

**The Second Country Study for
Japan's Official Development Assistance
to
The Republic of Indonesia**

March 1994

**The Committee on the Country Study for
Japan's Official Development Assistance to
The Republic of Indonesia**

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PREFACE

Japan's ODA to Indonesia was first examined in 1988-1989 and a report on the Country Study for Development Assistance to The Republic of Indonesia was published in January, 1990. In order to ascertain the most effective and efficient means of implementation of Japan's ODA to Indonesia, this report aims at continuing the work of the 1990 report, by first reassessing the original proposals in the context of the current climate of world affairs. The world has seen many changes take place in the past five years, the most dramatic of which was the ending of the Cold War. It caused a sudden change in the circumstance of many nations as well as political and economic adjustments on a global scale, but the situation in Asia has not altered as remarkably as in Eastern Europe or the former Soviet Union. Where such changes or problems have arisen as relevant to Japanese ODA, we have endeavored to discuss these in full and offer specific recommendations.

In particular, the friendly relations between Japan and Indonesia since the latter's independence have improved in areas such as trade, investment, assistance, and interpersonal exchange over the last five years. Indonesia has made rapid economic progress and could easily, as its government would wish, achieve an economic take off that could lift it into the ranks of the middle-income countries by the turn of the century. This report examines the Japanese government's steps towards more fruitful cooperation, whilst giving careful consideration to the consistency with the Sixth National Development Program and the Second 25-year Plan of the Indonesian government as well as the changing world situation.

Needless to say, Indonesia has still to overcome many hardships and dilemmas, but its achievement in rapid growth from poor underdeveloped conditions, is admittedly one of the greatest advances that very few other countries have realized over the past twenty five years. This country seems to be following the East Asian type of progress that economic success eventually realizes democratization in political development. This seems to have been demonstrated by the prompt and stern response of the Suharto administration to the initial mishandling of the East Timor affairs. It is desirable that Japanese cooperation can be extended in the direction to resolve the social and political problems as well as to achieve further economic development in Indonesia. The recommendations of this report contain such a wishful

expectation of this committee.

Our efforts in these endeavors are fuelled by our heartfelt desire to promote closer ties between Japan and Indonesia and we strongly hope that the Indonesian side will recognize our intent, understand our purpose and reciprocate by continuing to further promote our countries' friendly relationship.

March 1994

Shinichi ICHIMURA

Chairperson

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1. Indonesia's International Context

1) East Asia, ASEAN, and Indonesia in the Post Cold War Era

The international community faces two challenges as the world emerges from the past Cold War era. The first is presented by upheavals stemming from clashes between national polities on the one hand and cohesive forces of ethnicity and religion on the other, principally in the developing nations — witness the outbreak of regional conflicts throughout the world. The second is a new developmental issue, namely the formation of both wide regional economic spheres centering around the economically advanced countries and local economic spheres. In the Asian region, the former challenge is not as daunting as in Eastern Europe or the Middle East. But with respect to the latter, in response to the EC's progress toward European unification and the inauguration of the North American Free Trade Agreement, a number of economic agreements, economic bloc concepts, and fora for discussion — PECC, PBEC, AFTA, APEC* — are beginning to take shape. Under any circumstances, economic development requires political stability, and given these trends, the greatest policy issue is, therefore, to determine how to maintain the political stability of northeast and southeast Asia and how to sustain the "miraculous" economic dynamism of East Asia.

In East Asia, Japan's example has been followed by Singapore, Hong Kong, Taiwan, and Korea. Indeed, the entire region is characterized by the dynamism of its newly industrialized economies (NIEs). And now three ASEAN countries — Malaysia, Thailand, and Indonesia — have also achieved a magnificent high economic growth. Thanks to open market policies and rapid yet stable economic growth under government direction supporting development, this region is heading steadily in the direction of greater political democracy and maturity — so much so in fact that it is setting an example for the world in terms of solutions to the North-South problems. Seen in this perspective, ASEAN, on the eve of the 21st century, appears to be experiencing another accelerated economic growth phase, and may be

*Note:

ASEAN: Association of Southeast Asian Nations
PECC: Pacific Economic Cooperation Council
PBEC: Pacific Basin Economic Council
AFTA: ASEAN Free Trade Area
APEC: Asian Pacific Economic Cooperation

readying itself to play the role of driving force in development during the Age of the Pan-Pacific. That is not to say, however, that problems are lacking.

The serious emerging trade and investment challenges to ASEAN presented by China and Viet Nam, due to their adoption of similar economic policies to ASEAN, should be noted. Since the 1980s, metropolitan areas along China's coast have begun rapid growth on a massive scale, and, more recently, Viet Nam's metropolitan areas have begun to do the same. Also of note is the progressive formation of an overseas Chinese economic sphere, uniting the Chinese homeland and the overseas Chinese, who strongly influence much of these countries' economies. And thirdly, social unrest, an inevitable byproduct of rapid growth, has broken out in some of these countries. There is no slackening of economic vitality visible in ASEAN, where further dynamic growth is expected. ASEAN is, therefore, destined to continue to be increasingly important to Japan. In the present international context, it is of fundamental importance for Japan's national interests that Japan forge mature international ties as equal partners with ASEAN and contribute to preventing North-South disparities widening. It is imperative that our relationship with ASEAN becomes a model for stable and peaceful Japanese contributions to international cooperation.

Indonesia, which is a major power in terms of both population and natural resources, will continue to play a significant political role in ASEAN. In line with economic development it is expected that Indonesia will also assume greater leadership at the forefront of the non-aligned nations representing the developing world. Furthermore, the political stability and economic growth of Indonesia as a moderate nation populated predominantly by Muslims could also exercise a vital influence not only on the political stability and economic development of the ASEAN region, with its variety of coexisting values, but also on Islamic countries worldwide. To contribute to Indonesia's stable growth and to strengthen the friendship and goodwill between our countries will certainly contribute in turn to the world's and Japan's stability, development, and peace.

2) Trends in international support for Indonesia

Japanese aid accounts for much of the ODA received by Indonesia, and ranks with aid from the World Bank and the Asian Development Bank.

Japanese aid:

Japan provides Indonesia with about 15%* of its bilateral aid, which amounts to nearly 30%** of all aid received by Indonesia. A large proportion of the aid is in the form of yen credits; for the rest, a good balance between grant assistance and technical cooperation is maintained. The priority areas concerned by yen credits are principally economic and social infrastructure, centering around transportation, electric power, and communications; grant assistance affects mainly improvement of the basic human needs infrastructure, agriculture, education, human resources development, and medical care. Technical cooperation spans a wide field, ranging from public works projects to mining, energy, agriculture, education and human resources development, and health and medical care.

World Bank aid:

The World Bank is one of Indonesia's three largest aid donors, together with the Asian Development Bank and Japan. Its aid is generally in the form of loan assistance. In terms of areas covered thus far, its emphasis has been mainly on development of agriculture, electric power, industry, education and human resources and improvement of communications and transportation.

Asian Development Bank aid:

Like the World Bank, aid from the Asian Development Bank mostly takes the form of loan assistance, but some technical cooperation is also given. Aid coverage is very wide and includes agriculture, education and human resources development, health, transportation, industry, energy, anti-

***Notes:**

* This is the average amount for grants to Indonesia, as a percentage of total Japanese bilateral ODA on a net outlay basis (calendar year), over the past few years.

** Percentage of announced Japanese aid (estimated, pledge basis) of all aid pledged to Indonesia at the first and second Indonesia Aid Conferences.

poverty measures, regional development, environmental conservation, employment, and finance. Of these, agriculture and social development receive the greatest emphasis; these two areas alone account for about 60% of the Bank's aid. The bank's loan policy in the future is considered likely to step up aid in areas connected with environmental conservation and women in development (WID).

(Refer to Appendices 1 and 2.)

2. Indonesia's Development Agenda and Prospects

A general outline of national development policy was made public in March 1993, and the orientation of the second 25-year plan has been set; in August of the same year, the President of Indonesia made a speech announcing the sixth five-year plan and the outline of the second 25-year plan. Later, on January 6, 1994, the Indonesian government presented to Parliament a draft of the sixth five-year plan together with the fiscal 1994 draft budget.

1) Indonesia's growing policy agenda and search for a new lift in economic growth

Since the establishment of the first five-year plan in 1969, Indonesia has continued to achieve steady economic growth (from 1965 to 1992, its annual average growth rate was 6.2%); in 1992, its per capita GDP reached \$660. During this interval, its population grew from 119,210,000 in 1971 to 179,380,000 in 1990 while the annual growth rate declined from 2.3% in the 1970s to 1.6% in the early 1990s. This is expected to help alleviate some of the pressure of future population growth on the economy. At the same time, the percentage of the population living below the poverty line, estimated at 60% or 70,000,000 in 1970, has shrunk to 27,000,000 (or 15%) in 1990. It appears that economic growth is leading Indonesia toward a more equitable distribution of wealth.

Indonesia has achieved self-sufficiency in rice, a major goal that it had striven for since independence. In the 1980s, Indonesia significantly increased its non-petroleum and gas exports; in 1987, these exports exceeded

50% of total exports and have reached about 70% recently. The Indonesian economy is now progressively weaning itself from dependence on oil exports and Indonesia's industrial structure is now undergoing steady transformation. This owes much to Indonesia's firm adherence to its stated policy, maintained since the first five-year plan, not to allow any deficit in the national finances to exceed the amount of foreign aid received, and is Indonesia's way of "balancing its budget." In other words, Indonesia is maintaining sound finances by eschewing the issuance of domestic deficit-covering bonds and by occasionally making sharp devaluations to its currency. All this takes place within the framework of cautious and appropriately managed macroeconomic and monetary and fiscal policies, which, together with the gradual phasing out of import restrictions and the deregulation of the financial sector during the 1980s, have led to continuous rapid manufacturing industry growth, which recently betters 10% per year on average.

On the negative side, however, a number of serious issues have arisen that ought not to be overlooked. From the late 1980s on, direct foreign investment directed toward industrialization grew rapidly, but at the same time, so did the balance of both public and private foreign debt. In 1992, Indonesia's debt exceeded \$84 billion (according to World Bank data) or 67% of its GNP, which means that over 30% of Indonesia's exports go to repay debt. Although this debt is not as serious as that of the Philippines or the Latin American countries which rocked the world in the late 1970s, it cannot be taken lightly.

It was labor-intensive industries, using labor resources cheaper and more abundant than in neighboring countries, that pulled the Indonesian economy away from dependence on oil and gas exports in the late 1980s. Given China's liberal economic policy and rapid industrialization and the future likelihood of economic expansion by Viet Nam, which has begun to improve its infrastructure and set in place legislation for a transition to a market economy, there may be a question as to how much longer Indonesia can maintain the comparative advantage of its labor-intensive industries. The competition is growing particularly intense in Indonesia's overseas export markets for the principal exports of textiles and apparel. And Indonesia is unlikely to be granted major increases in export quotas. Oil and gas are a key export industry and the foundation on which the Indonesian economy rests. The prevailing view is that there is little likelihood of a major me-

dium term rise in oil prices above about \$18 per barrel. Hence it may be realistic to predict a gradually rockier road for Indonesia's future industrialization.

