

Report No. 2093-IND

Indonesia Growth Patterns, Social Progress and Development Prospects

FILE COPY

February 20, 1979

East Asia and Pacific Regional Office

FOR OFFICIAL USE ONLY



RETURN TO ARCHIVES IN HB1-001

ISN # 64259 ACC# K1980-09

BOX # 033-03

NUS LOCATION 099-2-1

Document of the World Bank

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.

CURRENCY EQUIVALENTS

Before November 15, 1978

US\$1.00	=	Rp 415
Rp 1.00	=	US\$0.0024
Rp 1 million	=	US\$2,410

After November 15, 1978

US\$1.00	=	Rp 625
Rp 1.00	=	US\$0.0016
Rp 1 million	=	US\$1,600

FISCAL YEAR

Government	-	April 1 to March 31
Bank Indonesia	-	April 1 to March 31
State Banks	-	January 1 to December 31

PREFACE

This economic report reflects the findings of an economic and several associated sector missions to Indonesia that were undertaken during the past 14 months. It is the third report of this kind on Indonesia since the Bank embarked upon a series of basic economic reports on its major member countries in 1972. From the Bank's point of view these reports are intended to provide a fresh perspective on the longer term structural developments in the economy, to assess the extent to which they can be shaped by policy changes, and to identify external assistance needs.

The two preceding basic economic reports on Indonesia are:

Development Issues for Indonesia, Report No. 25-IND, dated December 1, 1972; and

Indonesia: Development Prospects and Needs, Report No. 708-IND, dated April 15, 1975.

The economic mission responsible for this report comprised the following members:

Pieter Bottelier	- Mission chief
Beatriz Florendo	- External debt
Sandra Hadler	- Export prospects and analysis of New Order economic policies
Irfan ul Haque	- Oil sector and investment analysis
Laurens Hoppenbrouwer (RSI)	- Balance of Payments
Woo Sik Kee	- Public Finance
Roger Key (RSI)	- Rural development and labor markets
Om Nijhawan	- Poverty, income distribution and Inpres programs
Augustin Qué (IFC)	- Financial policies and institutions
Lyn Squire	- Trade and pricing policies
Kenji Takeuchi	- Non-oil minerals
Isabelle Tsakok	- Basic health and education services

A draft of this report was discussed with the Government of Indonesia in January 1979.

The following associated sector and special reports provide the underpinnings for parts of the analysis and some of the projections contained in this report:

- Problems and Prospects for Industrial Development in Indonesia, Report No. 6147-IND, dated May 25, 1978
- Indonesia: The Education Sector, Report No. 2364-IND, dated November 1978
- Indonesia: Irrigation Program Review, Report No. 2027a-IND, dated October 16, 1978

<p>This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.</p>
--

- Indonesia: A Review of the Support Services for Food Crop Production, Report No. 2060a-IND, dated December 11, 1978
- Indonesia: Supply Prospects for Major Food Crops, Report No. 2374-IND, dated March 3, 1979
- Employment and Income Distribution in Indonesia, Report No. 2378-IND, dated February 20, 1979
- Indonesia: Health Sector Overview, Report No. 2379-IND, dated February 20, 1979

All demographic projections in this report are based on the work of C. Chandrasekaran (RSI) contained in Annex I of the above-mentioned report c Employment and Income Distribution in Indonesia.

INDONESIA

BASIC ECONOMIC REPORT

Table of Contents

	<u>Page No.</u>
1. <u>PREFACE</u>	
Text Tables	
List of Abbreviations	
<u>SUMMARY AND CONCLUSIONS</u>	i
Structure of Report and General Conclusions	i
Consumption, Employment and Incomes of the Poor	iii
Monetary Policies and Financial System Development	viii
Food Supply and Consumption Strategy	ix
Public Sector Resources	x
Balance of Payments Prospects and External Borrowing	xii
Overall Growth and Employment Prospects	xiii
Aid Recommendations	xiv
 <u>PART I: ECONOMIC MANAGEMENT, 1967-78: ACHIEVEMENTS AND DILEMMAS</u>	
<u>INTRODUCTION</u>	1
1. <u>THE ECONOMY, 1967-78</u>	2
2. <u>MONETARY POLICIES</u>	6
3. <u>THE PURSUIT OF ECONOMIC LIBERALISM</u>	10
4. <u>SOCIAL DEVELOPMENT AND EMPLOYMENT</u>	14
5. <u>ECONOMIC PLANNING AND PUBLIC ADMINISTRATION</u>	18
 <u>PART II: IMPROVEMENTS IN THE WELL-BEING OF THE INDONESIAN POPULATION: THE RECORD OF THE PAST AND THE TASK FOR THE FUTURE</u>	
<u>INTRODUCTION</u>	23
1. <u>GROWTH, DISTRIBUTION AND PATTERNS OF CONSUMPTION EXPENDITURES, 1970-76</u>	25
Existing Views	25
Changes in Per Capita Consumption Expenditure, 1970-76	26
An Analysis of Consumption Expenditures by the Poor, 1970-76	29
Some Characteristics of the Poor	33
Patterns of Consumption and Calorie Intake, 1970-76	35
Summary	37

2.	<u>TRENDS IN EMPLOYMENT OPPORTUNITIES AND REAL WAGE RATE DEVELOPMENTS</u>	38
	Population, Labor Force and Employment	38
	Employment and Wage Rates in Rural Areas	43
	Effect of Institutional and Technological Change on Rural Employment	45
	Employment and Wage Rates in Urban Areas	50
	Summary	53
3.	<u>THE DELIVERY OF BASIC SERVICES: HEALTH, EDUCATION AND WATER SUPPLY</u>	55
	Overview	55
	Developments in Health Care	58
	Provision of Education Services	60
	Water Supply and Sanitation	63
	Housing	65
	Summary	66
4.	<u>LESSONS ABOUT EMPLOYMENT GROWTH, CONSUMPTION GROWTH, WAGE RATES AND DEVELOPMENT IN THE PAST, AND THE TASK AHEAD</u>	67
	Observed Links Between Employment Growth and Income Growth	67
	Dimensions of the Future Poverty Reduction Problem	69
	Population Projections	70
	Labor Force Projections for Java and Indonesia	71
	Implications for Regional Growth Requirements and Transmigration	71

PART III: FUTURE DEVELOPMENT PERSPECTIVES AND POLICIES

	<u>INTRODUCTION</u>	76
1.	<u>FACTORS DETERMINING MEDIUM TERM GROWTH PROSPECTS AND IMPLICATIONS OF THE RECENT DEVALUATION</u>	78
	Prospects for Oil	78
	Non-Oil Mineral Prospects	80
	Agricultural Prospects	81
	The Pattern of Investment	81
	External Debt and Net Resource Transfers from Abroad	83
	Terms of Trade Movement and External Demand Growth	84
	Implications of the Recent Devaluation of the Rupiah	85

2.	<u>ADMINISTRATIVE CONSTRAINTS, PRICING POLICIES AND THE STRUCTURE OF INCENTIVES</u>	88
	Introduction	88
	The Incentive Framework as Determined by Trade Taxes and Administrative Bottlenecks	88
	Interest Rates, Subsidies and Investment Incentives	91
	Domestic Oil Pricing and Pricing by State Enterprises	94
	Exchange Rate Policy	96
3.	<u>AGRICULTURAL EXPORT PROSPECTS</u>	99
	General Considerations	99
	Rubber	101
	Cassava	102
	Fish	104
	Timber	105
	Summary	107
4.	<u>INDUSTRIALIZATION AND MANUFACTURED EXPORTS</u>	108
	Current Trends and Constraints	108
	The Need to Accelerate Industrial Growth and Exports	109
	Export Processing Zones	110
	Elements of a Labor Intensive Rural Industrialization Strategy	111
	Agro-Industrial Growth Centers	113
	Conclusion	113
5.	<u>PRIVATE INVESTMENT AND FINANCIAL SYSTEM DEVELOPMENT</u>	114
	Development Banking, Credit Policies and Interest Rates	114
	Private Foreign Investment and Project Appraisal	117
6.	<u>ELEMENTS OF A FOOD SUPPLY AND CONSUMPTION STRATEGY</u>	118
	Food Supply and Demand Trends	118
	Rice Demand and Supply Prospects	120
	Irrigation Development	122
	Rice Producer Price and Fertilizer Price	124
	Supply and Demand Prospects for Major Secondary Food Crops	127
	Transmigration	129
	Wheat and Sorghum	130

	<u>Page No.</u>
7. <u>PUBLIC SECTOR RESOURCES AND EXPENDITURES</u>	131
Introduction	131
Domestic Oil Pricing	132
The Need and Scope for Additional Non-Oil Tax Efforts	136
Non-Tax Revenues	139
Other Public Sector Resources	139
Overall Public Sector Resources Picture	140
Public Sector Investment	140
8. <u>BALANCE OF PAYMENTS</u>	146
Introduction	146
Projection Methodology: Current Account	146
Pre-Devaluation Balance of Payments Prospects	147
Post-Devaluation Balance of Payments Projections	148
Import Projections	148
Export Projections	149
External Borrowing and Capital Account Projections	152
Result of Projections	153
Conclusion	154
9. <u>CONCLUDING THOUGHTS ON GROWTH AND EMPLOYMENT PROSPECTS</u>	156
 <u>MAP</u>	
 <u>STATISTICAL ANNEX</u>	158
 <u>QUANTITATIVE PROJECTIONS APPENDIX</u>	233

Text Tables

<u>Table No.</u>		<u>Page No.</u>
 <u>PART I</u>		
1.	Money Supply and Factors Affecting Money Supply, 1970-77 . . .	8
2.	Size of INPRES Programs, 1970/71-1977/78	15
 <u>PART II</u>		
1.	Alternative Price Deflators, 1970-76	27
2.	Changes in Average per Capita Consumption Expenditure, 1970-76	29
3.	Distribution of Per Capita Consumption Expenditure, 1970-76 .	31
4.	Absolute Numbers of People Below Various Cut-off Levels of Real Monthly Consumption Expenditure per Capita, 1970-76 .	31
5.	Average Annual Growth Rates of Real Monthly Consumption Expenditure per Capita for Selected Groups, 1970-76	32
6.	Patterns of Consumption Expenditure and Calorie Intake, 1970-76	36
7.	Population, Labor Force and Employment, 1971-76	40
8.	Sectoral Composition of Employment and Labor Productivity, 1971-76	42
9.	Sectoral Composition of Employment in Rural Areas, 1971-76 .	44
10.	Indices of Real Wages in Rural Areas, 1969-77	48
11.	Money and Real Daily Wages in Urban Areas for Unskilled Construction Labor in the INPRES Kabupaten/Kotamadya Program, 1971/72-1977/78	49
12.	Sectoral Composition of Employment in Urban Areas, 1971-76 .	51
13.	Social Indicators of Health, Education, and Water Supply. . .	56
14.	Development Expenditure on Social Services, 1971/72-1977/78 .	57
15.	Aspects of Primary and Secondary Education, 1971-78	61
16.	Activity of School Leavers One Year after Leaving School in 1976	63
17.	Average Annual Growth Rates of the Population, 1976-2001 . .	71
18.	Population and Working Age Population Projections, through 2001	72
19.	Minimum Average Annual Growth Rates of the Labor Force, 1976-2001	72
20.	Projected Annual Growth of Population in Age Group 15-24, 1976-2001	73
 <u>PART III</u>		
1.	Key Oil Sector Projections and Assumptions, 1978-1990	79
2.	Medium Term Investment Credits Supplied by Indonesian Banks to Private Sector and Direct Foreign Investment, 1972-1977	83
3.	Indonesia's External Public and Publicly Guaranteed Debt as of December 31, 1977 (Disbursed only) Based on June 1978 Exchange Rates	84

PART III (Cont'd)

4.	Changes in Relative Prices, 1971-76	97
5.	Volume Indices for Non-Extractive Traditional Exports . . .	100
6.	Cassava Export Volume and Price Indices, Indonesia and Thailand, 1971-77	103
7.	Indonesia: Manufacturing Employment, 1971-76	111
8.	Selected Food Production, Import and Fertilizer Data, 1968-77	120
9.	Paddy and Urea Prices in Selected Countries, 1977	125
10.	Paddy Support Price and Other Major Price Indices, 1972-77	126
11.	Retail Price Indices for Major Food Items in Rural Markets of Java and Madura, 1972-77	126
12.	Comparative Yields of Secondary Crops (1974-76 Average) . .	128
13.	Estimated Corporate Tax on Oil Under Three Domestic Oil Pricing Policy Options, 1979/80-1983/84	133
14.	Shares of Various Oil Products in Domestic Sales by Volume and Value, and Price per Liter in 1978	135
15.	Share of Non-Oil Government Revenues in GNP in Selected Countries	136
16.	Comparison of Tax Structures in Selected Asian Countries .	137
17.	Public Sector Resources 1979/80-1983/84	142
18.	Budget Savings and Investible Resources	144
19.	Projected Resource Gap, 1978/79-1990/91: Pre-Devaluation .	148
20.	Projected Resource Gap, 1978/79-1990/91: Post-Devaluation .	151
21.	Borrowing Program, Projected Foreign Exchange Availability and Requirement, 1978/79-1990/91	155

ABBREVIATIONS

BAPINDO	-	Development Bank of Indonesia
BAPPEDA	-	Provincial Planning Agencies
BAPPENAS	-	Badan Perencanaan Pembangunan Nasional - National Development Planning Board
BI	-	Bank Indonesia
BIMAS	-	Bimbingan Massal Swa Sembada Bahan Makanan - Mass Guidance for Self-Sufficiency in Foodstuffs, (a farm input-credit package program)
BPS	-	Biro Pusat Statistik - Central Bureau of Statistics
BRI	-	Bank Rakyat Indonesia - People's Bank of Indonesia
BTN	-	Bank Tabungan Negara - Government Mortgage Bank
BULOG	-	Badan Urusan Logistik - National Logistics Body (Rice procurement agency)
BUUD	-	Badan Usaha Unit Desa - Forerunner of KUD as Village Unit Cooperative
CRIA	-	Central Research Institute for Agriculture
DGC	-	Directorate General of Cooperatives
DGFC	-	Directorate General of Food Crops
DGWRD	-	Directorate General of Water Resources Development
DEC	-	Department of Education and Culture
HYV	-	High Yielding Variety
INMAS	-	Intensifikasi Massal - Massive Intensification, (farm input program)
INPRES	-	Instruksi Presiden - "Presidential Instruction", rural works programs
IPEDA	-	Iuran Pembangunan Daerah - Property Tax
IRRI	-	International Rice Research Institute
KABUPATEN	-	Second Level of Local Government, Regency or District Level
KIK	-	Kredit Investasi Kecil - Small Investment Credit
KIP	-	Kampung Improvement Program
KMKP	-	Kredit Modal Kerja Permanen - Small Permanent Working Capital Credit
KUD	-	Koperasi unit Desa - Village Unit Cooperative
LEKNAS	-	National Institute for Economic and Social Research
MPW	-	Ministry of Public Works
NAFED	-	National Agency for Export Development
NFPCB	-	National Family Planning Coordination Board
NFPP	-	National Family Planning Program
PDFCI	-	Private Development Finance Company of Indonesia
PENMAS	-	Non-Formal Education Program
PERTAMINA	-	National Petroleum Corporation
PERUMNAS	-	National Housing Corporation
PUSKESMAS	-	National Health Centers Program
PUSRI	-	Pupak Sriwidjaja - Fertilizer Company

REPELITA I - First Development Plan, 1969/70-1973/74
REPELITA II - Second Development Plan, 1974/75-1978/79
REPELITA III - Third Development Plan, 1979/80-1983/84
SUSENAS - Survey Social Ekonomi Nasional - National Household Expendi-
ture Survey
SAKERNAS - National Labor Force Survey
SUPAS - Survey Penduduk Antar Sensus - Intercensal Population Survey

SUMMARY AND CONCLUSIONS

Structure of Report and General Conclusions

1. This report presents a broad perspective on economic management and social development in Indonesia during the past decade, on medium-term prospects in the light of current trends, and on policy adjustments that may be needed to improve long-term prospects for sustained rapid income and employment growth. Corresponding to these subjects, the report is divided into three parts:

Part I identifies the main characteristics and achievements of economic management since the present Government came to power in 1966. Policy initiatives and responses are analyzed in the light of the complex economic problems and crises that had to be dealt with and the opportunities presented by the sudden increase in oil revenues in 1973/74. Several of the fundamental policy dilemmas that emerged remain highly relevant.

