismic-resistant design.



"Vision and Mission of village" at Bont Tiro, Sinoa, Bantaeng District



Provincial Development Council (Musrenbang) in South Sulawesi (Makassar, March 2016)

## Multi Stakeholder Approach for Capacity Building of Local Government and Community Development (1997 - 2016)

Due to decentralization after 1998, local governments including provinces, districts and municipalities became major actors in regional development. In response to this situation, JICA undertook capacity development of the national, provincial, and district/municipality governments as well as communities. This multi stakeholder approach for capacity building contributed to the establishment of an effective coordinated mechanism for sustainable regional/local development.

For example, "Project on Strengthening Sulawesi Rural Community Development to Support Poverty Alleviation Programs" (1997-2002) enhanced communications among local administrations, communities and NGOs. The project established community support systems like SISDUK (Sistem Dukungan) in which local governments finance projects proposed by communities. Meanwhile, "Rural Settlement Infrastructure and Kabupaten Strategic Area Development (RISE) I, II" (2007-2016) contributed to improving small local infrastructure that reflected the needs of each community through the coordination by facilitators. In addition, development of local specialties and capacity building of local government officials were also supported.



Seaweeds drying bed (Jeneponto District, South Sulawesi Province) (in the front is the monument of RISE)

# Higher Education and Highly-Skilled Human Resource Development

## Overview

Given Japan's comparative advantage in the field of engineering, Japan has continuously supported the development of engineering in higher education institutions that can serve as national hubs in the field, beginning with equipment provision to Bandung Institute of Technology (ITB) in 1975. JICA has also reinforced the capacities of universities in Sumatra and Kalimantan by networking the universities. Meanwhile, projects to strengthen higher education institutions in other fields such as agriculture and health have also been undertaken to develop human resources who can meet challenges in other priority areas of the Indonesian government. To this end, the Government of Japan has also provided scholarships to Indonesia through yen loans and programs of the Ministry of Education, Culture, Sports and Technology of Japan for a long period of time, and H.E. Dr. Ir. Ginandjar Kartasasmita is one prominent alumni.

Currently, the educational and research capacity at four top engineering universities is being strengthened through the AUN/SEED-Net Project, and these universities have also been serving as host institutions for other ASEAN countries. In addition, a series of projects is underway at Hasanuddin University to develop the eastern part of Indonesia. A technical cooperation project to establish the Indonesian Accreditation Board for Engineering Education (IABEE) has also been implemented to raise the overall quality of engineering education in the country.

It is expected that these higher education institutions will serve as hubs for regional development, and contribute to industrial and social development by collaborating closely with industries and local agencies.

## Outcomes

- The number of scholarships provided by yen loan and other JICA programs to university lecturers and civil servants in central and provincial governments is more than 3,000. For example, 16% of faculty members of Bogor Agricultural University (IPB) have studied in Japan, which is the most preferred destination for IPB faculty members to pursue doctoral degrees.
- Construction of facilities have expanded access to and functions of higher education institutions in Indonesia (ITB, Gadjah Mada University, Syiah Kuala University, Mulawarman University, the Electronic Engineering Polytechnic Institute of Surabaya, Hasanuddin University Engineering Faculty, the University of Indonesia, and its Center for Japanese Studies).
- The quality of education and research at major higher educational institutions has improved, and this has contributed to producing quality graduates. For example, among 828 innovations selected by the program of Business Innovation Center from 2008 to 2015, 323 (38%) were attributed to IPB, which is the largest number among all the universities and research institutions in Indonesia. In addition, IPB won an award from the Ministry of Law and Human Rights in 2015 as the university with the largest number of commercialized patents in the country.
- The number of collaborative research and MoUs among universities have increased due to the establishment of university networks, which have enabled the continuous capacity development of lecturers/professors.
- The universities and polytechnic reinforced by JICA became resource institutions for South-South Cooperation, and contributed to strengthening higher education institutions in Asia and Africa. For example, the Electronic Engineering Polytechnic Institute of Surabaya has accepted more than 200 trainees (lecturers of polytechnics) from about 25 countries from Asia and Africa.



1: A student experiments biodiesel production (AUN/SEED-Net)(Photo: Kenshiro Imamura/JICA)  
 2: Bone substitute material researched under AUN/SEED-Net and commercialized by Indonesian company (Photo: Gajah Mada University)  
 3: Buildings of Hasanuddin University constructed by Japanese cooperation

## Electronic Engineering Polytechnic Institute of Surabaya (EEPIS) (Politeknik Elektronika Negeri Surabaya: PENS) (1986 - 2006)

In response to the need to develop mid-level technicians in Indonesia, JICA was deeply involved in the development of EEPIS, and provided various types of support since 1986 including construction/ expansion of facilities, strengthening educational curriculum, and improving capacities of the teaching staff. As a result, EEPIS has grown into one of the major polytechnics in Indonesia, and is ranked first in the national polytechnic rankings since 2015. The graduates of EEPIS have also gained a high reputation in the industry. The EEPIS also contributed to polytechnic teacher development in Asia and Africa, sharing knowledge and experiences accumulated through Japanese cooperation.



