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REPORT AND RECOMMENDATION
OF THE
PRESIDENT OF THE
INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
TO THE
EXECUTIVE DIRECTORS
ON A
PROPOSED LOAN
TO THE REPUBLIC OF INDONESIA
FOR A
SECOND SEEDS PROJECT

November 17, 1981

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CURRENCY EQUIVALENTS

Currency Unit - Indonesian Rupiah (Rp)

US\$1.00 = Rp 625
Rp 100 = US\$0.16
Rp 1 million = US\$1,600

WEIGHTS AND MEASURES

1 kilogram (kg) = 1,000 grams = 2.205 pounds
1 metric ton = 1,000 kg = 2,205 pounds = 0.98 long ton
1 hectare (ha) = 10,000 square meters (sq m) = 2.47 acres
1 meter (m) = 39.37 inches

ABBREVIATIONS

BRI - Bank Rakyat Indonesia
DGC - Directorate General of Cooperatives
DGFCFA - Directorate General of Food Crops Agriculture
FCRI - Food Crops Research Institute
GOI - Government of Indonesia
HYV - High Yielding Variety (of rice)
ICB - International Competitive Bidding
IPB - Bogor Agricultural Institute (Institut Pertanian Bogor)
MOA - Ministry of Agriculture
NSC - National Seeds Corporation
PSF - Provincial Seed Farm
SCCS - Seed Control and Certification Service

GOVERNMENT OF INDONESIA
FISCAL YEAR

April 1 - March 31

NSC, COOPERATIVES, AND P.T. PERTANI
FISCAL YEAR

January 1 - December 31

INDONESIA

SECOND SEEDS PROJECT

Loan and Project Summary

Borrower: Republic of Indonesia

Amount: \$15.0 million equivalent

Terms: 20 years, including 5 years of grace, with interest at 11.6% per annum.

Project

Description: The proposed project seeks to raise agricultural production and incomes by expanding and strengthening the organizations responsible for production and marketing of high-quality food crops seeds in Indonesia. It provides for construction of about 24 new seed processing centers to be operated by two public corporations (National Seeds Corporation and P.T. Pertani) and selected cooperatives, and for incremental working capital for these same organizations. It also provides new facilities, equipment, and incremental operating costs for the several government agencies involved in the development, multiplication, and inspection of improved varieties of seeds. The training component includes assistance in starting a new diploma course in seed technology at the Bogor Agricultural Institute. At full development project investments combined with those under the first seeds project would provide improved seed for about 40% of the total demand for wetland rice seed and 20% of the total demand for dryland rice and secondary crop seed. Realization of the full benefits of the project will depend on improved management of the two public corporations involved, progress in the development of new seed varieties for secondary crops, and successful extension efforts to convince farmers of the value of improved seed.

<u>Estimated Costs:</u>	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
	-----	(\$ million)	-----
<u>Investment</u>			
a. Breeder Seed Storage	-	0.1	0.1
b. Provincial Seed Farms	1.6	0.6	2.2
c. Seed Processing Centers	7.3	7.3	14.6
d. Vehicles	1.0	1.6	2.6
e. Laboratory Equipment	-	0.2	0.2
f. Training	0.9	0.4	1.3
g. Technical Assistance	0.7	1.3	2.0
h. Studies and Pilot Activities	0.7	0.6	1.3
Subtotal	<u>12.2</u>	<u>12.1</u>	<u>24.3</u>
<u>Incremental Operating Costs</u>			
a. Supervision of seed production	0.5	-	0.5
b. Seed Certification	0.4	-	0.4
Subtotal	<u>0.9</u>	-	<u>0.9</u>
<u>Incremental Working Capital</u>	6.4	-	6.4
<u>Total Base Cost</u>	<u>19.5</u>	<u>12.1</u>	<u>31.6</u>
Physical Contingencies	1.2	1.2	2.4
Price Contingencies	12.0	4.0	16.0
<u>Total Project Cost</u>	<u>32.7</u>	<u>17.3</u>	<u>50.0</u>

<u>Financing Plan:</u>	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
	-----	(\$ million)	-----
Bank	-	15.0	15.0
Government	27.0	2.3	29.3
Bank Rakyat Indonesia	5.7	-	5.7
<u>Total</u>	<u>32.7</u>	<u>17.3</u>	<u>50.0</u>

<u>Estimated Disbursements:</u>	<u>Bank FY</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
		-----(\$ million)-----							
Annual		0.2	1.8	2.2	2.5	2.5	2.5	2.3	1.0
Cumulative		0.2	2.0	4.2	6.7	9.2	11.7	14.0	15.0

Rate of Return: 39%

Staff Appraisal Report:

No. 3121-IND, dated November 9, 1981

REPORT AND RECOMMENDATION OF THE PRESIDENT
OF THE INTERNATIONAL BANK FOR RECONSTRUCTION
AND DEVELOPMENT TO THE EXECUTIVE DIRECTORS
ON A PROPOSED LOAN TO THE REPUBLIC OF INDONESIA
FOR A SECOND SEEDS PROJECT

1. I submit the following report and recommendation on a proposed loan to the Republic of Indonesia for the equivalent of \$15.0 million to help finance a Second Seeds Project. The loan would have a term of 20 years, including five years of grace, with interest at 11.6% per annum.

PART I - THE ECONOMY /1

2. A basic economic report, "Indonesia: Growth Patterns, Social Progress and Development Prospects" (No. 2093-IND dated February 20, 1979), was distributed to the Executive Directors on February 26, 1979. An updating country economic memorandum, "Indonesia: Long-Run Development and Short-Run Adjustment" (No. 2788-IND, dated February 20, 1980), was distributed to the Executive Directors in 1980 and a further country economic memorandum, "Indonesia: Development Prospects and Policy Options," (No. 3307-IND dated April 6, 1981) was distributed to the Executive Directors on April 13, 1981. Annex I gives selected social and economic indicators for the country.

Background

3. The Republic of Indonesia is an archipelago of more than 13,000 islands covering a land area of about two million sq km. With over 145 million people /2 it is the world's fifth most populous nation. The population density exceeds 650 persons per sq km on Java, where 62% of the population live, but averages less than 30 persons per sq km in the rest of the country; over 80% of the population live in rural areas. GNP per capita is estimated to be \$430./3

4. The economy has grown at an annual rate of almost 8% for over a decade - the highest sustained growth rate of any low-income country. Until about the end of the First Five-Year Development Plan, Repelita I (1969/70 to

/1 Identical to the President's Report on the Eleventh Power Project (No. P3132-IND), circulated under cover of R81-276, dated October 22, 1981, and approved by the Executive Directors on November 10, 1981.

/2 Preliminary results of the 1980 population census.

/3 Estimate for 1980.

1973/74), this rapid growth was largely due to effective recovery from the severe dislocations of the 1960s. The Government of Indonesia (GOI) took effective action to restore and then maintain macroeconomic stability, liberalize the economy and provide incentives for investment. There was a major rehabilitation of the neglected infrastructure, and the investment rate doubled to 18% of GDP. Since then growth has been greatly assisted by international developments, in particular the dramatic increase in oil prices and the commodity boom. Net oil exports increased from \$0.6 million in 1973/74 to over \$10 billion in 1980/81 and as a result the balance of payments moved into current account surplus - of \$2 billion in 1979/80 and almost \$3 billion in 1980/81 - for the first time in over two decades. Although production linkages with other sectors have been very weak, the oil enclave has had an important influence on overall growth through the infusion of foreign exchange resources into the economy. Growth has been well diversified, with sectoral growth rates varying from 4% per annum in agriculture to 12% per annum in manufacturing and construction. However, despite the favorable growth performance, the economy is still underdeveloped, with a share of manufacturing in GDP of less than 10%, and a persistent deficit on the nonoil current account. Present projections of supply and demand for oil suggest a decline in net export revenues of the oil sector in relation to the growing needs of the economy, in the second half of the decade. For viable long-run growth the economy will have to undergo significant structural changes during the 1980s, to effect a broad-based expansion of industrial production and of both industrial and agricultural exports.

Incomes and Poverty

5. Average incomes per capita have been growing at 5% per annum, but Indonesia remains an extremely poor country. It is estimated that almost 50% of the population, some 65 million persons, were living in conditions of absolute poverty in 1978. Household expenditure surveys indicate some reduction in poverty incidence in the 1970s, especially in urban areas, but a widening in rural urban disparities. The core of the poverty problem continues to be in rural Java, where landless laborers form a large proportion of the population. Here the number in poverty appears to have increased to around 50 million by the end of the decade.

6. The availability of productive employment is a key determinant of incomes. Total employment has been increasing at 3.3% p.a. during the 1970s. In 1977/78 open unemployment was less than 2% in rural areas and about 6% in urban areas. There was, however, a particularly heavy incidence among young educated males - 30% for urban males aged 20-24 with secondary school education. In the period 1971-78, manufacturing provided only 6% of the increase in employment, and mining almost none, while the more labor-intensive agriculture and tertiary sectors provided 42% and 52% respectively. Agriculture still accounted for 61% of total employment at the end of the period. Because the oil sector has played a leading role in economic growth, thereby

encouraging a fast growing tertiary sector, the relative lack of industrial employment has not had serious consequences in the past. However, in the future, the growth of the industrial sector will be of critical importance for the direct and indirect provision of employment. It is also clear that increasing remunerative employment in agriculture, for example in cash crop production, will have a major role to play in poverty alleviation.

7. Significant progress has been made in the social sectors. Universal primary enrollment will be achieved in the near future, and an adult literacy rate of 62% compares well with an average of 50% for other low-income countries. However, secondary and higher education is comparatively less well developed, and this has been a major factor behind the current shortage of skilled manpower. With respect to health and demographic indicators, there have been significant declines in both crude birth and death rates. An effective family planning program helped reduce fertility rates on Java and Bali, while the 46% reduction in the crude death rate between 1960 and 1979 was only exceeded by seven developing countries. However, the level of provision of services remains underdeveloped, and only 12% of the population has access to safe water, compared with 29% for all low-income countries.

Policy for Structural Adjustment

8. Indonesia's past growth performance has been good, but the country is now faced with the need both to put the non-oil economy on to a viable long-run growth path and to effectively improve the basic needs situation of the poor. The three primary goals of the Third Five-Year Development Plan, Repelita III (1979/80 to 1983/84), are equity, growth and the maintenance of national stability. The fact that Indonesia's resource position is likely to be favorable for the first half of the 1980s presents the country with an unusual opportunity to take effective policy action to bring about the adjustments required to realize these goals.

9. Although the main concern for the allocation of the resource wind-fall is with long-run development, the maintenance of short-run stability is also important. The channeling of the foreign exchange resource into the economy, not least via the GOI budget, is already putting pressure on domestic markets and encouraging a rapid expansion of liquidity. There is a risk that medium-term supply responses will be too slow to prevent an acceleration of inflation and an erosion of international competitiveness. This emphasizes the importance of a distribution of incremental expenditure in favor of improving sectoral supply responses. In particular, it is important that a reasonable expansion of credit to the private sector be maintained - in the past this has been excessively squeezed to maintain monetary stability. This could entail a slower rate of expansion of GOI expenditure.

10. The performance of the industrial sector will be of critical importance to long-run development. GOI is planning a program of large-scale industrial investments, in refineries, LNG, petrochemicals, fertilizer, cement, pulp and paper, basic metals and mining, with an estimated investment cost of \$15-20 billion. This will broaden the industrial base, but will have very limited employment implications. Of greater importance for employment is the encouragement of small- and medium-scale private manufacturing. The 1978 devaluation from Rp 415 to Rp 625 per US dollar significantly improved the profitability of labor-intensive import substitution and export industries and was accompanied by a system of export certificates (tax rebates) to provide additional incentives. The trade regime is still characterized by a wide variation in rates of effective protection, but GOI is taking measures to rationalize the system. However, the private sector also suffers from a heavy regulatory burden, especially in the area of investment licensing, and limitations on the availability of credit. These will require further policy reforms to create an environment conducive to private investment.

11. Despite the abundance of energy resources, Indonesia faces a potentially serious long-run energy problem. Oil and gas now account for 98% of domestic consumption of commercial energy and demand has been growing rapidly. If Indonesia is to avoid a serious reduction in foreign exchange from the oil sector in the 1990s, it is essential to diversify energy usage, in particular through the development of the coal, hydropower and geothermal potential. This will require both a major investment program in this decade and measures to encourage interfuel substitution and more efficient energy use. The most important policy measure required is the gradual elimination of the subsidy on some petroleum products that is now a major distortion in the system.

12. Agriculture will continue to be of great importance for export revenue (agriculture accounted for 75% of 1979 non-oil export revenue), food production and employment. Rice production has been steadily rising to a record level of around 20 million tons in 1980, compared with 13 million a decade earlier, largely as a result of irrigation and the dissemination of new agricultural technology. Future investment in physical infrastructure, especially irrigation and roads, combined with a favorable market environment will be the main determinants of further expansion in food production. Tree crops have suffered from relative neglect, and the age structure of the trees is now very old, but GOI has a highly ambitious program of rehabilitation and replanting. This will require substantial investment in manpower and improved organization of distribution and marketing.

13. To sustain rapid economic growth and reduce poverty, substantial investment in human resources development will be critical. The lack of skilled manpower affects almost every sector. Shortages are largely due to the poorly developed secondary and higher education system, although the high rates of unemployment amongst secondary school leavers suggest a major

mismatch between supply and demand at this level. In the short run there is scope for better utilization of existing manpower through stopgap training schemes, while available foreign exchange resources could be used to finance fellowships abroad and, in the interim, to purchase foreign skills. There is also a strong justification for the use of incremental resources in the health sector. However, increased outlays on health infrastructure will have to be complemented by the development of innovative approaches to identifying and tackling health problems, involving the participation of local communities. The successful family planning program provides a good model.

14. The public sector has been of growing importance, with central government expenditures now accounting for around 30% of GDP. A significant fraction of incremental resources, about 50% in 1980/81, has gone directly to public and private consumption in the form of higher civil service and military salaries from initial low levels, and subsidies on commodities. Subsidies on petroleum products, food and fertilizer have grown very rapidly to a budgeted level of over \$3 billion in 1981/82. Although this has shielded the economy from sudden shocks, the long-run impact on inflation is likely to be limited and consumption data suggest that the main beneficiaries have not been the very poor. Resources for development have also risen rapidly, to the extent that it now appears that the financial constraint is often less important than nonfinancial constraints, including the availability of skilled manpower, the capacity of the construction industry and limited administrative capability. The administrative framework for project implementation was greatly improved in 1979 by the introduction of simplified appropriation procedures and the adoption of post-auditing practices. However, restrictions in eligibility of certain smaller contracts to small firms controlled by economically weak groups is likely to delay local project implementation. Wider issues of administration, including the question of decentralization, are also under review. Finally, there is a continuing need to increase allocations to maintenance of public investments, notably in irrigation and roads.

Domestic Resource Mobilization and External Capital Flows

15. The external resource surplus has greatly helped GOI's budgetary position. However, in order to reduce the dependence on oil revenue and lay the foundation for long-term resource mobilization it is important to maintain the domestic effort. Domestic revenue is of particular value since expenditure from this source has a smaller inflationary impact than expenditure from oil revenue. Non-oil tax revenue as a proportion of nonmining GDP actually declined from almost 10% in 1978/79 to less than 9% in 1979/80 and 1980/81. It is important that the capacity of the tax system be increased through expanding the tax base, eliminating loopholes, and improving administration. There is also great scope for mobilization of resources through reduction of the subsidies on petroleum and other products. A steady rise in domestic petroleum prices to the international level during the 1980s would have a major impact on budget savings.

16. External financing of GOI expenditure is budgeted at \$2.4 billion in 1980/81 or 20% of the development budget, compared with almost 40% in 1978/79. Total disbursed and outstanding external public debt was about \$15 billion at the end of 1980; including undisbursed amounts, external public debt totalled almost \$24 billion. The Inter-Governmental Group on Indonesia remains the principal source of external capital, including Official Development Assistance (ODA), to the country. New commitments in 1980 were almost equal to the \$2.1 billion recommended in the Bank's 1980 economic memorandum on Indonesia. Public sector commercial borrowings are estimated to have reached \$1.7 billion in 1980. With the increased availability of foreign exchange, in the near term capital inflows are not required on resource grounds. However, during the disbursement periods of projects currently being considered, a resource gap will re-emerge in Indonesia. In addition, there is still an urgent need for support of policy and institutional changes embodied in foreign loans. It is anticipated that ODA will continue at a reduced real level, and on harder terms, in the first half of the 1980s. It is of particular importance that external finance be used to support policies designed to prevent the re-emergence of a serious resource deficit toward the end of the decade. It is anticipated that the public debt service ratio, with oil exports on a net basis, will remain in the region of 9-10% for the first half of the 1980s.

PART II - BANK GROUP OPERATIONS IN INDONESIA /1

17. As of September 30, 1981, Indonesia had received 48 IDA credits totalling \$931.8 million, and 59 Bank loans amounting to \$3,814.0 million. IFC investments totalled \$132.5 million. The share of the Bank Group in Indonesia's total (disbursed) external debt outstanding at the end of 1979 was about 9.5%, and the share of debt service about 4.7%. By the end of 1980, these ratios are estimated to have increased to around 10.8% and 6.7%, respectively. Annex II contains a summary of IDA credits, Bank loans and IFC investments as of July 31, 1981, as well as notes on the execution of ongoing projects. Given the critical importance of agriculture (including transmigration) for employment, food security and exports, over one-third of Bank Group supported projects have been in this sector. In addition, loans and credits have been extended to virtually all other sectors of the economy, including transportation, education, urban development, water supply, rural development, nutrition, industrial development financing (including small-scale industry), power, telecommunications, population and technical assistance.

/1 Identical to the President's Report on the Eleventh Power Project (No. P3132-IND), circulated under cover of R81-276, dated October 22, 1981, and approved by the Executive Directors on November 10, 1981.