Part II attempts to analyze changes in the well-being of the Indonesian people during the period 1970-76 by ascertaining the extent to which the impressive overall growth performance of the economy during this period has been associated with improvements in consumption, employment, minimum wages, and the delivery of basic services.

Part III reviews development prospects in the light of emerging trends, the recent devaluation of the rupiah, and considers strategies that might be pursued to improve long term performance.

2. The main conclusions of this report are:

- (a) that the present Government has successfully resuscitated the severely dislocated and near-bankrupt economy it inherited in 1966 and managed the major economic crises with which it has been confronted during the past decade. In so doing it established a reasonable degree of monetary stability and restored external credit worthiness;
- (b) that, aided by a massive improvement in the country's resource position during the early 1970s and notwithstanding relatively wide income disparities, progress has been made in raising the level of material well-being of the bulk of the population, including the lowest income groups;
- (c) that, due to a number of new, mostly exogenous circumstances, including an expected slowdown in the growth of oil production, Indonesia is now facing a rapidly tightening overall resource position which will make it more difficult to maintain high levels of income and employment growth, while at the same time preserving monetary stability and external balance;

- (d) that, while the next five to ten years may be difficult because of the structural changes needed to adjust to a post-oil boom era, Indonesia's long-term development prospects have been significantly enhanced by the Government's successful population policies which have already contributed to a substantial (approximately 20%) reduction of fertility on Java and Bali during the past decade. These crucially important demographic developments will, particularly after the mid-1980s, be reflected in reduced and declining rates of growth of the labor force. Declining labor force growth rates and the prospects of declining income elasticities of demand for food justify the hope and expectation that with sound policies, Indonesia can eventually (possibly within the next two decades) overcome the severe poverty and food security problems that continue to plague the country today;
- (e) that, while the November 1978 devaluation of the rupiah from Rp 415 to Rp 625 to the US dollar, is strongly supportive of the structural changes required to reduce economic dependence on oil and to improve long-term development prospects, the devaluation needs to be complemented by measures to promote effective support services and to remove administrative obstacles and other unnecessary cost increasing factors; and
- (f) that, although the Government (because of the structure of its revenues and expenditures) is a major beneficiary of immediate devaluation-induced income shifts from import users to net-exporters, significant additional public sector resource mobilization efforts will be needed to prevent a sharp decline in the share of Government savings in GNP beyond 1979/80.

3. To maintain rapid growth momentum under the newly emerging circumstances, to ensure the maximum participation of lower income groups and those without productive assets in the development process, and to enhance food security the following broad policy directions are suggested for consideration:

- (a) accelerate public sector investment in employment-creating activities and avoid a concentration of public sector investments in capital-intensive projects;
- (b) improve the general incentive framework and security for domestic and foreign private investment by removing unnecessary administrative bottlenecks, eliminating unauthorized levies, and by improving the quality and coverage of investment banking services, particularly in areas outside Jakarta;
- (c) once the economy has adjusted to the recent devaluation, to step-up significantly domestic resource mobilization efforts through the removal or reduction of budgetary and non-budgetary subsidies,

particularly on domestic oil consumption; through improved tax administration and collection; and through proper economic costing and pricing of the goods and services provided by public sector enterprises;

- (d) give special emphasis to the promotion of labor-intensive, export-oriented industries and aim at a manufactured export growth rate of not less than 20% p.a. for the next decade. Simultaneously, existing export disincentives should be removed and the development of backward linkages in industry promoted by reducing or eliminating biases in favor of final stage processing that are inherent in the present tariff structure;
 - (e) avoid subsidizing the use of capital at the expense of labor and promote greater efficiency of resource use by maintaining a positive real lending rate, by reducing unnecessary fiscal incentives and by tightening credit repayment enforcement. However, the increased use of capital should be acceptable when it is clearly economically and socially efficient, even if it is initially associated with labor-displacement;
 - (f) improve food security, and simultaneously avoid excessive rice import dependency through a combination of food management policies; producer pricing policies; greater emphasis on agricultural research and support services for the promotion of secondary food crops; continued vigorous new irrigation and drainage development; improved maintenance of existing irrigation schemes; and large-scale settlement for dry-land farming outside Java and Bali;
 - (g) strengthen institutional support services for the rehabilitation and development of labor-intensive tree crops and export crops, in particular, rubber, oil palm and coconut.
4. The report places great emphasis on the importance of an efficient and reliable civil service, on the need to continue efforts aimed at strengthening middle-level management and to promote effective policy coordination between Government departments and agencies. This would help to reduce the extreme pressures on a relatively small group of top managers and create more time needed to focus on long-term development issues.

Consumption, Employment and Incomes of the Poor

5. The discussion of development prospects and future policies centers on the related issues of poverty reduction and employment growth. Indonesia's fundamental labor surplus problem is not one of open unemployment so much as low returns to labor and the need for the poor to work extremely long hours, often in multiple occupations to earn a minimum living. The term "low quality" employment captures the essence of Indonesia's employment problem

better than the more commonly used phrase "underemployment". The report notes a high degree of mobility and adaptability of the labor force, which is reflected in large seasonal fluctuations in the size of the labor force and in substantial circular migration between cities and rural areas. These factors also contribute to the well known conceptual difficulties of correctly measuring and interpreting the meaning of employment growth and differences between urban and rural population growth in Indonesia. In spite of these difficulties and the weakness of available data, the report is unambiguous in its conclusion that the employment and consumption trends observed during 1970-76, represent an improvement over the period prior to the New Order Policies.

6. Analysis of data from the National Household Surveys (SUSENAS) for 1970 and 1976 suggest that the rapid overall growth of the economy has contributed to a considerable improvement in consumption of all income groups, including the very poor. The data further suggest that increases in per capita consumption were higher in Java than in the other islands and higher in urban areas than in rural areas. There is, however, no evidence that during the 1970-76 period, overall income and wealth disparities have narrowed.

7. Notwithstanding the observed improvements, many Indonesians remain extremely poor: in 1976 when average per capita income was about \$280,^{/1} over 50 million Indonesians (38% of the population) spent less than \$90 (1976 prices and exchange rate). The concentration of poverty is particularly high in East and Central Java. These provinces account for about 39% of Indonesia's population and for 45% and 55% respectively of the urban and rural poor.

8. Conclusions concerning employment and wages are more circumspect. Nevertheless, data from the National Labor Force Survey (SAKERNAS) show a high rate of employment growth (over 4% p.a.) between September 1971 and October 1976. But during this period, the labor force also grew at a very high rate and the data suggest that there was some increase in the rate of open unemployment (to 2.3% of the labor force). Since the labor force grew much faster than population in the relevant age groups, a sharp increase in labor force participation rates, from 50% in September 1971 to 55% in October 1976, was observed. Thus, a substantial part of the increased per capita consumption levels is believed to have been related to increased labor force participation. The report finds furthermore that increases in labor force participation rates have been greatest for women in the child-bearing age groups. While this trend is consistent with the general picture of rising education levels, later marriages and declining fertility, it is also undoubtedly true that much of the employment growth has been of a poor quality in low productivity service and manufacturing activities.

9. Available wage data suggest that these trends in employment have been accompanied by constant or slowly increasing real wages in rural areas and stagnating or marginally declining real wages in urban areas. This conclusion, by virtue of the limited data, is somewhat speculative, but is essentially consistent with sectoral trends in employment and productivity.

^{/1} 1978 World Bank Atlas.

10. The share of agricultural employment between 1971 and 1976 declined from 66% to 62%, implying a rapid growth of non-agricultural employment - over 7% p.a. - or 54% of the total increase in employment. Nevertheless, between September 1971 and October 1976, agricultural employment realized a surprisingly high annual growth of over 3%, while agricultural production grew by approximately 3.8% p.a. One of the main factors underlying this high agricultural labor absorption rate was the relatively strong performance of the rice subsector. In Indonesia, rice is by far the most labor intensive food crop, both in terms of man-day inputs per hectare and per ton produced. Within the non-agricultural sectors, the increase in employment occurred largely in proliferating small-scale enterprises in the manufacturing and service sectors where labor productivity is thought to be extremely low.

11. Thus, while historical analysis suggests that structural changes in the employment pattern can occur without depressing real wages provided the overall output growth is rapid, the recent sectoral pattern of labor absorption raises serious questions for the future. Within the agricultural sector, the recent high incremental employment-output ratios, especially for rice, are probably much higher than can be realistically projected for the future.

12. The recent pattern of labor absorption in the non-agricultural sectors also raises the question of whether the relative concentration of investment in capital-intensive industries has been detrimental to employment objectives.

13. The strong growth of mostly low quality employment in extremely small-scale manufacturing units and service sectors has undoubtedly been in part the result of multiplier effects associated with the extremely rapid expansion of Government spending, averaging nearly 20% p.a. in real terms during the period 1970/71-1976/77.

14. As the growing pressure on resources will not permit similar expansion rates in the foreseeable future, employment growth in the secondary and tertiary sectors induced by such multiplier effects will almost certainly decline. This, combined with the expectation that the rate of labor absorption in food production will decelerate, underlies one of the main conclusions of this report, namely, that the rate of labor-intensive manufacturing growth and its regional distribution will become increasingly critical factors, determining the rate and quality of future employment growth. The report suggests the need for a much higher rate of labor-intensive industrial production growth. A target manufactures export growth rate of not less than 20% p.a. would be an essential component of such a strategy. The recent devaluation should make this possible. Institutional developments, which could contribute toward these objectives include, for example, the establishment of export processing zones and agro-industrial centers.

15. Obvious priority areas for accelerated industrial development are East and Central Java because of the high concentrations of urban and rural poverty in these provinces. But, taking a longer term perspective, the report also stresses the need for rapid non-agricultural employment growth in other parts of the country. Regional labor force growth projections reveal that, as a result of the recent fertility decline on Java, the rate of growth of the labor force there - even without transmigration - is likely to decline rather sharply, during the next several decades, particularly after the mid-1980s, while no such decline is as yet foreseen for the other islands. These diverging trends are particularly pronounced for the 19-24 age group for which the current unemployment rate is much higher than the national average. Agriculture is likely to continue in the near future to be the principal source of additional employment in the other islands (particularly in Sumatra and Kalimantan), but in the longer term, higher rates of labor intensive industrial development will be necessary.

16. The prospects for income growth of the poor are not only influenced by the rate of growth of employment opportunities but also by a host of other factors, including in particular the workers' levels of education and skill, their mobility, and their adaptability to changing circumstances. This suggests that the provision of basic social services (including health, education, training, labor market information, etc.) will be essential components of a pervasive employment-oriented development strategy. The Government's incremental oil revenues since 1973/74 permitted a dramatic increase in expenditures to expand and improve social services, in particular health and education. Various Government INPRES (Instruksi Presiden) programs executed by lower level Governments have played and are playing a major role in the planning of social services and construction of infrastructure facilities (schools, clinics, market places, rural roads) at the village and Kabupaten level.

17. The report finds that much progress has been made in recent years with the provision of education services. Enrollment rates increased at all levels of education. For example, primary school enrollment (excluding over-age students) is expected to reach 85% in 1979 for the 7-12 age group, compared to 60% in 1974; dropout rates - while still high - declined and universal primary education appears to be in sight. A promising non-formal education program has been introduced to increase the basic employable skills of those who have never attended school (estimated in 1976 at 19 million people) and others who left school without completing primary education (a further 21 million). Indonesia's adult literacy rate increased to 62% in 1974 which is much higher than in India (36%), Pakistan (21%), or Bangladesh (23%) but lower than in Thailand (82%) or Philippines (87%). Within Indonesia, large differences in levels of educational attainment between urban and rural areas still exist, but differences between Java and other parts of the country are relatively small. This points to the significant progress that has been made already toward spreading the national education effort, which *inter alia* aims at making Bahasa Indonesia the lingua franca, throughout the archipelago.

18. With regard to health services, the report notes the tremendous expansion of physical infrastructure including medical training facilities. Almost 3,000 rural health centers, designed to become the principle vehicles for the delivery of basic health services were constructed between 1969 and 1977. But it is also noted that much of the new physical infrastructure has so far remained under-utilized due to personnel shortage, and a range of other factors, including popular preference for traditional health care services in several areas. More recently, the staffing situation of rural health centers has improved as a result of a new Government policy requiring medical school graduates to serve in the Government health centers before being licensed for private practice. In spite of the Government's health service efforts, available evidence suggests that protein calorie malnutrition has remained a severe national problem. It is estimated to affect maybe one-third of all children under the age of 5 (about 7 million) and is a cause of Indonesia's high rate of infant mortality.

19. Indonesia's nutrition problem is not believed to be primarily related to agricultural supply constraints but to a broader poverty problem (including ignorance of nutritional values), the solution of which is essentially a question of education and of raising effective demand of the poor through income and employment growth. As such, the report's recommendation to aim at much higher levels of labor-intensive industrial development and several other suggestions have an important indirect bearing on the nutrition problem. Selectively targeted Government subsidized nutritional programs, for example, for school children and nursing mothers in poverty concentration areas, however, could be important components of a nutrition strategy.

20. Even if the various targets for urban and rural water supply for Repelita II are fully met, a large majority of Indonesians will remain without easy access to safe drinking water in 1979. Inadequate sewerage and sanitation facilities are still major health hazards, especially in crowded urban areas. The need for an expansion of both water supply and sewerage programs in Repelita III is more than apparent, not only in the shortage and poor service standards of existing facilities, but also in the high incidence of waterborne and related diseases.

21. Similarly, housing conditions are generally very unsatisfactory, especially in crowded urban areas. The achievements made so far with the Government's program for the construction of low-cost rental units are modest and most of the benefits have accrued to low-income civil servants and military personnel, not to the poorest groups. Major new initiatives to increase the supply of appropriately designed low-cost housing in urban areas are needed. Simple and inexpensive improvements in water supply, drainage, footpaths and community facilities executed through Kampung Improvement Projects have contributed to better living conditions in several overcrowded urban areas. But some social dislocation due to property speculation and rent increases is an almost inevitable by-product of selective urban improvement projects until such time that their area coverage extends to all priority areas in the major cities, which is the Government's objective.