The sixth five-year plan, which begins in fiscal 1994, sets economic growth at 6.2% per year, and the number of new workers scheduled to enter the workforce during this period is expected to increase by 12 million. Annual growth in the agricultural sector is expected to average a little less than 3.5%. However, there is little hope of agriculture absorbing much more of the labor force or substantially improving its productivity, now that self sufficiency in rice production has almost been achieved. Instead, the percentage of the population employed in agriculture is expected to actually decrease over the long term. In contrast, a considerable number of jobs are expected to be created in urban services, but Indonesia is counting mainly on the non-oil and non-gas manufacturing industries, which are projected to grow over 10% per year, and the tertiary service sectors to absorb the young workers arriving on the labor market. Given expected income levels, however, Indonesia cannot count very much on internal demand to fuel expansion. So for the time being, increasing exports is the main task on Indonesia's economic agenda. Indonesia's miscellaneous exports, classified as "other manufacturing," have indeed grown in recent years, but because increasing labor-intensive exports are expected to be difficult, as mentioned already, Indonesia urgently needs to improve its industrial structure and build up a machinery industry, using ever more advanced manufacturing technology to diversify its exports. Indonesia must expand its investment in manufacturing industry in order to upgrade its industry to do this, while keeping in mind the magnitude of its spiraling foreign debt. For this purpose, Indonesia must both introduce more direct investment from overseas and mobilize domestic savings more aggressively than before.

The deregulatory measures carried out during the 1980s to activate the economy were intended to serve this purpose, but financial deregulation coming first stimulated the finance and urban real estate markets. The confusion resulting from rising interest rates in financial markets seems to have hurt rather than helped the manufacturing industry. The authorities now must take great pains to determine to what extent restructuring and strengthening of Indonesia's real economy can be harmonized with the goals of trade liberalization and alleviation of the foreign debt burden. Given

these factors and Indonesia's present situation, market liberalization could have been promoted more cautiously and selectively.

It is, perhaps, because of these conditions that the new sixth Suharto administration, inaugurated in March 1993, seems to indicate a reorientation of policy as well as a changing of the generational guard. The Indonesian government may be about to more actively promote the transformation of its manufacturing industry by introducing advanced technology of the sort previously mentioned to strengthen Indonesia's move to becoming a new technological power. This is simultaneously an attempt to set into motion a new surge of economic vitality and assume new challenges. In considering the orientation of its aid, Japan must consider how to respond to these challenges. The main concerns are listed below. (Cf. Appendix 3)

2) Narrowing gaps and ensuring social equity

As a result of the past 25 years of economic growth, the standard of living for the entire Indonesian nation has risen, and the absolute poor are now fewer, both in number and as a percentage of the total population. Yet, regardless of how much effort is made to reduce disparities between social classes and between regions with the fruits of economic growth, it can never be enough. In the same sense, disparities between agriculture and industry and between the traditional and the modern sectors, and the decline of small businesses are among the remaining problems on the agenda. Indonesia's geography, namely the countless large and small islands which make up the archipelago, the unequal distribution of natural resources and that of fiscal resources, engender major disparities in the degree and extent of development between Java and the outer islands and imbalances among the outer islands themselves.

At the initial stage of economic growth, the widening of these disparities may be inevitable to a certain extent. Even so, awareness is spreading throughout the nation and among the ministerial officials in charge that, Indonesia must prevent the further widening of the disparities and even better strive to narrow gaps if their society is to achieve stable development. Evidence of this may be seen in the sixth five-year plan which stresses the desirability of drafting clear policies aimed at narrowing gaps, restruc-

turing local economies based on new industrial allocation strategies, building needed key facilities, and finally restructuring local communities on the basis of these strategies.

Some of the necessary basic conditions supporting development of local economies and restructuring of local communities are the introduction of decentralized policy-making systems and the reinforcement of local administrations. For this to be possible, however, the central roles played by local and provincial governments in regional administrations and the organization of government agencies, and their financial bases must be thoroughly reviewed and local government authorities given greater powers in order to heighten their practical administrative capacities. It is especially important to train personnel in every possible area. To do this, it is necessary to improve education quantitatively and qualitatively in every region throughout Indonesia, to stimulate local cottage industries, and through training to give personnel the practical skills required to run medium, small and micro-enterprises close to agricultural villages.

The state of development of both the basic human needs (BHN) infrastructure and the economic infrastructure supporting local economies lags significantly throughout Indonesia. Electricity, transportation, and telecommunications all still require improvement. This is a classic example of the difficulty of developing isolated locations. It is necessary, therefore, to promote further effective improvement of basic human needs and industrial infrastructures in local development through continuing in depth consultations with the Indonesian government. It must be kept in mind that this development has to maintain a close and complementary relationship with the human resources development, mentioned earlier, and they must be promoted in a balanced way. Many problems beset the metropolitan areas, Jakarta and Surabaya for example, where the population is concentrating and growing rapidly. The traffic congestion, garbage disposal, and slum and squatter issues, are typical of recurring problems found in metropolises of the other Asian countries. These predominantly urban problems must not be ignored.

(Refer to Appendices 4, 5, 6, and 7.)

3) The need for development management and environmental awareness

Indonesia, an archipelago nation, is a natural environment of high ecological value, with vast territorial waters and abundant tropical rain forests. Indonesia's natural environment is important from a global viewpoint also. Yet the transportation and telecommunications networks that support the components of economic activity needed to redress disparities between different regions are all seriously lagging. Today, as the international community strives to strike a balance between development and conservation of the global environment, Indonesia is being called upon to exercise particular care in its development with protection of the environment of the archipelago. There is no doubt that the effective use of natural resources is, and will continue to be, essential to the development of the Indonesian economy. Some of its natural resources, however, and some parts of its natural environment are under threat from over development. Special attention is called for to prevent unrestricted development and to restore the damaged environment. Due to the particularly close ties between conservation and restoration of the tropical rain forests and of the natural environment, and biological diversity, and also of the water and soil of an island environment, an approach should be adopted which incorporates concern for the balance between the environment and development.

The ties between development and pollution — the progression of economic development, industrialization and urbanization, followed by industrial pollution — are apparent in Indonesia already. Worsening urban transportation problems and degradation of the living environment, aggravated by inefficient public administration and insufficient technical know-how for pollution prevention have become serious social issues. Attention to the establishment of appropriate urban development and administration of control policies is urgently needed, especially to implement careful anti-pollution policy measures with the technology to materialize them.

To achieve a balance between the environment and urban centered development, it is essential to create an organization that will closely and constantly monitor and analyze conditions, design measures and swiftly implement responses, while carefully considering the interrelationships between environment and natural resources, the capabilities of Indonesian society, and the industrial structure. International cooperation should enhance the

ability to provide technical service and expertise in these areas.

(Refer to Appendix 8.)

3. New Directions for Japan's Aid Policy to Indonesia

1) Considerations in Japan's assistance to Indonesia

The previous study report in 1990 stressed the following viewpoints regarding Japanese aid policy for Indonesia:

- The importance of aid evaluation from a comprehensive standpoint.
- The importance of providing aid for research and planning activities.

Five years later in 1994, these remain pertinent viewpoints for Japan's assistance.

Since the dispatch of the comprehensive economic cooperation study mission headed by former Foreign Minister Saburo Okita to Indonesia in 1984, the policy dialogue at senior official government levels has continued and grown ever closer and more meaningful. Exchanges among the new generation of leaders on both sides have also grown closer in recent years, showing a new trend.

In June 1993, at the second meeting of the Consultative Group on Indonesia (CGI) held in Paris, the Japanese government committed \$1.44 billion in aid to Indonesia, roughly the same amount as in the previous agreement. This figure, coordinated with the joint efforts of Indonesia's two other major aid donors, the World Bank (which pledged \$1.6 billion) and the Asian Development Bank (\$1.2 billion), attests to the continuous stability of aid to Indonesia.

Later in November 1993, the Japanese survey mission for this country study exchanged views with Indonesian government representatives regarding the new direction for Japan's further assistance. Given the aforementioned recent developments in policy dialogues, the Committee would recommend that Japan's aid policy be reexamined according to the three following considerations:

- Whether aid is promoting stable growth and directing Indonesia toward an economic takeoff.
- Whether more mutually satisfying measures can be found to achieve even closer policy dialogue between Japan and Indonesia.
- And whether aid is responding adequately to changing needs through the diversification of types of aid and of assessment methods.

(1) Stressing aid for the promotion of stable growth towards Indonesia's economic takeoff

Although the Indonesian government has made great development efforts and achievements thus far, it expects Japan to continue with an active aid program to help it achieve a further surge in growth. It is not impossible for Indonesia to achieve its target of raising per capita GDP from \$662 (1992 World Bank Data) to \$1,000 by the end of the century. This goal was set with the intention of triggering "an economic takeoff" phase that would lead to economic self-sufficiency. To cooperate with Indonesia so it can overcome obstacles and accomplish a stable takeoff in growth is naturally in agreement with Japan's basic ODA stance.

(2) Efforts to achieve closer policy dialogue

As mentioned, stable growth of the Indonesian economy is naturally important for ASEAN, but especially so also for Japan and Asia as a whole. Policy dialogue in this area, therefore, is expected to assume even greater importance. Bilateral policy coordination between Japan and Indonesia is essential, since Japan is Indonesia's largest ODA donor, and the contribution is much larger still when its contributions via the World Bank and Asian Development Bank are included. And, in addition to the bilateral consultations, it is also expected for Japan to play a positive role in such multilateral fora as the CGI meeting and in the international agencies to address actively possible directions for assistance to Indonesia in collaboration with the member donors. This is because, the aid issues will become more complex, as the Indonesian economy grows and the needs for aid will become more competitive, necessitating the fine-tuning of foreign aid programs.

This policy dialogue must not be limited to bilateral economic con-

cerns since dialogue on desirable Asian global contributions in a broader sense is also important. Both Japan and Indonesia are in a position to play leading roles and should make constructive proposals through the Asian and ASEAN frameworks and it is, therefore, important to maintain constant close dialogue. It may not be fully satisfactory to leave this policy dialogue in the hands of international organizations.

An example of this more active approach is the way the Indonesian government, as a leader of the non-aligned nations, strives to contribute, in its own way, to the international community by putting its development know-how and experience at the service of developing countries in Africa and elsewhere, where it has begun actively to promote "South-South cooperation." Japan can play a significant role in deepening both countries' understanding of the international community by supporting Indonesia in its South-South cooperation efforts. In line with this, Japan should increase such assistance as the third-country training-program, already being provided within the framework of Japan's cooperation with Indonesia.