18. During Repelitas I and II, and in line with the objectives of these first two Five-Year Plans, a high proportion of Bank Group lending was directed initially toward the rehabilitation and then the expansion of infrastructure and production facilities. Special attention was also given to meet the shortage of skilled manpower and technical assistance needed for preinvestment studies and project execution. Repelita III, published in early 1979, stressed the need for continued high growth and stability, but departed from previous plans by placing special emphasis on more equitable income distribution and poverty alleviation. This focus, which was fully in line with the conclusions of the basic economic report, required greater attention to employment generation (particularly in the industrial sector) and to improvements in basic public services. While Bank lending was already consistent with these objectives, increased emphasis is being given to GOI's new priorities.

19. The resource surplus discussed in Part I of this report provides GOI with a unique opportunity to accelerate its development effort. This will require both effective policy reform, notably in improving the policy environment for private investment, and major investments in industry, infrastructure, treecrop development and human resources development. The Bank's program of lending and economic work is being geared to support the required measures. Since the resource constraint has been alleviated, at least temporarily, the primary emphasis of Bank involvement will be on policy and institutional development and technical assistance in the key sectors. This will involve a close integration between sector work and lending and the gradual broadening of lending to the subsector and sector level in order to assist with policy issues at this level.

20. The only significant shift in the composition of lending involves a rapid expansion planned in the education sector, a direct response to the severe shortage of skilled manpower. In the industrial sector, in-depth sector work focused on a policy for the promotion of labor-intensive export-oriented growth, and it is planned to follow this with a series of industrial projects. In energy, new sector work and continued lending will concentrate on policies to diversify Indonesia's energy base, rationalize pricing and improve sectoral planning. Irrigation and treecrops will continue to absorb a substantial portion of lending in view of the importance of these sectors, and continued support for transport is anticipated. Increased lending is planned in the areas of provision of social services, in population, health and nutrition, urban development and water supply. In these areas there will be increased emphasis on institutional support and the development of innovative low-cost solutions. For example, the proposed health project will focus on improving the working of the whole health care system at the level of a specific province.

21. For about the last two years the Bank and GOI have made a major effort to improve disbursement performance. Many of the problems appear to be related to GOI's cumbersome budgetary, procurement and payment procedures, including issuance of tender documents and opening of letters of credit. These problems are further compounded by the severe shortages of both managerial and technical manpower. A number of steps have been taken by GOI and the Bank to address these issues. Several special Bank missions have visited Indonesia to analyze the problems and make recommendations for simplifying budgetary and financial procedures. The GOI and the Bank have also instituted formal and regular joint review procedures to identify general and project-specific problems and work out corrective measures. The first of these reviews was held in June 1979 and a second, more comprehensive one, in September 1980. In addition, procurement seminars were held in Jakarta in September 1979 and November 1981. As a consequence of these joint initiatives, GOI has taken several measures to streamline some of the complex budgetary and financial procedures affecting project implementation. Finally, to reduce initial project implementation difficulties, many operations are now being presented for Board consideration at a later stage in the project cycle. Indications are that, as a result of these efforts, improvements are taking place. This was reflected in an increase in disbursements from \$204.0 million in FY79 to \$277.8 million in FY80, and to \$373.5 million in FY81. While it is important that the Bank and GOI maintain their efforts, these trends are encouraging.

22. From 1968 until 1974, all lending to Indonesia was made through IDA. Due to the country's improved creditworthiness following the commodity and oil price boom in 1973/74, the bulk of the Bank Group's subsequent lending has been through IBRD loans, with a modest amount of IDA lending being justified primarily on poverty grounds, as the per capita GNP was well below the IDA cutoff of \$625. Given Indonesia's much improved balance of payments position, IDA lending was discontinued in FY80.

23. The proposed project constitutes the third lending operation presented to the Executive Directors this fiscal year. The Jakarta Cikampek Highway and Eleventh Power projects were approved by the Executive Directors earlier this fiscal year. Projects under advanced stage of preparation and appraisal include the Bukit Asam mining and transport, sixteenth irrigation, East Java Province irrigation, tenth education, second teacher training and second fertilizer distribution projects.

PART III - THE AGRICULTURAL SECTOR

24. Objectives. GOI's major objectives for the agricultural and rural sector are to: (a) create productive employment to raise the incomes of the rural poor; (b) increase domestic food supply to keep pace with rising demand; (c) expand agricultural exports, particularly of smallholder tree crops; and (d) ensure productive, sustainable use of Indonesia's land, water and other natural resources.

25. Role and Performance. Nearly 16 million smallholder families grow subsistence and cash crops on about 16 million ha, while 1,800 estates occupying 2.2 million ha produce mainly rubber, sugar, tea, palm oil and tobacco. Despite a 4% average annual growth rate of production, agriculture's share of GDP has declined from 40% to 31% since 1968, while its share of exports dropped from 45% to 37% due to the increased value of oil exports. Nevertheless, agriculture provides 80% of non-oil exports, employs 60-66% of the total labor force (depending on the season), accounted for 46% of incremental employment during 1971-76, and is the major source of income for about two-thirds of rural households and one-tenth of urban households. Outside Java, employment prospects in agriculture are quite promising, given the sustained increases in the smallholder area, including that developed by publicly-sponsored and spontaneous transmigration. On Java, continued irrigation rehabilitation is expected to generate significant employment.

26. Food Crops. Given its limited manpower and financial resources, GOI has concentrated on increasing the production of rice, the preferred staple food of the great majority of Indonesians. Rice production increased rapidly (4.5% p.a.) over 1968-74, chiefly due to irrigation rehabilitation and the provision to irrigated rice growers of fertilizer and high-yielding variety seed, financed largely through the GOI's BIMAS credit program for farm inputs. The growth rate slowed markedly to 1.7% p.a. over 1974-77, in the wake of severe declines in fertilizer usage (due to restrictions on private sector fertilizer trade), untimely rainfall, and unprecedented attacks by pests and diseases. Over 1977-80, rice production increased by 7% p.a., with better weather, improved and liberalized fertilizer distribution, and nationwide GOI distribution of pest-resistant varieties, reaching almost 20 million tons in 1980. Over the past decade, output of secondary food crops (maize, cassava, soybeans, groundnuts, and sweet potatoes) grew at only a combined rate of 1.6% p.a. These gains in food output did not keep pace with the 3.5-4.0% p.a. increase in demand, stimulated by rising incomes. Over the decade, Indonesia became the world's largest rice importer, averaging 1.9 million tons in 1977-79, while annual wheat imports reached 1-1.2 million tons. The Bank report "Indonesia - Supply Prospects for Major Food Crops," (No. 2374-IND of March 1979) concluded that even with expanded irrigation, and improved technology, extension, credit and marketing, food production growth would not exceed 3.5% p.a., leaving a basic food deficit up to at least 1990, with a rice deficit alone of 2-3 million tons annually.

27. Perennial Crops. Perennial crops occupy about a third of total cropped land (coconuts and rubber account for 80% of this) and generate about 43% of non-oil export revenue. Smallholders cultivate 80% of the rubber area and virtually all coconuts, coffee, cloves and pepper, whereas tea and oil palm are grown primarily on estates. Efforts to revitalize the smallholder tree crop sector have commenced on several fronts. Under the five Bank-assisted Nucleus Estates and Smallholders projects, GOI estates plant and maintain tree crops on previously undeveloped land for three years, using

settlers as employees, and thereafter provide the settlers with inputs, extension services and processing facilities. GOI has also initiated national programs to assist existing smallholders to plant rubber or coconuts themselves with fairly intensive support from project management units. Given the vast area of overaged and low-yielding smallholder rubber and coconuts, the good market prospects and employment potential for these crops, and the Other Islands' land availability and natural comparative advantage in them, rapid expansion of smallholder tree crops, using all suitable approaches, is a high priority.

28. Development in Rural Java. Cultivable land in Java is almost fully utilized, and in some higher watersheds cultivation already exceeds ecologically safe limits, contributing to increasing erosion, downstream flooding, and siltation of ports, dams, and irrigation canals. GOI is preparing watershed development and integrated development projects to address these problems. Rural development depends substantially on improved agricultural technologies to increase cropping intensities and yields.

29. Transmigration. A primary program for new area development in the Other Islands, as well as for reducing population pressures on Java, is transmigration. Confronted by management problems, GOI reorganized the program in preparation for Repelita III by transferring most implementation responsibility from the Directorate General of Transmigration to the appropriate technical agencies. This measure needs to be complemented by continued attention to a variety of technical and policy issues, some of which the Transmigration II Project (Loan 1707-IND/Credit 919-IND) is attempting to address.

30. Bank Group Lending Strategy. Since the first of 15 irrigation projects was approved in 1968, the Bank Group has rapidly expanded its agricultural lending. Within the context of the GOI's agricultural objectives and priorities, future Bank agricultural lending is expected to focus on: (a) a diversified irrigation, flood protection, drainage and swamp reclamation program to intensify rice cropping on Java and extend water management in the Other Islands; (b) smallholder tree crop planting programs; (c) area development of critical watersheds on Java; and (d) transmigration in the Other Islands. These projects will continue to be complemented by extensive sector work. Analyses of employment and income distribution, irrigation, agricultural support services, food crop production, the rubber subsector and the transmigration program have been completed, and reviews of food crops and supply and demand for technical and managerial manpower for agriculture are underway.

The Food-Crop Seed Subsector

31. Seed Breeding and Production for Rice. The rice seed industry in Indonesia was established in the late 1960s to meet the need for continuous breeding, selection, and multiplication of new high-yielding varieties (HYVs)

of wetland rice. New varieties of rice are continuously bred and selected for disease and pest resistance, yield, eating quality, early maturity, and suitability for Indonesia's various ecological conditions. There are four stages of multiplication of seeds involving several organizations. The first generations of a new variety, termed breeder seed, are produced at the Food Crops Research Institutes (FCRIs). The next two generations, termed foundation seed and stock seed, are produced by a few Provincial Seed Farms (PSFs) of the Provincial Agricultural Services and by the National Seeds Corporation (NSC). Inspection is done by the Seed Control and Certification Service (SCCS) to ensure quality standards. Further generations produced from stock seed, termed commercial seed, are then sold to farmers. The highest quality of commercial seed, which meets certification standards, is called extension seed. Tested seed which only meets somewhat lower standards is called regulated seed. GOI policy is to continue shifting responsibility for commercial seed production to NSC, P.T. Pertani (a GOI-owned company supplying agricultural inputs), cooperatives, and private growers, leaving the PSFs to concentrate on foundation and stock seed production.

32. Seed Breeding and Production for Secondary Crops. Seed of secondary crops (palawija) has only recently begun to receive attention because of the crops' smaller role in Indonesia agricultural and a lack of suitable HYVs. There is as yet no certification of palawija seed as the varieties lack uniformity and identifiable characteristics to permit varietal purity tests. At present, after release by the FCRIs, palawija seeds are multiplied by PSFs and private growers to produce grades of regulated seed comparable to foundation, stock, and extension seed. As a result of the increased research and development efforts, it is anticipated palawija seeds will become increasingly important in the seed industry.

33. Demand for Seed. Indonesia's annual planted area of HYV rice is about five million hectares, for which the total HYV seed demand is estimated to be about 50,000 tons per year. In 1979/80 total production of extension seed was about 8,300 tons (6,150 tons by NSC, 1,400 tons by PSFs, and 750 tons by private growers), and production of regulated seed, about 7,800 tons. The remaining 65-70% of HYV seed was the lower quality, unregulated seed obtained either through commercial channels or direct from other farmers. Virtually all palawija seed is now unregulated.

34. Marketing and Prices. Commercial seed is marketed through private agricultural dealers, village cooperatives, or directly by the growers. The Ministry of Agriculture (MOA) officially sets the retail price of extension seed from NSC. To stimulate demand it has kept the price, currently Rp 210/kg, ^{/1} well below NSC's cost of production. However, this low price in turn

^{/1} NSC has now proposed to increase it in Java to Rp 235/kg for common varieties and Rp 250/kg for new varieties; GOI is reviewing that proposal.

makes it uneconomic for the private sector to produce high quality seed. To correct this situation, GOI has agreed that for rice seed sold on Java (where farmer acceptance of quality seed is already relatively high), prices would be set by January 1, 1986 so that NSC revenues would be sufficient to cover the cost for such seed excluding return on investments and by January 1, 1988, prices would be sufficient to cover costs including a 10% return on investment under this project. For rice seed sold outside Java and secondary crop seed (where the rate of farmer acceptance is quite uncertain), GOI has agreed prices would be set so that NSC and P.T. Pertani revenues would be sufficient to cover costs as soon as feasible (Section 4.08 of the draft Loan Agreement). Prices for palawija seeds vary widely, reflecting variations in seed quality and in palawija crop prices. Although the BIMAS credit program for farm inputs covers the cost of seed, it is not used extensively because of the declining importance of this farm input program and because the loans are often not made in time for purchase of seed. Thus, purchase of seed is usually financed by farmers themselves.

35. Seed for Transmigrants. Transmigrants usually have little seed of their own to start with, and there are few PSFs or other seed growers near transmigration areas. In view of this GOI policy calls for the Provincial Agricultural Services to (a) supply a free initial seed package, (b) develop PSFs to produce stock seed in the transmigration areas, financed under the transmigration program, and (c) organize contract growers of commercial seed. However, due to implementation problems seed for transmigrants has often been of inferior quality and delivered late, although the timeliness of supply has been improving. The seed marketing and distribution study to be done under the proposed project would review the situation and make recommendations (see para. 42).

36. Shortcomings of the Seed Industry. Despite its success in developing, multiplying and distributing pest-resistant rice varieties, the seed industry in Indonesia still has many shortcomings:

- (a) palawija crops, upland rice and the Other Islands have been largely neglected;
- (b) there is inadequate processing and storage capacity;
- (c) much seed marketing is inefficient, resulting in seed having to be sold for consumption;
- (d) low seed prices have discouraged the private sector and cooperatives from producing and marketing high-quality seed; and
- (e) there is a shortage of adequately trained and experienced personnel.

The proposed project would attempt to address these problems.

37. Bank Group Lending for Seeds. The first Seeds Project (Cr. 246-IND; \$7.5 million) was implemented from 1971-78. Its objective was to establish a modern industry for the development, multiplication and processing of HYV rice seed in Java. It established NSC to produce seed on a large mechanized farm in West Java, to manage seed growers under contract in several districts and to process and market seed. However, because of poor project design and implementation, the mechanized farm has still only reached about 40% of its production targets. The first Seeds project did successfully establish the SCCS to implement and enforce seed standards, and FCRI Sukamandi, which, although delayed in its early stages, is now successfully breeding and testing new rice varieties.

38. The Project Performance Audit Report for the Seeds project, dated December 28, 1979 (Sec.M80-5), concluded that: (a) contract growing is more efficient than mechanized rice estate production; (b) NSC needs considerable strengthening before being given additional responsibilities; and (c) more extensive marketing and engineering preparation work is needed than was done for the first Seeds Project. Reflecting these views NSC has expanded its contract growing system rapidly over the past two years so that it now accounts for over half of NSC's output and agreement has been reached that NSC would replace no more than two combine harvesters at Sukamandi (Section 4.11 of the draft Loan Agreement). This means that over the next five years NSC would gradually shift at least an additional 1,200 ha used for extension seed to contract growers or contract operations, depending on which proves more efficient. NSC's management performance has improved since the audit report, and the gradual reduction of mechanized production, as well as increases in the sales price of NSC seed (para. 34), should put NSC on a sounder financial and technical footing. In addition, two new NSC Directors were appointed in January 1981, and the Second Seeds project would include consultancy, staff training and appointment of key NSC staff. The audit report called for preparation of tender documents and carrying out of market studies before appraisal of the Second Seeds Project. Although the former could not be done, a consultant to prepare tender documents for the initial year's investment has been selected and the initial tender documents are expected to be issued in February 1982. The marketing studies done under the first project, as updated and amended by the Second Seeds preparation and appraisal missions, indicate adequate demand for seed to justify the project.

PART IV - THE PROJECT

39. The project was prepared by the IBRD/FAO Cooperative Program. It was appraised in March 1980 and a Staff Appraisal Report (No. 3121-IND) is being distributed separately. Supplementary project data are provided in Annex III. Negotiations were held in Washington from July 13 to July 17, 1981, where the GOI delegation was led by Mr. Wardoyo, Director General of Food Crops Agriculture, Ministry of Agriculture.

Project Background

40. This project would extend the coverage of the first Seeds Project to other crops and provinces, while correcting some of the shortcomings of that project. In particular, it would build upon NSC's successful contract growing and would utilize existing PSFs and private growers instead of trying to replace them. The main issue during project preparation concerned the roles of NSC, P.T. Pertani, cooperatives and the private sector in the project. Despite NSC's weaknesses and the desire of GOI and the Bank for a greater private sector role in seed processing, NSC was selected as the main implementing agency because of its expertise and experience in the seed industry and because for the near future private firms do not have the expertise and are unlikely to take the risks inherent in pioneering seed processing for new areas and new crops. P.T. Pertani, despite its current financial weaknesses (para. 49), was included in the project because it is in the best position to provide seed to transmigrant areas. Central cooperatives and village cooperatives were added in accordance with GOI policy to expand and diversify the role of the cooperative sector. Increased private sector involvement in the seeds industry would be encouraged by increasing quality seed prices over a period of years, and some funds have been provided for studies and follow-up pilot programs to encourage private sector processing.

Objectives and General Description

41. The proposed project would increase the food supply and raise the incomes of small farmers by (a) improving the quality, reliability and availability of rice and palawija seed; (b) strengthening NSC, P.T. Pertani, SCCS, and selected cooperatives and PSFs; and (c) encouraging a larger private sector role in seed production and processing. The project is highly interdependent with the two Bank Group-financed agricultural research projects (Ln. 1179-IND and Ln. 1840-IND/Cr 1014-IND), as the research institutes financed under those projects would breed and test the new varieties before their release, and with the two agricultural extension projects (Ln. 1267-IND and Cr. 996-IND), because extension workers would educate the farmers about improved seed, and help organize and supervise contract growers. By ensuring provision of seed for transmigrants, the project would support GOI's ongoing transmigration effort, including the Bank Group-assisted Transmigration I and II projects (Ln. 1318-IND and Ln. 1707-IND/Cr. 919-IND).