Monetary Policies and Financial System Development

22. The report takes the view that the system of a convertible currency pegged to the US dollar has served Indonesia well, in spite of serious domestic price inflation in some years. No change in the policy of maintaining a convertible currency with a minimum of exchange restrictions is suggested but the report does stress the need for better information on private external capital flows and private external debt to improve the data base needed for balance of payments projections and external debt management. The report argues that it would have been virtually impossible to avoid completely a number of important relative price shifts in the economy which took place during the period 1972-76 and which generally tended to favor import substitution over export development, and the use of imported capital over domestic nontradeable inputs. These relative price shifts were the result of rapid domestic price inflation from the second half of 1972 through the first half of 1976 caused initially by harvest failure (1972/73) and later on by a combination of rapid monetary expansion following the commodity (especially oil) boom of 1973/74 and domestic supply constraints.

23. The recent (November 15, 1978) devaluation of the rupiah from Rp 415 to Rp 625 per US dollar was designed to encourage labor-intensive import substitution and non-oil export growth by reversing some of the adverse relative price shifts that had occurred earlier this decade. The correct timing of this drastic and unique policy action is believed to be a strong factor enhancing the probability of its success. The strongest immediate effects of the devaluation, however, will be a dramatic increase in budgetary revenues. Government expenditures will, of course, also increase as a result of the devaluation but the net budgetary position in terms of rupiahs should strongly improve. While the recent devaluation will generally tend to facilitate export promotion efforts, the report places great emphasis on the importance of developing effective support services and of reducing administrative obstacles and other unnecessary cost-increasing factors.

24. Some supportive measures to prevent a recurrence of spiralling inflation which would quickly erode the potential benefits of the devaluation have already been taken. Such measures include the lowering of import tariffs by 50% on a wide range of intermediate inputs, stringent temporary price controls, and a temporary increase in budgetary subsidies to initially isolate key consumption items such as rice and certain other products from the effects of the devaluation. Aside from the budget's influence over the prices of essential commodities through decisions on subsidies, one important factor determining domestic price responses to the devaluation will be the degree of monetary control exercised. There is likely to be a conflict, however, between the needs to contain devaluation-induced monetary expansion and the need for additional credit to assist import-dependent and externally indebted enterprises in overcoming temporary cash-flow problems and to promote new private investment, in line with the structural objectives of the devaluation. A temporary relaxation of credit restrictions may be needed to counter the inevitable deflationary impact of the devaluation on certain

sectors of the economy. Nonetheless, a sizeable budget surplus in fiscal 1979/80 almost certainly will be needed to assist in neutralizing the effect of a sudden sharp increase in the rate of monetary expansion following the devaluation.

25. The broadening and deepening of domestic capital markets through financial system development and the creation of long maturity financial assets are considered essential components of a strategy aimed at promoting domestic private investment, resource mobilization, and reducing dependency on foreign banking services. On-going investments and working capital credit programs aimed at medium- and small-scale enterprises are endorsed but the report suggests the need for a significant expansion of such programs and also the need for greater access to equity capital for domestic enterprises.

26. In this context the importance of promoting the development of investment banks, including the Regional Development Banks is emphasized. The latter in particular, could become powerful instruments for the promotion of indigenous private enterprise outside the main urban areas. This again is primarily a question of institutional development, training, and the encouragement of a development-oriented attitude on the part of investment banks. Some of these may have in the past devoted too little effort to assisting in the identification and support of suitable projects and entrepreneurs.

27. With regard to the structure of interest rates, the report notes that progress has been made towards elimination of the inverted structure of medium-term lending rates and term deposit rates and reduction of the related budgetary subsidy to State Banks. The inverted rate structure was the result of unorthodox but successful interest rate policies that were first introduced in the late 1960s (to absorb excess liquidity and simultaneously encourage productive investment) and reintroduced in 1974 for the same purposes. Further rationalization and simplification of the rate structure is considered desirable. It is also suggested that the use of Bank Indonesia's rediscount mechanism as an instrument to promote and subsidize lending by State Banks to particular subsectors, makes it very difficult to assess the true economic costs of these credit programs.

Food Supply and Consumption Strategy

28. Despite unprecedented achievements in rice production, the past decade has seen a continuing decline in Indonesia's food self-sufficiency. Between 1968-77, the composite trend growth rates of domestic food energy production and availability were approximately 3.2% and 3.7% respectively. These growth rates reflect a growing import dependency on rice, sugar, wheat and recently coconut oil, as well as a reduction or disappearance of maize, cassava, meat and coconut product exports.

29. Rice remains the preferred staple, accounting for 50% of domestic food energy consumption. In 1966, the single most pressing problem facing the new Government was the declining rice availability. Immediate priority was given to revitalizing the rice sector. As a result of Government's efforts to rehabilitate and extend irrigable sawah, of programs to supply inputs, technical assistance, marketing and price stabilization schemes,

between 1968-77 rice production realized a 3.5% trend growth rate. Simultaneously, the composite trend growth of the 5 main secondary staples (maize, cassava, peanuts, sweet potatoes and soybeans) was 1.6% p.a. While these secondary crops have not been neglected entirely, they have received relatively little Government support until recently.

30. Comparison of plausible supply and demand scenarios suggest the likelihood of increasing import requirements of basic foods and especially of rice, wheat, sugar, refined vegetable oils and possibly maize. While gap projections of this kind are of limited use, they do, however, provide some indication of the magnitude of the problem to be prevented. While part of the solution to Indonesia's nutrition problem lies in accelerating productive employment growth outside the agricultural sector, there is an urgent need for a comprehensive food production and consumption strategy. Nonetheless, the report concludes that it is within Indonesia's capacity over the next two decades to eliminate or, at least, contain the projected food deficits.

31. In the case of rice, the gradually shifting emphasis in irrigation development from rehabilitation to extension of irrigated areas and to swamp drainage projects is expected to slow average annual yield improvements as lower productivity lands have to be taken into production. Considering the potential for increasing fertilizer and insecticide use and for improving the local performance of the most recent IRRI varieties, the report concludes that, it is possible to maintain an average annual rice production growth rate of 3.5% through 1990, provided ongoing and planned irrigation projects mature on schedule. The recent devaluation has provided significant additional room for further rice producer price increases aimed at stimulating supply.

32. While slower growth in rice yields per harvested ha is anticipated, a comparison of yields for secondary crops in a number of countries suggests that these crops offer considerable potential for raising Indonesia's domestic food self-sufficiency. The report concludes that the rate of growth of secondary food production can be raised from 1.6% to 3.5% p.a. chiefly through yield improvements and that failure to achieve a gradual shift in the overall food production and consumption pattern from rice to secondary crops would compromise other development objectives especially in view of the cost and risks (vulnerability) associated with excessive rice import dependency.

Public Sector Resources

33. During the past several years Indonesia has had large budgetary surpluses and a strong balance of payments with rising foreign exchange reserves. For various, mostly exogenous reasons, this situation is expected to change. Part III of the Report discusses the adverse public sector resource implications of the expected stagnation of oil production during the next several years, the rising costs of oil production due to the rapidly

growing share of secondary recovery and high cost off-shore wells in total output, and a new incentive package that was recently introduced to encourage exploration. The medium term outlook for public sector resources is further depressed by the probability that net resource transfers from abroad on account of past and future external borrowing, will be much lower in terms of import capacity than during the past five years. This is largely the result of the external commercial debt profile as it has evolved since the early 1970s (including Pertamina's borrowing and Government cash loans that were needed to effectively deal with the Pertamina crisis) and reduced levels of concessionary loan commitments following the oil boom of 1973/74.

34. The recent devaluation of the rupiah does not by itself improve the real resource position of the country as a whole, but provides the means to do so while at the same time reducing temporarily the pressure on the budget. The devaluation has therefore delayed, but not removed the need for increased public sector resource mobilization efforts in other ways. After reduction of some import taxes, the budgetary revenue increase (in local currency terms) resulting from the devaluation would be of the order of Rp 1.5 trillion in 1979/80. Additional Government expenditures (in local currency terms), including increased subsidies on rice, petroleum products, fertilizer and selected other consumption items (needed to initially isolate those products from devaluation-induced domestic price effects) would be of the order of Rp 1.2 to Rp 1.3 trillion, leaving (an incremental) net budget surplus of approximately Rp 200-300 billion in 1979/80.

35. Although some initial increases in consumer subsidies are most probably needed to protect consumers by smoothing and delaying domestic price effects of the devaluation, the report argues strongly for the gradual reduction and eventually, elimination of most subsidies. It focuses particularly on domestic oil pricing as one of the major fiscal policy issues facing Indonesia today.

36. Before the devaluation of November 1978, the economic subsidy on domestic oil consumption (due to below opportunity-cost pricing) of diesel, fuel oil and kerosene accounted for about 1.5% of GNP. Less than half of this subsidy is in the form of a budgetary subsidy. The remainder is revenue foregone. One effect of the devaluation was to raise the share of domestic oil consumption subsidies in GNP from 1.5 to 2%. As a rapidly growing proportion of Indonesia's total oil output is consumed domestically (about 18% in 1978), failure to impose the same tax burden on domestic consumption as on exported oil will inevitably lead to a deteriorating budgetary situation, when production stagnates.

37. Significant domestic oil price increases (to international opportunity cost levels) however, will not be enough. Greater non-oil tax efforts, including improved tax collection and possibly selective tax increases are

also needed. In addition, efforts to improve the operating efficiency of public sector enterprises and to promote proper economic costing and pricing of their products and services are stressed as essential components of a national resource mobilization strategy. The report suggests that there is ample room for increased taxation of the rich and better tax collection. It furthermore suggests that the major domestic resource mobilization effort that will be needed to reduce dependency on oil and compensate for its relative decline, while politically difficult and painful to certain groups, should not present an insuperable problem or an undue burden on the economy.

Balance of Payments Prospects and External Borrowing

38. Before the devaluation of November 1978, balance of payments projections based on current trends and expectations suggested the strong probability that, without special export promotion efforts, a shortage of foreign exchange would become a binding constraint on development efforts within the next few years. The devaluation will undoubtedly have an influence on balance of payments prospects but it is too early to make more than a very preliminary and speculative assessment.

39. The period since the previous devaluation (1971) has been marked by sudden and very large international price shifts and by major changes in the composition of Indonesia's imports due to the tremendous expansion of public sector investment. These and other unusual circumstances, including the size of the devaluation itself, make the use for projection purposes of income and price elasticities of import demand, calculated on the basis of quantitative relationships since 1971, very hazardous. It is, nonetheless, practically certain that import growth will be slower than it otherwise would have been and that this will begin to take effect almost immediately.

40. Initially, the import effect of the devaluation is likely to be rather small and largely limited to non-essential, non-program imports. Ultimately, changes in the size and structure of import demand will be strongly influenced by the effect that the devaluation will have on the overall growth performance of the economy. The devaluation has undoubtedly given a strong impetus to export-oriented agriculture and should also facilitate the emergence and growth of export-oriented industries. In the case of most primary products, however, the short-term export response is likely to be limited because of supply rigidities (including long gestation periods in the case of tree crops).

41. On balance there seems now, after the devaluation, less ground for the fear that the balance of payments will become a development constraint. No dramatic improvements, however, are foreseen in the immediate future. The next few years could still show some deterioration in the overall position because of lagged import and export effects. The improvement in overall prospects does, of course, not reduce the need for the removal of administrative and physical obstacles and the development of institutional support

services for the promotion of traditional export crops and export-oriented, labor-intensive manufacturing growth. The report places great emphasis on the importance in Indonesia of institutional factors as constituting perhaps greater supply constraints than relative pricing factors.

42. External borrowing projections in the report are linked to estimated future debt service capacity. This somewhat unorthodox approach has been adopted in light of the concern of the Government to limit new commercial external borrowing to internationally recognized "safe" limits. Starting from existing debt service obligations and the likely availability of grants and concessionary loans from IGGI members and other sources in future years, the report calculates the approximate magnitude of new commercial borrowing consistent with the objective of keeping the external debt service ratio below 20%.

43. These projections suggest that the permissible level of new commercial borrowing consistent with prudent external debt management would rise from about \$750 million in the base year (1978) to around \$2 billion by 1986 and to around \$3 billion by 1990. These amounts would be approximately consistent with projected net capital inflow requirements. Under these projections the ratio of outstanding and disbursed external debt to export earnings would stay around 1.5, the debt service ratio would remain around 17-18%, and foreign exchange reserves would continue to provide a comfortable cushion of the equivalent of about 4 months worth of imports.

Overall Growth and Employment Prospects

44. Medium term prospects as determined by developments already in motion and exogenous factors, such as the expected temporary stagnation in oil production suggest that it will be difficult to achieve an overall GNP growth rate of more than 6.5% during the next 3-5 years. This is considerably less than the average growth performance of the economy during the past decade. But if the broad patterns of relationships between output growth, employment growth, and personal consumption growth observed for the period September 1971 through October 1976 does not drastically change (which is possible in the short term), a GNP growth rate of 6-6.5% could still be consistent with an overall employment growth target rate of around 3% p.a.

45. The economy will enter a difficult period of adjustment to post oil boom conditions involving structural changes in the pattern of production and the sources of savings. Much less reliance will have to be placed on the oil sector as the main engine of growth and source of Government revenues. Much more reliance will have to be placed on agriculture and industry and generally on the mobilization of Indonesia's most abundant and inexhaustible resource: people. The devaluation may be expected to facilitate the structural changes that are needed. With improved incentives, consistent with the objectives of an employment-oriented strategy, and adequate Government investment and institutional support services for agriculture and small industries, it should in due course be possible to raise the overall growth rate of the economy to at least 7 or 8%, which would be a major help in accelerating the further elimination of poverty.

Aid Recommendation

46. The magnitude of Indonesia's remaining poverty problem and the Government's commitment to vigorous policies in dealing with it well justify a continued growth in Official Development Assistance. Indications are that Official Development Assistance in 1978 from IGGI members fell short of the levels recommended and pledged at last year's IGGI meeting. During Repelita III, Government intends to continue limiting commercial borrowing to levels consistent with prudent external debt management; for 1979 this means that new commercial commitments of around \$850 million are envisaged. In order to maintain a reasonable growth of disbursements and net resource transfers during Repelita III and beyond, Official Development Assistance should reach, on average, at least \$2.3 billion per annum during 1979-83. For 1979, the first year of Repelita III, a level of around \$1,925 million of Official Development Assistance would be a minimum requirement. Multilateral financial institutions and sources outside IGGI are expected to provide about half of this total, or close to \$1.0 billion. It is recommended that bilateral IGGI members should aim at providing as a minimum, Official Development Assistance in the form of loans and grants of \$950 million during 1979, which at present exchange rates and prices would be roughly equivalent to the amount recommended last year.

PART I

ECONOMIC MANAGEMENT 1967-78:

ACHIEVEMENTS AND DILEMMAS

INTRODUCTION

1.1 In 1967, it was virtually impossible to disagree with Benjamin Higgins' judgment "that Indonesia must surely be accounted the number one failure among the major underdeveloped countries."^{/1} Since this time, Indonesia, and the world at large, have passed through a decade of turbulent social and economic change such that in 1978, Indonesia was a very different country. During this time, Government has had to deal with a series of extraordinarily complex problems of economic management. Thus, the aim of Part I is not simply to review the major events and developments, but to identify the main characteristics of economic management and the ensuing policy dilemmas that have emerged in the past decade.