In order to realize the above objectives, while respecting the principle of aid on a request basis, Japan should promote more frequent and in depth discussions, both in comprehensive policy dialogues and in examination of specific aid projects. In addition Japan should create a more conducive environment and improve institutions that lead to the establishment of a better partnership.

(3) Stressing diversified types of aid and comprehensive evaluation

As Japan and Indonesia forge closer bilateral ties and engage in more in depth policy dialogue, the nature of the aid itself will transcend mere economic contributions; spanning educational and social issues, and reaching, inevitably, it may, in case, be inevitable to reach such domestic political matters at the local government level. Forms of aid will also have to become increasingly diverse in response to the diversification of aid needs. Evaluation of programs will have to be made on a longer-term basis and evaluative criteria will become more complex than in the case of contemporary economic aid. The evaluation of individual aid programs requires, for example, comprehensive consideration of the impact on local communities

and the environmental impacts, in addition to the assessment of economic impacts. In responding to these diversified needs, Japan's aid policy will be required to provide various combined forms of aid, such as the "umbrella" or "package" types of aid programs.

2) New priorities in development assistance

Having examined the directions for Japan's ODA to Indonesia from these three considerations, this committee suggests the following revisions in its current aid priorities. The order below does not necessarily reflect the monetary amount of assistance provided for each priority area. It is rather meant to imply that aid in the past has been overwhelmingly focused on development of the physical industrial infrastructure. Henceforth, Japan should try to examine, identify, and support those categories of assistance which respond to the following goals for the future:

- (1) Greater social equity
- (2) Broad-based human resources development
- (3) Infrastructure to support growth towards economic takeoff
- (4) Environmental conservation
- (5) Cultural activities

Although the importance of these five areas was also stated in the previous report, it is reemphasized here because subsequent changes in the international situation, the demands of the international community, and the evolution of the Indonesian economy all point to their increased importance in the future.

(1) Greater social equity

For Indonesia to achieve economic takeoff through sustained growth, it will be extremely important to promote social equity by rectifying numerous disparities. Although one of the achievements of the first 25-year plan was to reduce the number of the absolute poor from 70 million (60% of the total population in 1970) to 27 million (15%) in 1990, the fact that President Suharto specifically addressed the importance of anti-poverty programs in the second 25-year plan is proof that he and his aides are well aware of the

significance of this effort. Stability, therefore, depends on the success of this policy, and hence the strong desire for Japanese aid.

Japan's aid for basic human needs is a long established program, designed to benefit the poor directly, and must be actively continued in order to improve social equity and to fight poverty.

Anti-poverty programs endeavor to redress intra-regional disparities, but attempts to redress inter-regional disparities to develop less-developed regions usually entail huge and long-term investments of funds. Although eastern Indonesia, where thus far there has been a noticeable delay in implementing development programs, has been designated as a priority area for future development in Indonesia's plan, it will be no easy task. Sulawesi and Kalimantan should probably be given priority for the time being, because of their endowment of natural resources, location, and importance as bases for regional development, as well as due to less constraints on the implementation of technical cooperation. Presumably, the first step is to begin preliminary studies and assemble data from past studies on these regions.

(2) Broad-based human resources development

In recent years it has been stressed by many professionals and experts on development issues that human resources must be developed in order to sustain economic and social development. The previous report also pointed out the importance of assistance for human resource development. This area demands greater emphasis, but merely continuing existing cooperation programs for education and human development is insufficient. In order to improve secondary education the Indonesian government plans, to provide nine years of compulsory education from the first year of the sixth five-year plan, and to provide 150,000 class rooms within the next 15 years. However, the Indonesian educational system still faces numerous serious problems, including the high dropout rate at the primary school level, the low quality of teaching staff, and shortages of school facilities, equipment, and teaching materials. A large part of Japan's educational ODA in the past has been directed to higher education, but Japan should now attempt to improve the educational environment at the lower levels, stressing primary and secondary education, especially science and mathematics.

A shortage of Japanese personnel qualified in the Indonesian language is anticipated on the Japanese side, because of the need to instruct and train primary and secondary level teachers in the Indonesian language. Japan, therefore, should consider how to train and foster the necessary personnel efficiently and effectively in view of the language barrier. Japanese science and mathematics teachers serving under the Japan Overseas Cooperation Volunteers (JOCV) program have successfully overcome linguistic barriers in Africa, Nepal, and other regions of the world, and this should provide instructive examples as to how to deal with the problem. The Indonesian side has acclaimed sector program loans in this area and Japan should expand aid with greater efforts in the future to identify potential technical cooperation projects.

Parallel to these efforts, better vocational education and training, especially programs to train key intermediate-level engineers, skilled workers, and semiskilled workers, is essential to help Indonesia to achieve an economic takeoff. This also encompasses ways to respond to future increases in unemployment that are anticipated to result from a surplus of unskilled labor, as addressed in the previous report. Aid for vocational education and training must be strengthened on a selective, priority basis, while monitoring qualitative changes in the labor market that will result from the evolution of the industrial structure and expansion of the services sector.

(Refer to Appendices 9 and 10.)

(3) Infrastructure to support growth towards economic takeoff

Indonesia is expected to achieve genuine economic takeoff early in the twenty-first century. In order to ensure this, Indonesia must maintain appropriate fiscal and monetary, industrial, and trade policies, while continuing sound management of its foreign debt and foreign currency reserves. The highest priority will continue to be improvement of the physical industrial infrastructure needed for national economic development.

No change is likely to occur in the need for most of Japan's economic cooperation to be allocated to this sector, but changes are anticipated in the nature and orientation of this cooperation. For example, it is especially important for Indonesia's industrialization to promote supporting industries

for export-oriented manufacturing industry. A transition to higher value-added products is also called for in agriculture, forestry, and fisheries. The country must seek to diversify its farm products, promote agro-industries to process more agricultural products domestically, and raise the productivity of coastal fisheries. Infrastructural investment programs should also be reoriented to a clearly stated set of priorities to achieve these goals. Eventually, this will help to reduce inter-regional developmental disparities. Thus, the upgrading of both the physical industrial and basic human needs infrastructures must be promoted in order to facilitate the improvement of Indonesia's industrial structure.

In some areas, such as certain sectors of electricity, telecommunications, and water supply for industrial purposes, the possibility of encouraging active participation by private capital is under study. For the time being, however, attention should be paid to the prospects for privatization and the impact that participation by the private sector will have. While actively cooperating in these areas, it will be better for Japan to continue giving aid in such areas as roads, water and sewerage systems, and other basic human needs facilities where it is not feasible to count either on profitability or private sector involvement.

(4) Environmental conservation

As recognized by the UNCED (United Nations Conference on Environment and Development, 1992), environmental conservation and economic development are not tradeoffs. They must be promoted together, comprehensively. Indonesia is richly endowed with natural resources, such as tropical rain forests and abundant biodiversity, that stem from its geographical location. It is actively working to solve problems related to climatic changes and other global environmental problems. Environmental issues also happen to be an area where Japan has committed itself to active international cooperation and global contributions. Cooperating with Indonesia's efforts to protect the environment is highly significant, both in terms of assisting Indonesia's sustainable development and contributing to solving global environmental problems.

Japan should also be expected to contribute to tackling the environmental issues such as urban deterioration and traffic problems in the metropolises. It would be especially effective for Japan to direct both financial

assistance and technical cooperation to improve many urban issues on planning, traffic systems, and urban redevelopment, in which Japan has had abundant experience. These include the problems of urban and industrial waste disposal and the improvement of housing and the residential environment as well as pollution from industry and automobiles in Indonesia's metropolises and industrial cities.

(5) Cultural activities

Future aid must pay greater attention to exchanges between Japan and Indonesia in the areas of academic studies, culture, fine arts and the performing arts, in which the Indonesian people will be increasingly interested the more affluent they become. It would be appropriate to include in this category the preservation and repair of historical and cultural artifacts, such as has taken place already with the Borobudur and in Prambanan.

Academic exchanges involving students and scholars should also be organized more extensively and frequently than in the past. In view of the size of the Indonesian population and the friendly relations between the two countries, far too few Indonesian students study in Japan. Given the considerable cultural affinities between the Japanese and the Indonesians, and the close friendships existing among many Japanese and Indonesians, there is a high potential for successful expansion of academic exchange programs. In order to facilitate greater exchange, more emphasis should be placed on teaching the Japanese language in Indonesia.

(Refer to Appendix 11.)

4. Japan's Priority Aid Programs

The detailed aid categories in order to specifically achieve the aims and objectives discussed in the preceding sections are examined in this chapter.

1) Greater social equality

(1) Aid for the anti-poverty program

Achieving a major reduction in Indonesia's poor population, which still

numbers 27 million people, is a priority objective of the Indonesian government's second 25-year plan. "An anti-poverty program for villages" is being launched to achieve this goal, beginning from the inauguration of the sixth five-year plan. The program classifies all villages (*desa*) in Indonesia as either poor or otherwise according to various survey criteria, providing special aid to the poor villages.

The overall aid program is two-tiered. One tier involves the establishment of a new special presidential fund for less developed villages (called IDT, for *Inpres Desa Tertinggal*) that will provide funds to projects or/and programs organized by villagers themselves to invest in the promotion of rural development. The IDT program has already been allocated 390 billion rupiah in Indonesia's fiscal 1994 budget, which is to be disbursed.

The other tier of the aid program is an infrastructure improvement project designed to contribute to promoting poor villages' economies and raising their living standards. Indonesia is expected to seek the cooperation of Japan and other aid donors (countries and organizations). One of Japan's aid priorities is to cooperate with the anti-poverty program, and thus it should seriously consider any such requests from Indonesia. Needless to say, this question is closely tied to promotion of value-added agriculture and the assistance program for local cottage industries discussed in following sections.

The program targets the 20,633 poor *desa* (Indonesia's smallest administrative unit or a small village), 31.5% of the total of 65,554 villages. To carry out effective aid in this program to improve rural conditions over a wider area, it is first necessary to study the most effective approach to determine priority areas (i.e., Indonesia's urban or rural areas, Java or surrounding territories) and how aid will be distributed. Secondly, after fully discussing these questions with the Indonesian government, all these considerations should be used to organize a specific program combining loan assistance, grant assistance, and technical cooperation. This must be done in order to create jobs through promoting cottage industries in rural communities and seeking to improve living conditions of farmers and people in rural villages. Efforts must thus be directed toward generally increasing the overall ability to improve their livelihoods.

(2) Aid for basic human needs programs

Aid affecting basic human needs (BHN), an area where action has been promoted in the past, also requires a stronger commitment. BHN programs are designed to benefit the poor directly and affect services, such as sanitation, nutritional supplements, housing, water supply, sewerage, and medical care, that are the essential prerequisites for a decent life anywhere. Given the existing underdevelopment of Indonesia's urban and rural environmental infrastructures, both BHN aid and support for primary education are still high priorities. In terms of increasing social equity, therefore, Japan should not limit its aid to support for anti-poverty programs, which are directed at specified "poor villages," but should sustain active support for overall BHN programs.