Class at EEPIS



# Basic Education

## Overview

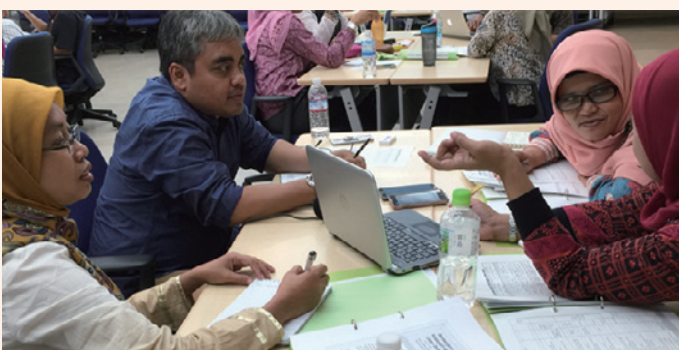
The nine-year compulsory education, which comprises primary and lower secondary education, was set as a policy objective by the Government of Indonesia in 1994. In response, Japan started a loan project, the "Junior Secondary School Building Construction Project," in 1995. In addition, a project to strengthen teacher training universities was started in 1998 to improve the capacities of junior secondary teachers, and "Lesson Study," which is a unique method in Japan to develop teaching capacities through mutual teacher learning based on planning, conducting and reflecting actual lessons, was introduced in 2003 to improve the teaching process. Moreover, based on the decentralization policy of Indonesia, a survey/project to improve school-based management was started in 1999. The participatory model developed by the project, where school improvement plans are developed, implemented and evaluated involving schools, communities and local authorities, was adopted by the Government of Indonesia and other similar projects. Following the success of this model, a school block grant system (BOS) was introduced by the government in 2005. Through these projects, JICA supported the achievement of a nine-year compulsory education in terms of both quantity and quality.

In the 2010s, a project to improve the quality of basic education through e-learning was implemented by a Japanese private company collaborating with JICA. In addition, training in Japan on Lesson Study has been underway since 2013, and this has contributed to the dissemination of Lesson Study in Indonesia.

There still remain challenges such as improving learning achievement and educational disparities, and the demands of industries are growing for further improvement of basic academic skills, which form the basis of high-quality industrial human resources. Therefore, further support is required.



Lesson Study (Photo: Dr. Sumar Hendayana)



Lecturers of teacher training universities participating in Lesson Study training in Japan (Photo: JICA Training Project)

## Outcomes

- "The Junior Secondary School Building Construction Project" increased the average enrollment rate of junior secondary school from 56.5% in 1995 to 67.9% in 2000 in the 12 target provinces by constructing 596 junior secondary schools, which contributed to achieving nine-year compulsory education.
- Lesson Study introduced by the "Project for Development of Science and Mathematics Teaching for Primary and Secondary Education (IMSTEP)" and disseminated by a series of subsequent projects is widely practiced in Indonesia including 67 teacher training universities.
- The school-based management model developed by "Regional Educational Development and Improvement Program (REDIP)" was adopted by other projects implemented by the government and other development partners. School-based management with community participation is now integrated into daily practices at school.
- A teacher training university strengthened by JICA projects became a resource institution for South-South Cooperation and it has provided training on Lesson Study for Asia and Africa.



Students learning through e-learning, developed by a Japanese company under the JICA project

## Lesson Study (2003-2013)

In response to the need to improve the quality of junior secondary education, JICA introduced "Lesson Study," which is a method unique to Japan to develop teaching capacity in Indonesian junior secondary schools in 2003. Lesson Study consists of the three activities of planning, observation/practice and reflection, and the aim is to improve the teaching skills of teachers and student learning based on actual lessons.

Lesson Study has been accepted as an effective teacher-training method in Indonesia, and is widely disseminated in teacher training universities even after JICA technical cooperation projects ended, and it is now being practiced at many schools. In addition, the ex-post evaluation suggests Lesson Study may have had an impact on improving the academic achievement of students. Moreover, the Indonesia University of Education (UPI), which played a key role in the projects, accepted trainees from Asia and Africa and contributed to disseminating Lesson Study in third countries.

# Health and Medical Care/ Social Security

## Overview

From the late 1960s, Japan focused its cooperation on improving medical service delivery through rehabilitation of hospitals and strengthening the educational systems of the health workforce. The focus was then shifted to thematic cooperation from the 1980s, in such areas as family planning, mother and child health, community health, infectious disease control, and drug and food safety. In addition, a Japan Disaster Relief Team was dispatched soon after the first human case of Avian Influenza in 2005. The cooperation turned into technical cooperation and then to SATREPS projects today that deal with measures against infectious diseases.

In the area of social security, Japanese assistance contributed to promoting employment of disabled youths through the establishment and development of the National Vocational Rehabilitation Center in the 1990s. Soon after the national social insurance system started operating in 2014, Japan shared its experiences in the social insurance system with Indonesia. As the system drew a high level of interest among counterpart organizations, JICA started a technical cooperation project to introduce the system of labor and social insurance attorneys.

The volume of Japanese cooperation in health, medical care and social security is gradually decreasing since some of the related indicators have been improved. However, there are high concerns about the current and future situation in Indonesia such as the double burden of infectious and non-infectious diseases and an aging population. Since some of these concerns are common issues for both Indonesia and Japan, Japan is expected to provide further technical cooperation utilizing its experiences.



A child receives oral polio vaccine drops  
(Photo: Kenshiro Imamura/JICA)

## Outcomes

- Infrastructure of 5 A-Class national hospitals and 13 B-Class and C-Class hospitals were improved mainly in the 1960s and 1970s that has built the foundation of medical service provision in the country. In addition, the educational systems of nursing education centers and the faculty of medicine at 4 universities were strengthened, which contributed to the enhancement of the health workforce.
- Maternal and Child Health (MCH) Handbook was institutionalized and disseminated to more than 80% of expectant and nursing mothers in all the 34 provinces (2016, Ministry of Health). Utilization of the MCH Handbook contributed to increasing mothers' knowledge and use of MCH services.
- Domestic vaccine production was achieved for oral polio vaccine (OPV) and measles vaccine, providing 43 million doses for the OPV and 32.8 million doses for the measles vaccine in Indonesia (2016). Moreover, after the completion of the project, 1.6 billion doses for the OPV and 21 million doses for the measles vaccine were exported to 136 countries in 2015 (including those through UNICEF procurements).
- The National Vocational Rehabilitation Center for Persons with Disabilities was established. The center has produced 1,943 alumni, of which 64% are employed/self-employed (2016). They have contributed to promoting employment of disabled youths.
- Japanese cooperation has developed into South-South Cooperation in Asian and African countries in the area of family planning, utilization of the MCH handbook, vaccine production, and vocational rehabilitation for disabled youths.