42. Components. The project would provide assistance for the following:

- (a) air-conditioned long-term storage for breeder seed at five FCRI's;
- (b) incremental operating expenses of FCRI's for supervision of foundation seed production and of Provincial Agriculture Services for supervision of PSFs and private growers;

- (c) irrigation/drainage improvements, storage, and other civil works for about 40 PSFs, which would produce foundation and stock seed; GOI will continue to supply the necessary equipment for these PSF's (Section 3.07 of the draft Loan Agreement), which are being provided in part under Japanese bilateral aid;
- (d) construction of about 18 new medium-sized seed processing centers (9 for NSC, 6 for P.T. Pertani and 3 for either central cooperatives or NSC); 6 new small centers for village cooperatives; and additional equipment for about 10 existing centers owned by NSC and the East Java Provincial Agricultural Service;
- (e) vehicles for all implementing agencies;
- (f) incremental working capital for NSC, P.T. Pertani, cooperatives, and PSFs, to finance operating expenses until the sale of seed;
- (g) equipment and incremental operating expenses for SCCS for certification/regulation of project seed;
- (h) facilities and operating expenses for establishing a diploma course in seed technology at the Bogor Agricultural Institute (IPB), plus additional in-service training for staff of the various implementing agencies;
- (i) technical assistance comprising consultants in management, finance, training, seed marketing, production, and processing; and
- (j) studies of (i) seed marketing and distribution, (ii) the benefits from improved seed, (iii) seed treatment, (iv) site selection for the latter years of the project, and (v) the potential private and cooperative sector roles in seed processing, plus pilot activities arising from this study.

43. These project investments would strengthen the seed industry at all levels. The capacity of the FCRI's to store breeder seed and supervise production of foundation seed would be increased. Facilities at PSFs to produce foundation and stock seed, as well as the ability of SCCS to inspect that production, would be improved. NSC, P.T. Pertani, and the selected cooperatives would expand the network of contract growers for the production of commercial seed. The new processing centers, and the expanded certification services of SCCS, would ensure that a larger share of commercial seed could meet the quality standards for extension seed. The training component, especially the diploma course at IPB, would increase the number of technical personnel for both the public and private seed industry. Studies would help set the course for future development of the industry.

44. Coverage. The project would provide processing centers in 12 major food producing provinces in which sufficient demand for quality seed is expected and which presently account for 90% of Indonesia's rice and palawija production. In addition, it would finance facilities for SCCS and selected PSFs nationwide. It would cover wetland and dryland rice and the four major palawija crops - maize, soybeans, groundnuts and mungbeans. Together, these crops provide about 68% of total caloric intake in Indonesia. The palawija would be phased in slowly primarily because the palawija breeding program is just starting to expand. The initial objective of the project in this area would be to provide regulated seed of improved varieties; by the end of the project, it is hoped that certified extension seed for palawija will be available.

45. The project would aim to provide processed seed to 40% of the farm input market for wetland rice seed and 20% of the market for dryland rice and palawija seed./1 In addition, it would supply about 60% of the initial seed packages for transmigrants nationwide, and an equal amount of replacement seed for transmigrants. Projected annual project output of 27,000 tons of seed would be approximately one-half rice and one-half palawija crops; two thirds would be for Java.

46. Processing Centers. The largest project component would be new processing centers. The 18 medium-sized processing centers to be built and operated by NSC, P.T. Pertani and central cooperatives, each with a capacity of 1-2,000 tons/year of seed, would include seed cleaning machines, threshers, seed treaters, and bagging machines. This equipment would be housed in buildings totalling 2-3,000 sq m, and each center would include two staff houses and an outdoor drying floor. The six small processing centers to be operated by village cooperatives would use only very simple equipment and have a capacity of 100-200 tons/year. Additional facilities and equipment would also be provided to existing processing centers now operated by NSC. NSC would operate the eight processing centers owned by the Provincial Agricultural Services in East Java through at least 1992 (Section 3.11 of the draft Loan Agreement).

Organization, Management and Implementation

47. Overall Project Management. Overall project management responsibility would be with the Director General for Food Crops Agriculture and the Director of Production in the Directorate General of Food Crops Agriculture (DGFA) has been named part-time Project Manager for this project. A small Project Secretariat, headed by a full-time Project Secretary, would be established in his office to plan, coordinate and supervise project implementation, including procurement, disbursement, monitoring, evaluation, reporting and coordination of schedules (Section 3.01 (c) of the draft Loan

/1 Including the 20% of this market on Java already met under the first Seeds project.

Agreement). Within DGFCAs Directorate of Production, two sub-directorates deal with seeds: Seed Production and the SCCS. Under the project, the former would determine the varieties and quantities of foundation and stock seed to be produced and would supervise and coordinate the PSFs' role. Qualified managers would be assigned to the PSFs to be upgraded under the project (Section 3.07 of the draft Loan Agreement).

48. NSC, a GOI corporation operating under the commercial code, is run by a full-time Board comprising a President-Director and Directors of Finance and Administration, Production and Processing, and Marketing. To address past management weaknesses, under the project NSC would hire by December 31, 1982, an internal auditor, training manager and marketing planning officer (Section 4.07 of the draft Loan Agreement). In addition, NSC would take necessary steps, including salary adjustments, to attract and retain qualified and experienced staff (Section 4.06(d) of the draft Loan Agreement).

49. P.T. Pertani is a GOI-owned company which supplies agricultural inputs. Fertilizer and pesticide distribution account for about 90% of its revenues. Since 1977, P.T. Pertani at GOI request, has procured and delivered seed to more isolated areas such as transmigration projects. More recently, it has entered the business of producing and marketing regulated seed in Bali and West Nusa Tenggara. The company continues to face serious financial problems arising from substantial losses in 1973 and 1974 and from weak financial management. Audits have not yet been completed for years after 1975. The project's financial consultant would help restructure P.T. Pertani's accounting system and provide on-the-job training to its financial staff. Audits of P.T. Pertani's 1976-80 accounts would be completed by September 30, 1982 (Section 4.04 of the draft Loan Agreement). Disbursement for the P.T. Pertani processing centers for 1983 and thereafter would be conditional upon the determination by the Bank, based on the completed audits, that P.T. Pertani can satisfactorily carry out its role under the project (Schedule 1, Part 4(b) of the draft Loan Agreement). Like NSC, P.T. Pertani would take necessary steps to attract and retain qualified and experienced staff (Section 4.06(d) of the draft Loan Agreement).

50. At present village cooperatives market about 50% of NSC seed and almost all of P.T. Pertani's seed, except that for transmigration areas, but they are not involved in seed processing. In the past few years, GOI has made a concerted effort to strengthen the cooperative system and to increase their role in supplying agricultural inputs and processing outputs. A pilot program will be included in the project to give small processing centers to about six of the best village cooperatives on Java, selected by DGC with the agreement of DGFCAs. As another part of this effort, central cooperatives have been established in many provinces. Their main role has been as bulk suppliers of fertilizers to village cooperatives and of rice from village cooperatives to the National Logistics Agency, but they are starting to undertake agro-processing as well. GOI would by August 31, 1983, complete that portion of the study on private and cooperative sector roles in seed

processing related to central cooperatives and would then send to the Bank for approval proposals for the ownership, management, and operation of the three processing centers now designated either for central cooperatives or NSC (Section 3.04(c) of the draft Loan Agreement). If the central cooperatives in East and Central Java are considered able to do so, they would establish and operate these three centers beginning in the third and fourth years of the project; otherwise NSC would do so.

51. Seed for the processing center would be grown by groups of contract growers, who would (a) be within about 20-25 km of the processing centers; (b) be in large enough blocks (at least 5-10 ha) for certification and efficient supervision; (c) be progressive farmers with good crop yields, indicating suitable land, sound cultivation practices and the absence of serious pests or diseases; and (d) have harvest times such that output would be available when needed for planting with minimal storage.

52. Monitoring, Reporting and Evaluation. Monitoring and reporting would be the responsibility of the Project Secretariat in DGFCFA and would cover: (a) project physical implementation and cost; (b) seed prices and total sales; (c) seed quality; (d) the processors' overall production and financial performance; (e) the availability of adequate breeder, foundation and stock seed for subsequent multiplication; and (f) the development of private sector seed processing. An evaluation officer in the Project Secretariat would coordinate the study on the benefits of better seed quality, organize sample surveys of project seed buyers to learn if they have saved on seed use, and try to determine the extent to which the project is accelerating the distribution of new varieties.

53. Technical Assistance. Under the management of DGFCFA, about 200 man-months of technical assistance would be provided to the implementing agencies to strengthen their managerial and technical capabilities and assist in project implementation. DGFCFA would also employ consultants to undertake the studies of the benefits from using improved seeds, seed treatment, and the potential private sector and cooperative role in seed processing.^{/1} In addition, 50 man-months of assistance by visiting instructors would be provided to Bogor Agricultural Institute (IPB) to help start the diploma course in seeds technology while IPB staff are in graduate school abroad. These consultants and visiting instructors, with qualifications and experience and on terms and conditions acceptable to the Bank, would be appointed to DGFCFA by May 31, 1982, for assistance to the implementing agencies and by December 31, 1982, for the studies, and to IPB by June 30, 1983 (Sections 3.03, 3.04, and 3.05 of the draft Loan Agreement). The average man-month cost for consultants supplied by an international firm, including salary, costs, fees, international travel, housing and subsistence, is expected to be about \$7,300. Total cost of \$8,000 per man-month also includes local travel and other expenses.

^{/1} The study of seed marketing and distribution would be undertaken by DGFCFA with assistance from the seed marketing consultant.

54. Implementation Schedule. Investments are scheduled over four years, and operating expenses over five years to allow for a full year's operation after investments are completed. Working capital requirements would increase until year seven. The investment programs for PSFs and processing centers for FY82 have been agreed. In the future DGFCA would send to the Bank by August 31 of each subsequent year proposals for the seed processing centers and PSFs to be developed the following year, supported by site selections studies (Section 3.06 of the draft Loan Agreement).

Project Cost and Financing

55. Total project cost is estimated at \$50.0 million of which \$17.3 million (35%) is foreign exchange. The tax element in the project is insignificant. Physical contingencies of 10% have been added for all investment items. Base costs reflect July 1981 prices. Prices contingencies amount to 47% of total base cost plus physical contingencies, assuming inflation rates of 18% p.a. for local costs in calendar 1981, 14% p.a. in 1982, and 10% p.a. thereafter and 9% p.a. for foreign exchange costs in 1981, 8.5% p.a. in 1982, 7.5% p.a. in 1983-85, and 6% p.a. thereafter. The proposed Bank loan of \$15.0 million is equivalent to 100% of foreign exchange cost excluding the costs of vehicles covered by "reserved procurement" (para. 56). Of the remaining \$35.0 million, the investment and working capital for cooperatives, \$5.7 million, would be provided as GOI-guaranteed credit at subsidized rates (now 6% p.a.) and \$29.3 million, including working capital requirements for NSC and P.T. Pertani, would be financed by GOI. Bank and GOI investments would be passed on by GOI as equity contributions to NSC and P.T. Pertani and as credits to the cooperatives under terms and conditions acceptable to the Bank (Section 3.02 of the draft Loan Agreement). GOI would bear the foreign exchange risk.

Procurement and Disbursements

56. Seed processing, storage and laboratory equipment (\$8.4 million including price and physical contingencies) would be procured through international competitive bidding (ICB) in accordance with Bank Guidelines. To the extent feasible, procurement of this equipment would be done through two contracts. A preference equal to 15% of the c.i.f. cost or the customs duty, whichever is lower, would be extended to local manufacturers in the evaluation of bids. Local procurement procedures would be used for: (a) buildings and other civil works (\$17.3 million) which are not suitable for ICB because they are scattered and involve relatively small amounts of financing spread over four years; (b) equipment and supplies costing less than \$50,000 equivalent each, up to an aggregate of \$500,000; and (c) vehicles (\$4.3 million), which would be "reserved procurement" for which imports are prohibited and hence which are not eligible for financing or disbursement under the project. To the extent possible civil works contracts for each site would be grouped together.

57. Disbursements would be made at: (a) 20% for civil works contracts for processing centers; (b) 100% of the c.i.f. cost of directly imported equipment, 95% of the ex-factory price of locally manufactured items, and 65% of expenditure on imported but locally procured items; (c) 100% for technical assistance, training and studies. Disbursements would be made against full documentation, except that statements of expenditures would be used for operating expenses of training courses and studies, except consultancies. Disbursements are expected to be completed by June 30, 1989.

Accounts and Audit

58. Separate accounts would be maintained to record all project transactions. NSC's, P.T. Pertani's, and participating cooperatives overall financial statements would be audited by independent auditors acceptable to the Bank; these audited accounts and the audit report would be submitted to the Bank within nine months after the end of each fiscal year (Section 4.03 of the draft Loan Agreement). The State Auditor is expected to do the auditing of NSC and P.T. Pertani.

Financial Analysis

59. Seed Prices. While in the past GOI has kept the price of NSC rice seed below the cost of production to encourage demand and has subsidized NSC's resulting financial losses, it has now been agreed that in the future NSC and P.T. Pertani seed prices would be increased (para. 34). The longer-term price adjustments should both put NSC, P.T. Pertani, and the cooperatives involved in seed processing on a sound financial footing and provide incentive to the private sector to upgrade the quality of its seed. However, in order to provide an incentive to reduce costs and expand output, NSC and P.T. Pertani would receive with respect to each crop a pre-determined subsidy per kg of seed whenever GOI sets seed prices below average costs (Section 4.09 of the draft Loan Agreement). The marketing study, along with the demand response to the initial price increases, would help determine how quickly GOI could move to full cost pricing.

60. Cost Recovery. Sale of seed would provide about 30-40% cost recovery, but this level of cost recovery is viewed as adequate because most beneficiaries would be near or below the critical income level.

61. NSC Financial Status and Projections. NSC has been incurring heavy losses (\$1.3 million in 1979) primarily because of (a) low yields and high costs on the Sukamandi farm, (b) overstaffing, and (c) the low seed price set by GOI. It is expected that measures to be taken during the project would correct this situation, and that by year seven (full project output) NSC would be covering its operating costs plus an allowance for depreciation.

Benefits and Risks

62. The 27,000 tons of seed produced annually under the project at full development would be sufficient to plant some 775,000 ha/year. Annual incremental crop output due to the improved seed is estimated at about 63,000 tons of rice, 24,000 tons of maize, 7,000 tons of soybeans, 5,000 tons of groundnuts, and 900 tons of mungbeans. Virtually all output would be for the domestic market. With food crop holdings in Indonesia averaging about 0.5 ha of wetland, or 1.0 ha of dryland, about one million families, some 60% of whom would be below the absolute poverty line, would purchase project seed in any given year. In addition, some 20,000 families would benefit from being contract growers. By building up the seed industry, the project would also permit other advances in agricultural technology in Indonesia, such as introduction of seed treatment and hybrid maize. A strengthened food crops seed industry is also an important support for the transmigration program, would provide a base for expanding into other types of seeds (such as fruits and vegetables for home gardens) and provides insurance against pest and disease attacks by helping accelerate the distribution of resistant varieties.

63. Use of the improved seed is expected to increase rice yields by 4% (with the likely range 3-5%), and palawija crop yields by 8%, due mainly to (a) higher varietal purity (which assures more uniform grain ripening and the absence of seeds of less suitable varieties) and (b) more vigorous growth (resulting from better drying and storage, and the removal of smaller seeds). In addition, the higher germination percentage would enable farmers to use less seed. Yield increases would be higher for palawija crops than for rice because of the much lower quality of palawija seed now available and because the project would significantly increase the overall availability of seed of suitable varieties (a reasonable seed multiplication system already being in place for rice). The estimated economic rate of return is about 39%. The rate of return would still be 10% if incremental yields for rice and palawija crops were only 1.7% and 3.5%, respectively.

64. The main project risks would be (a) poor NSC management, (b) failure of the FCRIs to develop adequate new palawija varieties, and (c) farmer unwillingness to pay higher prices for quality seed. To help strengthen NSC, the project provides training, consultancy, and additional staff. Sharply curtailing NSC's mechanized farming at Sukamandi, and putting NSC on a commercial footing, would reduce some of NSC's biggest problems. In view of these measures, it is expected that NSC management could handle its role in the proposed project. The considerable investment in the FCRIs under the two agricultural research projects, including the training of a number of palawija breeders, reduces the risk of insufficient new palawija varieties to an acceptable level. As certified seed half pays for itself through a lower seed rate, before even considering the higher yields, effective extension work by the Provincial Agricultural Services, coupled with strengthening of NSC's and P.T. Pertani's marketing organization under the project, should minimize the risk of price resistance by farmers.

Environmental Effects

65. The project would have no adverse environmental effects. In fact, the multiplication of crop varieties resistant to various pests and diseases would tend to reduce the need for applying agrochemicals to the crops. Chemicals to be used in seed treatment would be relatively non-toxic to animal life, and at the small quantities applied would have no adverse effects.

PART V - LEGAL INSTRUMENTS AND AUTHORITY

66. The draft Loan Agreement between the Republic of Indonesia and the Bank and the report of the Committee provided for in Article III, Section 4 (iii) of the Articles of Agreement are being distributed to the Executive Directors separately. Special conditions of the project are listed in Section III of Annex III.

67. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Bank.

PART VI - RECOMMENDATION

68. I recommend that the Executive Directors approve the proposed loan.

A. W. Clausen
President

Attachments

November 17, 1981
Washington, D.C.