Anti-poverty and BHN programs can be deployed either as individual projects or as combined projects, depending on the circumstances. Small-scale ("grassroots") grant assistance and other methods should be used flexibly to carry these programs out, keeping in mind the nationwide standpoint taking care to clarify aid goals and discussing how aid duties will be shared with the central government and local organizations (for example, the existence of "*Pos-Yandu*" in community health care) relative to the needs of the districts concerned. It is also, of course relevant that measures to reduce poverty and to improve living standards tend also to reduce the birthrate.

(3) Aid for harnessing local human resources

Both anti-poverty and BHN programs call for careful execution of project implementation, including dialogue with local residents. In practice, it is essential to involve local residents in the process of planning and implementation and to actively enlist the collaboration of local consultant and non-governmental organizations. Based on these circumstances, we regard it as necessary, both to make it clear that the institutional framework of Japan's ODA such as small-scale "grassroots" grant assistance, permits collaboration with NGOs. Furthermore, it is desirable to reorganize our public relations and information services, in order further to facilitate participation, not only by Indonesia's local human resources, but also groups who wish to collaborate with ODA programs. These include Japanese, American and European NGOs, which have abundant experience in this area.

(4) Aid for women in development (WID)

A considerable number of NGO activities taking place in Indonesia and supported by Indonesian government policy are directed and implemented primarily by women. The role of women is especially important in rural areas, where they are the prominent labor force and a central driving force for improvements in living conditions. It would therefore be wise to mobilize their talents and energies actively in order to increase the effectiveness of anti-poverty and BHN programs.

(5) Aid for development in eastern Indonesia

Eastern Indonesia is not as developed as Java and Sumatra and needs to be developed more vigorously in order to narrow the disparities between them. Regional development in theory generally varies in many respects, depending on whether it is oriented toward resource development, strategic investment, regional community building, and so on. Ultimately, these approaches will be integrated in ways consistent with the features of the regions involved. In the development of Eastern Indonesia in particular, it is vital to establish an economic base in the region, bearing in mind the need to develop sites for new industries, especially agricultural location strategies, and to carry out development from a broad perspective, spanning such goals as improving local residents' living standards, eradicating endemic diseases in isolated communities, and protecting the environment.

2) Aid for building broad-based human resources development

(1) Aid for improving primary and secondary education

Indonesian education faces so many challenges that individual projects alone are very unlikely to be effective in meeting them. Cooperation packages combining technical cooperation with loan and grant assistance — in short, a comprehensive combination of material and intangible forms of aid — together with stage by stage monitoring of its effects, are the best way to enhance its real achievement. Teacher retraining and similar programs should be implemented wherever it is possible to apply current aid formulas, even if only on a partial basis. The demand for aid is especially great in the area of donation of facilities and technical cooperation for the education

and retraining of science and mathematics teachers at the primary and secondary school levels. Reducing the dropout rate is one of the tasks requiring more intensive programs. Considering that this effort is profoundly influenced by students' living environment and the quality of education received at home, it would probably be most effective to adopt WID approaches in this area also. Effectual coordination of educational programs with the WID program in the framework of Indonesia's anti-poverty program will further enhance effectiveness.

Another significant contribution can be made by aid for educational administration. It is important to cooperate by providing training for educational administrators, improving access to data related to educational systems and long-term demand and supply for labor, and designing models for analysis of issues. Family environment studies and school location planning are also essential components of measures to discourage dropping out of school, for which Japan can provide additional support.

(2) Aid for vocational education and training

As Indonesia's non-petroleum and non-gas manufacturing industries evolve, qualitative improvement in the labor force is called for at a time when primary and secondary education are not always producing adequate results. This is one of the reasons for qualitative and quantitative gaps in the labor market, as a result of which massive unemployment coexists with a shortage of qualified labor. The shortage of highly skilled labor with secondary or higher schooling has serious implications for the advancement of Indonesia's industry. There is in reality a great demand for trained intermediate-level engineers, skilled workers, and semiskilled workers. Given that Indonesia must seek in the future to diversify its exports and foster supporting industries, aid for vocational education and training is imperative in order to educate the core intermediate-level technicians, skilled workers, and semiskilled workers needed to operate advanced technology of machinery industry.

3) Aid for infrastructure to support Indonesia's economic takeoff

(1) Cooperation for macroeconomic management

Since the management of Indonesia's national economy is expected to become even more important in the future, it is necessary to continue to send advisers on consulting missions to Indonesian ministries and agencies concerned. The lack, however, of macroeconomic research data on the Indonesian economy, and the scarcity of occasions for economists to exchange views on the Indonesian economy, both make it necessary to strive to further increase the opportunities for interaction and contacts between professionals and officials from Japan and Indonesia.

(2) Assistance for promotion of supporting industries

It is extremely important that smaller supporting industries be promoted in order to absorb the abundant labor force, create tomorrow's domestic market, and diversify Indonesia's exports and thus ensure Indonesia's economic takeoff. Achievement of this goal relies on exploring methods to develop aid with both material and intangible (skills) components by, for example, granting two-step loans and other financial aid, donating management and production know-how, training businessman in the establishment of cooperative and subcontracting systems, and providing business information.

(3) Aid for enhancement of value-added agriculture

Aid is expected to be needed to promote agro-industry to increase agricultural revenues after achieving self-sufficiency in rice production, to promote estate agriculture in order to earn more foreign currency, and to promote the cultivation of vegetables and fruit, for which the demand is expected to grow with urbanization. The priorities will be technical cooperation and financial aid directed at improving technology, introducing new agricultural production technologies, and establishing distribution systems and consumer markets.

(4) Aid for improvement of Indonesia's physical industrial infrastructure

Long-term planning for energy and electricity demand and supply is essential in view of forecasts that the growing demand for electricity, energy, and water for various purposes will place increasingly severe pressure on supplies in the medium and long term as Indonesia rapidly urbanizes and industrializes. Financial aid and technical cooperation to increase the energy supply, which take into account Indonesia's features as an island country, are especially needed from medium and long-term perspectives. Indonesia seeks to allow the private sector gradually to enter the electric power, shipping, rail, road, other transport and communications sectors, and the sixth five-year plan is expected to accelerate this process. The various repercussions and problems caused by this entry of private companies into the markets (safety measures in the transportation sector, for example) will necessitate further cautious study and attention to the efficiency of whole systems, compatibility with social needs, and the financial state of public enterprises. Each area must be judged comprehensively and defined in terms of its role and importance within the nationwide development strategy; relative priorities and the effect of development investments must be taken fully into consideration; and careful attention must be paid to the different characteristics of each region and the connection with the anti-poverty program.

4) Aid for environmental conservation

(1) Conservation programs for tropical rain forests

The conservation of Indonesia's tropical rain forests involves many complex issues, from safeguarding biological diversity to halting extension of shifting cultivation that disregards ecosystems, protecting plain forest lands from encroachment by cultivation, and defending coastal mangrove forests. Long-term, sustained aid is necessary to achieve these aims. In the outer reaches of Indonesia's territory especially, careful planning of conservation programs is required with future regional development in mind. Aid should combine technical assistance with other similar projects in a participatory development approach, such as social forestry projects.

(2) Aid for measures to combat industrial pollution and improve the urban living environment

Measures to combat industrial pollution — factory effluents, automobile exhaust fumes and other air pollution, industrial wastes, etc. — and to check pollution's serious effects on people's lives not only require more and better equipment but involve whole legislative and administrative systems, including control, inspection, and the imposition of penalties for violations. Since none of these measures can be expected to have adequate effects in isolation, it is important to implement financial assistance and technical cooperation to formulate comprehensive measures and carry out projects of great urgency.

Regulation alone cannot solve environmental problems in urban areas. The problem of automobile exhaust fumes, for example, cannot be solved merely by limiting emissions. Urban planning is necessary and infrastructure must be properly developed and managed to prevent traffic congestion. Cooperation in building industrial infrastructure as well must take due precautions to protect the environment.

The priority in aid for the improvement of urban living environments should be given to improving sewerage systems and treatment facilities for runoff and drainage, refuse disposal facilities and the overall residential environment in slum and squatter areas.

(3) Aid for surveys and research on the environment and development

Examination of the background behind environmental conservation issues always leads, to a greater or lesser degree, to the realization that environmental conservation is inseparable from development, and preeminently an economic issue. Yet organizations are still not adequately prepared to evaluate this issue comprehensively and to strike a just balance between economic development and environmental conservation. Intending to contribute actively to the solution of Indonesia's environmental problems, Japan has established and is assisting the operation of an Environmental

Management Center in Indonesia, established primarily to address pollution problems. In the future, Japan should seek to upgrade the Center's capacities, widening the scope of its studies to include global environmental problems, turning the Center into a research institute that can propose development policies that take both the environment and development issues comprehensively into account, and offering aid to carry this out.

Such an institute could play a significant role as a forum for mutual exchange between scientists and policy makers and contribute to the solution of developmental and environmental problems, and if benefits extended to third countries, this effort would signal a landmark international contribution by Japan and Indonesia.

5. For more efficient aid implementation: issues relating to aid administration

The current organization of aid has room for improvement (though this observation is not limited to Indonesia). Both in the way that Japan dispenses ODA and in the way Indonesia receives it, aid for Indonesia could be made more efficient. To cite some examples:

1) Japanese aid administration

As mentioned previously, Indonesia's aid requirements are becoming more complex year by year and call for increasingly finely tuned aid responses. This trend is expected to become more pronounced in the future. Long-term organization of aid in such areas as macroeconomic management, education, and regional development is an important item on the future agenda. To respond to this need, Japan must have a budget system that spreads out allocations over two or more fiscal years, following the example of aid organizations in Europe and North America. Japan already carries out some major projects in grant assistance, for instance, as "national debt incurring projects." With the approval of the Diet, budgeting of these projects is extended over two or more fiscal years, and further utilization of this system is anticipated.

Indonesia will increasingly require expertise, such as policy advisers.

Indonesia has asked Japan to establish a set of programs for such expertise assistance that would enable academics and researchers to handle pilot surveys, coordination with experts in the field, local operations, monitoring of results, and operations work in Japan. Because of the need in these cases to facilitate task performance by integrating field and home operations, procedures must be devised to promote aid and to carry out such tasks in the most effective way.

Japan is also expected to establish procedures for assigning cooperation tasks to reliable organizations in order to respond more flexibly to urgent cooperation requests from Indonesia. Viewed in the medium and long term, when the problem of deciding who will be in charge of recruiting capable people and negotiating with them when experts with advanced skills are needed, it is assumed that the current system may not be easy for Japan in putting programs into action. Japan will, therefore, need to seek new approaches and modify the current systems.

Japan has relied thus far on proposals from overseas offices. To better respond in detail to their requests, however, Japan should further upgrade the services and authority of overseas offices and review and improve current systems as necessary to achieve that aim. Such an expanded, locally-oriented cooperation system will help Japan to provide ODA more effectively and efficiently, especially in Japan's major aid recipients, such as Indonesia.