Students in sewing workshop at the National Vocational Rehabilitation Center for Persons with Disabilities in Bogor

## MCH Handbook and Japanese Cooperation (1993 - 2017)

Indonesian MCH Handbook started with a proposal of an Indonesian physician inspired by the MCH Handbook in Japan. Under JICA's cooperation, MCH Handbook was developed and introduced in Indonesia in 1993. A ministerial decree on utilization of the handbook was issued in 2004, and distribution started nationwide in 2006. According to the studies implemented by the Ministry of Health, mothers utilizing the MCH Handbook receive more health services including antenatal care (ANC), a skilled birth attendant, and immunization compared to mothers who are not utilizing handbook. Furthermore, Indonesia continues to introduce and institutionalize the MCH Handbook in Asian and African countries since 2007 through third country training programs, that aim to further enrich the quality of the training programs by employing the experiences of Indonesia.



A health volunteer giving a talk to mothers using a flipchart about nutritious diet during mother class



Variety of designs of MCH Handbook – some provinces have their own design reflecting diverse culture and customs in Indonesia



# Climate Change and Natural Environment Conservation

## Overview

Indonesia, which boasts rich tropical rainforest and biodiversity, is a key country in resolving global climate change and biodiversity issues.

While Japan's cooperation in this sector in the 1970s and 1980s included many projects related to forestry development, a biological development research center was built in the district of Bogor in West Java Province in the mid-1990s in response to increased international concern about biodiversity issues. Meanwhile, as Indonesia contains 25% of the world's mangrove forests, which not only foster a rich ecosystem and mitigate climate change as a sink for carbon dioxide, but also contribute to disaster prevention as a natural breakwater, Japan has supported mangrove conservation for over 20 years since the 1990s. Japan has also provided assistance in coastal conservation in Bali since the late 1980s, and forest fire prevention since the 1990s.

As international concern for climate change increased, Japan's climate change cooperation began in earnest in the 2000s in Indonesia. Indonesia was the first country in the world to implement the yen loan project for climate change measures. JICA also assisted mechanisms such as joint crediting mechanism (JCM) and REDD+. In view of the SDGs, JICA will continue to cooperate in this sector as a partner.

(Note)  
REDD+ is one of the climate change measures that provides incentives for activities to reduce greenhouse gas emissions through forests or increased forest absorption by limiting forest reduction and deterioration and promoting sustainable forest management in developing countries.



The Research Center for Biology, Indonesian Institute of Sciences  
(Photo: Kenshiro Imamura/JICA)

### Climate Change Program Loans (2008-2010)

### Project of Capacity Development for Climate Change Strategies (2010-2015)

### Capacity Development Assistance for Low Carbon Development (2014-2017)

In Indonesia, where most greenhouse gas emissions come from forest and land use, how the forests are utilized and conserved is especially important in climate change measures. JICA supported the development of a "Policy Matrix" on climate change from 2007 to 2009 and provided Climate Change Program Loans (CCPL). This promoted the mainstreaming of climate change in various ways such as formulating national greenhouse gas emission reduction plans and national adaptation plans, promoting mitigation areas such as forest management and geothermal power generation, and adaptation areas such as disaster prevention, agriculture, water resource management and marine fishery. A Joint Crediting Mechanism (JCM) was also set up, and greenhouse gas reduction technologies, products, systems, services, and infrastructure were transferred to Indonesia.

## Outcomes

- Assistance for climate change measures such as the Climate Change Program Loans contributed to mainstreaming climate change within the Indonesian government and improving the ability to cope with climate change issues.
- A biological development research center was constructed and contributed greatly to research on biodiversity in the country. The center's animal, plant and microbial collections are being used for research and conservation. Before the project (as of 2003), the number of dry plant specimens was 20,000 but after project completion (as of 2010), the number increased to more than 730,000.
- A strategy was launched for the government to manage forest protection and conservation areas together with local residents, and this contributed to the development of prevention and extinguishing with residents' participation. Manggala Agni (firefighting brigade) rooted in the local community and modeled on the Japanese volunteer fire corps was established.
- The Mangrove Information Centre (MIC) was established and activities such as mangrove-related training, environmental education and ecotourism were widely popularized. As a result of planting by training participants, an area of 4,000 hectares was reforested nationwide. Knowledge and skills were also shared among ASEAN countries in subsequent projects.
- In the popular tourist destination, the island of Bali, tourism was promoted by reducing coastal erosion damage and restoration of the Kuta, Sanur, and Nusa Dua coastlines and quay wall reinforcement work at the Tanah Lot Temple.



Firefighting exercise in the Forest Fire Prevention Project  
(Photo: Mika Tanimoto/JICA)



Trails and forested areas of mangroves at the Mangrove Information Centre  
(Photo: Kenshiro Imamura/JICA)

# Collaboration with Various Actors

## Support for Japanese Small and Medium Enterprises (SMEs) Overseas Business Development

From 2012, JICA started its support for SMEs' overseas business development as a part of ODA. The intent is to utilize the excellent technologies and products of Japanese SMEs for addressing development issues in developing countries. Depending on the maturity of the business plan, three types of supporting schemes are available, namely the partnership promotion survey, the feasibility survey and the verification survey. In Indonesia, a total of 89 proposals were approved and implemented thus far in such areas as water purification/treatment, agriculture, disaster risk reduction, environment/energy and waste management (see table below).