1.2 It will be seen that the management and policies of the early part of this period, with one important exception, can be characterized as intent on disassociating from the legacies of the early 1960s. The exception to this is national unity - quite possibly Sukarno's greatest contribution to Indonesia. Fully recognizing the importance of this objective, the need for which arises as much from the size and geographic dispersion of the country as from its history and ethnic diversity, the present Government has both preserved and strengthened the unity of the Indonesian people.

1.3 Throughout the period since 1967, Government has met with considerable success in changing the direction of the economy from that of the preceding period, notwithstanding the major obstacles that emerged during this time. If economic management has not yet succeeded in fully realizing Indonesia's potential for growth, it is because of the difficulties in transforming, at least within the span of ten years, the underlying socio-economic fabric into one that is truly development oriented.

1.4 The main purpose of Part I is to provide some historical background needed for an understanding of the present economic situation and the environment in which policies for future development are made. While it is hoped that this will provide a useful, interpretive review of events that have unfolded for those readers who are unfamiliar with Indonesia, by its nature this approach is necessarily a subjective one. The outline of this Part is as follows: Chapter 1 provides a brief review of the economic situation of Indonesia in 1967 and sketches the major developments since this time. Chapters 2-5 deal with the major preoccupations and perceptions of management that have governed their reaction to, or handling of these developments.

^{/1} Benjamin Higgins "Indonesia: The Chronic Dropout" in his Economic Development, W.W. Norton, N.Y., 1968.

CHAPTER 1: THE ECONOMY, 1967-1978

1.5 In 1966, the new Government of Indonesia inherited an essentially bankrupt economy. Between 1958 and 1966 the economic situation had seriously deteriorated as a result of both internal and external political difficulties, adverse economic policies (including an unrealistic exchange rate) and a decline in the terms of trade in the order of 40%, due largely to a sharp drop in rubber prices. Such infrastructure as existed, had been allowed to deteriorate as a result of both political disruptions and uncertainties, while production suffered the consequences of material and equipment shortages. Thus, national income stagnated and per capita incomes and food availability fell. These problems were further compounded by increased expenditures on defense and prestige projects, which were for the most part unproductive. Aside from stagnating (if not declining) production and sharply declining export earnings, Indonesia was engulfed by a rapidly accelerating hyper-inflation, which in 1966 was approximately 650%.

1.6 On taking over, the new Government gave immediate priority to stabilization measures and to the rehabilitation of infrastructure and production facilities. The measures taken - and their success - have been described in detail in various World Bank and IMF reports. In brief, these involved an immediate tightening of credit through a balanced budget and the restoration of a real rate of interest on loans and deposits. In addition, a realistic exchange rate was established, debt rescheduled and commodity and other aid was sought and obtained on favorable terms. This inflow of program aid and foodstuffs, after several years of essential isolation from the Western world, did much to provide an immediate stimulus to the economy.

1.7 Rehabilitation and regeneration of the economy required investment in all sectors of the economy and every possible effort^{/1} was made to attract capital (both domestic and foreign). To this end, there was a widespread abolition of Government controls on investment, materials allocation, imports and foreign exchange. As a result, in the two years 1967 and 1968, inflation was substantially controlled, Government receipts doubled in real terms and production, especially of foodstuffs, and exports began to recover.

1.8 Thus, by the beginning of 1969, Government felt sufficiently in control of the situation as to embark on a first Five-Year Plan (Repelita I. 1969/70-1973/74). At this time, per capita incomes of the bottom 40% had probably only recovered to the pre-World War II level. A majority of the population depended exclusively, or primarily, on agriculture where there had been little improvement in productivity in the post-World War II period. Outside the agricultural sector, employment opportunities were scarce and, as a result, unemployment was widespread.

1.9 The first Five-Year Plan was framed in general and flexible terms. Implementation was to be in a series of successive one-year plans, which were to be formulated and/or modified in the light of new developments and the experience of earlier years. The Plan was generally modest; major structural changes were not envisaged. High priority was placed, appropriately, on

^{/1} Laws promoting foreign and domestic investment were promulgated in 1967 and 1968, respectively.

rehabilitation rather than new investment. Since Government had committed itself to balanced budgets, while the tax base was low and before private savings had recovered from the hyper-inflation of the mid-1960s, it looked to foreign aid and private foreign investment to provide the greater part of investment resources, especially in industry and mining.

1.10 In physical terms, the emphasis of the Plan was on the rehabilitation of neglected infrastructure (especially irrigation and transportation) and on the expansion of agriculture, for both domestic and foreign markets. The Plan also included the beginnings of a Government sponsored and operated family planning program, which has since become one of the main pillars of Indonesia's long-term development strategy. Although transmigration and the creation of employment were important development objectives, no specific targets were established.

1.11 For the most part, physical objectives were realized. GNP growth accelerated, realizing an average annual 9% rate during the Plan period. Investments also increased rapidly, rising from 9% to 19% of GDP. Economic and political stability were largely restored and many of the most pressing rehabilitation projects completed. Thus, in preparing the second Plan (Repelita II, 1974/75-1978/79), Government's hands were no longer forced by immediate necessity; rather the over-riding goal became to raise the living standards of all sections of the population, while simultaneously laying the foundations for the future development of the country.

1.12 The second Plan identified a number of specific low-income target groups and, in general, adopted an employment oriented strategy. Simultaneously, provision was made for a continued growth in investments, both because capital intensity was expected to increase as the rehabilitation phase grew to an end and because more socially oriented investments were anticipated. Overall, the economy was expected to grow at 7.5% per annum during the second Plan period.

1.13 However, by this time, changes were taking place in the international community, which were to both aid and thwart Government's efforts at orderly development. Until 1971, Indonesia's economic reconstruction had taken place in a relatively stable international environment. Since this time, the international economy has been subjected to crisis after crisis. Beginning in 1971, the adoption by most industrial countries of a flexible exchange rate policy began a period of continuing exchange rate adjustments. Between 1971 and 1973, growth in the world economy was very rapid, bottlenecks in supplies of several important raw materials and foodstuffs developed which, coinciding with widespread unfavorable weather, culminated in the commodity boom of 1973/74.

1.14 In August 1971, shortly after the suspension of the US dollar's convertibility into gold, the rupiah was devalued from Rp 378 to Rp 415 to the dollar. The rupiah remained tied to the US dollar at this rate until November 15, 1978, despite the dollar's sharp decline in recent years, which meant a substantial depreciation of the rupiah against most other major

currencies. Many important developments in the Indonesian economy, including the extraordinarily strong export performance of the early 1970s were related to exogenous factors. Perhaps the most important of those factors was the OPEC oil price hike of 1973/74, which followed the commodity boom already mentioned.

1.15 Coinciding with the price increases, oil production also increased rapidly - by about 50% between 1971 and 1973. This was largely a result of the successful efforts of Government and the national petroleum company, Pertamina, in earlier years to attract foreign companies and to induce substantial effort and investment by them in exploration and development of new fields, by means of Production Sharing Contracts. In fact, the success of Pertamina in drawing foreign capital into the oil sector was one of the most significant accomplishments of the period - not just because of direct forward linkage effects but more importantly, because of its instrumentality in changing Indonesia's image in the international financial community. As a result, between 1972 and 1974, the gross value of Indonesian crude oil production jumped from \$1.1 billion to \$6.0 billion. Net oil exports in this period increased from \$0.4 billion to \$2.6 billion and subsequently to \$4.4 billion in 1977/78.

1.16 Thus, at the beginning of the second Plan, the public sector found itself with a large and unexpected increase in revenues - a situation which is probably not less difficult to handle successfully than the sudden drop in resource availability experienced by many oil-importing countries. The increase in revenues also contributed to a marked improvement in Indonesia's external creditworthiness and in turn facilitated the borrowing spree by Pertamina, which culminated in the financial crisis of 1975, known as the "Pertamina crisis".

1.17 Through 1974/75, Pertamina had undertaken a large and diversified investment program, for most of which it had failed to arrange appropriate medium or long-term financing.^{/1} Before long, and especially as the international money markets tightened, Pertamina began to face serious liquidity problems. It began to withhold the legally obligatory pass-through to the Government of part of the revenues received from the foreign oil companies, as well as taxes due on its own net income. In addition, Pertamina failed to meet payments due on certain of its short-term foreign borrowing and some of its obligations to suppliers, both foreign and domestic. Furthermore, it faced the prospect of large similar obligations coming due in 1975/76 which it was unlikely to be able to meet. These developments posed serious problems for the budgetary position and the external credit standing of the Government. Decisive corrective action was taken early in March 1975. Namely, Government resolved to assist Pertamina so as to enable it to meet the outstanding debt service obligations. Furthermore, in order to assure orderly and coordinated

^{/1} State enterprises were not permitted to borrow abroad funds beyond one-year maturity without prior approval from the Ministry of Finance. Pertamina, however, circumvented these regulations, by borrowing heavily on short-term.

borrowing in the international market, Pertamina and all other State enterprises were to refrain from independent borrowing abroad, and Bank Indonesia and the Ministry of Finance were made responsible for raising from international commercial sources the needed funds on their behalf. A systematic review of Pertamina's investment plans was undertaken with a view to rationalize financial policies and reduce conglomerate holdings outside the oil sector.

1.18 The passing of time and the fundamentally strong underlying economy have helped fade the memories of the Pertamina affair in the international financial community, although less so domestically. The period since 1975 has been, not unexpectedly, one of slightly slower growth but, nonetheless, one of considerable strength. Demand for Indonesia's major exports has been extremely healthy, leading to continued and substantial improvement in international reserves. At the same time, much progress was made towards establishing domestic monetary stability. Thus, the devaluation of November 15, 1978, when the exchange rate was set at Rp 625 per US dollar, occurring after an unprecedentedly good rice harvest, at a time of healthy reserves and when the annual inflation rate for the first ten months of 1978 had averaged only about 3%, took place from a position of strength. While the immediate impact of this adjustment on exports will probably be small, it should help in the longer-run to achieve the structural economic changes needed to ensure a sustainable high rate of production and employment growth with rising returns to labor and external balance in a post-oil boom era. Also, occurring on the eve of Repelita III (1979/80 - 1983/84), the devaluation provides a timely opportunity for redress of those institutional factors that are presently constraining Indonesia from once more accelerating its growth momentum.

CHAPTER 2: MONETARY POLICIES

1.19 In 1966, the new Government took control of an economy on the verge of collapse, not least because of the rapidly accelerating inflation. Since this time, Government has continued to attach high priority to the control of inflation. As soon as its position had been consolidated the Government launched (October 1966) a stabilization program, which was also intended to restore the economy to its growth path. From an annual rate of increase of approximately 650% in 1966, the increase in the Jakarta Cost of Living Index fell to 113% in 1967, 85% in 1968 and 10% in 1969. Simultaneously, output began to recover, with GNP realizing a 9% annual growth between 1968 and 1973. Considering its severity, to bring inflation under control in three years was an almost unparalleled achievement. In fact, the Indonesian stabilization-with-growth program is still viewed as a model of effective policy-making in a hyper-inflation situation.

1.20 The stabilization program entailed a concerted and simultaneous attack on inflation on several fronts, including a direct attack on the underlying causes of excessive monetary expansion - namely, the budget deficit and other public sector deficits. A second component was the implementation of a selective credit program which directed new bank credit to economic activities that were essential for the elimination of supply bottlenecks and for the rehabilitation of existing production facilities, rather than for financing new investment. A third element, the move away from a controlled economy to a system in which market forces played a much more significant role was also important. Externally, this involved the dismantling of a complex system of foreign exchange restrictions and its replacement with market-determined, flexible exchange rates. Internally, Government adopted a policy of non-interference in product and factor markets; for instance, public utility prices and other administered prices were permitted to rise to economic levels. As a result of the relaxation of controls, and although the public sector remained important, the private sector was given greater scope and direct foreign investment was encouraged. Finally, the unanimity of Government and their full support of the economic managers in implementing the difficult policies was also an essential element in the success of the stabilization program. This unanimity, together with the consistency with which the basic stabilization program was implemented were also important factors in restoring public confidence in the Government and its policies.

1.21 Finally, in April 1970, unification of the exchange rate with full convertibility (Rp 378 to US\$1) symbolized, in the eyes of the international community, completion of the stabilization program and a period of rapid economic expansion followed. The spectre of inflation, however, continued to haunt both the Government and the private sector.

1.22 Between late 1970 and September 1972, inflation averaged approximately 10% per annum,^{/1} even though the money supply continued to expand at an annual rate of about 30% per annum. This was possible only because the ratio of liquid assets to national income had fallen to a very low level during the rapid inflation of the mid-1960s. It seemed reasonable to assume that, as inflation lessened, the rate of monetary expansion would slacken. Instead, in the second half of 1972 the rate of expansion of the money supply (currency and demand deposits) accelerated to 46% on an annual basis, and domestic credit also expanded rapidly.

1.23 Alone, these developments might not have precipitated a steep rise in prices. However, severe drought reduced the dry season rice crop in 1972 and between September 1972 and January 1973, before the imports were received, rice prices increased by up to 100%. With the arrival and distribution of the imported rice, the price increase was stopped and, to some extent, even reversed, but the temporary inability of Government to maintain this major element of its stabilization package was undoubtedly an important psychological factor in the following inflation.

1.24 Unlike the inflation of the mid-1960s, world inflation began to influence the Indonesian economy in the second half of 1973. While world price developments were to be a major factor in the inflation of 1973 and 1974, domestic credit expansion and external borrowing by the public sector (in particular Pertamina) also contributed. In the second half of 1973 and early 1974, bank credit and the transactions demand for money increased rapidly and Government seemed uncertain as to the appropriate rate of monetary expansion. Simultaneously, the additional oil revenues were becoming available, adding further fuel to inflation.

1.25 However, it is difficult, if not impossible, to ascertain whether the monetary factors were the cause or effect of inflation. Examination of the monetary data suggests that the substantial increase in the net claims of the banking system on the private sector, was, in fact, the largest single factor in the increase in money supply in 1973 (Table 1). This was a period when, stimulated by both rapid international economic growth and financial developments, the private sector was especially buoyant and investment activity high. Also, analysis of monthly data suggests that the rapid increase in the general price level occurred almost simultaneously with the

/1 Annual percentage rate of inflation:

<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>
650	113	85	10	8.9	2.5	25.8	27.3	33.3	19.7	14.2	11.8	6.7

Source: Bank Indonesia, based on Jakarta Cost of Living Index; year end to year end.

large increase in money supply. The absence of a significant lag would suggest, therefore, that for the most part, the money supply responded to inflationary pressures and not vice versa.

Table 1: MONEY SUPPLY AND FACTORS AFFECTING MONEY SUPPLY, 1970-77
(Rp billion)

	1970	1971	1972	1973	1974	1975	1976	1977
Money (Ml)	250	321	475	669	937	1,250	1,603	2,022
Quasi-money	80	149	220	318	515	728	1,028	1,125
<u>Total</u>	<u>330</u>	<u>470</u>	<u>695</u>	<u>987</u>	<u>1,452</u>	<u>1,978</u>	<u>2,631</u>	<u>2,147</u>
Change in money (Ml)%	36	28	48	41	40	33	28	26
<u>Changes in factors</u>								
<u>affecting money</u>								
<u>supply</u>								
Net foreign assets	15.5	10.7	212.3	75.3	364.0	-588.5	345.0	568.5
Net claims on Government	-12.2	55.0	-50.8	-42.5	-116.6	162.3	-290.1	-259.1
Net claims on public sector enterprises	-2.5	15.8	-3.0	66.9	280.4	926.0	401.9	-22.5
Net claims on private sector	146.0	101.9	183.4	407.6	145.9	298.4	361.5	325.6
Net others	-49.8	-44.4	-188.1	-312.9	-405.2	-485.6	-465.4	-209.1

Source: Bank Indonesia.