Since the end of the Cold War, the demand for ODA has been growing worldwide. In order to meet the demand, Japan is being called on to organize aid projects with high multiplier effects in close collaboration with aid organizations in other industrialized nations. Japan should manage aid systems more flexibly to do this, and even consider revising them if any discrepancies in implementation or coordination are compared with other organizations.

2) The Indonesian administration as recipient

A framework of international support for Indonesia is already established and functioning well, as illustrated by the CGI meetings. For the time being, we would most like Indonesia to provide more aid-related infor-

mation. In order for Indonesia to coordinate support more independently and for Japan to be able to provide aid more effectively, we propose that Indonesia should provide information concerning aid which has been received, broken down according to donors, type of aid received, areas affected, and ministries in charge. It is of critical importance that donors know how Indonesia makes use of their aid.

The part that assistance can play, whether it comes from Japan or elsewhere, is limited. For the greatest possible result Indonesia must strive to use it more efficiently, to harness the results of assistance to its own experience and knowledge, and to fully assimilate new technologies. Indonesia must be expected to improve and utilize the systems necessary to appoint and monitor local counterparts. It is desirable that Indonesia will further strengthen such systems to improve, for example, the coordination by Indonesian ministries of aid requests and implementation, including the training of personnel in the concerned ministries.

It is predicted that Japanese aid programs will become more complex and expand to less tangible fields, [i.e., systems rather than materials and equipment,] and as South-South cooperation takes root and flourishes, Indonesia's organization of the receipt of aid is expected to be affected in various ways. More active Indonesian cooperation with Japan will help greatly to increase the effectiveness of Japan's aid. In the future, Japan will dispatch experts with more advanced knowledge in a wider variety of fields; the Japanese side will ask Indonesia to put more effort into the training of Japanese-speaking counterparts. It may therefore be proposed that bilateral talks be held, bringing together experts and both countries' governments, on what methods and systems will best facilitate achievement of these goals.

Appendix 1.1: Aid to Indonesia from the World Bank, the Asian Development Bank, and Japan, broken down according to sector, 1988 to 1992 cumulative totals

	World Bank		Asian Development Bank		Japan			
	Expenditures (unit: million dollars; in parentheses: % of total in column)	Expenditures (unit: million dollars; in parentheses: % of total in column)	Loan assistance Expenditures (unit: one hundred million yen; in parentheses: % of total in column)	Grant assistance Expenditures (unit: one hundred million yen; in parentheses: % of total in column)	Technical cooperation Expenditures (unit: one hundred million yen; in parentheses: % of total in column)	Total Japanese aid Expenditures (unit: one hundred million yen; in parentheses: % of total in column)		
1. Macroeconomic	1,065.0 (14.4)	650.0 (13.7)	1241.6 (13.9)	20.0 (1.7)	36.9 (7.0)	1,298.5 (12.2)		
2. Agriculture, forestry, and fisheries	1,247.9 (16.9)	1,100.0 (23.2)	988.2 (11.1)	137.7 (11.7)	119.4 (22.7)	1,245.3 (11.7)		
3. Mining and manufacturing	384.0 (5.2)	95.0 (2.0)	215.3 (2.4)	0 (0)	36.3 (6.9)	251.6 (2.4)		
4. Energy	1,475.6 (19.9)	885.0 (18.7)	851.8 (9.5)	0 (0)	38.3 (7.3)	890.1 (8.4)		
5. Economic infrastructure	1,320.0 (17.8)	672.0 (14.2)	3,253.5 (36.4)	2.0 (0.2)	125.0 (23.7)	3,380.5 (31.8)		
6. Social infrastructure	696.8 (9.4)	587.0 (12.4)	498.0 (5.6)	30.0 (2.5)	31.1 (5.9)	559.1 (5.3)		
7. Education and human resources	872.6 (11.8)	577.4 (12.2)	657.6 (7.4)	33.6 (2.9)	64.0 (12.1)	755.2 (7.1)		
8. Population and health care	147.5 (2.0)	39.3 (0.8)	217.1 (2.4)	148.6 (12.6)	33.5 (6.4)	399.2 (3.7)		
9. Environmental protection and disaster relief	54.0 (0.7)	131.7 (2.8)	765.1 (8.6)	802.9 (68.3)	25.1 (4.8)	1,593.1 (15.0)		
10. Others	137.0 (1.9)	0 (0)	243.6 (2.7)	0.5 (0.1)	17.1 (3.2)	261.2 (2.4)		
11. Total	7,400.4 (100.0)	4,787.4 (100.0)	8,931.8 (100.0)	1,175.3 (100.0)	526.7 (100.0)	10,633.8 (100.0)		

Notes: 1. These data were compiled for the committee's reference; the sectorial classifications were made for convenience's sake by the committee based on the names of the projects involved; they are not the official classifications used by the donors.

2. The aid figures are cumulative totals of aid given by each donor during its fiscal year; the accounting periods vary.

Sources: Japan's Official Development Assistance 1992, vol. 2; Asian Development Bank Annual Report 1989, 1990, 1991, 1992, 1993; The World Bank Annual Report 1988, 1989, 1990, 1991, 1992.

Appendix 1.2 Aid to Indonesia from the World Bank, the Asian Development Bank, and Japan, list broken down according to sector, 1988 to 1992, grant and loan assistance projects only (* grants are indicated by asterisks)

	World Bank (unit: US \$ millions)	Asian Development Bank (unit: US \$ millions)	Japan (unit: hundred million yen)
1. Macroeconomic (finance, trade, B/P support, etc.)	1988 Second Trade Policy Adjustment	300.0	<u>Loan assistance total</u>
	Second export development project	165.0	1241.6
	1989 Private sector development project	350.0	1988 Commodity Loan
	1990 Second private sector development loan	250.0	1989 Commodity Loan (Parallel Co-Finance with the Private Sector Development Loan from the World Bank)
	Total	1065.0	Invest credit plan
2. Agriculture, forestry, and fisheries	1988 Tree-crop processing project	118.2	1990 Commodity loan (Parallel Co-Finance with the Private Sector Development Loan (II) from the World Bank)
	1989 Agricultural research management project	35.3	<u>Grant assistance total</u>
Agriculture and Rural Development	1990 Rural electrification project	329.0	*1991 Non-Project Grant Aid
	Fertilizer restructuring project	221.7	20.0
	1991 Provincial irrigated agricultural development project	125.0	20.0
	Agricultural Financing Project	106.1	Total
	Irrigation Subsector II (Q&M) Project	225.0	1261.6
	1992 Tree Crop Smallholder Development Project	87.6	<u>Loan assistance total</u>
	Total	650.0	988.2
2. Agriculture, forestry, and fisheries	1988 Agro-Industry Credit	30.0	1988 Way Jepara Irrigation System Rehabilitation
	Nucleus Estate and Smallholder (cocoa/coconut)	47.5	Pamarayan-Ciujung Irrigation System Rehabilitation Project
Agriculture and Rural Development	1989 Nusa Tenggara Agricultural Development	119.0	Sector Program Loan (agriculture)
	Second Brackishwater Aquaculture Development	38.0	1989 Private sector farm credit plan
	1990 Integrated Irrigation Sector	200.0	Small Scale Irrigation Management Project
	Food Crop Sector Program	250.0	Rehabilitation of Irrigation Schemes and Flood Alleviation Works Project
	1991 Second Fisheries Industries Credit	100.0	Sector Program Loan (agriculture)
	Central Java Groundwater Irrigation Development	51.0	1990 Krueng Acheh Irrigation Project
	Tree Crop Smallholder Sector	135.0	Bila Irrigation Project (I)
	1992 Upland Farmer Development	30.0	Sector Program Loan (agriculture)
	Smallholder Tree Crop Processing	75.0	1991 Way Curup Irrigation Project
	Biodiversity Conservation in Flores and Siberut	24.5	Way Rarem Irrigation Project (IV)
	Total	650.0	Sector Program Loan (agriculture)
			31.8

3. Mining and manufacturing					<p>1988 P.T. Gunung Garuda*</p> <p>1989 Leasing Assistance*</p> <p>1990 P.T. Bakrie Nusantara Multi Finance Company*</p> <p>1991 P.T. Seamless Pipe Indonesia Jaya*</p> <p>P.T. Ispat Steel*</p> <p>(*: Private sector loan without government guarantee.)</p>	<p>15.0</p> <p>20.0</p> <p>15.0</p> <p>15.0</p> <p>30.0</p>	<p>150</p> <p>200</p> <p>150</p> <p>150</p> <p>300</p>	<p>215.2</p> <p>52.9</p> <p>162.4</p>	
	1989 Small and medium industrial enterprise project	100.0						Loan assistance total	215.2
	Industrial restructuring project	284.0						1988 Renovation of Cilacap Spinning Mill	52.9
								1992 ASEAN-Japan Development Fund (development financing loan for small enterprises)	162.4
	Total	384.0					95.0	Total	215.2
4. Energy								Loan assistance total	851.8
	1989 Paiton thermal power project	354.0					235.0	1988 Tanjung Priok SPP III/IV Rehabilitation Sector Program Loan (local electrification)	15.9
	Power sector efficiency project	337.0					300.0	1989 Gas Firing Modification Works of Gresik Steam Power Plant Units III and IV Project	87.8
	1990 Gas utilization project	86.0					350.0	Renovation of Dayeuhkolot Workshop Sector Program Loan (Local electrification)	44.5
	1991 Power transmission project	275.0						1990 Kotapunjang Hydroelectric Power and Associated Transmission Line Project (I) Sector Program Loan (Local electrification)	7.9
	1992 surabaya Thermal Power Project	423.6						1991 Kotapunjang Hydroelectric Power and Associated Transmission Line Project (II) Java Bali Power Transmission and Substation Project (East Java)	38.6
								Renun Hydroelectric Power and Associated Transmission Line Project (I) Sector Program Loan (local electrification)	125.0
								1992 Java-Bali Power Transmission Line and Substation Project (East Java) (II) Sipansihaporas Hydroelectric Power Project (Engineering Services) Sector Program Loan (local electrification)	20.4
	Total	1475.6					885.0	Total	851.8