INDONESIA - SOCIAL INDICATORS DATA SHEET

LAND AREA (THOUSAND SQ. KM.)	INDONESIA			REFERENCE GROUPS (WEIGHTED AVERAGES - MOST RECENT ESTIMATE) ^{1/2}		
	TOTAL 1919.3	1960	1970	MOST RECENT ESTIMATE	MIDDLE INCOME	
AGRICULTURAL	286.4	/b	/b	/b	ASIA & PACIFIC	
GNP PER CAPITA (US\$)		80.0	140.0	370.0	232.3	1136.1
ENERGY CONSUMPTION PER CAPITA (KILOGRAMS OF COAL EQUIVALENT)		130.1	128.4	237.1	499.4	1150.6
POPULATION AND VITAL STATISTICS						
POPULATION, MID-YEAR (THOUSANDS)		94680.0	116143.0	142870.0	..	..
URBAN POPULATION (PERCENT OF TOTAL)		14.6	17.1	19.8	17.3	40.8
POPULATION PROJECTIONS						
POPULATION IN YEAR 2000 (MILLIONS)				219.7	.	.
STATIONARY POPULATION (MILLIONS)				388.0	.	.
YEAR STATIONARY POPULATION IS REACHED				2110	.	.
POPULATION DENSITY						
PER SQ. KM.		49.3	60.5	74.4	153.6	373.1
PER SQ. KM. AGRICULTURAL LAND		355.9	417.9	487.3	360.3	2382.8
POPULATION AGE STRUCTURE (PERCENT)						
0-14 YRS.		40.7	44.0	40.8	37.4	39.8
15-64 YRS.		56.2	53.5	56.3	59.2	56.7
65 YRS. AND ABOVE		3.1	2.5	2.9	3.5	3.5
POPULATION GROWTH RATE (PERCENT)						
TOTAL		2.1	2.0	2.3	2.1	2.3
URBAN		3.7	3.6	4.0	3.4	3.8
CRUDE BIRTH RATE (PER THOUSAND)		46.7	40.8	36.2	27.7	29.7
CRUDE DEATH RATE (PER THOUSAND)		24.8	17.7	13.3	10.2	7.5
GROSS REPRODUCTION RATE		3.0	2.8	2.3	2.5	1.9
FAMILY PLANNING						
ACCEPTORS, ANNUAL (THOUSANDS)		..	181.1	2216.0	.	.
USERS (PERCENT OF MARRIED WOMEN)		..	0.2	27.1	20.4	44.1
FOOD AND NUTRITION						
INDEX OF FOOD PRODUCTION						
PER CAPITA (1969-71=100)		93.0	102.0	103.0	107.1	123.7
PER CAPITA SUPPLY OF						
CALORIES (PERCENT OF REQUIREMENTS)		89.0	92.0	105.0	98.6	112.6
PROTEINS (GRAMS PER DAY)		41.0	41.0	47.0	56.9	62.5
OF WHICH ANIMAL AND PULSE		6.0	6.0	6.0	14.2	19.7
CHILD (AGES 1-4) MORTALITY RATE		31.2	20.4	13.7	14.6	4.8
HEALTH						
LIFE EXPECTANCY AT BIRTH (YEARS)		39.0	46.7	53.0	57.7	64.0
INFANT MORTALITY RATE (PER THOUSAND)		159.0	126.0	120.0	89.1	50.2
ACCESS TO SAFE WATER (PERCENT OF POPULATION)						
TOTAL		..	3.0	12.0	30.1	45.9
URBAN		..	10.0	35.0	65.8	68.0
RURAL		..	1.0	6.0	20.1	34.4
ACCESS TO EXCRETA DISPOSAL (PERCENT OF POPULATION)						
TOTAL		..	12.0	15.0	17.6	53.4
URBAN		..	50.0	60.0	71.0	71.0
RURAL		..	4.0	5.0	4.8	42.4
POPULATION PER PHYSICIAN		46778.7	26498.5	13644.4	3857.7	4428.7
POPULATION PER NURSING PERSON		..	7672.8	8851.9	6411.8	2229.7
POPULATION PER HOSPITAL BED						
TOTAL		1364.1	1644.6	1606.0	1132.8	588.5
URBAN		251.8	..	697.3	322.3	579.6
RURAL		3159.0	5600.5	1138.5
ADMISSIONS PER HOSPITAL BED		22.4	..	..
HOUSING						
AVERAGE SIZE OF HOUSEHOLD						
TOTAL		4.4	4.8	..	..	..
URBAN		4.9	5.3	..	..	..
RURAL		4.3	4.7	..	..	..
AVERAGE NUMBER OF PERSONS PER ROOM						
TOTAL		..	1.5	..	..	..
URBAN		..	1.6	..	..	..
RURAL		..	1.5	..	..	..
ACCESS TO ELECTRICITY (PERCENT OF DWELLINGS)						
TOTAL	
URBAN	
RURAL	

INDONESIA - SOCIAL INDICATORS DATA SHEET

	INDONESIA			REFERENCE GROUPS (WEIGHTED AVERAGES - MOST RECENT ESTIMATE) ^{/a}	
	1960 <u>/b</u>	1970 <u>/b</u>	MOST RECENT ESTIMATE <u>/b</u>	LOW INCOME ASIA & PACIFIC	MIDDLE INCOME ASIA & PACIFIC
EDUCATION					
ADJUSTED ENROLLMENT RATIOS					
PRIMARY: TOTAL	71.0	78.0	94.0	85.9	99.8
MALE	86.0	83.0	100.0	94.4	100.6
FEMALE	58.0	73.0	89.0	64.5	98.8
SECONDARY: TOTAL	6.0	16.0	22.0	38.0/ <u>aa</u>	53.5
MALE	10.0	21.0	27.0	34.6/ <u>aa</u>	58.4
FEMALE	3.0	11.0	18.0	18.0/ <u>aa</u>	48.6
VOCATIONAL ENROL. (% OF SECONDARY)	20.0	22.0	20.0	3.8	21.1
PUPIL-TEACHER RATIO					
PRIMARY	39.0	29.0	30.0	32.8	34.2
SECONDARY	14.0	13.0	17.0	19.9	31.7
ADULT LITERACY RATE (PERCENT)	39.0	56.6	62.0	52.8	86.5
CONSUMPTION					
PASSENGER CARS PER THOUSAND POPULATION					
	1.0	2.1	3.5	1.7	12.7
RADIO RECEIVERS PER THOUSAND POPULATION					
	7.2	22.0	38.5	35.3	174.1
TV RECEIVERS PER THOUSAND POPULATION					
	0.1	0.8	7.3	3.7	50.6
NEWSPAPER ("DAILY GENERAL INTEREST") CIRCULATION PER THOUSAND POPULATION					
	..	..	17.7	14.6	106.8
CINEMA ANNUAL ATTENDANCE PER CAPITA					
	..	..	0.8	3.4	4.3
LABOR FORCE					
TOTAL LABOR FORCE (THOUSANDS)					
	34752.5	41034.6	50929.1	.	.
FEMALE (PERCENT)					
	27.9	31.0	29.5	29.3	37.4
AGRICULTURE (PERCENT)					
	74.8	66.3	59.1	69.8	50.2
INDUSTRY (PERCENT)					
	8.4	9.7	11.8	14.1	21.9
PARTICIPATION RATE (PERCENT)					
TOTAL	36.7	35.3	35.6	39.7	40.2
MALE	54.2	49.5	50.1	51.5	49.8
FEMALE	20.0	21.6	21.1	23.3	31.1
ECONOMIC DEPENDENCY RATIO	1.2	1.3	1.2	1.1	1.1
INCOME DISTRIBUTION					
PERCENT OF PRIVATE INCOME RECEIVED BY					
HIGHEST 5 PERCENT OF HOUSEHOLDS	..	33.7/ <u>c</u>	23.5	..	..
HIGHEST 20 PERCENT OF HOUSEHOLDS	..	52.0/ <u>c</u>	49.4	..	..
LOWEST 20 PERCENT OF HOUSEHOLDS	..	6.8/ <u>c</u>	6.6	..	..
LOWEST 40 PERCENT OF HOUSEHOLDS	..	17.3/ <u>c</u>	14.4	..	..
POVERTY TARGET GROUPS					
ESTIMATED ABSOLUTE POVERTY INCOME LEVEL (US\$ PER CAPITA)					
URBAN	..	..	136.0	134.1	248.6
RURAL	..	..	112.0	111.6	193.7
ESTIMATED RELATIVE POVERTY INCOME LEVEL (US\$ PER CAPITA)					
URBAN	..	..	119.0	..	249.8
RURAL	..	..	98.0	..	234.3
ESTIMATED POPULATION BELOW ABSOLUTE POVERTY INCOME LEVEL (PERCENT)					
URBAN	..	..	28.0	41.7	21.2
RURAL	..	..	51.0	51.7	32.2

.. Not available
. Not applicable.

NOTES

^{/a} The group averages for each indicator are population-weighted arithmetic means. Coverage of countries among the indicators depends on availability of data and is not uniform.

^{/aa} China included in total only.

^{/b} Unless otherwise noted, data for 1960 refer to any year between 1959 and 1961; for 1970, between 1969 and 1971; and for Most Recent Estimate, between 1976 and 1979.

^{/c} Income recipients.

DEFINITIONS OF SOCIAL INDICATORS

Notes: Although the data are drawn from sources generally judged the most authoritative and reliable, it should also be noted that they may not be internationally comparable because of the lack of standardized definitions and concepts used by different countries in collecting the data. The data are, nonetheless, useful to describe orders of magnitude, indicate trends, and characterize certain major differences between countries.

The reference groups are (1) the same country group of the subject country and (2) a country group with somewhat higher average income than the country group of the subject country (except for "Capital Surplus Oil Exporters" group where "Middle Income North Africa and Middle East" is chosen because of stronger socio-cultural affinities). In the reference group data the averages are population weighted arithmetic means for each indicator and shown only when majority of the countries in a group has data for that indicator. Since the coverage of countries among the indicators depends on the availability of data and is not uniform, caution must be exercised in relating averages of one indicator to another. These averages are only useful in comparing the value of one indicator at a time among the country and reference groups.

LAND AREA (thousand sq.km.)

Total - Total surface area comprising land area and inland waters.
Agricultural - Estimate of agricultural area used temporarily or permanently for crops, pastures, market and kitchen gardens or to lie fallow; 1978 data.

GNP PER CAPITA (US\$) - GNP per capita estimates at current market prices, calculated by same conversion method as World Bank Atlas (1977-79 basis); 1960, 1970, and 1979 data.

ENERGY CONSUMPTION PER CAPITA - Annual consumption of commercial energy (coal and lignite, petroleum, natural gas and hydro-, nuclear and geothermal electricity) in kilograms of coal equivalent per capita; 1960, 1970, and 1979 data.

POPULATION AND VITAL STATISTICS

Total Population, Mid-Year (thousands) - As of July 1; 1960, 1970, and 1979 data.

Urban Population (percent of total) - Ratio of urban to total population; different definitions of urban areas may affect comparability of data among countries; 1960, 1970, and 1979 data.

Population Projections - Population in year 2000 - Current population projections are based on 1980 total population by age and sex and their mortality and fertility rates. Projection parameters for mortality rates comprise of three levels assuming life expectancy at birth increasing with country's per capita income level, and female life expectancy stabilizing at 77.5 years. The parameters for fertility rate also have three levels assuming decline in fertility according to income level and past family planning performance. Each country is then assigned one of these nine combinations of mortality and fertility trends for projection purposes.

Stationary population - In a stationary population there is no growth since the birth rate is equal to the death rate, and also the age structure remains constant. This is achieved only after fertility rates decline to the replacement level of unit net reproduction rate, when each generation of women replaces itself exactly. The stationary population size was estimated on the basis of the projected characteristics of the population in the year 2000, and the rate of decline of fertility rate to replacement level.

Year stationary population is reached - The year when stationary population size has been reached.

Population Density

Per sq. km. - Mid-year population per square kilometer (100 hectares) of total area; 1960, 1970 and 1979 data.
Per sq. km. agricultural land - Computed as above for agricultural land only; 1960, 1970 and 1979 data.

Population Age Structure (percent) - Children (0-14 years), working-age (15-64 years), and retired (65 years and over) as percentages of mid-year population; 1960, 1970, and 1979 data.

Population Growth Rate (percent) - total - Annual growth rates of total mid-year populations for 1950-60, 1960-70, and 1970-79.

Population Growth Rate (percent) - urban - Annual growth rates of urban populations for 1950-60, 1960-70, and 1970-79.

Crude Birth Rate (per thousand) - Annual live births per thousand of mid-year population; 1960, 1970, and 1979 data.

Crude Death Rate (per thousand) - Annual deaths per thousands of mid-year population; 1960, 1970, and 1979 data.

Gross Reproduction Rate - Average number of daughters a woman will bear in her normal reproductive period if she experiences present age-specific fertility rates; usually five-year averages ending in 1960, 1970, and 1979.

Family Planning - Acceptors, Annual (thousands) - Annual number of acceptors of birth-control devices under auspices of national family planning program.

Family Planning - Users (percent of married women) - Percentage of married women of child-bearing age (15-44 years) who use birth-control devices to all married women in same age group.

FOOD AND NUTRITION

Index of Food Production per Capita (1969-71=100) - Index of per capita annual production of all food commodities. Production excludes seed and feed and is on calendar year basis. Commodities cover primary goods (e.g. sugarcane instead of edible and contains nutrients (e.g. coffee and tea are excluded). Aggregate production of each country is based on national average producer price weights; 1961-65, 1970, and 1979 data.

Per capita supply of calories (percent of requirements) - Computed from energy equivalent of net food supplies available in country per capita per day. Available supplies comprise domestic production, imports less exports in stock. Net supplies exclude animal feed, seeds, quantities used in food processing, and losses in distribution. Requirements were estimated by FAO based on physiological needs for normal activity and health considering environmental temperature, body weights, age and sex distribution of population, and allowing 10 percent for waste at household level; 1961-65, 1970, and 1979 data.

Per capita supply of protein (grams per day) - Protein content of per capita net supply of food per day. Net supply of food is defined as above. Requirements for all countries established by USDA provide for minimum allowance of 40 grams of total protein per day and 20 grams of animal and pulse protein, of which 10 grams should be animal protein. These standards are lower than those of 75 grams of total protein and 23 grams of animal protein as an average for the world, proposed by FAO in the Third World Food Survey; 1961-65, 1970 and 1977 data.

Per capita protein supply from animal and pulse - Protein supply of food derived from animals and pulses in grams per day; 1961-65, 1970 and 1977 data.

Child (ages 1-4) Mortality Rate (per thousand) - Annual deaths per thousand in age group 1-4 years, to children in this age group; for most developing countries data derived from life tables; 1960, 1970 and 1979 data.

HEALTH

Life Expectancy at Birth (Years) - Average number of years of life remaining at birth; 1960, 1970 and 1979 data.

Infant Mortality Rate (per thousand) - Annual deaths of infants under one year of age per thousand live births.

Access to Safe Water (percent of population) - total, urban, and rural - Number of people (total, urban, and rural) with reasonable access to safe water supply (includes treated surface waters or untreated but uncontaminated water such as that from protected boreholes, springs, and sanitary wells) as percentages of their respective populations. In an urban area a public fountain or standpost located not more than 200 meters from a house may be considered as being within reasonable access of that house. In rural areas reasonable access would imply that the housewife or members of the household do not have to spend a disproportionate part of the day in fetching the family's water needs.

Access to Excreta Disposal (percent of population) - total, urban, and rural - Number of people (total, urban, and rural) served by excreta disposal as percentages of their respective populations. Excreta disposal may include the collection and disposal, with or without treatment, of human excreta and waste-water by water-borne systems or the use of pit privies and similar installations.

Population per Physician - Population divided by number of practicing physicians qualified from a medical school at university level.

Population per Nursing Person - Population divided by number of practicing male and female graduate nurses, practical nurses, and assistant nurses.

Population per Hospital Bed - total, urban, and rural - Population (total, urban, and rural) divided by that respective number of hospital beds available in public and private general and specialized hospital and rehabilitation centers. Hospitals are establishments permanently staffed by at least one physician. Establishments providing principally custodial care are not included. Rural hospitals, however, include health and medical centers not permanently staffed by a physician (but by a medical assistant, nurse, midwife, etc.) which offer in-patient accommodation and provide a limited range of medical facilities. For statistical purposes urban hospitals include WHO principal/general hospitals, and rural hospitals, local or rural hospitals and medical and maternity centers. Specialized hospitals are included only under total.

Admissions per Hospital Bed - Total number of admissions to or discharges from hospitals divided by the number of beds.

HOUSING

Average Size of Household (persons per household) - total, urban, and rural - A household consists of a group of individuals who share living quarters and their main meals. A boarder or lodger may or may not be included in the household for statistical purposes.

Average number of persons per room - total, urban, and rural - Average number of persons per room in all urban, and rural occupied conventional dwellings, respectively. Dwellings exclude non-permanent structures and unoccupied parts.

Access to Electricity (percent of dwellings) - total, urban, and rural - Conventional dwellings with electricity in living quarters as percentage of total, urban, and rural dwellings respectively.

EDUCATION

Adjusted Enrollment Ratios

Primary school - total, male and female - Gross total, male and female enrollment of all ages at the primary level as percentages of respective primary school-age populations; normally includes children aged 6-11 years but adjusted for different lengths of primary education; for countries with universal education enrollment may exceed 100 percent since some pupils are below or above the official school age.

Secondary school - total, male and female - Computed as above; secondary education requires at least four years of approved primary instruction; provides general, vocational, or teacher training instructions for pupils usually of 12 to 17 years of age; correspondence courses are generally excluded.

Vocational enrollment (percent of secondary) - Vocational institutions include technical, industrial, or other programs which operate independently or as departments of secondary institutions.

Pupil-teacher ratio - primary, and secondary - Total students enrolled in primary and secondary levels divided by numbers of teachers in the corresponding levels.

Adult literacy rate (percent) - Literate adults (able to read and write) as a percentage of total adult population aged 15 years and over.

CONSUMPTION

Passenger Cars (per thousand population) - Passenger cars comprise motor cars seating less than eight persons; excludes ambulances, hearse and military vehicles.

Radio Receivers (per thousand population) - All types of receivers for radio broadcasts to general public per thousand of population; excludes unlicensed receivers in countries and in years when registration of radio sets was in effect; data for recent years may not be comparable since most countries abolished licensing.

TV Receivers (per thousand population) - TV receivers for broadcast to general public per thousand population; excludes unlicensed TV receivers in countries and in years when registration of TV sets was in effect.

Newspaper Circulation (per thousand population) - Shows the average circulation of "daily general interest newspaper", defined as a periodical publication devoted primarily to recording general news. It is considered to be "daily" if it appears at least four times a week.