1.26 By March 1974, the annual rate of inflation had reached nearly 50%. Thus in April 1974, Government introduced an anti-inflation package designed to reduce inflation in fiscal 1974/75 to 20%. These measures were primarily of a monetary nature,^{/1} although Government had also planned a substantial budgetary surplus for fiscal 1974/75. Simultaneously, Government announced its intention to establish a national stockpile, initially of rice and subsequently also of fertilizer, cement and other strategic commodities.

1.27 Following the introduction of this anti-inflation package, the annual inflation rate as from April, fell below 20% per annum. The rupture of the inflationary spiral, however, was aided in addition to the Government's policy measures and the generally cautious behavior of the banking community, by the prospect of an excellent rice crop and by the fact that the commodity boom had already peaked in the first quarter of 1974.

^{/1} The monetary measures included credit controls, a high interest rate policy and the introduction of a two-year time deposit scheme.

1.28 By the end of 1974, Government felt sufficiently in control of the situation to relax some of the April measures. Thus, interest rates were reduced significantly and credit restrictions were reduced selectively. Budget allocations for salaries and the development program were stepped up so as to fully utilize additional revenues accruing from oil. In addition, rice and fertilizer prices were increased so as to reduce the subsidy element. Nonetheless, price increases remained moderate, and the average annual rate of inflation has declined continuously, falling in 1977 to less than 12%, and subsequently to 3% in the first ten months of 1978.

1.29 Thus, Government had succeeded for the second time in bringing inflation under control, although on this occasion there is concern that Government may have been less successful in simultaneously achieving growth objectives. The inflation package of April 1974, combined with the indigenization measures which were introduced essentially at the same time, may have dampened private investment and thus economic growth. These developments were subsequently reinforced by the world recession. Although the restrictive measures included raising interest rates, the principal factors were the introduction of credit ceilings for commercial banks and regulations making it more expensive to use foreign deposits as a basis for domestic credit. The introduction of these controls, in effect, weakened the already small private sector in Indonesia while not seriously constraining the ability of the public sector to borrow. Claims of the banking system on the public sector increased dramatically in 1975 when Bank Indonesia repaid large amounts of external debt incurred by Pertamina in preceding years.

1.30 In short, since 1967 Government has accorded a high priority to the control of inflation. The policies pursued have shown both resourcefulness and an intimate familiarity with the workings of the economy. Some of these policies, such as for example the inverted interest rate structure,^{/1} are unique to Indonesia. Nevertheless, the question arises as to whether measures introduced, especially in 1974, have not been, perhaps, too deflationary. Presently, in the immediate post-devaluation phase, Government will face the same dilemma in finding monetary policies that are simultaneously compatible with monetary stability and economic expansion.

^{/1} In most banking systems, deposit rates are lower than lending rates. In Indonesia, however, as an inducement for investment and to absorb liquidity after the hyper-inflation of the mid-1960s, this structure was "inverted".

CHAPTER 3: THE PURSUIT OF ECONOMIC LIBERALISM

1.31 A second major instance of the present Government's policies attempting to break with the past and simultaneously conflicting with other development objectives has been the policy of moving away from a system of controlled economy towards one in which market forces play a more important role.

1.32 Initially, there was a concerted effort to open up the economy.^{/1} As noted above, an important instance of this, and one of which the monetary authorities are fiercely protective, is the full convertibility of the rupiah. Maintaining convertibility, though on balance almost certainly highly beneficial, has not been without cost for Indonesia: private capital has been permitted to flow in and out of the economy in a relatively unrestricted manner, imposing constraints on monetary policy. Government's desire to break with the system of controlled economy also led, as mentioned above, to a low level of interference in product and factor prices. As a result of these measures and although the public sector remained important, the private sector was given greater scope and direct private foreign investment was encouraged. In fact, the degree of economic liberalization realized by 1972 was unusual for a country at this stage of development.

1.33 However, coinciding with the second bout of inflation, a partial reversal in policies can be discerned with market intervention (especially in the form of subsidies and protection) gradually becoming more pervasive. This reversal can be attributed to a number of factors. In part, the pursuit of economic liberalization was in itself associated with a conflict between the dual objectives of growth and equity. For instance, the policy of non-interference has contributed to the emergence of a small, wealthy elite which is difficult to reconcile with Government's growth-with-equity objectives. The growth of this elite has been assisted by an income tax system which is easy to evade and not strongly progressive. The structure of interest rates and the relatively free allocation of credits by the banking system prior to April 1974, has also unintentionally encouraged investments in activities, which from a development viewpoint were of a low priority and may thus have furthered the interests of this elite.

1.34 Towards the end of the first Plan period, it was apparent that the consumption and assets of a small elite had increased appreciably. At the same time, the real incomes of large urban groups - and possibly also of the rural landless - were at least temporarily, squeezed as a result of the 1972 rice supply shortfall and the rapidly accelerating inflation. Frustrations began to surface and criticism of Government, particularly in the urban areas, became quite open.

^{/1} In this chapter, "open" economy refers not just to freeing the external monetary sector to market forces, but also the domestic product and factor markets.

1.35 To these feelings of dissatisfaction were added the resentment of certain elements of society who felt they were not participating in the exercise of political power, and economic frustrations, especially on the part of "indigenous" entrepreneurs. Thus, resentment was building up against the Government. This situation climaxed in January 1974 during the visit of the Japanese Prime Minister, when serious rioting broke out in Jakarta. Government took strong measures against those regarded as responsible for the riots, but also took measures on several fronts, to deal with the causes of disaffection. In an effort to mollify nationalist sentiments, policies on foreign investment were modified to require greater participation by Indonesians, and special credit schemes (already under consideration in late 1973), were introduced to promote and strengthen small, indigenous entrepreneurs.^{/1} To facilitate Indonesian participation in foreign and domestic companies, provision was also made for the establishment of a stock exchange. Fields closed to foreign investment were enlarged, tax holidays and import duty concessions reduced, and employment and training of Indonesian personnel by foreign firms accelerated. In addition, Government announced its intention to give greater weight to social objectives in the second Plan.

1.36 At the same time, inflation, particularly as this resulted from the rice harvest failure and the international commodity boom, led to controls (especially on credit availability and terms) while concern for consumers led to subsidies. The availability of oil revenues permitted heavy subsidies on fertilizer, rice and oil and to a lesser extent on sugar, wheat and pesticides. In keeping with the pursuit of economic liberalism, free markets in those commodities have nonetheless existed throughout. With the exception of oil subsidies, which now account ^{/2} for about 2.0% of GNP, these subsidies were largely a temporary phenomenon, reflecting Government's decision to prevent the thin and volatile international market for these commodities from disrupting domestic price levels. As order returned to these markets and as Indonesian production of nitrogenous fertilizer increased, the elimination of subsidies freed monies for the investment program and public services. More recently, the aftermath of the 1978 devaluation has provided perhaps the strongest evidence of Government's willingness to intervene in domestic markets in the interest of domestic price stability. Such intervention as was necessary to prevent sudden and socially disruptive domestic price increases including the increased subsidization (relative to the new international price levels in rupiah terms) of petroleum products and essential consumer goods should, however, be of a temporary nature.

^{/1} Namely, Indonesian shareholders are, within a specified period, to own at least 51% of the shares in foreign or joint venture companies and medium-term credits, as a rule, can only be given to businesses in which at least 50% of domestic capital is in indigenous hands.

^{/2} After the devaluation of November 1978. For calculation of this subsidy see Part III, Chapter 2.

1.37 Perhaps most significantly, a shift away from the pursuit of economic liberalism can be seen in the evolution of industrial sector policies. In 1966, the present Government inherited a relatively large public sector. In line with its policy of opening up the economy to market forces, Government returned to private hands certain public companies and it appeared, at first, that Government would rely heavily on private sector initiatives. But beginning with the growth in oil revenues in 1973/74, Government appears to have reverted to a public sector-dominated industrial strategy. Thus, the share of Government development expenditures in total domestic investment increased from 28% in the first Plan period to approximately 60% in recent years. While a considerable proportion of the additional development expenditures has gone to agriculture and socially oriented programs, the greater part has gone into relatively capital intensive sectors such as power, telecommunications, transport and heavy industry /1 to provide the basis for future growth.

1.38 This pattern of public sector investment raises the question of the objectives of Government's industrialization policies and their suitability to the Indonesian economy at this stage. While it can be argued that the only feasible way of quickly utilizing the unexpected windfall in oil revenues was to invest in capital intensive projects, Government did face a choice of preserving the revenues for itself, and thus committing itself to an expanded role in the industrialization of the economy, or to using the funds to finance private sector investment.

1.39 Public sector industrial investments have had little direct impact on employment generation. In general, industrialization has probably contributed less to the growth of the economy in recent years than might have been anticipated and this can be attributed, at least in part, to Government's pre-occupation with the establishment of a limited number of large, highly capital intensive projects./2 Although free enterprise is encouraged and private foreign investments are welcome, Government has done relatively little to assist in the development of a grass-roots manufacturing sector with its consequent employment generation benefits, other than to create a number of special credit programs for small enterprises, which absorbed an insignificant proportion of the additional Government resources./3

/1 It is estimated that by the end of Repelita II, a handful of industries (cement, fertilizers, steel, pulp and paper) will have absorbed almost two thirds of the Government investment in medium and large-scale industry.

/2 Some of these projects were initiated by Pertamina prior to 1975.

/3 Disbursements (including working capital) under these schemes reached cumulatively, approximately Rp 150 billion by October 1978.

1.40 Given the relative abundance of labor and certain valuable raw materials there are numerous industries (for instance, the processing of timber and rubber, light engineering and assembly of electronic equipment) which, given encouragement could, through their potential for higher productivity employment and foreign exchange generation, have furthered Government's overall development objectives. While it is undoubtedly easier for Government to establish high technology projects than to get small scale industry programs beyond the drawing board, it is surprising that more was not done to create an environment conducive to private sector initiative in this area.

CHAPTER 4: SOCIAL DEVELOPMENT AND EMPLOYMENT

1.41 The heavy emphasis on capital intensive industrial and infrastructure investments in recent years notwithstanding, the Government has nonetheless been deeply concerned with social developments throughout this period. In 1966, the most pressing problem facing Government was the food shortage. With insufficient foreign exchange to permit imports, Government gave immediate priority to increasing the production of foodstuffs, especially rice. In particular, Government expanded nationwide the pilot BIMAS agricultural credit and input supply scheme within one year. The results of this program were encouraging; despite dislocations caused by the civil disturbances that accompanied political change in 1966 and 1967, rice production in 1968 increased by an unprecedented 10%. While the BIMAS and later INMAS schemes have subsequently run into difficulties, these should not detract from Government's ability to get these massive schemes off the ground in the first place, nor from their considerable initial success. Nonetheless, Government's programs in the smallholder sector, more by default than by design have tended to favor rice farmers at the expense of non-rice farmers, and landowners over the landless.

1.42 In its concern to improve the well-being of the poor, Government during the first two development plans, has not relied exclusively on a high growth strategy. Key elements in Government's strategy for coming directly to grips with the income, employment and poverty problems have been the family planning programs, education, health and other social services, and in particular the various INPRES (Instruksi Presiden) programs. The main objective of the INPRES programs has been to build social and economic infrastructure while at the same time creating wage employment. Presently there are seven INPRES programs: Desa, Kabupaten, Propinsi, Primary Schools, Health, Markets and Forestry; the first three of which provide general development assistance to the lower levels of Government, while the last four are functionally oriented.

1.43 Since 1970, allocations for the INPRES programs have increased substantially - INPRES expenditures were given a tremendous boost by the additional oil revenues - and prior to the recent devaluation accounted for over one-fifth of the Government's rupiah development budget (Table 2).

Table 2: SIZE OF INPRES PROGRAMS, 1970/71-1977/78
(Rp billion)

	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78
INPRES Desa	5.6	5.3	7.1	5.7	11.4	14.4	19.8	23.2
INPRES Kabupaten	5.7	8.8	16.3	19.2	42.7	55.8	62.1	69.1
INPRES Propinsi /a	20.7	20.8	20.7	20.7	47.6	47.4	59.7	75.4
INPRES Primary schools	-	-	-	16.4	19.7	48.2	57.7	85.0
INPRES Health	-	-	-	-	4.5	14.4	17.9	26.3
INPRES Forestry	-	-	-	-	-	-	16.0	24.5
INPRES Markets	-	-	-	-	-	-	0.1	1.2
<u>Total INPRES</u> (current prices)	<u>32.0</u>	<u>34.9</u>	<u>44.1</u>	<u>62.0</u>	<u>125.9</u>	<u>180.2</u>	<u>233.3</u>	<u>304.7</u>
National accounts investment deflator	34.9	36.5	45.3	5.6	68.1	84.4	100.0	107.0
<u>Total INPRES</u> (in 1976 prices)	<u>91.7</u>	<u>95.6</u>	<u>97.4</u>	<u>113.6</u>	<u>184.9</u>	<u>213.5</u>	<u>233.3</u>	<u>284.8</u>
Total Central Government Development Expenditure (current prices) /b	125.0	150.9	228.4	359.6	770.5	953.8	1,296.6	1,419.2
INPRES as % of Government Development Expenditure /b	25.6	23.1	19.3	17.2	16.3	18.9	18.0	21.5

/a Figures for the years 1970/71-1973/74 pertain to ADO transfer to provinces which was replaced by INPRES Propinsi in 1974/75.

/b Excludes external project aid; includes fertilizer subsidies.

Source: Ministry of Finance budget data.

1.44 The INPRES programs have made a significant contribution to various facets of Indonesia's development. They have had a substantial direct employment effect - in 1977/78 approximately 180 million man-days were generated, accounting for an estimated 1% of total employment. The programs have also contributed to output growth, particularly in the agricultural sector. Greater attention is now being given in the INPRES programs to the creation of assets which would stimulate long-term employment opportunities. However, it is increasingly being realized that the INPRES type programs cannot be a full solution to employment and poverty problems. In short, the experience with the INPRES programs underlines the general theme of this report, namely the need for a truly comprehensive, long-term, employment-oriented development strategy. The provision of productive and remunerative work opportunities to accommodate new entrants to the labor force, while simultaneously reducing existing unemployment will be, perhaps, the major problem facing Government in the next decade and one that will play a crucial role in distributing widely the benefits of development.

1.45 Recognizing that realization of social and economic objectives will be severely constrained by population growth, Government has consistently attached high priority to the implementation of family planning programs. An official family planning program, the National Family Planning Program (NFPP), was first introduced in 1969/70 in Java and Bali, and in 1974/75 was extended to 10 provinces in the other islands. It is Government's intention to extend the program to the remaining provinces, with 10% of Indonesia's population, in the near future. The NFPP enjoys strong political backing and support from major religious groups and private organizations.