● Number of JICA's SMEs Overseas Business Development Surveys in Indonesia by Area (as of January 2018)

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	Total
Water purification/treatment	2	3	2	5	2	9	23
Agriculture	-	1	4	2	4	4	15
Disaster risk reduction	2	4	2	2	1	3	14
Environment/Energy	1	3	4	1	3	-	12
Waste management	2	1	4	1	-	4	12
Others	-	3	2	1	4	3	13
Total	7	15	18	12	14	23	89

Source: JICA website ([https://www2.jica.go.jp/ja/priv\\_sme\\_partner/index.php](https://www2.jica.go.jp/ja/priv_sme_partner/index.php))

Through this scheme, it is hoped that Japanese SMEs' technologies and products, adopted by developing countries or as ODA projects, or spread through the market, contribute to tackling development issues. At the same time, with the promotion of Japanese SMEs' overseas business development, it aims at creating a win-win relationship for both countries.


● An Example of JICA's SMEs Overseas Business Development Support in Indonesia

**Indonesian Needs**

- To cope with the population explosion, improvement of underground infrastructure such as sewerage is urgently required; and
- A construction method to minimize open-cut, or the influence on traffic congestion, is needed.

↓

**Technology and Proposed Activities**



**[Technology of the Company]**

- The propulsion method can lay an underground pipeline without cutting the ground to a large extent;
- The method itself is already in Indonesia, but only employed for short distance and straight forward excavations; and
- With Japanese advanced surveying and construction technology, the company enables long distance and curve excavations.

**[Proposed Activities]**

- Explanation of relevant construction methods and technologies to Indonesian government officials (seminars, etc.); and
- Demonstration work for proper utilization of equipment and appropriate construction order.

↓

**Expected Outcomes**

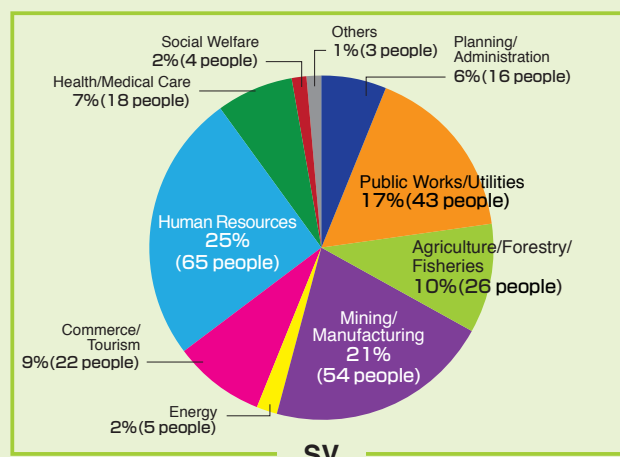
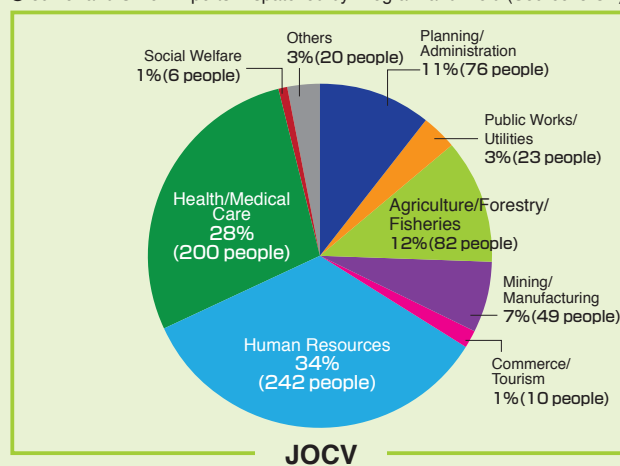
- Better understanding of the propulsion method among Indonesian stakeholders, and promotion of the technology of the company in sewerage development plan; and
- Participation in Indonesian public works (laying underground pipelines for flood control) by Japanese companies.

"Pilot Survey for Disseminating SME's Technologies on Pipe Jacking for Sewerage Works" (Source: ISEKI POLY-TECH, INC.)

## Japan Overseas Cooperation Volunteers (JOCV) Program

The Japan Overseas Cooperation Volunteers Program was initiated by the Japanese government in April 1965. In Indonesia, a dispatch agreement was concluded as the 43rd country in 1987, and three JOCVs, or junior experts (two nurses and one judo teacher) were dispatched in 1988. Since then, the total number of dispatched junior experts until FY2016 reached 708 in more than 90 job areas including agriculture/forestry/fisheries (such as vegetable cultivation and livestock breeding), education (such as Japanese language education and environmental education), health and medical care (such as nurse and midwife), culture (such as cooking and youth activity) and judo and physical education. In 1998, the dispatch of silver experts under the Senior Volunteer (SV) Program also started, and as of FY2016, a total of 256 silver experts have been dispatched to many types of jobs such as nursing education, shipping engines, aquaculture, quality control, metal processing, educational administration, and school management.

● Junior and Silver Experts Dispatched by Program and Field (Source: JICA)



These experts have lived with the local people and taken action to resolve problems with the same point of view. In addition, in experiencing the culture of Indonesia, mutual understanding was promoted through communication to learn about each other. The JOCV program, by providing many exchanges, aims to build a strong bond between Indonesia and Japan; and after returning home, they are also expected to use their experience in development and problem solving in local communities in Japan.



## South-South/Triangular Cooperation (SSTC)

"South-South Cooperation" refers to the initiatives where relatively advanced developing countries provide assistance to less developed countries by making use of the experience in development and human resources in their own countries. Such initiatives supported by developed countries are referred to as "Triangular Cooperation."

As a leader of the non-alliance movement, Indonesia has a long history of conducting South-South Cooperation with the Asia-Africa region. Japan began development cooperation in Indonesia since the early 1960s, and Triangular Cooperation through third country training started in 1981. These efforts, mainly carried out on a project basis, have given the Indonesian side confidence, and they have become a place for interactive learning.