Cinema Annual Attendance per Capita per Year - Based on the number of tickets sold during the year, including admissions to drive-in cinemas and mobile units.

LABOR FORCE

Total Labor Force (thousands) - Economically active persons, including armed forces and unemployed but excluding housewives, students, etc., covering population of all ages. Definitions in various countries are not comparable; 1960, 1970 and 1979 data.

Female (percent) - Female labor force as percentage of total labor force.

Agriculture (percent) - Labor force in farming, forestry, hunting and fishing as percentage of total labor force; 1960, 1970 and 1979 data.

Industry (percent) - Labor force in mining, construction, manufacturing and electricity, water and gas as percentage of total labor force; 1960, 1970 and 1979 data.

Participation Rate (percent) - total, male, and female - Participation or activity rates are computed as total, male, and female labor force as percentages of total, male and female population of all ages respectively; 1960, 1970, and 1979 data. These are based on ILO's participation rates reflecting age-sex structure of the population, and long time trend. A few estimates are from national sources.

Economic Dependency Ratio - Ratio of population under 15 and 65 and over to the total labor force.

INCOME DISTRIBUTION

Percentage of Private Income (both in cash and kind) - Received by richest 5 percent, richest 20 percent, poorest 20 percent, and poorest 40 percent of households.

POVERTY TARGET GROUPS

The following estimates are very approximate measures of poverty levels, and should be interpreted with considerable caution.

Estimated Absolute Poverty Income Level (US\$ per capita) - urban and rural - Absolute poverty income level is that income level below which a minimal nutritionally adequate diet plus essential non-food requirements is not affordable.

Estimated Relative Poverty Income Level (US\$ per capita) - urban and rural - Rural relative poverty income level is one-third of average per capita personal income of the country. Urban level is derived from the rural level with adjustment for higher cost of living in urban areas.

Estimated Population Below Absolute Poverty Income Level (percent) - urban and rural - Percent of population (urban and rural) who are "absolute poor".

Population : 147.4 million (mid-1980)
GNP per Capita: US\$365 (1979)

INDONESIA - ECONOMIC INDICATORS

Indicator	Amount (million US\$ at current prices) 1979	Annual growth rate (%) (at constant 1973 prices)										
		Actual					Projected					
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
NATIONAL ACCOUNTS												
Gross domestic product /a	49,211	5.0	6.9	8.8	6.8	4.9	7.1	7.2	7.3	7.3	7.4	7.4
Agriculture	14,678	0.0	4.7	1.3	5.2	2.2	3.5	3.5	3.5	3.5	3.5	3.5
Industry	16,003	5.6	11.1	14.2	5.9	5.5	9.0	9.0	9.0	9.0	9.0	9.0
Services	18,531	10.1	5.9	12.0	8.9	6.9	8.5	8.5	8.5	8.5	8.5	8.5
Consumption	34,686	6.9	6.4	7.9	8.5	5.8	12.4	8.7	7.8	8.1	7.6	6.8
Gross investment	11,103	14.6	6.0	16.0	15.0	5.6	12.0	12.0	12.0	12.0	12.0	12.0
Exports of GNFS	14,788	-9.7	12.5	22.4	0.1	8.9	-2.8	5.6	8.7	9.1	0.0	2.1
Imports of GNFS	11,366	7.9	8.1	22.2	15.6	10.6	10.1	13.1	14.6	15.4	2.6	5.6
Gross national savings	12,400	-19.7	12.0	33.3	-2.1	43.3	19.3	7.2	9.6	9.0	7.4	12.3
PRICES												
GDP deflator (1973 = 100)		166	190	214	232	309	368	423	473	519	569	621
Exchange rate		415	415	415	442	623	625	625	625	625	625	625
Share of GDP at market prices (%) (at current prices) /b												
	1960	1970	1975	1980	1985	1990	Average annual increase (%) (at constant 1973 prices)					
							1960-70	1970-75	1975-80	1980-85	1985-90	
Gross domestic product	100	100	100	100	100	100	3.9	8.4	6.9	7.3	8.2	
Agriculture	54	47	32	29	24	19	2.7	4.1	3.4	3.5	3.5	
Industry	14	18	34	33	36	41	5.2	12.0	9.1	9.0	11.2	
Services	32	35	35	38	40	40	4.8	9.7	8.4	8.5	8.0	
Consumption	91	89	79	74	76	77	4.1	8.4	8.3	7.7	8.7	
Gross investment	8	14	20	24	29	31	4.8	18.3	10.8	12.0	10.0	
Exports of GNFS	13	13	23	33	29	23	3.6	9.2	8.7	5.3	3.3	
Imports of GNFS	-13	-16	-22	-30	-34	-32	3.2	22.1	14.0	10.0	6.8	
Gross national savings	8	9	17	24	25	22	6.1	23.1	19.3	9.5	5.9	
As % of GDP												
		1960	1970	1975	1979							
PUBLIC FINANCE /c												
Current revenues		11.7	10.1	10.5	20.6							
Current expenditures		14.0	8.4	9.3	12.5							
Surplus (+) or deficit (-)		-2.3	+1.6	+7.1	+8.1							
Capital expenditure		n.a.	5.0	10.7	12.4							
Foreign financing		0.2	3.5	3.7	4.3							
OTHER INDICATORS												
		1960-70	1970-75	1975-80	1980-85	1985-90						
Annual GNP growth rate (%)		4.5	7.6	6.3	7.7	8.1						
Annual GNP per capita growth rate (%)		2.4	5.1	3.9	5.3	5.7						
Annual energy consumption growth rate (%)		2.9	16.0	15.0	11.0	10.7						
ICOR		2.2	2.2	3.4	3.5	3.7						
Marginal savings rate		0.30	0.48	0.68	0.36	0.24						
Import elasticity		1.2	2.8	0.7	1.4	0.8						

/a At market prices.

/b Projected years at constant prices. Owing to favorable terms of trade developments the resource gap's share of GDP at current prices is significantly less than at constant prices.

/c Central Government only, on an April-to-March fiscal year basis.

Population : 147.4 million (mid-1980)
GNP per Capita: US\$365 (1979)

INDONESIA - BALANCE OF PAYMENTS, EXTERNAL CAPITAL AND DEBT
(Millions US\$ at current prices)

Indicator	Actual					Projected					
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1985	1990
BALANCE OF PAYMENTS /a											
Exports of goods and services	7,425	9,384	11,056	11,650	17,797	23,320	27,624	33,600	40,645	49,391	79,726
Of which: Merchandise f.o.b.	7,283	9,213	10,861	11,353	17,488	22,414	26,375	31,967	38,555	46,430	75,623
Imports of goods and services	-8,279	-10,186	-11,746	-12,785	-15,813	-20,407	-24,862	-30,398	-37,365	-46,967	-88,148
Of which: Merchandise c.i.f.	-7,362	-8,807	-10,150	-10,907	-13,579	-17,569	-21,769	-27,028	-33,573	-42,230	-79,790
Net transfers	75	61	66	46	52	76	100	50	50	50	50
Current account balance	-779	-741	-624	-1,109	2,046	2,989	2,862	3,252	3,329	2,473	-8,372
Private direct investment	454	287	285	271	217	170	170	200	250	300	500
MLT Loans (net) /b	1,800	1,895	1,131	660	604	1,768	1,788	1,857	1,579	1,273	3,316
Official - source (net)	514	836	752	771	515	1,128	1,644	1,949	1,912	1,646	947
Private - source (net)	1,287	1,059	379	-110	89	640	144	-92	-333	-373	2,391
Other capital	-1,839	-442	-140	888	-1,075	-2,417	-2,204	-1,511	-1,267	-738	1,368
Change in reserves	364	-1,001	-651	-708	-1,690	-2,510	-2,616	-3,798	-3,892	-3,308	3,188
Net official reserves	556	1,557	2,208	2,916	4,606	7,116	9,732	13,530	17,422	23,981	25,991
Reserves as months imports	0.8	1.8	2.3	2.7	3.5	4.2	4.7	5.3	5.6	6.1	3.5
Memorandum Items											
Net exports of goods and services of the oil sector	3,138	3,710	4,445	4,010	6,974	10,577	12,295	12,466	16,523	20,481	27,029
Net foreign assets of the banking system	556	1,557	2,623	3,372	6,906	11,078	15,900	21,297	26,489	35,209	35,885
Total reserves /c as months imports	0.8	1.8	2.7	3.2	5.2	6.5	7.7	8.4	8.5	9.0	4.9
EXTERNAL CAPITAL AND DEBT /b											
Gross Disbursements	2,152	2,332	1,956	1,641	1,945	2,758					
Concessional Loans	503	488	442	494	445	968					
DAC	378	365	354	429	405	830					
OPEC	-	-	27	29	5	22					
IDA	107	99	49	29	30	56					
Other	18	23	12	6	6	59					
Nonconcessional Loans	1,649	1,844	1,514	1,148	1,501	1,790					
Official export credits	15	267	221	305	88	111					
IBRD	57	157	191	168	199	355					
Other multilateral	3	11	16	12	46	100					
Private - source	1,574	1,409	1,086	663	1,168	1,223					
External Debt (fixed-term)											
Debt outstanding & disbursed /d	8,014	10,018	11,671	13,128	13,326	15,040					
Official - source	5,006	5,913	7,077	8,434	8,512	9,657					
Private - source	3,008	4,105	4,594	4,694	4,814	5,383					
Undisbursed debt	3,703	4,533	4,481	5,832	7,514	8,029					
Debt Service											
Total service payments	517	775	1,266	1,463	2,107	1,804					
Interest	165	318	441	485	772	815					
Payments as % exports of goods & services /e	7.0	8.0	11.5	12.6	11.8	7.7					
Average Interest Rate on New Loans (%)	8.3	7.5	6.3	7.3	6.6	8.8					
Official - source	6.5	7.0	5.5	4.7	4.9	5.5					
Private - source	9.3	8.1	8.6	10.8	8.9	13.5					
Average Maturity of New Loans (Years)	12.7	14.9	20.5	21.2	19.9	18.1					
Official - source	21.3	20.2	23.9	30.1	25.7	23.5					
Private - source	8.1	8.3	10.4	9.3	11.4	10.3					

As % of debt outstanding at end of 1979

Maturity structure of debt outstanding	
Maturities due within 5 years	30.2
Maturities due within 10 years	64.6
Interest structure of debt outstanding	
Interest due within first year	4.0

/a On an April-to-March fiscal year basis.

/b Excludes private nonguaranteed loans.

/c Includes foreign assets of deposit money banks in addition to official reserves.

/d At end of period.

/e Oil exports treated on gross basis.

THE STATUS OF BANK GROUP OPERATIONS IN INDONESIA

A. STATEMENT OF BANK LOANS AND IDA CREDITS (as of July 31, 1981)

Loan/ Credit Number	Fiscal Year	Purpose	US\$ million Amount (less cancellations)		
			Bank	IDA	Undisbursed
Eight Loans and twenty-nine Credits fully disbursed			426.51	458.43	-
300	1972	Population		13.20	0.63
358	1973	North Sumatra Smallholder Development		5.00	0.78
387	1973	Third Education		13.50	3.51
400	1973	Smallholder and Private Estate Tea		7.80	3.51
428	1974	Pulo Gadung Industrial Estate		16.50	8.74
451	1974	Fourth Technical Assistance		5.00	0.95
479	1974	Bali Tourism		16.00	3.99
480	1974	Fisheries Credit		6.50	0.66
514	1975	Jatiluhur Irrigation Extension		30.00	10.67
785	1978	Small Enterprise Development Project		40.00	10.45
827	1978	Rural Credit		30.00	20.37
869	1979	Polytechnic		49.00	46.56
898	1979	Fifth Technical Assistance		10.00	9.01
919	1979	Transmigration II		67.00	51.51
946	1980	Yogyakarta Rural Development		12.00	11.34
984	1980	Smallholder Rubber Dev. Project		45.00	42.82
995	1980	Fifteenth Irrigation		45.00	42.03
996	1980	National Agriculture Extension II		42.00	41.64
1014	1980	National Ag. Research Project		30.00	29.95
1049	1975	Five Cities Water Supply	14.50		1.59
1100	1975	Sixth Irrigation	65.00		21.02
1179	1976	Agricultural Research & Extension	21.50		6.81
1197	1976	National Resource Survey & Mapping	13.00		5.49
1236	1976	Fourth Highway	130.00		42.58
1237	1976	Fourth Education	37.00		11.98
1250	1976	Second Shipping	54.00		16.35
1259	1976	Fifth Power	90.00		5.96
1267	1976	National Food Crops Extension	22.00		5.63
1268	1976	Seventh Irrigation	33.00		11.22
1318	1977	Transmigration and Rural Development	30.00		9.64
1336	1977	Second Urban Development	52.50		9.09
1337	1977	Tanjung Priok Port	32.00		12.20
1363	1977	Second PDFCI	15.00		1.48

Loan/ Credit Number	Fiscal Year	Purpose	US\$ million Amount (less cancellations)		
			Bank	IDA	Undisbursed
1365	1977	Sixth Power	116.00		38.89
1373	1977	Nutrition Development	13.00		8.90
1433	1977	Teacher Training-Fifth Education	19.00		12.66
1434	1977	Eighth Irrigation	63.00		44.17
1435	1977	Ninth Irrigation	35.00		15.08
1437	1977	Development Finance Co. (BAPINDO III)	40.00		1.49
1472	1977	Second Population	24.50		15.42
1486	1978	Non-Formal Education	15.00		8.34
1499	1978	Nucleus Estates and Smallholders I	65.00		38.76
1513	1978	Seventh Power	94.00		58.03
1578	1978	Tenth Irrigation	140.00		125.47
1579	1978	Eleventh Irrigation	31.00		24.59
1604	1978	Nucleus Estates and Smallholders II	65.00		62.36
1645	1979	Twelfth Irrigation	77.00		62.39
1653	1979	Third Urban Development	54.00		42.97
1691	1979	Lower Cimanuk Basin Flood Control	50.00		44.33
1692	1979	Second Agricultural Training	42.00		39.38
1696	1979	Fifth Highway	123.20		109.69
1703	1979	Fourth BAPINDO	50.00		30.35
1707	1979	Transmigration II	90.00		90.00
1708	1979	Eighth Power	175.00		154.07
1709	1979	Second Water Supply	36.00		34.31
1751	1980	Nucleus Estates and S'holders III	99.00		84.43
1811	1980	Fourteenth Irrigation	116.00		113.91
1835	1980	Nucleus Estates and S'holders IV	42.00		40.81
1840	1980	Nat. Ag. Research Project	35.00		35.00
1869	1980	Third Population Project	35.00		35.00
1872	1980	Ninth Power Project	253.00		245.16
1898	1981	S'holder Coconut Dev. Project	46.00		46.00
1904	1981	University Development Project	45.00		45.00
1950	1981	Tenth Power Project	250.00		250.00
1958	1981	Swamp Reclamation Project	22.00		22.00
1972	1981	Fourth Urban Development Project	43.00		43.00
2007	1981	Nucleus Estate and Smallholder V	161.00		161.00
2011	1981	Second Small Enterprise Development	106.00		106.00
2049	1982	Jakarta-Cikampek Highway /1	85.00		85.00

/1 Not yet effective

Loan/ Credit Number	Fiscal Year	Purpose	US\$ million		
			Amount (less cancellations)		
			Bank	IDA	Undisbursed
		Total Bank loans and IDA credits	3,729.00	931.80	
		less cancellations	<u>-23.13</u>	<u>-1.62</u>	
		Total	3,705.87	930.18	
		of which has been repaid	<u>-82.63</u>	<u>-2.65</u>	
		Total now outstanding	<u>3,623.24</u>	<u>927.53</u>	
		Amount sold to third party		28.24	
		Amount repaid by third party	-27.21	-1.03	
		Total now held by Bank and IDA /a	<u>3,622.21</u>	<u>927.53</u>	
		Total undisbursed	<u>2,134.59</u>	<u>346.03</u>	<u>2,480.62</u>

/a Prior to exchange adjustment.

B. STATEMENT OF IFC INVESTMENTS (as of July 31, 1981)

Fiscal year	Obligor	Type of business	Loan -----	Equity (US\$ million)	Total -----
1971	P.T. Semen Cibinong	Cement	10.6	2.5	13.1
1971	P.T. Unitex	Textiles	2.5	0.8	3.3
1971	P.T. Primatexco Indonesia	Textiles	2.0	0.5	2.5
1971	P.T. Kabel Indonesia	Cable	2.8	0.4	3.2
1972	P.T. Daralon Textile Manuf. Corp.	Textiles	4.5	1.5	6.0
1973	P.T. Jakarta Int. Hotel	Tourism	11.0	-	11.0
1973	P.T. Semen Cibinong	Cement	5.4	0.7	6.1
1974	P.T. Primatexco Indonesia	Textiles	2.0	0.3	2.3
1974	P.T. Monsanto Pan	Electronics	0.9	-	0.9
1974	P.T. PDFCI	Devel. Fin. Co.	-	0.5	0.5
1974	P.T. Kamaltex	Textiles	2.4	0.6	3.0
1976	P.T. Semen Cibinong	Cement	5.0	1.5	6.5
1976	P.T. Semen Cibinong	Cement	-	1.1	1.1
1977	P.T. Daralon Textile Manuf. Corp.	Textiles	0.4	-	0.4
1977	P.T. Kamaltex	Textiles	1.3	0.2	1.5
1979	P.T. Daralon	Textiles	0.9	-	0.9
1980	P.T. Papan Sejahtera	Capital Market	4.0	1.2	5.2
1980	P.T. Indo American Industries	Glass Dinnerware	11.1	0.9	12.0
1980	P.T. Semen Andalas Indonesia	Cement and Construction Material	48.0	5.0	53.0
Total gross commitments			<u>114.8</u>	<u>17.7</u>	<u>132.5</u>
Less: sold or repaid and cancelled			<u>73.7</u>	<u>3.4</u>	<u>77.1</u>
Total held by IFC			<u>41.1</u>	<u>14.3</u>	<u>55.4</u>
Undisbursed (including participant's portion)			<u>63.1</u>	<u>0.9</u>	<u>64.0</u>

C. STATUS OF PROJECTS IN EXECUTION /1
As of September 30, 1981

These notes are arranged by sectors in the following order:

	<u>Page No.</u>
<u>Agriculture</u>	
Irrigation (514, 1100, 1268, 1434, 1435, 1578, 1579, 1645, 1691, 1811, 995 and 1958)	6-9
Other Agriculture Production (358, 400, 480, 1318, 1707/919, 1499, 1604, 1751, 1835, 984, 1898 and 2007)	9-13
Agriculture Support Services (1179, 1267, 996 and 1840/1014)	13-14
Rural Development (946)	14
<u>Agro-Business and Credit</u> (785, 827 and 2011)	15
<u>Education</u> (387, 869, 1237, 1433, 1486, 1692 and 1904)	16-18
<u>Energy</u> (1259, 1365, 1513, 1708, 1872 and 1950)	18-20
<u>Industrial Development and Finance</u>	
Industrial Estates (428)	21
Development Finance Companies (1363, 1437 and 1703)	21
<u>Population and Nutrition</u>	
Population (300, 1472 and 1869)	22
Nutrition (1373)	23
<u>Technical Assistance</u> (451, 898 and 1197)	24
<u>Transportation</u>	
Highways (1236, 1696 and 2049)	24-25
Marine Transport (1250)	25
Ports (1337)	26
<u>Tourism</u> (479)	26
<u>Urban Development</u> (1336, 1653 and 1972)	26-27
<u>Water Supply</u> (1049 and 1709)	28

/1 These notes are designed to inform the Executive Directors regarding the progress of projects in execution, and in particular to report any problems which are being encountered and the action being taken to remedy them. They should be read in this sense, and with the understanding that they do not purport to present a balanced evaluation of strengths and weaknesses in project execution.