1.46 In terms of the number of acceptors, the program has been extremely successful, despite a total budgetary cost of only \$35 million in 1977/78. Also, the median age of acceptors and the number of live births reported by them have recently been declining. In Java and Bali the number of new acceptors recruited annually increased from 53,000 in 1969/70 to 1,979,000 in 1976/77. In terms of married women aged 15-44 years, the acceptors recruited annually increased from 5 per 1,000 in 1969/70 to 137 per 1,000 in 1976/77. The National Family Planning Coordinating Board (NFPCB) estimates that the percentage of married women aged 15-44 using some form of contraception increased from 7.8% in 1972/73, to 24.1% in 1976/77 in Java and Bali.^{/1} The response to the program in the other islands, though still modest, has also been

^{/1} This is corroborated by information contained in the Indonesian Fertility Survey, undertaken as part of the Intercensal Population Survey in April 1976.

encouraging; by January 1978 it was estimated that as a result of the program, 8% of married women aged 15-44 were then using some form of contraception./1

1.47 One of the most outstanding and encouraging developments to emerge from recent data was the marked decline in fertility levels in Java and Bali. The total fertility rate for Java and Bali declined by an estimated 20% between 1967 and 1976. The NFPP is believed to have played an important role in this decline. But the Indonesian family planning program could not have been so successful without the active participation of women in the development process.

1.48 To further promote the effectiveness of the family planning program, a community incentive scheme will be introduced in the near future. Under this scheme, certain administrative units (selected from among those with the lowest per capita incomes) are to be given additional investment funds if they perform well in the field of family planning. Government has already introduced some negative incentives; for instance the limiting of income tax deductions and rice rations for its employees to the first three children. Government is also considering a much more comprehensive approach to population planning by pervading Government policies with population concerns, wherever possible. Namely, a concerted attack on all those variables that have been shown to have some bearing on fertility, in particular the employment, education, health, and nutrition of women. If successfully influenced, there can be little doubt that these variables would have a fundamental additional impact on fertility.

/1 Government has set contraceptive use targets for 1983/84 of 35% in Java-Bali, 25% for the 10 provinces to which the program was extended in 1974/75 and 15% for the remaining provinces, which have yet to be brought into the program. Achievements so far suggest that these goals are realizable.

CHAPTER 5: ECONOMIC PLANNING AND PUBLIC ADMINISTRATION

1.49 One constantly recurring theme in analysis of economic developments in Indonesia during the past ten years has been the pre-occupation of managers and planners with pressing day-to-day matters. In part, this is due to the almost constant crises with which Government has had to contend. From the problems of stabilizing and rehabilitating the economy in the late 1960s, to the rice harvest failure of 1972/73, the oil price explosion in 1973/74 (because of the revenue effects, this was an enormous consumer of scarce managerial resources), the financial crisis of Pertamina in 1975, and the developing foodcrop production problems since this time, Government has had few respites. Handling of these crises in particular the Pertamina affair, was mostly impressive with Government acting always swiftly and boldly. However, there is also evidence of farsightedness and concern with long term considerations, as illustrated by the Government's education and population policies and the recent devaluation of the rupiah.

1.50 An important factor contributing to the apparent pre-occupation of Government with short-term matters is the nature of the civil service and the scarcity of skilled and experienced technicians and managers. In 1966, the present Government inherited a vastly over-staffed and under-paid bureaucracy. The elitist and top-down nature of this civil service, has had furthermore the effect of over-burdening the few officials at the top, while at the lower levels, the system provided little on-the-job-training, thus reinforcing the scarcity of trained decision-makers and stifling initiative. Government fully recognized the need to overhaul its bureaucracy, but rather than delay implementation of stabilization and development plans, Government decided to launch its plans and simultaneously tackle the problem of administrative reform. Unable, in the short-run to improve salaries, even selectively, Government imposed a ceiling on manpower.

1.51 Today, the bureaucracy has not yet overcome the deficiencies of the previous regime and, in addition, is dealing with an expanded and more complex economy, vastly increased levels of Government spending and increased responsibilities which followed in the wake of the financial crisis of Pertamina. Furthermore, although the salaries of civil servants have increased substantially as resources expanded, they remain on the whole modest, although at the lower levels, Government wages and salaries are now more or less at par with those prevailing in the private sector.

1.52 The nature of the civil service has also contributed to a serious dilemma which the Government has continued to face during the past decade namely, the need to find a workable balance between the conflicting requirements of centralization and decentralization in the management of the development process in a country of some 13,000 islands. On the one hand, the need for unity combined with the scarcity of skilled managerial staff and compounded by the hierarchical nature of the civil service, have been centralizing forces. On the other, size, geography, ethnic diversity and Government's desire to break away from a system of controlled economy, all call for greater decentralization. While progress towards greater decentralization of decision-making power within the Indonesian civil service has been made, most important decisions, and many minor ones still go directly to the top levels in Jakarta for approval. As a result, higher level staff are over-burdened, often buried deep in the minutiae of growth tactics. Fearful, since they are accountable, of delegating responsibility the higher echelons thus contribute to the pre-occupation of Government with matters at hand. Simultaneously, at the lower levels, initiative is stifled and staff gain little experience, reinforcing the scarcity of trained decision-makers.

1.53 The impact of these forces can be found in all sectors of the economy, both public and private. Within the Government, questions of policy continue to be resolved in Jakarta. But Government appears to be fully aware of the importance of building up planning and technical capacity at the provincial and regency (Kabupaten) level, and in recent years has taken steps to strengthen regional development capabilities. For instance, the various INPRES programs, should be seen as an attempt towards increasing decentralization of the development effort. Another example is the establishment, by Decree, of provincial planning agencies (Bappeda) in 1974. The success of efforts to increase planning and implementation at the regional level is a function of the quality of the staff. This, however, is still very uneven and there is an urgent need for the training of regional technical and administrative staff on a large scale. The draft third Five Year Development Plan (Repelita III, 1979/80 - 1983/89) indicates that it is the Government's intention to further strengthen local authorities by giving them added responsibilities for the formulation and execution of development projects.

1.54 Within the private sector there has also been a high degree of concentration of industrial investment and service facilities in and around Jakarta. However, to promote regional development, particularly in the other islands, Government has recently introduced geographically differentiated incentives for industrial investment.

1.55 The dilemma between centralization and decentralization has been especially apparent in the industrial sector. In line with its policy in the late 1960s and early 1970s of opening up the economy to market forces, Government returned to private hands certain public companies and it appeared, at first, that Government would rely heavily on private sector initiatives. But by 1974 as noted in Chapter 3, Government appeared to have shifted towards greater reliance on public sector investment for its industrial development strategy. In part this shift was due to a failure of the private sector to invest in priority industries, such as fertilizer, cement and sugar. More recently, and in particular with the introduction of the draft third Five-Year Plan, emphasis has shifted once again towards private investment.

1.56 Finally, economic growth requires that public and private administrators work in tandem. In Indonesia, this relationship could improve if the Government were more responsive to the needs of the private sector. Then controls would be less prone to multiply needlessly and progress might be hastened. The pervasive growth of administrative and other obstacles has especially tended to hinder the development of small and medium-scale businesses, which cannot afford to devote time and resources to overcoming such obstacles, or to gaining access to appropriate Government officials.

1.57 In summary, Government's policies in specific instances, such as the control of inflation, the formulation and implementation of population planning policies, and the opening of the economy to the outside world, have met with unqualified success. In other areas, such as eliminating the system of a controlled economy and allowing market forces a greater role, success has been more limited. In part, this has resulted from emerging conflict between priorities, such as growth with equity and price stability, or between centralization and decentralization, but it also stems from Government's realization that it was unable to change, at least within the span of ten years, the underlying socio-economic fabric. In particular, it requires little exaggeration to say that the need to raise the general level of efficiency and reliability of the Government bureaucracy remains one of the highest national development priorities.

1.58 It would be presumptuous to suggest solutions to these problems, which obviously gravely pre-occupy the Government.^{/1} Yet, discussion of Indonesia's development needs without drawing attention to this important constraint would be futile. One necessary condition for the evolution of an ethical, reliable and efficient civil service is a salary level that will permit Government personnel to live on the official earnings of a single

^{/1} For instance Government instigated, in September 1978, a managerial training program for civil servants aimed at redressing several of the problems mentioned in this chapter.

full-time job. At this time it may be impracticable to further raise salaries substantially across the board since there are so many redundant staff at the lower levels. This calls for a program of selective increases combined with inducements and other measures to reduce excess personnel and to strengthen middle management levels.

1.59 Finally, the experience of Indonesia in the decade since 1967 demonstrates the results which can be obtained from generally sound development policies, continuation of which will be central to the success of future development efforts. Nonetheless, effective resource use, especially in the public sector, will depend on the capacity of the public administration to implement those programs necessary for economic growth and for the equitable distribution of the benefits of this growth.

PART II

IMPROVEMENTS IN THE WELL-BEING OF THE INDONESIAN
POPULATION: THE RECORD OF THE PAST AND THE TASK
FOR THE FUTURE

INTRODUCTION

2.1 . An analysis of changes in the well-being of the people of the world's fifth most populous nation is an ambitious and risky undertaking. Inevitably, the available information is less complete than one would wish it to be, and the quality of the data is assuredly uneven. Moreover, the aggregate nature of much of the data leads to the omission of significant details and to generalizations which, while of some general validity, may not match the experience or perceptions of particular groups.

2.2 The period 1970-76 is perhaps too short for an analysis of this kind. But it is the only period for which relevant comprehensive statistical surveys of comparable method and coverage are available. It was a period of extraordinarily rapid change, shaped in part by exogenous developments such as the quintupling of oil prices and substantially higher prices for many of Indonesia's other export commodities, but with great progress in many sectors not directly affected by these exogenous changes. The present analysis attempts to ascertain the extent to which the impressive overall growth performance of the economy during this period was associated with an improvement in the well-being of the Indonesian people. In spite of the risks, there are at least two reasons why such an attempt is worthwhile. First, the ultimate objective of economic development is the improvement of living standards of all members of society; an economy's achievements, therefore, are more meaningfully assessed in terms of income growth and distribution, job opportunities and real wage rates, health status, educational attainment and the adequacy of other basic services, than in terms of overall macro-economic measures such as the growth rate of GNP. And second, an analysis of the past allows the identification of trends or structural changes in the economy which may carry implications for the formulation of future policies.

2.3 A broad view is adopted here which encompasses changes not only in monetary measures of well-being (e.g. consumption expenditure) but also in a number of non-monetary measures such as the availability of remunerative employment, rates of morbidity and mortality, and educational attainment. Since advances on some of these fronts can occur at the same time as setbacks on others, such a comprehensive approach may yield ambiguous conclusions. No official statistical data that would permit an assessment of intertemporal changes in income distribution are available. Consequently, data on consumption expenditures serve as a basis for the analysis of changes in monetary measures of well-being. Similarly, the extreme paucity of time-series data on wage rates hampers the analysis of changes in remunerative job opportunities. The rapid increase in prices during these years together with sharp fluctuations in the rate of inflation further complicate the analysis of income and wage rates for which real rather than nominal values are required.

2.4 The analysis is conducted in three parts. In Chapter 1 data from the 1970 and 1976 National Household Expenditure Surveys (SUSENAS) are used to investigate changes in real consumption expenditure over time. The analysis focuses in particular on the extent to which the poorer groups of society have improved their position both relatively and absolutely. Recognizing that many of the poor do not possess any factor of production other than their own labor, Chapter 2 contains an analysis of changes in the level and composition of employment and, to the extent the data allow, in real wage rates. A further indication of well-being, namely, access to publicly-provided services such as health, education, water supply and housing, is discussed in Chapter 3. An overall assessment of the recent past, is presented in Chapter 4, which in particular attempts to draw some general conclusions regarding the relationships between employment growth, consumption growth and wage rates from the analysis in Chapters 1 and 2, and outlines the task ahead in terms of poverty elimination.

CHAPTER 1: GROWTH, DISTRIBUTION AND PATTERNS OF CONSUMPTION
EXPENDITURES, 1970-76

Existing Views

2.5 There is general agreement that the level of development of the Indonesian economy is still very low: in 1976 GNP per capita is estimated to have been of the order of US\$280 /1. There is also agreement that in recent years the Indonesian economy has grown very rapidly: between 1970 and 1976 GNP per capita at constant 1976 market prices increased by 39% implying an annual average growth rate of 5.6%. Average per capita GNY grew almost half as fast again as per capita GNP as a result of favorable terms of trade developments.

2.6 Part of the growth of the economy was directly or indirectly related to the rising value of oil exports. Growth of the modern industrial and service sectors responded rapidly to booming levels of demand, while Government, benefitting from increased oil taxation, was able to increase public expenditure very rapidly. Over the 1970/71-1976/77 period, Government expenditure increased by 41.4% annually in current prices, equivalent to about 18.5% annually in real terms (using the Jakarta Cost of Living Index as deflator). The most rapid growth was in development expenditure which increased from 37.1% of the total to 55.9% over this period. Views diverge substantially on the extent to which the benefits of rapid production and investment growth reached the poorer members of Indonesian society. Some maintain that real consumption expenditure of the poor in both urban and rural areas has increased noticeably./2 Others have argued on the basis of empirical microeconomic studies that certain groups of the population, especially in rural Java, have experienced declining levels of real consumption expenditure./3 In this chapter the 1970 SUSENAS and its 1976 counterpart are

/1 1978 World Bank Atlas; calculated at the exchange rate US\$1 = Rp 415.

/2 See L.N. Perera "Economic Growth and the Distribution of Income in Indonesia (1970-76)". UN OTC Project: INS/72/002, Jakarta, July 1977, pp. 23-24; and H.W. Arndt, "Development and Equality: The Indonesian Case," World Development, Volume 3, Nos. 2 and 3, February-March, 1975, pp. 77-84.

/3 Including, for example, Professor Sajogyo of the Agricultural Institute in Bogor, Mr. Singarimbun of the Population Institute in Jogjakarta, R. Sinaga and B. White of the Agro-Economic Survey's Rural Dynamics Project, W. Collier, of the Agricultural Development Council, Inc. Bogor, and Ingrid Palmer, "Rural Poverty in Indonesia, with Special Reference to Java", in "Poverty and Landlessness in Rural Asia," International Labor Organization, Geneva, 1977.

and its 1976 counterpart are used to shed further light on recent changes in the well-being of Indonesia's poor as indicated by changes in real per capita consumption expenditure. There are, of course, other important indicators of the well-being of people and changes in personal or family consumption expenditures offer at best a limited perspective on this very complex question. It should also be stressed that economic analysis cannot answer the question whether absolute changes in personal expenditures correspond in any way to subjectively perceived changes in well-being as influenced by shifts in the relative distribution of expenditures and other factors.

2.7 The January-April 1970 and the January-April 1976 SUSENAS are the only systematically-collected bodies of data on household consumption expenditure which allow meaningful intertemporal comparisons. The surveys covered the whole of Indonesia with the exception of Maluku and Irian Jaya in 1970 and Irian Jaya in 1976; the sample was 9,485 households in 1970, and 17,204 in 1976; the period of observation was the same in both years and did not overlap with Islamic feasts or fasts; information was collected on items purchased in the market as well as on home-produced items and gifts in kind; the surveys were implemented by specially trained staff. The data produced by the surveys is, therefore, considered of reasonable quality and coverage.

2.8 The analysis is conducted in three stages. In the first instance, the broad changes in average per capita consumption expenditure are examined. Subsequently, however, attention focuses on the changes in consumption expenditure for those occupying the bottom rungs of the consumption distribution ladder. And finally, patterns of consumption are analyzed to determine changes in food expenditure and caloric intake.