5. Economic infrastructure (roads, ports, telecommunications)	1989 Highway sector project 1990 Third telecommunications project 1991 Technical assistance project for public and private provision of infrastructure 1992 Third Kabupaten Roads Development Project Fourth Telecommunications Project	350.0 350.0 30.0 215.0 375.0	1989 Ninth Port Tenth Road (Sector) 1991 Eleventh Road (Sector) Inland Waterways 1992 Telecommunication Central Java D.I. Yogyakarta Urban Development (Sector)	22.0 120.0 150.0 45.0 185.0 150.0	<p><u>Loan assistance total</u></p> <p>1988 Rehabilitation of Diesel Railcars Rehabilitation of Ampera Bridge on Musi River Road Rehabilitation Project Sector Program Loan (transportation) 1989 Jabotabek Area Railway Project (VII) Dumai Port Development Project Second Roads Rehabilitation Project in Nine Provinces North Java Line Track Rehabilitation Project Sector Program Loan (transportation) 1990 Telephone Outside Plant Maintenance Center Project Bili-Bili Multi-purpose dam Project plan (I) Local and Urban Road Development Project Ferry Terminals East Java and Bali Islands Urgent Rehabilitation Project Vjung Pandang Port (Urgent Rehabilitation) Project Sector Program Loan (transportation) 1991 Jabotabek Area Railway Project (VIII) Balikpapan Airport Construction Project (II) Semarang Port Development Project (II-1) Maritime Transportation Center Loan in Eastern Indonesia Maritime Telecommunication System Development Project (III) Road Maintenance Improvement Project Heavy Loaded Road Improvement Project Junction Network for Expanded Jakarta Multi-Exchange Area Project</p>	<p>2252.5</p> <p>46.2</p> <p>18.0</p> <p>295.4</p> <p>228.1</p> <p>103.8</p> <p>43.8</p> <p>210.4</p> <p>82.3</p> <p>123.1</p> <p>65.4</p> <p>66.6</p> <p>167.7</p> <p>42.2</p> <p>66.6</p> <p>108.6</p> <p>74.0</p> <p>43.5</p> <p>75.3</p> <p>85.0</p> <p>40.6</p> <p>40.4</p> <p>119.9</p> <p>35.6</p>
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	World Bank (unit: US \$ millions)	Asian Development Bank (unit: US \$ millions)	Japan (unit: hundred million yen)
7. Education and human resources	140.3	73.4	657.6
1988 Higher education development project	113.0	100.0	60.7
Accountancy system development project	18.4	114.0	124.0
Tree-crops human resource development project	36.1	85.0	69.5
1989 Public works institutional development and training project	117.5	100.0	27.7
Professional human resource development project	154.2	105.0	74.8
1990 Second secondary education and management project	150.0		124.4
1991 Second higher education development project	69.5		54.0
Third Nonformal Education project	37.0		2.1
1992 Primary Education Quality Improvement Project	36.6		60.4
Primary School Teacher Development Project			16.1
			43.9
			33.6
			5.0
			0.3
			0.5
			0.5
			0.5
			0.3
			0.5
			8.3
			33.6
			5.0
			0.3
			0.5
			0.5
			0.5
			0.3
			0.5
			8.3

						0.5	Musical Instruments to the Yogyakarta Symphony Orchestra in Yogyakarta
						0.4	Judo Sport Equipments to the [Ministry of Youth and Sports]
						6.0	Higher Education Development Support Project (1st of two phases)
							Language Laboratories and Studio Systems to the Education and Training Center of the Department of Foreign Affairs of the Republic of Indonesia
						0.4	*1991 Project for the Improvement of the Equipment of Higher Education
						8.6	Development Support (2nd of two phases)
						0.4	Equipment for language laboratory to the Gadjah Mada University
							Educational and cultural programs for the Television of the Republic of Indonesia
						0.4	*1992 Microfilm System and Other Related
						0.5	Equipment to the National Library
						0.5	Equipment for Laboratory, Storage and Display to the Textile Museum
						691.2	Total
8. Population and health care						217.1	Loan assistance total
						19.4	1988 Medical Equipment Reconditioning and Rehabilitation
						28.2	Sector Program Loan (health)
						1.9	Sector Program Loan (social welfare)
						14.6	1989 Sector Program Loan (health)
						7.8	Sector Program Loan (social welfare)
						22.9	1990 Sector Program Loan (health)
						4.1	Sector Program Loan (social welfare)
						49.1	1991 Sector Program Loan (health)
						2.9	Sector Program Loan (social welfare)
						62.9	1992 Sector Program Loan (health)
						577.4	Total
						39.3	1988 Second Health and Population Program
						872.6	Total
						43.5	1989 Third health project
						104.0	1991 Fifth population project

	Sector Program Loan (social welfare)	3.3
	<u>Grant assistance total</u>	<u>148.6</u>
	*1988 Project for the Construction of Water Supply and Environmental Sanitation Training Center	11.1
	Project for Malaria Control Programme (1st of four phases)	7.1
	Project for the Improvement of the Equipment for the Emergency Medical Services	5.9
	*1989 Project for Construction of the Emergency Hospital at Bali	13.4
	Project for the Improvement of the Institute of Human Settlements (1st of two phases)	14.4
	Project for the Construction of the Facilities for Live Attenuated Oral Poliomyelitis and Measles Vaccine Protection (1st of two phases)	20.8
	Project for Malaria Control Programme (2nd of four phases)	5.0
	Project for the Improvement of the Equipment for the Mobile Rehabilitation Unit Services	2.2
	*1990 Project for Malaria Control (3rd of four phases)	4.0
	Project for the Improvement of the Institute of Human Settlements (2nd of two phases)	7.2
	Project for the Construction of the Facilities for Live Attenuated Oral poliomyelitis and Measles (2nd of two phases)	16.6
	*1991 Project for the Construction of National Medical Center for Infectious Diseases (1st of two phases)	9.5
	Project for the Improvement of the equipment for Live attenuated	

Appendix 2: Japanese aid to Indonesia (fiscal 1992), broken down according to type of aid

(Unit: one hundred million yen)

	Loan assistance (%)	Grant assistance (%)	Technical cooperation (%)	Total (%)
1. Macroeconomic	0.0 (0.0)	0.0 (0.0)	11.0 (9.6)	11.0 (0.6)
2. Agriculture, forestry, and fisheries	186.0 (10.7)	17.0 (22.1)	24.0 (21.0)	227.0 (11.7)
3. Mining and manufacturing	162.4 (9.3)	0.0 (0.0)	5.4 (4.7)	167.8 (8.7)
4. Energy	138.7 (8.0)	0.0 (0.0)	6.6 (5.8)	145.3 (7.5)
5. Economic infrastructure	769.9 (45.7)	0.0 (0.0)	25.5 (22.3)	822.4 (42.5)
6. Social infrastructure	143.8 (8.3)	15.8 (20.5)	7.7 (6.7)	167.3 (8.7)
7. Education and human resources	60.0 (3.4)	1.0 (1.3)	14.0 (12.2)	75.0 (3.9)
8. Population and health care	66.2 (3.8)	23.7 (30.8)	8.2 (7.2)	98.1 (5.1)
9. Environmental protection and disaster relief	188.3 (10.8)	19.4 (25.2)	7.6 (6.6)	215.3 (11.1)
10. Others	0.0 (0.0)	0.1 (0.1)	4.5 (3.9)	4.6 (0.2)
11. Total	1742.3 (100.0)	77.0 (100.0)	114.5 (100.0)	1933.8 (100.0)

Source: "Japan's Official Development Assistance 1993,"
"The Japan International Cooperation Agency's Program Achievements in 1993."

Appendix 3: Main economic indicators and results of medium- and long-range plans

(1) Indonesia and its Asian neighbors' economic growth and structural changes

	Population (unit: million) 1991	GNP (unit: one hundred million dollars) 1992	GNP per capita (dollars) 1992	1980-1991 average growth rate (%)		Change in percentage of GDP				Balance of foreign debt in 1992 (in comparison with GNP), (unit: one hundred million dollars), (%)	
				GDP	Manufacturing	Agriculture		Manufacturing			
						1980	1991	1980	1991		
Indonesia	181.3	1,264	678	5.6	12.3	26	19	9	21	834	(67.4)
Thailand	57.2	968	1,796	7.9	9.4	25	12	20	27	394	(36.3)
Philippines	62.9	537	836	1.1	0.4	23	21	26	26	326	(60.7)
Malaysia	18.2	551	2,960	5.7	9.6	24	n.a	23	n.a	198	(36.1)
China	1,149.5	4,341	370	9.4	11.1	31	27	n.a	38	693	(16.0)
Singapore	2.8	468	14,802	6.6	7.0	1	0	28	29	n.a	(n.a)
Korea	43.3	2,945	6,746	9.6	12.4	16	8	28	28	430	(14.6)

Source: GNP, "The 1993 Annual Report of Asian Trends" by the Institute of Developing Economies; population, GDP growth rate, and GDP breakdown data, "World Development Report" in 1982 and 1993 by the World Bank; debt balance: "World Debt Table" (1993-94) by the World Bank.

(2) Results of the Medium- and Long-range Plans for Indonesia

	At the beginning of develop- ment plan (year)	Present
Average life expectancy	50 (in the early 1970's)	61 (1990)
Infant mortality rate	14.2 % (in the early 1970's)	6.3 % (1990)
Average annual population growth rate	2.3 % (in the 1970's)	1.6 % (in the first half of the 1990's)
Poor population	70 million (1970)	27 million (1990)
Poor population rate	60 % (1970)	15 % (1990)
Percentage of children of school age with access to elementary school education	41 % (1968)	100 % (1992)
Literacy rate	61 % (1971)	84 % (1990)
Working population without schooling	43 % (1971)	17 % (1990)
Working population with a high school diploma	2.8 % (1971)	15 % (1990)
Gross domestic product (GDP) per capita	70 US dollars (1968)	A little more than 600 US dollars (1992)
Manufacturing as percentage of GDP	9.2 % (1968)	21.3 % (1991)
Rice production per capita	105.8 kg (1968)	159.9 kg (1991)
Fish catch per capita	10.3 kg (1968)	18.6 kg (1991)
Meat production per capita	2.7 kg (1968)	6.4 kg (1991)
Egg production per capita	0.5 kg (1968)	2.9 kg (1991)
Textile production per capita	2.8 m (1968)	28.5 m (1991)
Electronic power generation	1.2 million kw (1968)	31.5 million kw (1991-92)
Electrified households	6.1 % (1971)	46.8 % (1990)
Number of cars	314,000 (1968)	3.6 million (1991-92)
Number of switchboards in the Central Telephone Office	78,000 (1968)	1.6 million (1991-92)

Source: President's address at the opening of Parliament on March 1, 1993.

First to sixth five-year development plans

	Periods	Growth rates		Immediate stabilization of living standard
		Targets	Results	
1st	1969/70 - 1973/74	5.0 %	7.7 %	Immediate stabilization of living standard
2nd	1974/75 - 1978/79	7.5 %	6.9 %	Economic development and balanced development
3rd	1979/80 - 1983/84	6.9 %	6.1 %	Development and the fair distribution of its results
4th	1984/85 - 1988/89	5.0 %	5.2 %	Social justice, high growth, stabilization of social dynamics
5th	1989/90 - 1993/94	5.0 %	7.0*%	Preparation for economic takeoff
6th	1994/95 - 1998/99	6.2 %	—	

Source: "The Report of the Country Study for Development Assistance for Indonesia" January, 1990, by the Japan International Cooperation Agency.

* The fifth plan's performance is the average growth rate to the end of 1992.