C. PROJECTS IN EXECUTION

AGRICULTURE

Irrigation

Credit No. 514 Jatiluhur Irrigation Extension: \$30 Million Credit of
October 3, 1974; Effective Date: January 10, 1975;
Closing Date: December 31, 1982

Initial organizational difficulties, extensive changes in the design of project works and delays in awarding civil works contracts are expected to substantially delay project completion by four years. All major contracts for civil works have been awarded, and the last of these is expected to be completed by mid-1984. The total project cost is currently estimated to be about 90% over the appraisal estimate. The credit is expected to be fully disbursed by December 31, 1982, the new closing date.

Loan No. 1100 Sixth Irrigation: \$65 Million Loan of April 10, 1975;
Effective Date: June 20, 1975; Closing Date: June 30, 1982

The project is currently expected to be completed by March 1985, about four years behind the original completion date. This is mainly due to a delay of more than one year in the completion of bidding documents, followed by a delay of about two years due to delayed land acquisition, delayed payments to contractors and the effects of the 1978 Rupiah devaluation. Another year's delay has been added lately by the constant postponement of drainage works in both Rentang and Cerebon subprojects due to overall budget constraints imposed by the GOI on the Directorate General of Water Resources Development annual budget during the last three years. Disbursements are currently about 73% of the appraisal estimate. It is possible that because of the continuing delays in this project that the closing date will have to be postponed.

Loan No. 1268 Seventh Irrigation: \$33 Million Loan of June 4, 1976;
Effective Date: September 21, 1976; Closing Date:
December 31, 1981

The main components of the project are tertiary development on an area of 100,000 ha served by irrigation systems rehabilitated under previous credits and the construction of 6,000 ha of a new irrigation system in the Sadang area of South Sulawesi. The construction of tertiaries has progressed well and gained such a momentum that the scope of work was increased to 115,000 ha. About 85,000 ha have been completed and the balance will be completed by the end of 1981. The construction of North Sadang has suffered a delay of about three years due to design revisions and late award of contracts. All of the remaining works of the project will be completed by July 1983. Disbursements are currently 25% behind the appraisal estimates.

Loan No. 1434 Eighth Irrigation: \$63 Million Loan of June 6, 1977;
Effective Date: July 7, 1977; Closing Date: March 31, 1983

The main components of the project are rehabilitation of the Madiun Irrigation System serving an area of about 75,000 ha in Stage I including 30,000 ha of tertiary development, pilot ground water scheme for 2,800 ha in

the Madiun-Solo area and the improvement of flood control, drainage and road networks on 5,700 ha of coastal land in the Ciujung subproject. The Madiun Irrigation and pilot ground water scheme components have made satisfactory progress and are expected to be completed by the end of 1983. The Ciujung drainage component has suffered the most delay caused by the late completion of feasibility studies and inaccurate maps and some difficulties with land acquisition. Disbursements are currently about 75% behind the appraisal estimate largely due to initial delays but are expected to improve in 1982 when all of the contracts for the Ciujung drainage component will be under implementation.

Loan No. 1435 Ninth Irrigation: \$35 Million Loan of June 6, 1977; Effective Date: July 7, 1977; Closing Date: December 31, 1981.

The project consists of three components: (a) the Sedeku Irrigation and Drainage Subproject; (b) the Sungai Dareh-Sitiung Irrigation Project; and (c) various studies and investigations. Progress on these components is as follows: (a) consequent on GOI's decision not to construct the Jragung Dam, the down river drainage works and designs are being reviewed. Delay in completion is currently estimated to be about three years; (b) all the contracts of the Stage I area are awarded and the project is estimated to be completed by mid-1982, a delay of about one year. Problems of land clearing and land shaping on about 3,000 ha to convert to sawahs (wet rice fields) are unresolved and might delay early benefits. The Stage II area was appraised by the Bank in September 1980 and due to a low economic rate of return it was not recommended for further Bank consideration; and (c) feasibility studies of ten systems have been completed. Three projects were recommended for Bank assistance under the proposed sixteenth irrigation project, two were financed by KfW and one is proposed to be financed by the Asian Development Bank. Three ongoing projects would be completed fully by GOI financing. Disbursements are at about 58% of appraisal estimates.

Loan No. 1578 Tenth Irrigation: \$140 Million Loan of June 6, 1978; Effective Date: August 16, 1978; Closing Date: December 31, 1984.

The project includes: (a) rehabilitation and improvements of about 34,700 ha of Kali Progo irrigation system; (b) improvements of about 19,900 ha of Way Seputih; (c) improvements and expansion of about 63,100 ha of Way Sekampung irrigation projects; (d) studies and detailed designs of two dams associated with (b) and (c) above; (e) studies of Dumoga and Gumbasa irrigation projects; and (f) consulting services for the above and also studies of two dams in the Kali Progo project area, extension of irrigation to Bekri, West Rumbia, Way Kandis and Way Ketibung in Lampung Province. The Kali Progo project is behind schedule by 12 months whereas the Way Seputih and Way Sekampung projects have slipped further and are behind schedule by 24 months. The status of down river works of the latter two irrigation systems, associated with the two dams, was reviewed by the Bank in April/May 1981 and the GOI was informed that the rehabilitation and extension of irrigation systems would only be justified if the two dams are built; alternatively the program under the current project has to be curtailed. Subject to resolving the issue within six months and if there are no slippages, the current

estimated completion is December 1985; a delay of two years. Disbursements are currently 33% of appraisal estimate.

Loan No. 1579 Eleventh Irrigation: \$31 Million Loan of June 6, 1978;
Effective Date: August 16, 1978; Closing Date:
December 31, 1983.

Due to slow progress the project is currently estimated to be completed in June 1983, a delay of about one year. The Hydrologic Measurement Program has been delayed by about 2-1/2 years due to a setback in the program for procurement of equipment and selection of sites for gauging stations. Studies for a master plan for the development of the Cimanuk River Basin have been completed and a final report has been submitted to the Bank. Detailed designs of flood control works of the Lower Cimanuk, Cipanas and Ciwaringin Rivers have been completed and construction is proceeding under Loan 1691-IND. Due to unfavorable foundation conditions at the dam site and GOI's decision not to construct large dams on Java this component is indefinitely postponed and it is proposed that these funds be utilized for feasibility studies of Glapan Barrage and Tuntang River and upgrading of irrigation systems. Disbursements are about 39% of appraisal estimates.

Loan No. 1645 Twelfth Irrigation: \$77 Million Loan of December 29, 1978.
Effective Date: May 10, 1979; Closing Date: March 31, 1984.

The Jatiluhur Tertiary Development on an area of 186,000 ha is proceeding on schedule; construction on 103,731 ha has been completed and the balance of the area would be covered in two fiscal years 81/82 and 82/83. The Cisedane drainage works have been delayed; two small contracts of about \$2 million were awarded in January-February 1981, and are about 30-40% completed. Tenders for three major contracts, aggregate \$30.4 million, received in March-April 1981, are expected to be awarded in November 1981. Right-of-way acquisition is also behind schedule. This subproject is currently estimated to be completed by March 1985, a delay of two years over appraisal estimate. All studies are expected to be completed by July 1982. Disbursements are about 35% of the appraisal estimates.

Loan No. 1691 Lower Cimanuk Basin Flood Control: \$51 Million Loan of
May 7, 1979; Effective Date: October 16, 1979;
Closing Date: March 31, 1984.

The main components of the projects are flood protection levees, bank stabilization and river training works on the lower Cimanuk river, widening of the Rambatan Channel and construction of a hydraulic control structure at Bangkir, the Cimanuk river estuary study and the flood control operating and flood forecasting study. Good and satisfactory progress has been made on the civil works and various studies. Civil works are expected to be completed by the end of 1983. Disbursements are currently about 50% behind the appraisal estimate largely due to initial delays and lately due to the late award of contracts caused by the review required by the GOI's procurement committee.

Loans No. 1811 Fourteenth Irrigation Project: \$116 Million Loan of April 3, 1980; Effective Date: July 3, 1980; Closing Date: January 31, 1986

The main components of the project are construction and rehabilitation of drainage and flood protection works on the Serang River to reduce flooding of some 61,000 ha of farm land, rehabilitation of Madiun irrigation systems serving about 65,000 ha area of Stage II and tertiary development serving 120,000 ha in the Pemali Comal and Pekalen Sampean Sub-projects. The project is in the initial stages of mobilization for the Serang River. Works in Madiun area and tertiary development are progressing well ahead of schedule. Consultants contracts are being finalized.

Credit No. 995 Fifteenth Irrigation Project: \$45 Million Credit of April 3, 1980; Effective Date: July 3, 1980; Closing Date: January 31, 1985

The project includes: (a) the completion of the Kosinggolan irrigation system on about 5,500 ha and construction of the new Toraut irrigation system on about 6,600 ha; (b) catchment protection and a nature reserve on an area of about 100,000 ha; (c) institutional support to the Directorate General of Water Resources Development (DGWRD) through consultancy services and training; (d) strengthening of mapping capabilities; and (e) studies and investigations of four irrigation systems. A contract for the construction of the Toraut headworks and the first two kilometers of the main canal commenced in early 1981 and two major contracts are programmed for award in FY81/82. A start has yet to be made on the nature reserve component by the appointment of personnel and the construction of the headquarters. Consultants for the studies and institutional support of the DGWRD have been appointed. The project is currently about 6-8 months behind schedule.

Loan No. 1958 Swamp Reclamation Project: \$22 Million Loan of March 31, 1981; Effective Date: July 9, 1981; Closing Date: December 31, 1986.

This loan was declared effective on July 9, 1981. The project assists GOI's effort to reclaim and settle swamps by implementing a 9,000 ha swamp reclamation and settlement project at Karang Agung, South Sumatra. In addition to physical works, the project comprises the preparation of future swamp investments, an ecological impact study, an investigation of groundwater for drinking and project monitoring.

Other Agriculture Production Projects

Credit No. 358 North Sumatra Smallholder Development: \$5 Million Credit of February 14, 1973; Effective Date: August 13, 1973; Closing Date: December 31, 1981.

The 9,000 ha planting program under the project is now completed. Rubber and oil palm continue to show very satisfactory growth with the 1974/75 plantings of rubber and oil palm coming into production. Control of weeding and general maintenance standards will require close supervision up to 1982/83 when all plantings reach maturity.

Credit No. 400 Smallholder and Private Estate Tea: \$7.8 Million Credit
of June 22, 1973; Effective Date: November 30, 1973;
Closing Date: March 31, 1982

The project provides credit through Bank Rakyat Indonesia (BRI) and extension advice through a Project Management Unit for improvement of Indonesian smallholder and private estate tea. Of 13,200 ha, 60% was to be rehabilitated and 40% replanted. Participants have preferred more costly replanting and the target area has therefore been changed to 10,500 ha, and the proportions reversed. The project is making a substantial contribution to the smallholder tea industry with over 7,000 participants (appraisal forecast 7,700); five private tea estates (four factories) making fair to excellent progress; one of two new major tea factories to be built; and 16,000 smallholders helped by excellent village and research institute training. However, disbursements continue to be behind target due to a combination of early sluggish progress in implementation combined with continued delays that occur between BRI branch disbursements and submission of applications for withdrawal.

Credit No. 480 Fisheries Credit: \$6.5 Million Credit of June 14, 1974;
Effective Date: January 8, 1975; Closing Date:
December 31, 1981.

Initial delays have put the project about 18 months behind schedule. The marine fishing complex at Ambon is completed, making a promising start with twenty fishing boats operating, ten by GOI's skipjack tuna enterprise and ten by a cooperative; two 100 gross ton catcher/carriers have been ordered and are due to be delivered late 1981. The quality of fishpond lending by Bank Rakyat Indonesia suffered early deficiencies, but is now completed; loan arrears worsened statistically since mid-1980 although they improved slightly in the first quarter of 1981. Coverage is much less than appraisal forecast (31% of farmers, 60% of area) and details not yet available, but inflation and the inability of smaller owners to participate are probably the reasons. The skipjack tuna enterprise has improved markedly following a management change, and catches could improve still further. Although not a profitable enterprise, it is expected to improve in FY81/82.

Loan No. 1318 Transmigration and Rural Development: \$30 Million
Loan of July 21, 1976; Effective Date: March 30, 1977;
Closing Date: December 31, 1982

Although the project is still about 2 years behind schedule, it has progressed considerably since July 1980. To date about 4,300 families have been settled in Baturaja, which is 95% of the target. About 200 water supply reservoirs have been built at Baturaja. The pasture development program is well established and 4,800 cattle have been distributed. Rubber development at Baturaja is behind schedule and 1,900 ha need to be planted in 1981/82 to complete the program. The cropping system trials continue to progress satisfactorily. Disbursements have now reached 62% of appraisal estimates.

Loan No. 1707 Transmigration II: \$90 Million Loan and \$67 Million Credit of
(Cr. No. 919) June 1, 1979; Effective Date: October 4, 1979;
 Closing Date: December 31, 1985

There have been delays in the implementation of the project. Land clearing and road construction are now about six months behind appraisal estimates due to: (a) the rejection of large areas identified for site development in the appraisal report due to unsuitability for the agricultural development proposed; (b) weak overall project organization and management; and (c) delays in contractor's and consultant's engagement. More recently, significant numbers of unauthorized settlers have been found in areas presently identified for site development, and the GOI has proposed some changes to design criteria for the large areas already prepared. These matters are being reviewed with GOI but will likely take some time to resolve. Consequently, completion of project works and settlement of families are now expected to lag at least one year behind appraisal estimates.

Loan No. 1499 Nucleus Estates and Smallholders I: \$65 Million Loan
 of November 18, 1977; Effective Date: January 12, 1978;
 Closing Date: June 30, 1982

The nucleus estates have planted about 7,000 ha of rubber for smallholders, constructed about 1,400 settler houses and settled about 850 families. In their own estates, the nucleus estates have rehabilitated 18,400 ha of rubber; planted 7,200 ha of rubber; 3,300 ha of coconuts, and 5,600 ha of oil palm and are about to complete construction of three rubber factories and one palm oil mill. Start-up delays are, however, unlikely to be made up, and the loan closing date may have to be extended at some future date.

Loan No. 1604 Nucleus Estate and Smallholders II: \$65 Million Loan of
 July 12, 1978; Effective Date: September 13, 1978;
 Closing Date: December 31, 1983

After a slow start in 1979 due to labor shortage, budgetary constraints and procurement difficulties, good progress was achieved in the last twelve months. Further improvement is expected in project implementation. All major project components are, therefore, expected to be completed as originally planned, except the rubber replanting component in Jambi Province, which has run into unexpected difficulties due to the reluctance of smallholders to participate in the replanting scheme.

Loan No. 1751 Nucleus Estates and Smallholders III: \$99 Million
Loan of August 13, 1979; Effective Date: November 12, 1979;
Closing Date: December 31, 1986

All implementing agencies have made good progress. Although some components are slightly behind schedule, the overall project is on or slightly ahead of schedule. About 7,500 ha of rubber have been planted, half of which is for smallholders. About 420 recently completed settler houses were fully occupied in April 1981. A PNP Estate being upgraded under the project is to take over responsibility for completing the Alue Iemerah smallholder component under NES I (1499-IND) in 1982 from another PTP which has no estate in that area.

Loan No. 1835 Nucleus Estate and Smallholders IV: \$42 Million
Loan of May 16, 1980; Effective Date: August 11, 1980;
Closing Date: December 31, 1986

After an initial delay due to lack of maps the project's smallholder development component is off to a good start and is expected to be on schedule by 1982. The Nucleus Estate and Smallholder V (Loan 2007-IND) start-up component has progressed well and, largely because of this, the FY81/82 development targets are likely to be achieved in the major component supervised. Other project components are approximately on schedule.

Credit No. 984 Smallholder Rubber Development: \$45 Million Credit
of April 3, 1980; Effective Date: May 23, 1980;
Closing Date: March 31, 1986

The project continues to make satisfactory progress, but at a pace somewhat slower than envisaged at appraisal. The shortage of vehicles and suitable access road is impeding project implementation. It is anticipated that the planting program for 1981/82 (about 6,000 ha) will be substantially achieved. Disbursement in FY82 are expected to be on target at US\$7 million.