Changes in Per Capita Consumption Expenditure, 1970-76

2.9 Between 1970 and 1976, major price increases occurred throughout the economy and relative prices also changed markedly. In deflating current price consumption levels to obtain the corresponding real levels it is essential, therefore, to allow for both the overall rise in prices and the rise in food prices relative to non-food prices. The latter is especially important in the analysis of the real changes in the consumption levels of low-income groups since they typically allocate a larger proportion of total expenditure to food than is the case for richer consumers (see Table 6) and consequently suffer more severely from increases in food prices.

2.10 Given the obvious importance of the deflator in calculating real expenditure, a number of different indices have been compared in Table 1, from which the following points emerge. First, prices in Java have increased more rapidly than in the other islands. Second, food prices have indeed increased more quickly than non-food prices. These points suggest that regional disaggregation is important and that allowance should be made for variations in the proportion of expenditure allocated to food. And third, where comparisons

Table 1: ALTERNATIVE PRICE DEFLATORS, 1970-76
(1970 = 100)

Price index	1976 Index				
	Java		Other Islands		Indonesia
	Urban	Rural	Urban	Rural	
Nine essential commodities	273 /a	284 /b	250 /a	244 /b	269 /c
Cost of living	273 /d	-	249 /d	-	-
Food	305 /e	304 /f	265 /e	-	-
GDP	-	-	-	-	292

/a Table XIII.10, Statistical Pocketbook, 1974-75, Table 11.2, Price Indexes of 9 Essential Commodities in Selected Cities, Indikator Ekonomi, April 1976. The city indices for 1976 are the simple averages of the monthly indexes for January to April 1976 for each city. The urban index of price increases for Java and the other islands for each year is the average of the increases in the city indices weighted by the 1971 urban population of the province for which the city is the provincial capital. Maluku and Irian Jaya were excluded from the other islands index because these provinces are not included in the consumption expenditure figures; Bengkulu, East Nusa Tenggara and East Kalimantan are excluded because city price indices were not available for 1970.

/b This uses data from Table 11.6, Price Indexes of 9 Essential Commodities in the Rural Markets of Java and Madura, Indikator Ekonomi, July 1976 and Table 11.7, Price Indexes of 9 Essential Commodities in the Rural Market of Outer-Java, Indikator Ekonomi, October 1977. The 1976 index is calculated as the simple average of the monthly indices for January to April 1976. The price increase between 1970 and 1976 is assumed to be the same as that of food articles and is taken from Table 11.5, Price Indices of 12 food Articles in the Rural Markets of Java and Madura, Indikator Ekonomi, July 1976.

/c Obtained by the application of 1976 population weights to the 9 Essential Commodities Price Index for urban and rural Java and the other islands.

/d From Table 11.3, Cost of Living Index in Jakarta, and Table 11.4, Cost of Living Index in Selected Cities, Indikator Ekonomi, July 1976. The same procedure is used to get increases for the urban indices for Java and the other islands as those for the urban indices for 9 Essential Commodities.

/e This uses the food index component of the Cost of Living Index and follows exactly the same procedure as for the general Cost of Living Index.

/f Table 11.5, Price Indexes of 12 Food Articles in the Rural Markets of Java and Madura, Indikator Ekonomi, July 1976. The 1976 index is the simple average of the monthly indices for January to April 1976.

are possible, the Nine Essential Commodities Index and the Cost of Living Index reveal almost identical price increases.

2.11 For the following analysis of changes in real consumption expenditure, the Nine Essential Commodities Index is considered the most appropriate deflator. To begin with, it is the only major index for which regional, urban and rural indices are calculated. In addition, as noted above, changes in the Nine Essential Commodities Index for urban areas between 1970 and 1976 are corroborated by the changes in the Cost of Living Index which is the other major, broadly-based price index. More importantly, however, the weight assigned to food in the Nine Essential Commodities Index is not dissimilar to the proportion of expenditure allocated to food by the bottom 40% of the population. For example, for urban areas the weight for food is 76.6% ^{/1} compared to a proportion of expenditure allocated to food by the urban bottom 40% of approximately 70% in both 1970 and 1976 (see Table 6). And for rural areas, the weight for food is 89.1% compared to almost 80% of expenditure allocated to food by the rural bottom 40% in both 1970 and 1976. Thus, the index is well suited to an analysis of change in the real consumption expenditure of the poor. But because the proportion of expenditure allocated to food by the higher income groups is smaller, use of the index may overstate the price increase experienced by the population at large and hence understate increases in real consumption at higher income levels. Moreover, various changes were made in the construction of the indices in 1973 which have not been incorporated retrospectively in the pre-1973 published indices.^{/2} The results reported below should, therefore, be considered as only indicative of the broad changes occurring during the period 1970 to 1976.

2.12 Table 2 shows the increase in nominal and real per capita consumption expenditure over the period 1970 to 1976. Real per capita consumption expenditure has increased in both urban and rural areas of Java and the other islands. The expenditure growth in urban areas of Java and the other islands is particularly impressive: in Java the increase is of the order of 7% per annum while in the other islands the increase, although lower, is still nearly 5% per annum. Growth in per capita consumption was also experienced in rural areas but on a much less impressive scale: rural Java enjoyed a 3% growth rate compared to 2% in the rural areas of the other islands.

^{/1} Weekly Report, No. 982, Bank Indonesia, Jakarta, 1978.

^{/2} A detailed analysis of the Price Index of 12 Food Articles in the Rural Markets of Java and Madura reveals that when the pre-1973 indices are calculated to ensure comparability with the post-1973 published indices, the overall price increase between 1970 and 1976 may be somewhat less than that indicated by the published statistics.

Table 2: CHANGES IN AVERAGE PER CAPITA CONSUMPTION EXPENDITURE, 1970-76
(Rp/Month)

	<u>Java</u>		<u>Other Islands</u>		<u>Indonesia</u>
	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>	
<u>At current prices /a</u>					
1970	1,714	1,029	2,070	1,712	1,356
1976	7,025	3,468	6,797	4,766	4,490
<u>At constant prices /b</u>					
1970	1,714	1,029	2,070	1,712	1,356
1976	2,576	1,221	2,719	1,953	1,672
<u>Percentage increase</u>	50.3%	18.7%	31.4%	14.1%	23.3%
<u>Annual growth rate</u>	7.0%	2.9%	4.9%	2.2%	3.6%

/a Survey Sosial Ekonomi Nasional (SUSENAS), January-April, 1970 and January-April, 1976, Biro Pusat Statistik, Jakarta.

/b Deflated by the Nine Essential Commodities Index reported in Table 1. Note that comparisons of real consumption expenditure between regions or between urban and rural locations cannot be made from this table if inter-regional or urban-rural price differentials are thought to be significant.

2.13 A regional comparison suggests that Java has improved its position relative to the other islands regardless of urban or rural location. An urban-rural comparison suggests that urban areas, especially in Java, have improved their position relative to their rural counterparts. Since price differentials between regions and between urban and rural areas are generally not very large, it seems at least plausible that absolute consumption levels in urban areas of Java and the other islands are roughly similar and considerably higher than absolute consumption levels in the corresponding rural areas. Within rural areas, absolute consumption levels appear to be noticeably higher in the other islands than in Java. Over the six-year period, however, whereas Java has narrowed the gap between itself and the other islands, the gap between urban and rural consumption levels appears to have increased everywhere.

An Analysis of Consumption Expenditure by the Poor, 1970-76

2.14 While movements in average per capita consumption levels for broad groups of society are obviously of interest, it is also important to examine the distribution of the benefits of growth within groups and to focus in particular on society's poorest members. It should be stressed from the outset that no definitive conclusions can be based on SUSENAS data with regard to changes in relative inequality between 1970 and 1976. Cross checks between

SUSENAS consumption data, national accounts and various other relevant sources strongly suggest that the 1970 Survey understates aggregate private consumption by perhaps as much as 15-20% and that the degree of under-reporting may be even higher in the 1976 Survey. Because of the sampling techniques used it is probable that most of the under-reporting has occurred at the higher income levels. The SUSENAS, therefore, probably understates the degree of relative consumption inequality in both years and possibly more so in 1976 than in 1970. Yet, in spite of this serious shortcoming, the SUSENAS data may shed some light on the magnitude of relative inequality and the direction of change. The following analysis deals exclusively with consumption data as reported by the Surveys and does not attempt to reinterpret the results in the light of the above caveat.

2.15 Table 3 shows the reported changes in the proportion of total consumption expenditure generated by the bottom 40%, the middle 40% and the top 20% of the population. Two points are worthy of note. First, by international standards the distribution of consumption expenditure appears to be fairly typical: slightly less than 20% of total expenditure is generated by the bottom 40% of the population and slightly more than 40% by the top 20% of the population. And, second, there does not appear to have been much change in the overall distribution of consumption between 1970 and 1976.^{/1} If allowance were made for the varying proportions of expenditure allocated to food by the different groups, the apparent slight improvement in the share of the bottom 40% of the Indonesian population may be transformed into a deterioration because the deflator overstates the price increase experienced by the rich and hence understates their real consumption increase. It appears nonetheless safe to conclude that the bottom 40% of the Indonesian population has participated substantially in the benefits of recent economic growth.

2.16 The above conclusion, however, only indicates that the bottom 40% as a whole has benefitted; it is still possible that some groups within the bottom 40% may have suffered serious reductions in real consumption levels because of agricultural setbacks or changes in job opportunities. Accordingly, the attention is now focused on what has happened to the consumption levels of those comprising the bottom 40% of the population in more detail.

2.17 In Table 4 the absolute numbers of the population below several arbitrary cut-off levels of real per capita monthly consumption expenditure at 1976 prices are compared for 1970 and 1976. If Rp 3,000 is chosen as an appropriate cut-off point, the absolute number of the population spending less than the cut-off level has decreased by approximately ten million between 1970 and 1976; whereas over 50% of the population spent less than the cut-off level in 1970 less than 40% did so in 1976. Of the ten million, just over seven million were accounted for by changes in rural areas.

^{/1} This does not necessarily mean that the distribution of income has remained unchanged.

Table 3: DISTRIBUTION OF PER CAPITA CONSUMPTION EXPENDITURE, 1970-76 /a

		Percentage of Consumption Expenditure				
		Java		Other Islands		Indonesia
		Urban	Rural	Urban	Rural	
Bottom 40%	1970	19.3	21.0	20.8	19.3	18.7
	1976	17.4	22.0	20.2	20.6	19.3
Middle 40%	1970	38.4	39.4	34.3	39.0	38.4
	1976	35.9	38.7	38.1	39.8	37.5
Top 20%	1970	42.3	39.6	40.0	41.7	43.0
	1976	46.7	39.3	41.6	39.7	43.3

/a Calculated from Survey Sosial Ekonomi Nasional (SUSENAS), January-April 1970, and January-April 1976, Biro Pusat Statistik, Jakarta.

Table 4: ABSOLUTE NUMBERS OF PEOPLE BELOW VARIOUS CUT-OFF LEVELS OF REAL MONTHLY CONSUMPTION EXPENDITURE PER CAPITA, 1970-1976 /a (in millions)

Cut-off level of consumption expen- diture per capita (1976 prices)	Number Below Cut-Off Level									
	Java				Other Islands				Indonesia	
	Urban		Rural		Urban		Rural			
Rp 1,000 /b										
1970 /c	0.2	(1.4)	3.6	(5.8)	0.1	(0.8)	1.2	(3.4)	5.0	(4.3)
1976	0.2	(0.5)	0.7	(1.0)	0.0	(0.1)	0.6	(1.4)	1.3	(1.0)
Rp 2,000 /b										
1970 /c	2.0	(14.6)	21.6	(34.9)	0.6	(8.2)	6.6	(18.6)	30.8	(26.1)
1976	0.8	(5.0)	14.2	(21.2)	0.3	(3.5)	4.0	(10.2)	19.3	(14.8)
Rp 3,000 /b										
1970 /c	4.8	(35.3)	39.7	(64.2)	1.6	(24.2)	14.4	(40.7)	60.4	(51.5)
1976	2.6	(17.5)	35.7	(53.1)	1.0	(11.8)	11.3	(28.4)	50.5	(38.8)
Total Population /d										
March 1970	13.6	(100.0)	61.8	(100.0)	6.7	(100.0)	35.2	(100.0)	117.3	(100.0)
March 1976	14.9	(100.0)	67.2	(100.0)	8.4	(100.0)	39.7	(100.0)	130.2	(100.0)

/a Calculated from Survey Sosial Ekonomi Nasional (SUSENAS), January-April 1970 and January-April 1976, Biro Pusat Statistik, Jakarta.

/b Note that, because of urban-rural or interregional price differentials, the cut-off levels cannot be assumed to correspond to precisely the same level of real per capita consumption expenditure across locations and regions.

/c The 1970 cut-off levels are Rp 367, 733, and 1,100 for Urban Java, Rp 352, 704 and 1,057 for Rural Java, Rp 401, 801 and 1,202 for Urban Other Islands and Rp 410, 820 and 1,230 for Rural other islands. The deflator is the Nine Essential Commodities Index reported in Table 1.

/d Based on 1971 Census and 1976 Intercensal Population Survey.

2.18 If the cut-off level is then lowered to Rp 2,000 per month at 1976 prices, the reduction in the absolute numbers below this new level increases to eleven million. That is, whereas in 1970 26% of the population spent less than Rp 2,000 per month (at 1976 prices), less than 15% did so in 1976. As in the previous case, most of the reduction (ten million, in fact) occurs in the rural areas.

2.19 Finally, if the cut-off level is reduced further to Rp 1,000 per month at 1976 prices (so that we are now concerned with the bottom 5% of the population in 1970), the number below the cut-off level is just over five million in 1970 but falls to just over one million by 1976 or one percent of the 1976 population. Of the total reduction of nearly 4 million, 3.5 million were located in rural areas. Therefore, using this approach, SUSENAS data suggest that even the poorest of the poor improved their lot between 1970 and 1976.

2.20 An alternative approach may also be pursued. In this case, one examines the increase in real per capita consumption by decile within the bottom 40% of the population. The relevant results are reported in Table 5. The data suggest that all four deciles shared more or less equally in the benefits of growth. As before, however, the growth rates are higher in Java than in the other islands, and higher in urban areas than in rural areas. Thus, urban Java appears to have experienced the highest growth rate (over 5%), urban areas in the other islands and rural Java the next highest (around 4%), and rural areas in the other islands the lowest (below 4%).

2.21 The evidence is consistent, therefore, in suggesting that the rapid rate of growth attained by the Indonesian economy in recent years has contributed to a sizeable increase in real consumption for the vast majority of the Indonesian population including the very poor.^{/1} This is a major achievement. It cannot be emphasized too strongly, however, that despite this achievement many Indonesians remain extremely poor.

Table 5: AVERAGE ANNUAL GROWTH RATES OF REAL MONTHLY CONSUMPTION EXPENDITURE PER CAPITA FOR SELECTED GROUPS 1970-1976 /a

	Java		Other Islands	
	Urban	Rural	Urban	Rural
Poorest 10%	5.2	4.0	3.8	3.4
Poorest 20%	5.3	3.1	4.3	3.8
Poorest 30%	5.2	4.3	4.4	3.7
Poorest 40%	5.2	3.9	4.3	3.5

/a Calculated from Survey Sosial Ekonomi Nasional (SUSENAS), January-April 1970, and January-April 1976, Biro Pusat Statistik, Jakarta. The Nine Essential Commodities Price Deflator is used. See Table 1.