Appendix 4: Major economic indicators, broken down according to provinces

	Area (square kilometers)	Population (x 1,000)	Population density (people/square kilometer)	GRDP (x 1 billion rupiah)	Non-oil non-gas GRDP (x 1 billion rupiah)	GRDP square kilometer (x 1 million rupiah)	Non-oil non-gas GRDP square kilometer (x 1 million rupiah)	GRDP per capita (x 1,000 rupiah)	Non-oil non-gas GRDP per capita (x 1,000 rupiah)
D.I. Aceh	55,392	3,416	62	8,290	2,897	150	52	2,427	848
Sumatera Utara	70,787	10,256	145	10,833	10,449	153	148	1,056	1,019
Sumatera Barat	49,778	4,000	80	3,297	3,297	66	66	824	824
Riau	94,561	3,304	35	13,231	2,672	140	28	4,005	809
Jambi	44,800	2,021	45	1,413	1,393	32	31	699	689
Sumatera Selatan	103,668	6,313	61	8,268	6,356	80	61	1,310	1,007
Bengkulu	21,168	1,179	56	795	795	38	38	674	674
Lampung	33,307	6,018	181	3,217	3,217	97	97	535	535
Sumatera total	473,481	36,507	77	49,344	31,076	104	66	1,352	851
D.K.I. Jakarta	590	8,259	13,945	22,855	22,855	38,737	38,737	2,767	2,767
Jawa Barat	46,330	35,384	764	31,358	27,945	677	603	886	790
Jawa Tengah	34,206	28,521	834	21,688	19,535	634	571	760	685
D.I. Yogyakarta	3,169	2,913	919	1,901	1,901	600	600	653	653
Jawa Timur	47,921	32,504	678	29,161	29,143	609	608	897	897
Jawa total	132,186	107,581	814	106,963	101,379	809	767	994	942
Kalimantan Barat	146,760	3,229	22	2,743	2,743	19	19	849	849
Kalimantan Tengah	152,600	1,396	9	1,376	1,376	9	9	986	986
Kalimantan Selatan	37,660	2,598	69	2,328	2,286	62	61	896	880
Kalimantan Timur	202,440	1,877	9	10,776	4,410	53	22	5,741	2,349
Kalimantan total	539,460	9,100	17	17,223	10,815	32	20	1,893	1,188
Sulawesi Utara	19,023	2,478	130	1,507	1,507	79	79	608	608
Sulawesi Tengah	69,726	1,711	25	983	983	14	14	575	575
Sulawesi Selatan	72,781	6,982	90	4,241	4,241	58	58	607	607
Sulawesi Timur	27,686	1,350	49	821	821	30	30	608	608
Sulawesi total	189,216	12,521	66	7,552	7,552	40	40	603	603
Bali	5,561	2,778	500	3,018	3,018	543	543	1,086	1,086
Nusa Tenggara Barai	20,177	3,370	167	1,290	1,290	64	64	383	383
Nusa Tenggara Timur	47,876	3,269	68	1,172	1,172	24	24	359	359
Timor	74,505	1,856	25	1,474	1,463	20	20	794	788
Maluku	421,981	1,649	4	2,047	1,596	5	4	1,241	968
Irian Jaya	14,874	748	50	269	269	18	18	360	360
Timor Timur	584,974	13,670	23	9,270	8,808	16	15	678	644
Others total	1,919,317	179,379	93	190,352	159,630	99	83	1,061	890

Source: BPS, Statistical Year Book of Indonesia, 1992

Note 1: The population figures were compiled in 1990.

Note 2: The GRDP (Gross Regional Domestic Product) and non-oil, non-gas GRDP figures are at market prices in 1990.

Appendix 5: Local fiscal expenditure and self-funding rate (fiscal 1985-86 and 1988-89)

(Unit: 1 million rupiah)

	First-class self-governing bodies (provinces)				Second-class self-governing bodies (prefectures and designated cities)			
	1985 / 86		1988 / 89		1985 / 86		1988 / 89	
	Local fiscal expenditure	Net worth (%)	Local fiscal expenditure	Net worth (%)	Local fiscal expenditure	Net worth (%)	Local fiscal expenditure	Net worth (%)
D.I. Aceh	62,571	8.0	77,336	9.2	31,810	13.6	66,061	15.5
Sumatera Utara	173,234	14.2	228,052	19.8	111,291	25.8	152,060	30.1
Sumatera Barat	37,979	16.9	43,189	21.8	84,708	11.8	123,892	13.5
Riau	47,012	20.8	49,257	21.8	68,914	13.9	66,201	10.3
Jambi	24,264	9.2	28,009	15.9	44,869	8.5	53,720	8.6
Sumatera Selatan	55,764	20.7	58,714	28.0	78,367	9.6	135,090	9.8
Bengkulu	21,300	5.9	25,290	10.5	23,053	11.8	29,327	14.1
Lampung	72,017	8.4	93,761	11.3	34,023	24.6	54,355	28.5
D.K.I. Jakarta	378,693	35.3	466,915	55.1	-	-	-	-
Jawa Barat	364,110	10.1	466,371	14.2	190,826	30.9	286,592	36.8
Jawa Tengah	376,177	9.4	456,899	11.5	167,041	30.9	296,187	34.7
D.I. Yogyakarta	79,003	8.1	86,151	10.6	22,897	27.9	30,979	33.2
Jawa Timur	395,652	13.5	536,452	17.5	198,928	27.4	315,006	30.2
Kalimantan Barat	57,063	5.6	78,604	8.7	22,569	21.4	46,279	27.8
Kalimantan Tengah	58,989	2.0	75,232	2.9	21,994	8.3	41,371	10.6
Kalimantan Selatan	44,475	6.7	52,516	7.6	13,069	28.9	30,597	28.5
Kalimantan Timur	60,679	14.8	67,882	15.8	37,373	28.6	53,399	22.8
Sulawesi Utara	74,239	4.4	88,809	6.0	26,794	23.4	35,565	25.9
Sulawesi Tengah	42,713	3.5	54,174	4.7	15,401	20.3	36,609	15.0
Sulawesi Selatan	20,122	18.5	25,218	24.6	25,521	11.6	41,582	12.6
Sulawesi Timur	45,546	4.6	54,060	4.0	115,988	7.7	185,334	6.0
Bali	66,359	9.9	86,066	17.1	27,358	35.3	49,186	51.2
Nusa Tenggara Barai	23,035	7.2	26,143	10.4	54,071	8.9	66,418	8.2
Nusa Tenggara Timur	24,179	5.4	28,439	7.4	75,917	7.8	83,271	8.4
Maluku	22,718	5.4	27,489	8.0	28,961	7.7	56,223	8.4
Irian Jaya	39,694	3.5	56,908	3.7	48,868	3.9	42,767	4.0
Timor Timur	N.A.	2.8	23,869	2.1	N.A.	1.0	11,991	4.0
Total	2,667,667		3,360,819		1,570,661		2,390,063	

Source: Provincial local fiscal expenditures, BPS, "Statistical Year Book of Indonesia" (1987, 1990);
Net Worth, "Rural Development and Industrialization of Indonesia" (1993),
Institute of Developing Economies.

Appendix 6: Types of roads, broken down according to provinces (1990)

	Blacktop	Gravel	Unpaved	Others	Total
	Km ² (%)	Km ² (%)	Km ² (%)	Km ² (%)	Km ² (%)
D.I. Aceh	4,274 (3.4)	2,858 (5.2)	2,400 (2.9)	1,300 (6.6)	10,832 (3.8)
Sumatera Utara	11,248 (9.0)	4,559 (8.3)	6,468 (7.7)	3,148 (16.1)	25,423 (9.0)
Sumatera Barat	6,112 (4.9)	2,991 (5.5)	5,289 (6.3)	570 (2.9)	14,962 (5.3)
Riau	2,367 (1.9)	2,323 (4.2)	4,414 (5.2)	1,556 (7.9)	10,660 (3.8)
Jambi	2,366 (1.9)	1,390 (2.5)	2,239 (2.7)	47 (0.2)	6,042 (2.1)
Sumatera Selatan	5,380 (4.3)	1,947 (3.5)	4,012 (4.8)	113 (0.6)	11,452 (4.0)
Bengkulu	2,408 (1.9)	744 (1.4)	849 (1.0)	11 (0.1)	4,012 (1.4)
Lampung	4,093 (3.3)	1,541 (2.8)	1,668 (2.0)	150 (0.8)	7,452 (2.6)
Sumatera total	38,248 (30.6)	18,353 (33.4)	27,399 (32.6)	6,895 (35.2)	90,835 (32.0)
D.K.I. Jakarta	— (—)	— (—)	— (—)	— (—)	— (—)
Jawa Barat	13,820 (11.1)	3,785 (6.9)	3,230 (3.8)	82 (0.4)	20,917 (7.4)
Jawa Tengah	15,403 (12.3)	2,492 (4.5)	2,399 (2.9)	582 (2.9)	20,876 (7.4)
D.I. Yogyakarta	2,689 (2.2)	938 (1.7)	3,810 (4.5)	2,700 (13.8)	10,137 (3.5)
Jawa Timur	17,161 (13.7)	3,263 (6.0)	6,524 (7.8)	— (—)	26,948 (9.5)
Jawa total	49,073 (39.3)	10,478 (19.1)	15,963 (19.0)	3,364 (17.1)	78,878 (27.8)
Kalimantan Barat	2,819 (2.2)	1,021 (1.9)	3,113 (3.7)	1,774 (9.0)	8,697 (3.1)
Kalimantan Tengah	1,945 (1.6)	342 (0.6)	6,008 (7.2)	1,187 (6.0)	9,482 (3.3)
Kalimantan Selatan	2,323 (1.9)	2,217 (4.0)	1,377 (1.6)	193 (1.0)	6,110 (2.2)
Kalimantan Timur	1,543 (1.2)	1,201 (2.2)	1,777 (2.1)	165 (0.8)	4,686 (1.7)
Kalimantan total	8,630 (6.9)	4,781 (8.7)	12,275 (14.6)	3,289 (16.8)	28,975 (10.3)
Sulawesi Utara	3,301 (2.6)	1,288 (2.3)	2,655 (3.1)	198 (1.0)	7,442 (2.6)
Sulawesi Tengah	1,894 (1.5)	3,500 (6.4)	1,842 (2.2)	950 (4.9)	8,186 (2.9)
Sulawesi Selatan	6,982 (5.6)	5,862 (10.7)	8,634 (10.3)	1,046 (5.3)	22,524 (7.9)
Sulawesi Timur	2,448 (2.0)	1,285 (2.3)	738 (0.9)	1,058 (5.4)	5,529 (2.0)
Sulawesi total	14,625 (11.7)	11,935 (21.7)	13,869 (16.5)	3,252 (16.6)	43,681 (15.4)
Bali	3,774 (3.0)	577 (1.1)	1,398 (1.7)	545 (2.8)	6,294 (2.2)
Nusa Tenggara Barat	2,766 (2.2)	821 (1.5)	977 (1.2)	6 (0.0)	4,570 (1.6)
Nusa Tenggara Timur	3,387 (2.7)	4,169 (7.6)	6,739 (8.0)	645 (3.3)	14,940 (5.3)
Maluku	2,528 (2.0)	1,333 (2.4)	927 (1.1)	389 (2.0)	5,177 (1.8)
Irian Jaya	1,633 (1.3)	1,202 (2.2)	4,469 (5.3)	1,217 (6.2)	8,521 (3.0)
Timor Timur	387 (0.3)	1,258 (2.3)	— (—)	— (—)	1,645 (0.6)
Others total	14,475 (11.5)	9,360 (17.1)	14,510 (17.3)	2,802 (14.3)	41,147 (14.5)
Total	125,051 (100)	54,907 (100)	83,956 (100)	19,602 (100)	283,516 (100)

Source: BPS, Statistical Year Book of Indonesia, 1992

Note 1: The population figures were compiled in 1990.