With the summit to celebrate the 50th anniversary of the Bandung Conference in 2006, the Indonesian Ministry of Foreign Affairs established the Directorate of Technical Cooperation, and started its first technical assistance, the capacity building of the Palestinian Authority Government. Following accession to the G20, an awareness as "a country representing the voice of developing countries" also increased, and the National Coordination Committee was set up in 2010 to establish the aid agency, which aims to oversee and promote more strategic use of SSTC, which had been implemented individually by ministries and agencies. Japan has provided the committee support based on its long experience in triangular cooperation.

The strength of Indonesia is that it is "a good teacher who conveys their own experience that has not yet faded." For recipient countries, Indonesia serves as a good example of what a nation can achieve in the near future. For example, Japan developed the MCH Handbook many decades ago, and cannot teach the entire process from development to dissemination. In contrast, Indonesia has accomplished the process of development to dissemination of the MCH Handbook much more recently, and can properly teach how to proceed with the development, what is difficult, and what to do. In addition, in terms of assistance to Africa, the potential for cooperation is considered to be great in fields such as agriculture with appropriate technology, health, education and industrial human resource development, where Indonesia has been successful.

From 1994 to 2016, the Government of Indonesia, in collaboration with Japan, implemented 57 Triangular Cooperation projects utilizing the knowledge gained from 31 Japanese cooperation projects. In future, it is anticipated that Indonesia and Japan will provide more support to Asian and African countries in various fields together.

5: East Timor: Heavy equipment maintenance practice  
 6: Afghanistan: Interview survey practice at the community  
 7: Palestine: Visit to collecting place of farm products  
 (5-7: Photo: JICA)



1: Environmental education junior expert lectures on garbage at school patrol  
 2: Aquaculture silver expert supports the introduction of new technology at an aquaculture development center  
 3: Judo junior expert teaches selected athletes at physical education school  
 4: Metal processing silver expert supports quality control improvement at the mold factory  
 (1-4: Photo: JICA)







Community members helping out housing reconstruction through *gotong royong* (Photo: Kimio Takeya/JICA)

**Feature Story 2**

# 60<sup>th</sup> Anniversary and Beyond

Think Together, Walk Together – Mutual Learning between Indonesia and Japan

Surrounded by the sea and faced with various natural disasters— Indonesia and Japan have many issues in common. Throughout the 60-years of cooperation as presented in this booklet, Japan has introduced its experience in various sectors to Indonesia based on such similarities between the two countries. This was done not by merely promoting the Japanese method, but through mutual ideas about how best to develop an Indonesian method by referring

to the Japanese example. Moreover, the cooperation became a learning opportunity not only for Indonesia, but also for Japan. It is expected that such cases will increase in the future. In this article, three cases are presented—lifelong cooperation in the disaster risk reduction sector and two relatively recent examples on social security and SDGs.

## Disaster Risk Reduction – A History of Mutual Learning

Indonesia and Japan share common characteristics when it comes to natural disasters as both countries are in the Pacific Ring of Fire and have ample rainfall. From the 1970s onwards, Japan has continuously supported Indonesia in volcanic disaster management. The cooperation aims at mitigating damages from volcanic disasters in Indonesia and covers a wide range of areas from human resource development to infrastructure construction.

Whereas there are about 50 volcanos that could potentially erupt during a mid to long-term period of time in Japan, it is said that 130 volcanos are active in Indonesia. Therefore, volcanic eruptions are frequent and have various characteristics. New findings and knowledge from active pyroclastic flows and debris flows or examples of damages to erosion control facilities are fed back to Japan through research and studies. For example, when Mt. Unzen erupted in 1991 in Japan, its eruption activity was similar to that of Mt. Merapi with a pyroclastic flow known as the "Merapi-type pyroclastic flow." Therefore, past experience of eruptions in Merapi could be utilized in disaster risk reduction measures for Mt. Unzen. For instance, the Merapi example was referred to in "the guideline on the evacuation system and mitigation of volcanic disasters" compiled by the Japanese Ministry of Land, Infrastructure, Transport and Tourism in 2007.

In the Earthquake Disaster in Central Java in 2006, Japan provided technical cooperation to build earthquake resistance houses. At that time, the local government pursued housing reconstruction by forming community groups similar to Indonesia's traditional mutual support group called "*gotong royong*" and placing them as recipients of financial support for housing reconstruction. Generally speaking, for people who suffered serious damages from a disaster, housing reconstruction is a difficult task, and it is hard for action to be quickly taken. However, through this mutual support group, over 100,000 houses were reconstructed in one year. This mutual support approach presents an interesting example for Japan.

- 1: Sabo experts from both countries at a field survey in Mt. Semeru
- 2: Sabo Technical Centre (Indoor Laboratory) established and supported by Japan for a long time receives field research of Japanese researchers
- 1-2: (Photo: Sabo Technical Centre)
- 3: Sabo dam constructed with Japanese assistance captured the debris flow during the eruption of Mt. Merapi in November 2010 (Photo: JICA)





## Social Security – A Common Challenge in the Next Generation

The total population of Indonesia reached 255 million and the rate of population aged 65 and above rose to 5.2% in 2015 (The World Bank). The elderly ratio in Japan reached 26.7% in 2015, which makes Japan the world's most aged country. A UN estimation shows that population aging in Indonesia will accelerate; and it will become an "aging society (aging rate at 7%)" in 2021 and an "aged society (aging rate at 14%)" in 2038.

Facing this urgent and common issue, both countries are expected to share experiences and good practices to "think together and walk together" to tackle this problem, even though there are some differences in targets, systems, or effective measures.

To strengthen the social security system in Indonesia, JICA has introduced a unique Japanese system of labor and social insurance attorneys suited to Indonesia through technical cooperation started in 2014.