Loan No. 1898 Smallholder Coconut Development Project: \$46 Million
Loan of August 25, 1980; Effective Date: November 25, 1980;
Closing Date: June 30, 1986

The project has got off to a satisfactory start in spite of delayed establishment of the project entity and late release of funds. There are no major problems with the project at this stage and the planting and rehabilitation targets set for June 1981 should exceed appraisal estimates by approximately 50%.

Loan No. 2007 Nucleus Estate and Smallholder V: \$161 Million Loan of June 26, 1981; Effective Date: October 21, 1981; Closing date: June 30, 1988

Smallholder development program to establish 53,000 ha of tree crops (rubber, oil palm, coconuts), food crops and house gardens in West Java, West Kalimantan and Bengkulu provinces with public sector estates as implementing agents.

Agriculture Support Services

Loan No. 1179 Agricultural Research and Extension I: \$21.5 Million Loan of December 19, 1975; Effective Date: February 23, 1976; Closing Date: December 31, 1982

Overall progress continues. Under the Agency for Agricultural Research and Development, civil works in Pangragajian, Baruajak and Margahayu (all highland vegetable) have been completed, while in Sungei Putih, Sembawa (both rubber) and in Sukamandi (Phase I and II rice and palawija crops) are behind schedule due to shortage of laborers and delay in procurement. Civil works are expected to be completed in Sungei Putih, Sembawa and Sukamandi (Phase I) by July 1981 and in Sukamandi (Phase II) by December 1981. Most of the field and workshop equipment, furniture and vehicles has been received. A contract has been awarded for laboratory equipment and chemicals for Margahayu and bids for the same for Sungei Putih and Sembawa are being evaluated. The fellowship program is continuing satisfactorily. Under the Agency for Agricultural Education, Training and Extension, all equipment, furniture and vehicles have been received and distributed to ten completed agricultural information centers (AICs). Preparation of tender documents for two additional AICs at Aceh and Ambon is completed. Extension materials are being produced and distributed from AICs. Disbursements under the project are improving.

Loan No. 1267 National Food Crops Extension; \$22 Million Loan of June 4, 1976; Effective Date: September 21, 1976; Closing Date: June 30, 1982

The project management unit is functioning at full strength at the senior level, four other positions are part-time staff. Over 90% of field extension workers have been appointed, while appointments of subject-matter specialists have exceeded target. However, there is an imbalance in that appointments in the Other Islands is comparatively lower than in Java. Of the projected civil works program of 64% of the new Rural Extension Centers have been constructed and 80% rehabilitated. The entire program is expected to be completed by December 31, 1981. Procurement of vehicles, equipment and furniture and the training program, both inservices and overseas, are progressing satisfactorily.

Credit No. 996 Second National Agricultural Extension: \$24 Million
Credit of April 3, 1980; Effective Date: July 3, 1980;
Closing Date: March 31, 1986

The project is the second phase of the national program for strengthening extension services covering transmigration areas, estate crops, livestock, inland fisheries, soil conservation activities in addition to food crops in 26 provinces. All six Assistant Directors are in position, one Assistant Director, one Divisional Chief, and two Sectional Heads are working on part-time basis, the rest being on full-time basis. 57 new Rural Extension Centers (RECs) have been constructed and 31 renovated; 103 jeeps have been procured against the target of 96 during 1980/81. It is proposed to complete the construction and renovation of all RECs during 1980/81. Adequate provision has been made in the budget for planned civil works (procurement of 64 jeeps and provincial and village equipment package), inservice training of 791 field extension workers, 120 extension subject matter specialists and overseas fellowships during 1981/82.

Loan No. 1840 National Agricultural Research: \$35 Million Loan and \$30
(Cr. No. 1040) Million Credit of May 16, 1980; Effective Date: July 16,
1980; Closing Date: June 30, 1990

The project is the second phase in the strengthening of the overall institutional framework of the Agency for Agricultural Research and Development for agricultural research in fruits, lowland vegetables, livestock, fisheries, forestry, estate crops other than rubber and industrial crops. A Ministerial decree announcing the appointments of directors for the Central Research Institutes and Research Institutes and Centers already approved by the Minister of Agriculture, became effective in March 1981. The project secretary and one head of office are yet to be appointed. Of civil works at six locations planned for 1980/81, four have been tendered and a contract for one awarded. Civil works at twelve locations have been programmed for 1981/82. Fifty candidates for long term local fellowships have been selected. A consulting firm for technical assistance is expected to be appointed in July 1981.

Rural Development

Credit No. 946 Yogyakarta Rural Development: \$12 Million Credit of
August 13, 1979; Effective Date: December 5, 1979;
Closing Date: March 31, 1987

Project implementation continues to run behind schedule, but staff development and collection/analysis of basic data have made good progress, and physical construction and field operations within the agricultural component show encouraging advances, despite adverse conditions (protracted nonpayment of project staff salaries because of late release of funds and unavailability of transportation). However, an assurance given by the Provincial Government to bridge any financing gaps for payment of staff salaries, due to belated arrival of project funds, from its own budget,

should put staff remuneration on a more regular schedule. The expeditious procurement of project vehicles, the absence of which is more acutely felt as field operations grew in number and scope, remains a major concern. Project completion is presently expected for mid-1987, implying a delay of about nine months.

AGRO-BUSINESS AND CREDIT

Credit No. 785 Small Enterprise Development: \$40 Million Credit of April 7, 1978; Effective Date: August 17, 1978; Closing Date: December 31, 1984

The project provides financial and technical assistance to strengthen Bank Indonesia's (BI) small credit programs, KIK/KMKP. Despite start-up difficulties, BI has now established and staffed all project management units. The three field units in Central Java, East Java, and West Sumatra are developing new lending approaches and assisting handling banks in project promotion and preparation. The training and studies components of the project are progressing satisfactorily. On the whole, progress under this project (SEDP I) has been satisfactory. The credit component of the project has been fully disbursed, but the technical assistance component will not be fully disbursed for two years. The undisbursed proceeds of this credit are being used for technical assistance to the Ministry of Industry. The closing date has been postponed to enable disbursements for the technical assistance component to be made.

Credit No. 827 Rural Credit: \$30 Million Credit of June 23, 1978; Effective Date: November 3, 1978; Closing Date: March 31, 1985

This project provides long-term credit to about 40,000 smallholders, primarily for fisheries, perennial crops and livestock, and technical assistance to Bank Rakyat Indonesia (BRI) for program development, training in term lending, credit procedures and accounting and management information systems. Due primarily to delays in obtaining consultancy services, the project is about nine months behind schedule. Following extension of the project to cover additional provinces and commodities, it is rapidly catching up.

Loan No. 2011 Second Small Enterprise Development: \$106 Million Loan of June 26, 1981; Effective Date: October 16, 1981; Closing Date: December 31, 1984

From the three regions covered under SEDP I (Credit 785-IND) this project would be expanded to cover all 27 regions in Indonesia where the Small Investment (KIK)/Small Permanent working Capital Credit (KMKP) program has been in operation since 1974. In addition to credit and technical assistance to the banking system, the project provides for the strengthening of

nonfinancial support services for small scale enterprises (SSEs) by the Ministry of Industry. This is being financed by \$1 million from the proceeds of this loan and the undisbursed credit proceeds of SEDP I (Credit 785-IND).

EDUCATION

Credit No. 387 Third Education: \$13.5 Million Credit of June 1, 1973;
Effective Date: August 29, 1973; Closing Date:
December 31, 1981

This first textbook project is an ambitious undertaking under difficult circumstances. Since the start five years ago, over 150 million books have been printed, 120% of the appraisal target, and about 430,000 teachers have been upgraded, or 23% over the original target of 350,000. About 100 million books have been distributed to schools. Textbook distribution to schools continues to pose problems and quality control of textbooks cannot be maintained by the present number and quality of staff. Printing of Grade 5 texts will start soon and the Project Implementing Unit has been asked to take steps to ensure an adequate supply of paper for production of Grade 6 texts as well as reprinting of other texts. Project costs have increased due to the increased scope of the project and inflation since 1973.

Credit No. 869 Polytechnic: \$49 Million Credit of December 29, 1978;
Effective Date: May 11, 1979; Closing Date: June 30, 1985

This credit is helping to finance: (a) the establishment of a technical Education Development Center (TEDC), six polytechnics and four accountancy development centers (ADCs); (b) related technical assistance and associated studies - as required to meet the project's objectives of: (i) establishing a new system for training engineering technicians; (ii) improving accountancy training; and (iii) strengthening educational planning and management. Implementation of physical components is being initiated somewhat behind appraisal schedule but is progressing well and should be completed by July 1982, well before the closing date. Implementation of technical assistance is progressing on schedule for the TEDC and the polytechnics, but lags about 16 months behind schedule for the ADCs. Five studies financed under the project are also behind schedule, in some instances by as much as 24 months. The total project cost is close to appraisal estimate and disbursements exceed appraisal forecasts.

Loan No. 1237 Fourth Education: \$37 Million Loan of April 15, 1976;
Effective Date: June 17, 1976; Closing Date: December 31,
1982

The loan is helping to finance physical facilities and related technical assistance for: (a) two faculties of technology at existing teaching training colleges (FKITs) and four new centralized workshops for technical

training (TTCs) for the Ministry of Education and Culture (MEC); (b) 17 new vocational training centers (VTCs), an existing instructor training center and 25 mobile training units for the Ministry of Manpower (MOM); and (c) new premises for the National Institute of Administration (LAN), the country's principal civil service training institution. In the MEC subproject construction of all institutions has been completed and all are in use though operating under some difficulties since about half of their equipment needs have still to be received. The MOM and LAN subprojects are progressing about two and a half and three years behind schedule respectively and the Closing Date has consequently been extended by two years. Delays have been occasioned, initially, by slow site acquisition and, subsequently, by belated release of funds and prolonged consideration of claims for the adjustment of contract prices to compensate for the 1978 devaluation of the Rupiah. The underlying cause has been weak management. The total project cost is likely to exceed the appraisal estimate by about 50% in local currency terms but only slightly (perhaps 3%) in terms of US\$ equivalent (due to the change in the exchange rate during implementation). The rate of disbursement is improving. Adequate steps are being taken to staff new institutions as they are commissioned and a national skill standards system is being developed.

Loan No. 1433 Teacher Training: \$19 Million loan of June 6, 1977;
Effective Date: July 7, 1977; Closing Date: June 30, 1983

The project is now progressing satisfactorily. About 36% of civil works have been completed. Phase I is 95% completed. Phase II is approximately 75% completed. Tendering for the third and final phase has begun and construction is expected to be finished in April 1982. Furniture is being supplied to completed buildings according to schedule. Equipment procurement is about one year behind schedule. The first cycle began in July 1981 and will finish in mid-1982. Four hundred administrators are being trained and will conduct local seminars. Project studies are to be completed mid-1981. While disbursements are currently only 31% of appraisal estimates, it is expected that they will accelerate considerably during the coming months. Despite earlier delays and the low disbursement level, the project is expected to be completed as planned.

Loan No. 1486 Non-Formal Education: \$15 Million Loan of
September 14, 1977; Effective Date: November 4, 1977;
Closing Date: June 30, 1983

The project aims at strengthening the Department of Education's nonformal education programs in seven provinces. Financing would cover civil works to renovate two existing and establish four new provincial centers, instructional equipment and vehicles, in-service training, materials development, a basic learning fund, and related technical assistance. Of the six Balai PENMAS (directorates for out-of-school education) centers, five have been completed. Construction at the remaining two centers is 50% completed;

both centers will be ready by August, 1981. All furniture and equipment have been ordered; 80% is already on site and the rest is due to arrive later this year. About 90% of the staff training program is meeting appraisal targets, production and distribution of pretested learning materials is accelerating. The technical assistance program is on schedule; local staff are gradually replacing foreign consultants. Disbursements will increase substantially this year and are expected to reach 90% of appraisal estimates.

Loan No. 1692 Second Agricultural Training: \$42 Million Loan of May 7, 1979; Effective Date: July 31, 1979; Closing Date: June 30, 1985

The project constitutes the second phase of GOI's long-term strategy to improve the quality and supply of middle level agricultural manpower. Good progress continues to be made. Although some slippage has developed in the physical implementation, it is not yet serious. Costs are tending to rise. The project also provides technical assistance for the improvement of curricula, education planning and evaluation; this technical assistance has started, and fellowship utilization is up to schedule. Efforts to redress a shortage of teachers outside Java are making steady progress. Through its national schools, the Agency for Agricultural Education, Training and Extension is having significant impact on improving the efficiency of regional and private schools, as planned. Little progress has been made on evaluation, tracer or manpower studies; specialist assistance is expected to stimulate these activities.

Loan No. 1904 University Development Project: \$45 Million Loan of November 13, 1980; Effective Date: January 22, 1981; Closing Date: December 31, 1986

This Loan was declared effective on January 22, 1981. The project is the first phase of a long-term university development program. Its main objectives are to increase the output of high level manpower in the fields of engineering, science, agriculture, and economics (including business administration and accountancy), improve the quality of university education in these four fields, and strengthen the management of the overall university system.

ENERGY

Loan No. 1259 Fifth Power: \$90 Million Loan of May 20, 1976; Effective Date: September 20, 1976; Closing Date: December 31, 1981

Implementation of the project is proceeding satisfactorily to completion. Disbursement targets for FY81 were substantially (98%) met and the loan is expected to be drawn down within the extended closing date (December 1981), six months later than scheduled at appraisal. Installation of 80% of medium voltage (20 kV) cables and 50% of the 20 kV overhead lines has been completed. This represents satisfactory progress as the scope of

these items of the project was considerably increased as a result of favorable prices obtained during bidding. Progress on construction of the low voltage networks has been slow (about 40%) but it has been programmed to complete the rest of this work by March 1982. Construction of the project should be substantially completed by mid-1982.

Loan No. 1365 Sixth Power: \$116 Million Loan of February 4, 1977;
Effective Date: June 6, 1977; Closing Date: December 31,
1982

Construction work on the project is reaching its final stage. The slow performance of the electrical and mechanical contractor has delayed progress on construction and slowed down disbursements, as the main expenditure now is on this item of work. Firing of the boiler for Unit 4 has been delayed; steam admission will also be delayed, but it is expected that the unit will be in commercial operation during the latter half of 1981. Unit 5 is expected to be commissioned by end-1981. There are no other problems of significance at the power station. There is concern, however, that the 150 kV ring around Jakarta (not Bank-assisted) will not be strengthened in time to run the power station at its full capacity (700 mW), although the electricity authority (PLN) is making a concerted effort to complete ongoing work on the transmission lines and substations involved. The delay in commissioning of Units 4 and 5 is estimated at about nine months and six months, respectively.

Loan No. 1513 Seventh Power: \$109 Million Loan of February 3, 1978;
Effective Date: June 30, 1978; Closing Date: December 31,
1983

All contracts have been awarded at highly competitive costs with a substantial reduction in foreign costs and, therefore, \$15 million of the loan has been cancelled. The latest cost estimate update indicates that a further saving will be realized compared to appraisal estimate. Subsequently therefore, the Bank has agreed to the inclusion of the following additional studies in the scope of the project: (a) Sunda Strait submarine cable feasibility; (b) optimization of location of future thermal plants; (c) power sector management information system design; and (d) energy pricing study. Construction work at the site has been delayed by the need to devise a new method of pile driving to avoid soil displacement. This work has now been completed and installation of the main plant resumed. The boiler has been received at site and is under erection. The turbo generator is expected to be received during the latter part of 1981. Although work of the civil works of the substations and associated transmission lines has been delayed, it is progressing satisfactorily. The feasibility study of the Turan coal-fired thermal power station site in East Java has progressed to the point of selection of a site for detailed investigations; these are in progress. Contracts for the additional five studies mentioned above have not been signed, but proposals for (a) and (c) have been received and are being evaluated.

Loan No. 1708 Eighth Power: \$175 Million Loan of June 1, 1979;
Effective Date: November 5, 1979; Closing Date:
December 31, 1984

The project is now about eight months behind schedule due to (a) slow progress of work by the piling contractor in site improvement; (b) delay in finalizing various critical contracts; and (c) delay in finalizing designs and tender documents for the marine works. The most significant contributory factor in the delays is the cumbersome procedures for evaluating bids and approval of contracts that have been introduced as a result of Presidential Decrees 10 and 14A (procurement procedures). Also, the GOI's budgetary process makes it difficult for the electricity authority and the project management to have flexibility in the deployment of Rupiah funds. The Bank is continuing to pursue these problems with the GOI. Disbursements are much slower than projected. Project cost estimates are now based on available contract and tender prices and the total cost of contracts being financed by the Bank loan amount to \$140 million, plus contingencies. Present indications are that there will be a saving of about \$20 million in the loan amount.

Loan No. 1872 Ninth Power: \$253 Million Loan of June 13, 1980;
Effective Date: October 24, 1980; Closing Date:
September 30, 1985

This project is experiencing delays. However, the commissioning date of the second unit of Suralaya is still not affected. Tenders for EHV lines, substations, transformers and reactors were received in November-December 1980 and as of the last supervision mission in July 1981, were expected to be finalized in October 1981. Commissioning date for the EHV lines and substation is now estimated to be June 1982, which would be ahead of the commissioning of the first Suralaya unit in August 1984, though six months behind the appraisal schedule. Progress in land acquisition is satisfactory, the land for all substations has been purchased. Also, negotiations for the purchase of land for tower locations is in progress. Tenders for control and communications equipment were issued in April 1981.

Loan No. 1950 Tenth Power Project: \$250 Million Loan of March 6, 1981;
Effective Date: April 23, 1981; Closing Date: June 30,
1987

This loan was declared effective on April 23, 1981. The project would utilize the hydroelectric potential of the Citarum River to meet Java's growing demand for economical electricity.