Note 2: The GRDP (Gross Regional Domestic Product) and non-oil, non-gas GRDP figures are at market prices in 1990.

Appendix 7: Registered number of telephones by province, 1988

	Registered number of telephones (Figures in parentheses are percentages to total.)	Registered number of telephones per 1,000 persons
D.I. Acch	12,587 (1.4%)	3.08
Sumatera Utara	66,608 (7.3%)	6.49
Sumatera Barat	14,705 (1.6%)	3.68
Riau	14,155 (1.6%)	4.28
Jambi	6,782 (0.7%)	3.36
Sumatera Selatan	20,738 (2.3%)	3.28
Bengkulu	3,376 (0.4%)	2.86
Lampung	12,674 (1.4%)	2.11
Sumatera total	151,625 (16.7%)	4.15
D.K.I. Jakarta	344,741 (38.0%)	41.74
Jawa Barat	93,455 (10.3%)	2.64
Jawa Tengah	67,560 (7.5%)	2.37
D.I. Yogyakarta	9,468 (1.0%)	3.25
Jawa Timur	124,044 (13.7%)	3.82
Jawa total	639,268 (70.5%)	5.94
Kalimantan Barat	6,439 (0.7%)	1.99
Kalimantan Tengah	2,477 (0.3%)	1.77
Kalimantan Selatan	8,738 (1.0%)	3.36
Kalimantan Timur	9,586 (1.1%)	5.11
Kalimantan total	27,240 (3.0%)	2.99
Sulawesi Utara	11,695 (1.3%)	4.72
Sulawesi Tengah	5,471 (0.6%)	3.20
Sulawesi Selatan	24,421 (2.7%)	3.50
Sulawesi Timur	2,636 (0.3%)	1.95
Sulawesi total	44,223 (4.9%)	3.53
Bali	15,478 (1.7%)	5.57
Nusa Tenggara Barai	7,408 (0.8%)	2.20
Nusa Tenggara Timur	5,799 (0.6%)	1.77
Maluku	6,434 (0.7%)	3.47
Irian Jaya	8,392 (0.9%)	5.09
Timor Timur	643 (0.1%)	0.66
Others total	44,154 (4.9%)	3.22
Total	906,539 (100%)	5.05

Source: BPS, Statistical Year Book of Indonesia (1991).

Note: The registered number of telephones per 1,000 persons was calculated based on 1990 population figures.

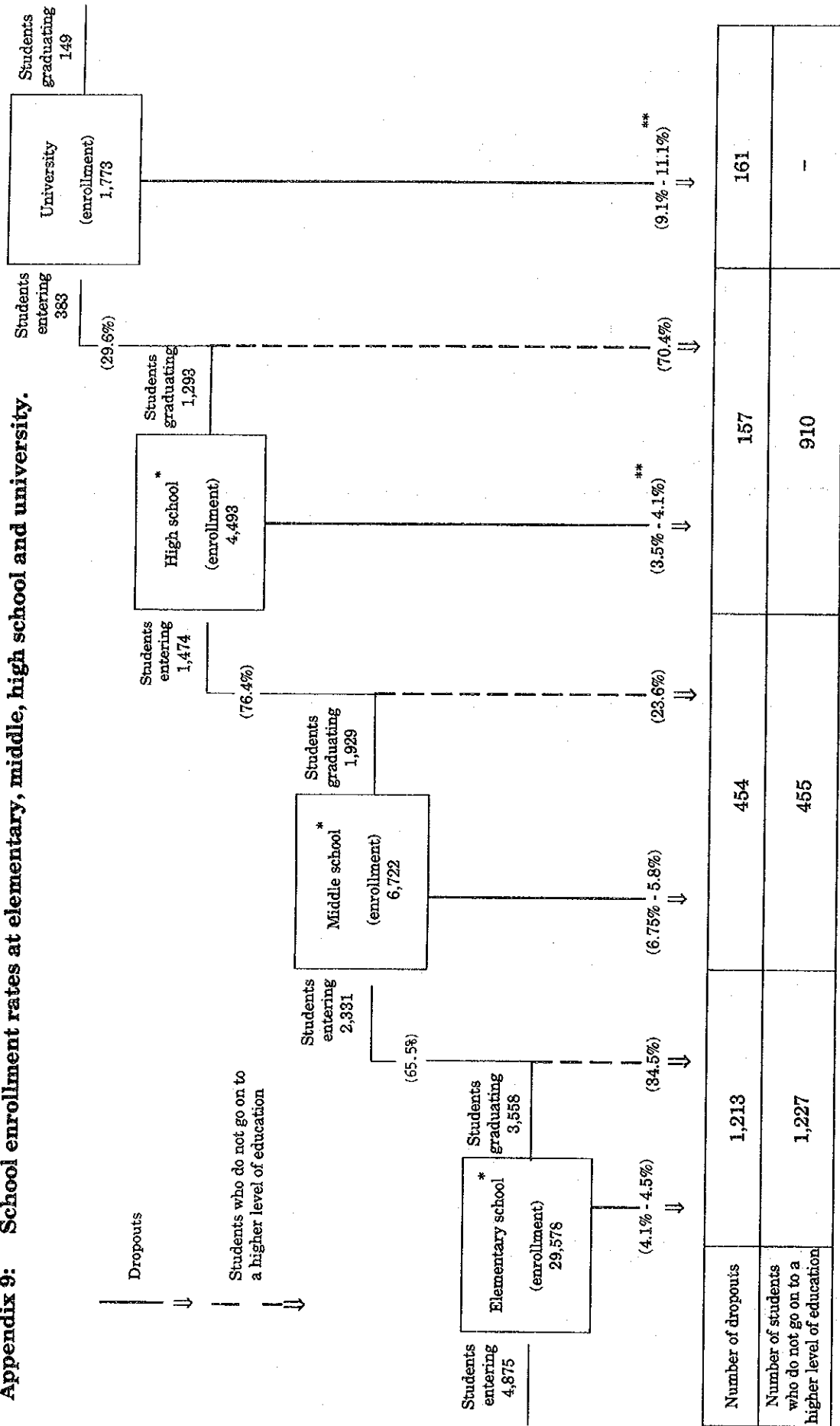
Appendix 8: Forest area by region

Region	Total region (x 1 million ha)	Forest area (x 1 million ha)	Share of forest area (%)
Sumatera	47	30	64
Jawa	14	3	23
Kalimantan	55	45	82
Sulawesi	20	13	68
Irian	41	41	99
Others	17	12	70
Total	193	144	74

Source: Ministry of Forestry statistics for 1990 and 1991.

Note: "Others" are West and East Nusa Tenggara, East Timor, and Maluku Province.

Appendix 9: School enrollment rates at elementary, middle, high school and university.



* Elementary, middle, and high schools include students in Muslim schools (under the jurisdiction of the Ministry of Religion).
 ** Estimates

Note: The figures are given in thousands. Elementary school attendance (number of students / population of school age) was about 115 percent in 1990 ("World Development report" (1993), the World Bank).

Source: Data from the Indonesian Ministry of Education and Culture.

Appendix 10: Indonesian workforce by different academic background (1980 and 1991)

(The figure are given in thousands)

	1980				1991			
	Size of workforce (percentage of the category that is employed)	Number of fully unemployed	Active population (percentage of total active population)	Workforce rate (%)	Size of workforce (percentage of the category that is employed)	Number of fully unemployed	Active population (percentage of total active population)	Workforce rate (%)
No education	15,257 (98.7%)	195	15,452 (29.5%)	53.8%	10,242 (99.7%)	31	10,273 (13.1%)	61.0%
Elementary school dropouts	19,400 (98.7%)	264	19,664 (37.5%)	45.9%	18,807 (99.5%)	102	18,909 (24.1%)	47.2%
Elementary school	10,944 (98.2%)	199	11,143 (21.3%)	51.7%	29,008 (98.6%)	404	29,412 (37.5%)	61.9%
Middle school	2,044 (97.0%)	63	2,108 (4.0%)	40.8%	7,293 (95.8%)	317	7,610 (9.7%)	50.1%
Vocational middle school	587 (97.7%)	14	601 (1.1%)	56.1%	1,086 (96.1%)	44	1,130 (1.4%)	58.6%
High school	1,239 (95.6%)	56	1,296 (2.5%)	57.2%	4,543 (87.3%)	664	5,206 (6.6%)	60.4%
Vocational high school	1,654 (96.1%)	68	1,722 (3.3%)	75.7%	3,902 (92.2%)	331	4,233 (5.4%)	80.8%
College	221 (98.0%)	5	226 (0.4%)	80.6%	863 (93.4%)	61	923 (1.2%)	84.0%
University	196 (98.5%)	3	199 (0.4%)	87.4%	680 (89.6)	79	759 (1.0%)	91.2%
Unknown	10	0	10 (0.0%)	-	-	-	-	-
Total	51,553 (98.3%)	868	52,421		76,423 (97.4%)	2,032	78,456 (100%)	57.1%

Source: BPS, Statistic Indonesia 1983 and 1992.

Notes: In Indonesia, the active population includes all people ten years of age or older.

In Indonesia, the fully unemployed are people who work less than one hour a week.

The workforce rate is the active population as a percentage of the population (both active and inactive).

Numbers less than one thousand were discarded.

Appendix 11: Indonesian students enrolled at institutions of higher education in major countries

Countries (year of survey)	Number of Indonesian students	Indonesian students as a percentage of total foreign students
U.S.A. (1990)	8,534	2.09%
Former West Germany (1988)	2,143	2.33%
Australia (1990)	1,913	6.60%
Netherlands (1988)	744	8.07%
Japan (1989)	672	2.82%
U.K. (1989)	581	0.82%
Philippines (1989)	504	8.76%
Canada (1990)	501	1.42%
France (1990)	354	0.26%
New Zealand (1989)	231	6.43%
Saudi Arabia (1990)	178	1.43%

Source: "UNESCO Yearbook for Cultural Statistics 1992."

Notes: The figures are based on host country surveys of foreign students by nationality, and do not show the status of Indonesian students per se.

Criteria for inclusion in surveys (level of studies, etc.) vary from country to country.

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