In Indonesia, a community-based program for elderly care was started nationally in 2010. At every health post for the elderly, volunteers support the elderly health by checking the level of blood glucose or providing educational talks on nutrition and daily exercise. Moreover, empowerment of the elderly is attempted through an elderly-volunteer system where the elderly provide mother and child health care in the community, or a financial support system for the elderly who start up small-scale enterprises. There is much to learn for Japan from these welfare programs and examples to promote social participation of the elderly, as Japan has set a goal to achieve a community-based integrated care system by 2025.

Indonesia has taken measures against an aging population at a much earlier stage than Japan. Full utilization of the power of communities will bring better countermeasures against the aging population in Indonesia.



Exercising together at a health post for elderly  
(Photo: Health Office, Baru District, South Sulawesi Province)



Volunteers checking blood pressure at a health post for elderly  
(Photo: Health Office, Baru District, South Sulawesi Province)

## Support for SDGs Implementation – Partnership for the Common Goals

The Sustainable Development Goals (SDGs) was adopted at the UN Summit in 2015. It aims to achieve in 2030, a world that "leaves no one behind" by harmonizing economic growth, social inclusion and environmental protection. Each country is expected to develop a national action plan and monitor its progress to achieve the 17 goals and 169 targets.

In response to the high level of commitment by the Government of Indonesia in implementing SDGs, JICA has been implementing a "Survey on Promoting Planning and Implementation of Sustainable Development Goals (SDGs)" since January 2017. This study project involves pilot activities such as technical support for setting national targets/indicators and national/sub-national action plans, as well as for strengthening the monitoring and evaluation mechanism. This is the first project under JICA to support SDGs. It supports the implementation of all aspects of SDGs rather than in specific sectors. JICA will start a new technical cooperation project on SDGs with BAPPENAS from 2018.

Unlike its predecessor the Millennium Development Goals (2001-2015), SDGs targets not only developing countries, but also the entire world including the developed countries. Therefore, while Japan supports Indonesia in the above issues utilizing past experiences in policy indicator setting, etc., Japan is at the same starting line as Indonesia in terms of SDGs implementation. Both countries are tackling the same

policy issues, and cooperation on SDGs can be called cooperation where the two countries can "walk together" in their work. Japan places its cooperation with developing countries in implementing SDGs as a policy measure to achieve the SDGs Goal 17: "Strengthen the means of implementation and revitalize the global partnership for sustainable development." It is anticipated that Indonesia and Japan mutually share experiences on a real-time basis through cooperation to implement Indonesian SDGs, which are reflected in the betterment of national actions.

Indonesia and Japan have worked hand-in-hand through ODA and other types of cooperation. In doing so, the two countries have accumulated numerous experiences, learned together, and built deep relationships of trust. As presented in this booklet, there are examples of cooperation that respond to global issues such as climate change and information security. South-South Cooperation is also actively promoted. In the coming decades, it is expected that the two countries will continue to learn from each other and work together as reliable partners on global issues.

# Data on Japan's ODA to Indonesia

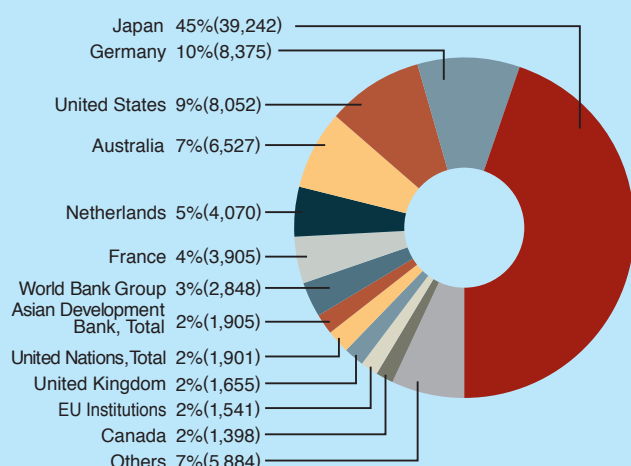
## Introduction

Japan accounts for 45% of the total ODA disbursement by all donors to Indonesia since 1960. This makes Japan the largest donor to Indonesia. This section presents the gross disbursement of ODA to Indonesia by donor agency, the breakdown of Japan's cooperation by the three schemes of technical cooperation, loan and grant aid, by JICA's field classification, and the number of training participants and JICA experts dispatched under the same classification. (JICA's field classification is different from the sector classification of this booklet).

## ODA Total, Gross Disbursement

### Gross Disbursement of ODA to Indonesia by Donor Agency

(current prices from 1960 to 2016, unit: US\$ millions)



Source:OECD

Note:The above chart does not include ordinary capital resources (OCR) financing by the World Bank (IBRD) and the Asian Development Bank (ADB). As a rough guide, if they are included, Japan, the World Bank, and ADB account for about one-third of the total each.

The gross disbursement of ODA to Indonesia from 1960 to 2016 amounted to US\$87,335 million (current price). Of this, Japan contributed 45% (US\$39,242 million), far larger than other development partners. Second was Germany (10%, US\$8,375 million), followed by the United States (9%, US\$8,052 million) and Australia (7%, US\$6,527 million).