INDUSTRIAL DEVELOPMENT AND FINANCE

Industrial Estates

Credit No. 428 Pulo Gadung Industrial Estate: \$16.5 Million Credit of
September 14, 1973; Effective Date: November 13, 1973;
Closing Date: December 31, 1982

The Pulo Gadung Industrial Estate is now scheduled for completion in 1982. Of 415 ha of raw land now earmarked for acquisition, 358 ha had been purchased as of mid-1981, 164 ha of developed land reserved for factory use has been sold to 210 firms, with employment currently estimated at around 9,700; at full capacity production employment is expected to be around 23,000 workers. Despite the slow development of the estate resulting in protracted disbursement of the credit, and substantially higher cost than estimated at appraisal, PT JIEP's financial performance has been satisfactory. Some adjustments of its dividend, cost and price policies were nevertheless called for and were recommended to PT JIEP during the last project supervision mission. GOI has agreed to designate 22.5 ha of the Pulo Gadung industrial estate as an Export Processing Zone (EPZ) with PT JIEP as the sole administrator. The closing date of the credit was therefore postponed by two years to December 31, 1982, reallocating the remaining funds for the establishment of the EPZ. However, the loan documents have not yet been amended because the required Presidential Decree and subsequent operating license by the Department of Trade and Cooperatives have not yet been issued.

Development Finance Companies

Loan No. 1363 Second PDFCI: \$15 Million Loan of January 28, 1977;
Effectave Date: April 21,1977; Closing Date: December 31,1981

The project is proceeding satisfactorily. PDFCI has deliberately spread Bank funds over as large a number of subprojects as possible to match its resources from Bank Indonesia. The loan is now fully committed and disbursements are expected to be completed by the Closing Date.

Loan No. 1437 Third BAPINDO: \$40.0 Million Loan of June 6, 1977;
Effectave Date: September 23, 1977; Closing Date:
September 30, 1981

The project is being implemented satisfactorily. The loan was fully committed by the end of 1979 and \$36.1 million was disbursed as of March 31, 1981. The loan is expected to be fully disbursed by the present closing date.

Loan No. 1703 Fourth BAPINDO: \$50 Million of June 1, 1979;
Effective Date: September 25, 1979; Closing Date:
September 30, 1983

This project is being implemented satisfactorily. Commitments have increased rapidly since the last supervision mission in May 1980. As of March 31, 1981, 73% of the loan had been committed. Disbursements have also caught up and it is now expected that the loan will be fully committed by September 1981 and fully disbursed by the closing date.

POPULATION AND NUTRITION

Population

Credit No. 300 Population: \$13.2 Million Credit of April 20, 1972;
Effective Date: November 2, 1972; Closing Date:
December 31, 1981

The project is nearing completion. The family planning program continues to show outstanding performance. Annual targets of new contraceptive acceptors for the period 1972/73-1980/81 were nearly all exceeded. Current contraceptive users as a proportion of married women of reproductive age increased from 27% in 1979 to 36% in 1981. The birth rate is estimated to have declined from about 44-46 per 1,000 population in 1971 to around 32-34 per 1,000 population in 1980. All the activities financed out of project savings have been completed, except the utilization of two overseas fellowships and the installation of the computer. Two officials of the National Family Planning Coordinating Board have been nominated for the fellowships to undergo training during this year. Installation of the computer is expected to be completed shortly and conversion of existing programs and testing are scheduled to also be completed shortly. All activity connected with the computer should be completed by the end of August 1981. Disbursements are expected to be completed by the scheduled closing date of December 31, 1981.

Loan No. 1472 Second Population: \$24.5 Million Loan of July 6, 1977;
Effective Date: August 4, 1977; Closing Date: April 30,
1983

The implementation of the second population project is proceeding satisfactorily. The construction of all buildings has been completed. The major issues outstanding are (a) expediting the implementation of the contraceptive raw materials study, (b) implementation of the community incentive scheme, and (c) acceleration of the rate of disbursement. Regarding the contraceptive raw materials study, the mission was assured that all obstacles will be overcome and progress should be faster in the coming months. The community incentive scheme has been redesigned and the National Family Planning Coordinating Board (BKKBN) undertook to prepare an operational plan for review. This is expected shortly and we expect implementation to start on schedule early 1981. Progress on these aspects, coupled with timely submission of withdrawal applications, should contribute to the acceleration of the rate of disbursement. The BKKBN is also reviewing the costs of the project in order to determine the extent of savings. We expect to receive the revised costs as well as proposals for utilization of project savings, if any, shortly.

Loan No. 1869 Third Population: \$35 Million Loan of June 13, 1980;
Effective Date: September 10, 1980; Closing Date:
March 31, 1985

This loan was declared effective on September 10, 1980 and a smooth start to project implementation has begun. A Ministerial Decree establishing a steering committee and appointing a project coordinator has been signed. Civil works constitute the largest component of this project and considerable attention is being given to this component so that delays will not occur; the mission recommended that the staff entrusted with the handling of this project be brought to at least the strength of that provided for the second project (Loan 1472-IND).

Nutrition

Loan No. 1373 Nutrition Development: \$13.0 Million Loan of March 14,
1977; Effective Date: March 31, 1977; Closing Date:
March 31, 1983

Despite initial difficulties which resulted in an overall delay of about 1-1/2 years, project implementation is being improved and sustained. Due mainly to the devaluation of the Rupiah and revised construction standards, project cost is considerably less than anticipated at appraisal. A partial reallocation of funds between components and categories has thus been proposed. This measure, along with 18 months postponement of the completion date, would allow virtually all appraisal targets to be achieved as well as a modest expansion (beyond those targets) of existing activities of the more successful components, and would not alter project concept, objectives or content. With regard to present project status, the Center for Research and Development of Nutrition (CRDN) is now operational and a long-term research program is under preparation. Food Technology Development Center (FTDC) staff have moved to the new campus. The pilot plant is still unfinished, but should be functioning by the end of 1981. Village food storage is fast becoming an important area for further trials and development. Nutrition Academy enrollment has been increased to 24, with consequential staffing and space requirements. Consultants on the Nutrition Improvement Pilot Project (NIPP) have produced an interim report, reintroducing a positive, promotive program which accords with the views expressed by previous Bank missions. Nutrition Education consultants have submitted two reports on communication and behavioral change; pre-tested materials are ready for reproduction. All NIPP villages will be covered. Arrangements have been made for radio and television airtime. The Nutrition Anemia Pilot Project (NAPP) has continued on schedule and shows favorable returns on investment. No advance has been made in the preparation of a master plan for home garden improvement. The closing date has been postponed by one year to March 31, 1983.

TECHNICAL ASSISTANCE

Credit No. 451 Fourth Technical Assistance: \$5 Million Credit of January 2, 1974; Effective Date: February 15, 1974; Closing Date: June 30, 1982

Progress under the project is satisfactory.

Credit No. 898 Fifth Technical Assistance: \$10 Million Credit of May 7, 1979; Effective Date: September 5, 1979; Closing Date: March 31, 1984

Progress under this project is satisfactory.

Loan No. 1197 National Resource Survey and Mapping: \$13 Million Loan of February 5, 1976; Effective Date: April 2, 1976; Closing Date: December 31, 1983

The National Coordinating Agency for Surveys and Mapping (BAKOSURTANAL) complex at Cibinong is completed, and most of the cartographic, photographic processing, including color photo processing equipment and printing equipment required to produce maps, is installed. Computer equipment for resource analysis including a topographic data bank and flatbed plotter has been installed. Various resource evaluation activities have been undertaken using these facilities. Recruitment and training of new staff, particularly at junior and middle level has recently been accelerated. The new photography operation financed under the parallel Canadian Project was delayed as a result of which the Bank agreed to extend the project until end of 1983. The photography operation is now expected to start in July 1981 and completed at the end of 1983.

TRANSPORTATION

Highways

Loan No. 1236 Fourth Highway: \$130 Million Loan of April 15, 1976; Effective Date: August 13, 1976; Closing Date: December 31, 1982

The project has been under implementation for four and a half years. Because of slow execution, the closing date has been postponed by two years to December 31, 1982. The only component still ongoing is the road betterment program and the related consultancies for works supervision. Other consultancies have been completed satisfactorily, sometimes with substantial delays. Design changes by the Directorate General of Highways (DGH) geared to speeding up construction works were reviewed by the October 1980 supervision mission. Most of the changes were accepted but reinstatement of the original standards in a few specific cases is now being finalized by DGH. According to estimates there is expected to be a surplus of up to \$10.5 million in the loan account. Ways in which to use this surplus are under discussion; one option is to increase the volume of road betterment by including new sections in the project.

Loan No. 1696 Fifth Highway: \$130 Million Loan of June 1, 1979;
Effective Date: August 28, 1979; Closing Date:
December 31, 1984

Project implementation, which started nearly two years ago, is substantially behind schedule. The causes for delay are: (a) the ambitious project objectives, which translate into program-type components and numerous consultancies; (b) overcentralization of the Directorate General of Highways (DGH); (c) a shift of senior staff within DGH; and (d) new development guidelines of the GOI under Repelita III emphasizing the spread of investments over a larger number of projects with reduced standards. The latest supervision mission noted a marked improvement in project execution, with all components now actively pushed forward by DGH, and the project should be completed with a total delay of only one year. The road betterment program is well underway. The major issue of reoptimization of road betterment standards is now solved satisfactorily and DGH should soon send to the Bank the contract amendments legalizing the agreed changes. Tendering for the first batch of bridge replacements should start soon. The Provincial Departments of Public Works programs of support works for 1981 have just been submitted to the Bank following several revisions. \$6.8 million of the loan amount has been cancelled due to misprocurement of road maintenance equipment.

Loan No. 2049 Jakarta-Cikampek Highway: \$85 million Loan of October 9, 1981;
Not yet effective; Closing Date: December 31, 1987

The project would increase road capacity between Jakarta and Cikampek (about 70 km to the east) by construction of a new toll road and by improvements to the existing highway.

Marine Transport

Loan No. 1250 Second Shipping: \$54 Million Loan of May 20, 1976;
Effective Date: October 8, 1976; Closing Date:
December 31, 1981

The project is part of the first phase of the Government's Inter-Island Fleet Development Program and is designed to modernize, expand and improve the efficiency of the inter-island fleet. Demand for general cargo ships in the Regular Liner Service (RLS) expected at appraisal was slow in materializing due to (i) slow scrapping of obsolete ships with consequent reduced replacement demand; and (ii) effects of the rupiah devaluation on the price of replacement ships. Conditions considerably improved in 1979 and 80% of the loan has now been committed. The project entity, P.T. PANN, is reasonably well managed; the operation and maintenance of its ships is being regularly monitored and no major financial problems exist in its Bank-financed operations. P.T. PELNI, the state-owned shipping line, accounting for about half of the RLS, continues to incur substantial losses. On January 27, 1981, Motor Vessel Tampomas operated by P.T. PELNI caught fire and sank while carrying passengers from Jakarta to Sulawesi. The purchase of this ship was financed in part from the proceeds of this loan. The circumstances of the accident are the subject of an ongoing GOI Court of Inquiry.

Ports

Loan No. 1337 Tanjung Priok Port Project: \$32 Million Loan of November 4, 1976; Effective Date: March 3, 1977; Closing Date: December 31, 1981

The Government-financed works in Basin III, delayed due to the impact of the 1978 Rupiah devaluation, are completed, and the Basin III civil works finance by the Bank loan, also delayed due to the devaluation, are 85% completed. Civil works financed by the Bank loan in the Regional Harbor, are 62% completed. The work is now three months in arrears and a revised construction schedule is being prepared. These delays will probably postpone overall completion of the project to mid-1981 but it is too early to estimate the full effect of delays on project cost. Several Bank-financed studies which are underway or have been completed, will enable the Government to identify components of a further ports project suitable for Bank financing.

TOURISM

Credit No. 479 Bali Tourism: \$16.0 Million Credit of June 14, 1974; Effective Date: December 4, 1974; Closing Date: June 30, 1982

With the exception of the amenity core and the extension of some utility services, infrastructure at Nusa Dua is complete. The access road to Nusa Dua from the airport and the Denpasar bypass road were completed and opened for traffic in December 1980. The preparation of additional infrastructure improvements and possible participation by the Bali Tourism Development Board (BTDC) in hotel investment for Nusa Dua utilizing the uncommitted portion of the credit is underway. On the other hand, the Ministry of Transport is proposing to use additional funds from the credit to cover the cost overrun incurred on the already completed access and bypass road component. The allocation of the uncommitted funds to the two agencies is under review by the Government. The market for tourism to Bali has held up well in 1980/81. Hotel occupancies in international standard hotels in Bali exceed 80%. The construction of a first hotel (450 rooms) by Garuda at Nusa Dua is progressing well for completion in December 1982. The negotiations with Club Mediterranee for a holiday village has been finalized and the construction is expected to start in early 1982.

URBAN DEVELOPMENT

Loan No. 1336 Second Urban Development: \$52.5 Million Loan of November 4, 1976; Effective Date: March 28, 1977; Closing Date: December 31, 1981

The project consists of provision of basic infrastructural facilities including footpaths, drainage, water supply and human waste

disposal to about 3,000 ha of densely populated slum areas in Jakarta and 374 ha in Surabaya. Community health workers are to be trained under a pilot program in both cities. Except for small carryover items (filter plant, deep wells and health clinics) and the conduct of a proposed urban transport study for Jakarta under the technical assistance component (Jakarta transport study, Semarang and Surabaya drainage studies), the project progress is essentially complete. Upgrading costs for the program have been within the appraisal estimates. About 3,435 ha of kampungs in Jakarta and 441 ha of kampungs in Surabaya have been covered so far, benefitting a total population of about 1.4 million. About 180 community health workers in Jakarta and 93 in Surabaya have been trained and are working in the improved kampungs. The project is expected to be completed by December 1982.

Loan No. 1653 Third Urban Development: \$54 Million Loan of January 31, 1979; Effective Date: September 26, 1979; Closing Date: December 31, 1984

The project provides basic infrastructural facilities including roads, footpaths, water supply, and sanitation to impoverished, low-income kampungs (neighborhoods) in the cities of Jakarta (750 ha), Surabaya (580 ha) Ujung Pandang (375 ha), Semarang (310 ha) and Surakarta (170 ha), benefitting a total population of about 2.25 million. A comprehensive solid waste management program is also included in Jakarta and Surabaya, together with a drainage program in Surabaya. About 775 community health workers are to be trained in the above two cities to work in the improved kampungs. The kampung improvement is proceeding satisfactorily in all project cities. The implementation progress of solid waste management and drainage components has improved during this fiscal year (FY80/81) compared to last year. This technical assistance component is proceeding satisfactorily.

Loan No. 1972 Fourth Urban Development Project: \$43 Million Loan of May 8, 1981; Effective Date: September 9, 1981; Closing Date: September 30, 1986

The loan has not yet been declared effective. The project expands the Bank's assistance to GOI's basic shelter programs evolved in earlier projects and concentrated mainly in Jakarta and the major cities of East Java to nine provincial capital cities spread throughout Indonesia. Basic infrastructure and housing facilities will be provided through slum improvement and sites and services developments on a total of over 2,000 ha benefitting an estimated 800,000 persons. Improvements to citywide infrastructure deficiencies in main drainage; water supply and solid waste disposal will be studied and implemented in three cities. A national urban mapping program covering 125 cities will be undertaken providing base data for future city planning, land registration and valuation programs. Institutional development is a prominent feature and technical assistance for management, training and feasibility studies to various urban authorities and agencies will be provided.

WATER SUPPLY

Loan No. 1049 Five Cities Water Supply: \$14.5 Million Loan
of October 31, 1974; Effective Date: May 21, 1975;
Closing Date: December 31, 1981

The project is about two and a half years behind schedule. Time was lost because of delays in design work, tender evaluations, awards and contract processing. All equipment supply and all major civil works contracts have been completed or are under execution. Pipelaying is the only remaining major work in progress and is delayed by the slow supply of special fittings. A cost overrun of about 45% is expected.

Loan No. 1709 Second Water Supply: \$36 Million Loan of June 1, 1979;
Effective Date: February 29, 1980; Closing Date:
December 31, 1984

The project is 9-12 months behind schedule due to delays in loan effectiveness and in tendering and award of contracts. Most procurement contracts for equipment have been awarded except for the water meter contract. The civil works bidding documents for the construction of water treatment plants were approved during the last supervision mission and were tendered in September 1981. A problem affecting the Directorate of Sanitary Engineering (DSE) in managing the project is its delay in employing management consultants to develop the administrative capacity of the seven beneficiary water enterprises (WEs) and to employ a management specialist for DSE's own organization; both actions have been delayed and DSE's staff is not adequately monitoring the WEs because of inexperience and heavy workload. Additional staff have been employed for this purpose and are being trained.

INDONESIA

SECOND SEEDS PROJECT

Supplementary Project Data Sheet

Section I: Timetable of Key Events

- (a) Time taken to prepare the project: 3 years
- (b) Agency which prepared the project: GOI with FAO/CP assistance
- (c) First presentation to the Bank: 1978
- (d) First Bank mission to identify the project: June 1979
- (e) Date of departure of appraisal mission: March 19, 1980
- (f) Date of completion of negotiations: July 17, 1981
- (g) Planned date of effectiveness: March 1982

Section II: Special Bank Implementation Actions

None

Section III: Special Conditions

- (a) Seed prices would be set by GOI so that: for rice seed sold in Java, NSC revenues would be sufficient by January 1, 1986, to cover the cost of such seed excluding a return on investment and by January 1, 1988, revenues would be sufficient to cover the cost including at least a 10% return on project investments. For rice seed sold outside Java, and secondary crop seed, NSC and P.T. Pertani revenues would be sufficient to cover the costs of such seeds as soon as feasible (para. 34);
- (b) NSC would replace no more than two combine harvesters at Sukamandi (para. 38);
- (c) Audits of P.T. Pertani's accounts for 1976-80 would be completed by September 30, 1982 (para. 49). Disbursement for the P.T. Pertani processing centers for 1983 and thereafter would be conditioned upon the determination by the Bank, based on the completed audit, that P.T. Pertani can satisfactorily fulfill its obligations under the project (para. 49);

- (d) Funds for establishing and upgrading processing centers will be given by GOI as equity contributions to NSC and P.T. Pertani and as credits to the participating cooperatives under terms and conditions acceptable to the Bank (para. 55); and
- (e) Whenever GOI sets seed prices below average costs, NSC and P.T. Pertani would receive with respect to each crop a pre-determined subsidy per kilogram of seed sold (para. 59).