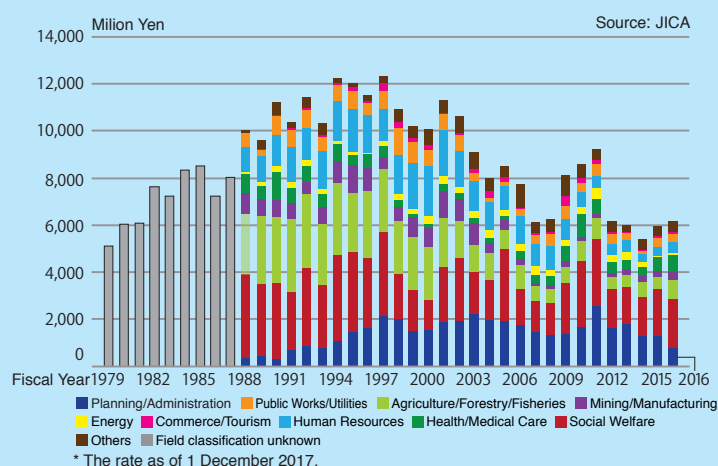


The Japan Disaster Relief Team  
(Photo: Kenshiro Imamura/JICA)

## Breakdown of Cooperation by JICA's Field Classification

The disbursement of technical cooperation to Indonesia from FY 1954 to FY 2016 amounted to 351 billion yen (US\$3.1 billion\*). According to the disaggregated data available from 1988, the top five subfields, or administration (32 billion yen, 12.0%), human resources (31 billion yen, 11.8%), transportation (30 billion yen, 11.5%), agriculture (26 billion yen, 9.8%), and social infrastructure (20 billion yen, 7.4%), accounted for about half of the disbursement for technical cooperation.

### Trend in Disbursement of Japan's Technical Cooperation to Indonesia (from FY1979 to FY2016)

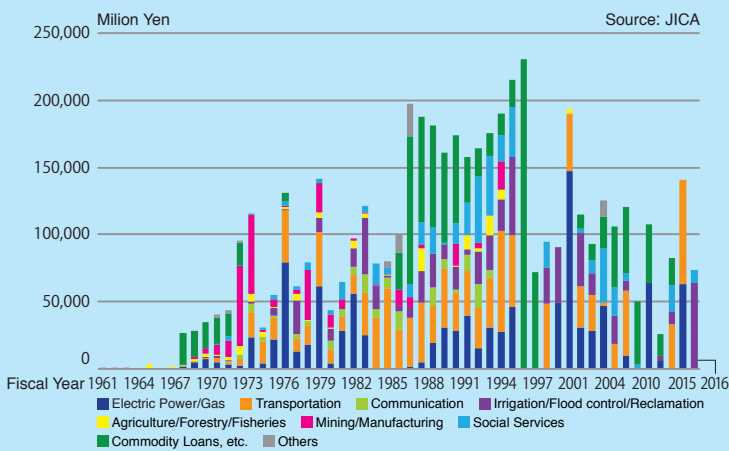


Project on Improvement of Collection Management and Biodiversity Research Capacity of the Research Center for Biology, Indonesian Institute of Sciences (Photo: Kenshiro Imamura/JICA)



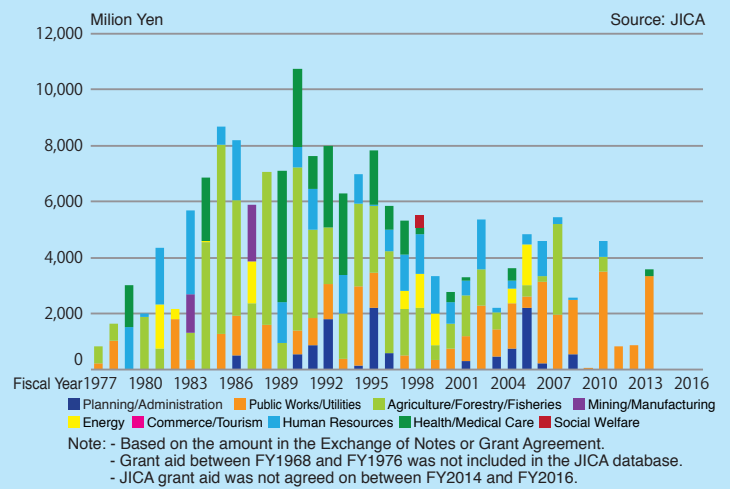
The total loans (both yen loan and private sector investment finance) to Indonesia from FY1961 to FY2016 amounted to 5,008 billion yen (US\$44.6 billion\*). Private sector investment finance started in 1961, and yen loans started in 1968. In the subfield, commodity loans etc. (1,236 billion yen, 24.5%) were prominent, followed by power plants (674 billion yen, 13.5%), irrigation, flood control and reclamation (587 billion yen, 11.7%), railways (426 billion yen, 8.5%), and roads (357 billion yen, 7.1%).

### Trend in Japan's Loans (Approved Amount) to Indonesia (from FY1961 to FY2016)



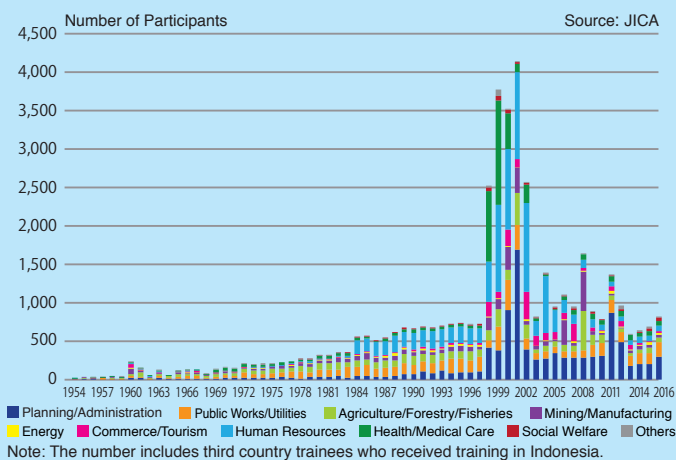
The total grant aid to Indonesia from FY1977 to FY2016 amounted to 176 billion yen (US\$1.6 billion\*). In the subfield, agriculture (55 billion yen, 31.2%) was prominent, followed by health/ medical care (24 billion yen, 13.5%), human resources (22 billion yen, 12.7%), transportation (18 billion yen, 10.2%), and public utilities (12 billion yen, 7.1%). The top five subfields accounted for about three quarters of the total grant aid.

### Trend in Japan's Grant Aid to Indonesia (from FY1977 to FY2016)



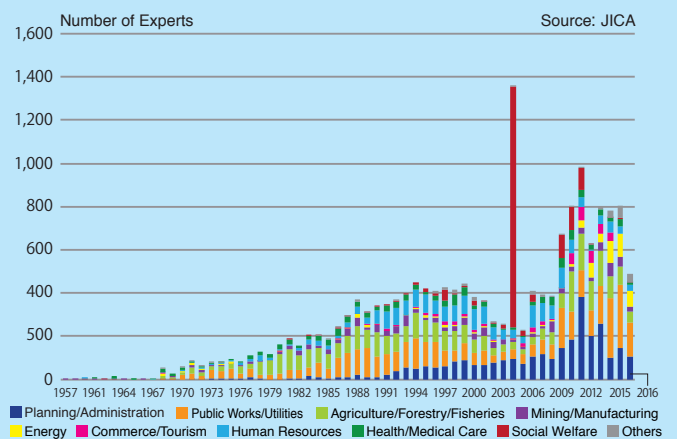
## Number of Training Participants/Experts by JICA's Field Classification

### Trend in Number of JICA Technical Training Participants (from FY1954 to FY2016)



The total number of JICA technical training participants was 44,023. In terms of the training subfield, human resources (10,057 trainees, 22.8%) was at the top, followed by administration (8,459 trainees, 19.2%), health and medical care (4,828 trainees, 11.0%), industry (3,372 trainees, 7.7%), and agriculture (2,705 trainees, 6.1%).

### Trend in Number of JICA Experts Dispatched (from FY1957 to FY2016)



The total number of JICA experts dispatched was 17,459. In terms of subfield, administration (2,561 people, 14.7%) was at the top, followed by human resources (1,698 people, 9.7%), social welfare (1,661 people, 9.5%), and agriculture (1,564 people, 9.0%). The number of social welfare experts dispatched in 2004 was extremely high because the number included 1,111 experts of the Japan Disaster Relief teams (including members of the Self Defense Force team) dispatched for the Indian Ocean Earthquake and Tsunami.

# Selected Scenes from Japan's ODA in Indonesia



**1: MRT: Inside the tunnel**  
The cutting-edge Japanese tunnel construction technology is applied to the Jakarta MRT project which includes Indonesia's first subway line. The tunnel boring machines are operated by 100 Indonesian engineers with assistance from five Japanese engineers. JICA contributes not only to the construction itself but also to technical transfer to Indonesia through the MRT project. (Photo: SHIMIZU CORPORATION)

**2: MCH Handbook from 25 countries**  
The Maternal and Child Health (MCH) Handbook supported by the Japanese government is now used in many countries. Indonesia and Japan work together in implementing South-South and Triangular Cooperation for 25 countries including Palestine, East Timor, Vietnam, Uganda, and Kenya to share their knowledge and experiences of enhancing mother and child health. (Photo: JICA)

**3: Teaching environmental conservation**  
JICA junior expert teaching children the importance of proper disposal of garbage near Gede Pangrango. (Photo: Ministry of Environment and Forestry of Republic of Indonesia)

**4: Research cooperation for natural environment conservation**  
Test growing of plants suitable for peat-forests in the botanical garden in Taruna under the SATREPS Project, "Wild Fire and Carbon Management in Peat-forest in Indonesia" in Central Kalimantan. (Photo: Mika Tanimoto/ JICA)

**5: MCH Handbook utilized in Indonesia**  
The MCH Handbook is utilized by more than 80% of expectant and nursing mothers in Indonesia. Ms. Keiko Osaki, a member of JICA, explains the features of MCH practices to mothers in Yogyakarta. The program helps mothers understand what is required to develop healthy children and make the next generation much stronger. (Photo: Kenshiro Imamura/ JICA)





6: **MRT construction by advanced Japanese technology**  
The Japanese Tunnel Boring Machine is used in the MRT project. (Photo: JICA)

7: **Teaching Judo to students**  
JICA junior expert teaching students the art of Judo at the School of Athletes in Jakarta. (Photo: JICA)

8: **MRT construction using the Japanese construction management technology**  
In the MRT project, Japanese construction management technology is used to minimize the effect to the existing traffic infrastructure. (Photo: SHIMIZU CORPORATION)

9: **Semanggi intersection**  
Semanggi intersection was constructed by the leadership of Mr. Sukarno, Indonesia's first president, in preparation for the 4th Asian Games. Reparation paid by Japan was utilized for the construction. (Photo: Unknown)

10: **Engineers pleased with completion of excavation of the dam diversion tunnel**  
Brantas river basin development is the first successful example of basin development in Indonesia. Long-term technology transfer by Japanese engineers to Indonesian engineers built a close relationship of trust, expressed by the word "Brantas spirit." (Photo: NIPPON KOEI CO., LTD.)

11: **Vocational training for people of East Timor in Samarinda**  
The trainees of Ministry of Agriculture and Fishery of East Timor practiced how to operate the heavy machine for rehabilitation of irrigation channel using simulator at the vocational training center in Samarinda. (Photo: JICA)

12: **Learning the art of criminal identification**  
A police officer practices fingerprint collection and how to detect information from a crime scene under the guidance of a Japanese expert. (Photo: Kenshiro Imamura/ JICA)





# Japan International Cooperation Agency

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Cover Page Photos

1	2	3	4
5	6	7	8
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1.2.7: Kenshiro Imamura/JICA

3.6.9.Back Cover: Mika Tanimoto/JICA

4: Ministry of Marine Affairs and Fisheries, Republic of Indonesia

5: Kresna/ BASARNAS

8: Shinichi Kuno/JICA