/1 It is, of course, still possible that some members of society will have suffered declines in real income, since the data reported here only deal with group averages.

2.22 Thus, while Table 4 suggests that the number of people below a real per capita consumption level of Rp 3,000 in 1976 prices has declined substantially over the six-year period, it also highlights the magnitude of the remaining poverty problems: in 1976 over fifty million Indonesians spent less than US\$90 (at 1976 prices) on consumption items per year.

Some Characteristics of the Poor

2.23 Information on the socio-economic background of the poverty groups is often essential for the design of appropriate poverty-alleviating policies. The following brief summary highlights some potentially important characteristics of the poor with regard to their geographic location, primary source of income, access to land and educational status. The analysis is focused on expenditure groups below the Rp 3,000 cut-off level (Table 4) in 1976; comprising the bottom 15% of the urban population and the bottom 45% of the rural population.

2.24 With respect to location, over 70% of the urban and rural poor are to be found in Java. As a point of reference, Java contains slightly more than 60% of the total Indonesian population. Within Java almost 20% of the urban poor in Indonesia and over 25% of the rural poor are found in Central Java; in East Java the corresponding figures are almost 25% and almost 30%. Thus, East and Central Java are the two provinces most severely affected by poverty as measured by per capita consumption expenditures.

2.25 Turning to primary source of income,^{/1} almost 85% of poor urban households derive their income solely from non-agricultural sources and very few households mix agricultural and non-agricultural activities. In rural areas, however, many poor households participate in non-agricultural activities. In fact, almost 45% of all households in rural areas derive some or all of their incomes from non-agricultural activities. This underlines the importance of non-farm employment for the maintenance and improvement of rural incomes.

2.26 For households deriving income from agriculture, there is some expectation that the amount of land which they are able to cultivate is an important determinant of income and hence consumption levels. This expectation is borne out only to a limited extent. A positive relationship is discernible between the area of land cultivated and per capita consumption expenditure for agricultural households with per capita expenditure up to Rp 10,000 per month. For example, the average landholding of families with per capita monthly consumption expenditures of less than Rp 1,000 was 0.64 hectares, while the average landholding for the Rp 7,500-Rp 10,000 was 1.41 hectares.

^{/1} The remainder of this section is based on the 1976 Intercensal Population Survey. It is thought that this Survey underestimates consumption expenditure even more than the 1976 SUSENAS. Nevertheless, the Intercensal Population Survey still allows a reasonable ordering of the population by consumption level. For a general description of the Survey see 1976 Intercensal Population Survey, Technical Report Series, Monograph No. 1, Organization and Methods, Biro Pusat Statistik, Jakarta.

2.27 On the other hand, most households have a source of income aside from working their own land, and this represents an important means of redressing any income deficiency. Because of this, the amount of land cultivated does not necessarily appear to be an important determinant of the overall economic position of the bulk of agricultural households. The dispersion of agricultural households by per capita consumption level is wide within groups classified by area cultivated but similar among the groups.

2.28 Almost 58% of the households within each classification under 5 hectares report consumption levels between Rp 2,000 and Rp 4,000 per month and even for households cultivating more than 5 hectares 54% report per capita consumption in the same range.^{/1} This result is not surprising given that the simple measure of size of area cultivated ignores the wide variations in land quality, types of crops, climatic conditions, irrigation practices, etc. But it does provide further evidence of the extent to which the well-being of rural households in Indonesia has become less connected with the size of individual landholdings and more dependent on access to off-farm employment opportunities in both agricultural and non-agricultural labor markets and the terms upon which such opportunities are offered.

2.29 It may also be expected that the ability to take advantage of changing economic opportunities - whether it be the exploitation of improved agricultural techniques or success in achieving higher earnings in non-agricultural sectors - is importantly dependent upon the level of education. Furthermore the ability to finance, and hence the demand for education is also likely to be strongly related to the level of household income. This expectation is borne out quite comprehensively: there is a marked, positive relationship between the educational attainment of the head of the household and per capita consumption in both urban and rural areas. For example, in urban areas those who have completed their elementary education enjoy a level of per capita consumption over 10% higher than those who started but did not finish elementary school. The corresponding figure for rural areas is somewhat less than 10%. Similar increases are observed as one moves up the educational ladder.

2.30 The educational attainment of the poor is correspondingly low. In urban areas, over 30% of the poor had either never attended or not completed elementary school. A further 20% had completed their elementary education but had failed to attend or complete junior high school. In rural areas the situation is markedly worse; over 30% of the poor had not attended or completed elementary school, and a further 14% had failed to attend or complete junior high school.

2.31 Thus, the greatest concentration of the poor are located in East and Central Java. In urban areas they tend to be unemployed or engaged in non-agricultural activities. In rural areas, where the bulk of the poor are

^{/1} As noted above, this section draws on the 1976 Intercensal Population Survey which is thought to have underestimated consumption levels. The consumption levels reported here, therefore, are not directly comparable to those drawn from SUSENAS.

to be found, many are not engaged in agriculture, and for those who are, land area operated is an important but not the sole determinant of income; secondary occupations are critical to many of the rural poor in enabling them to raise their consumption levels. Finally, inadequate education is a distinctive characteristic of the poor, especially in rural areas.

Patterns of Consumption and Calorie Intake, 1970-76

2.32 The concern with patterns of consumption and calorie intake arises primarily because of the health problems caused by inadequate diet. These are especially prevalent among children and pregnant or lactating women, and are generally regarded as a major cause of Indonesia's high rate of infant mortality.^{/1} Accordingly, Table 6 presents a comparison of the 1970 and 1976 consumption patterns and calorie intakes for both the total population and the bottom 40%.^{/2}

2.33 Table 6 shows that, with one important exception, the allocation of expenditure on food has remained more or less constant in percentage terms. The important exception is urban Java where the share of expenditure allocated to food falls from over 63% in 1970 to only slightly more than 54% in 1976. The bottom 40% of the population in urban Java, however, maintained its share of expenditure on food throughout the period, so that the decline observed for the total urban population on Java is actually confined to the upper 60% of the population.

^{/1} See "Indonesia: Appraisal of a Nutrition Development Project," World Bank Report No. 1318-IND, 1977.

^{/2} The reader is again alerted to the strong probability of consumption under-reporting in both SUSENAS. Aggregates are reported here more as indications of trends than of absolute levels and all conclusions on consumption patterns and calorie intake levels should be regarded as highly tentative. With regard to consumption of the lowest 40%, under-reporting is thought to have been less serious than at the higher consumption levels. With regard to calorie count it is of some comfort to know that major food staples such as rice and maize do not appear to have been under-reported. There is broad consistency between reported consumption of those items and supply. There may still be consumption under-reporting, however, for other important food items such as fruits and vegetables.

Table 6: PATTERNS OF CONSUMPTION EXPENDITURE AND CALORIE INTAKE, 1970-1976 /a
(in percentages)

	Java				Other Islands			
	Urban		Rural		Urban		Rural	
	1970	1976	1970	1976	1970	1976	1970	1976
<u>Total Population</u>								
Food	63.5	54.2	72.4	70.6	66.4	63.8	72.9	73.6
(Cereal & cereal products)	(25.6)	(17.6)	(36.3)	(34.8)	(24.0)	(22.5)	(30.3)	(32.4)
Tobacco, betelnuts & alcohol	6.4	4.9	6.0	6.0	7.3	6.1	7.0	5.5
Non-food	30.1	40.9	21.6	23.4	26.3	30.2	20.1	20.9
<u>Total</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Daily calorie intake /b	1,591	1,652	1,872	1,841	2,171	2,393	1,925	2,124
<u>Bottom 40%</u>								
Food	70.9	70.1	75.4	78.6	73.0	71.9	77.1	80.1
(Cereal & cereal products)	(40.0)	(37.5)	(42.6)	(45.0)	(36.2)	(34.8)	(42.2)	(42.3)
Tobacco, betelnuts & alcohol	4.9	5.4	5.3	4.9	6.4	5.3	5.8	4.5
Non-food	24.2	24.6	19.3	16.5	20.5	22.9	17.1	15.4
<u>Total</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
Daily calorie intake /b	1,230	1,335	1,470	1,443	1,712	1,700	1,530	1,513

/a As calculated from Survey Sosial Ekonomi Nasional (SUSENAS), January-April 1970 and January-April 1976, Biro Pusat Statistik, Jakarta.

/b Calculated by mission on the basis of consumption quantities reported by SUSENAS and standard FAO conversion ratios. The national average daily calorie intake calculated in this manner (1,877 for 1970 and 1,940 for 1976), is 150-250 calories lower per capita than the national average calculated on the basis of national food balance sheets for both years. This may be a measure of the consumption under-reporting by SUSENAS. National food balance sheet data suggest that total food availability in 1976 was approximately equal to the WHO/FAO recommended minimum average daily per capita intake of 2,150 calories.

2.34 For the bottom 40% of the population, calorie intake appears to have increased only in urban Java; all other areas show a very small decline (less than 2%) over the six-year period. Thus, despite rising levels of real per capita consumption expenditure, the bottom 40%, except in urban Java where 1970 calorie intake was extremely low, does not appear to have increased its intake of calories. It is possible that the expected positive relationship between consumption expenditure and calorie intake has not materialized because of a change in relative prices and related shifts in food consumption patterns towards items that are more expensive per calorie of food energy. As noted earlier, food prices increased more than non-food prices (see Table 1). Moreover, the price of basic foods (rice, maize, cassava) increased more rapidly than that of higher quality foods (meat, fish, milk, eggs, etc.). Consumers may, therefore, have been reacting not only to increasing real consumption expenditures, but also to changing relative prices in such a way that calorie intake has remained more or less constant.

2.35 It is also possible that the Nine Essential Commodities Index understates the food price increases actually experienced by lower income groups and that Table 5 consequently overstates the real consumption increases of the bottom 40%. The SUSENAS does provide some limited evidence that this may have been the case. But it is not possible on the basis of the limited available evidence to determine whether such price differences reflect voluntary shifts towards higher quality grades and preferred foods or genuine food price index differentials between various income groups. For the purpose of this analysis it has been assumed that such higher price increases as may have been experienced by lower income groups reflect consumer preferences.

2.36 In spite of the possibility of calorie intake under-reporting (see footnote b, Table 6) it is difficult to avoid the conclusion that, compared to the WHO/FAO recommended average daily intake of 2,150 calories, the observed Indonesian intakes of the bottom 40% are very low and indicative of serious national deficits.

Summary

2.37 The two SUSENAS analyzed in this chapter suggest the following broad conclusions for the period 1970 to 1976:

- (a) real consumption expenditures appear to have increased in both urban and rural areas, especially in Java; improvements appear to have been more impressive in urban areas than in rural areas;
- (b) even the lowest income groups in the Indonesian society appear to have benefitted from recent economic growth;
- (c) despite these achievements, over fifty million Indonesians spent in 1976 less than US\$90 (at 1976 prices) on consumption items;
- (d) the majority of the poor in urban and rural areas are located in East and Central Java; the poor are also characterized by low levels of educational attainment.

CHAPTER 2: TRENDS IN EMPLOYMENT OPPORTUNITIES AND
REAL WAGE RATE DEVELOPMENTS

2.38 Analysis of the data from SUSENAS for the period 1970 to 1976 conducted in Chapter 1 suggested that consumption expenditure had increased in real terms even for the poorer segments of society. In this chapter the focus is on the extent to which these increases can be attributed to improvements in job opportunities and wage rates. This approach is based on the observation that for a large number of Indonesians, especially the poor, labor is the prime or only factor of production at their disposal and is, therefore, the major determinant of income.

2.39 It is useful to start with a brief survey of the more aggregative data on population, labor force, employment and unemployment in order to provide an overall perspective of recent developments. The presentation then turns to more detailed analyses of employment and wage rates in rural and urban areas which draw more heavily on individual case studies of the effect on labor demand of changing technology and institutional structures especially in agriculture. The analysis is hampered throughout by the absence of relevant data, and the lack of intertemporal comparability of the data that are available. The conclusions, therefore, especially with respect to developments in real wage rates but also with respect to labor force and employment trends should be considered indicative rather than definitive.

Population, Labor Force and Employment

2.40 The March 1976 Intercensal Population Survey indicates a total population of 131 million (see Table 7) of which 82 million, or just over 60%, were living in Java (including Madura). During the 1961-71 period, the annual rate of population growth had increased to 2.1%, considerably above the pre-war figure of about 1.5%. The Intercensal Population Survey, however, suggests a slight decline in the growth rate to 2% for the period 1971-76.

2.41 The moderation in the rate of population growth is associated with significant declines in fertility, especially on Java and Bali, between the late 1960s and mid-1970s, much of which (over 60%) is attributed to changes in marital fertility and the remainder to changes in the proportion of the female population currently married. At the same time, an offsetting decline in mortality between the years 1971-76 increased the expected life span at birth by about five years for both sexes to around 47.5 years for females and 43.0 years for males. While this unusually rapid decline in mortality may reflect, at least in part, a recovery from the possible deterioration in health conditions during the early 1960s, much of the evidence of demographic change on Java and Bali is consistent with typical patterns of countries entering the early stages of a transition to lower fertility and mortality rates. In the other islands, the evidence does not yet indicate that the transition period is far advanced.

2.42 Both the level and the rate of urbanization of the population remain relatively low. Slightly less than 18% of the population resided in areas designated as urban in 1976, and since 1961 annual urban growth appears to have averaged less than 3% in Java and slightly more than 4% in the other islands. Statistics based on a mutually exclusive categorization of rural and urban, however, probably fail to reveal the full extent of the "urbanizing" process in such a densely populated area as Java. The spread of non-farm activities and the increase in daily or short-term commuting make a sharp distinction between urban and rural increasingly inappropriate for much of Java./1

2.43 With respect to inter-island migration, population movements between Java and the other islands are relatively small and have been decreasing. In the five-year period 1961-66, net migration from Java amounted to 300,000 persons; the corresponding figure for the period 1971 to 1976 was less than 75,000. The magnitude of the net flows relative to the size of the population involved indicates that migration has not significantly affected the distribution of population between Java and the other islands over the past one and a half decades.

2.44 Table 7 presents data on labor force and employment for the period 1971 to 1976 which are thought to be comparable with respect to both concept and season. Labor force growth has been pronounced, averaging 4.7% per annum. In part, this reflects the changing age structure of the population: the annual rate of growth of the population in the age group 15-64 was 2.7% between 1971 and 1976 compared to a figure of 2.0% for total population. In addition, however, labor force participation rates within age groups have increased. As a result, the overall participation rate of the population aged 10 and above increased from 49.9% in 1971 to 54.9% in 1976.

2.45 Similar increases are observed for employment, the average annual rate of increase over the five years being 4.7%. The vigorous growth in employment has, therefore, largely contained growth in open unemployment. The number of unemployed workers is estimated to have increased by 277,000, while the unemployment rate increased from 2.2% in September 1971 to 2.3% in October 1976. In the urban areas the increase was more marked from 4.8% to 6.4% over the same period. Open unemployment, however, is not a very meaningful indicator of the general employment situation in Indonesia, because movements in and out of the labor force are as important as movements in and out of employment.

2.46 Nevertheless, the significance of unemployment cannot be overlooked since it tends to be concentrated in particular groups. For example, 50-75% of the total unemployed in both urban and rural areas are accounted for by unemployed workers under 25 years of age, which suggests that most of the openly unemployed are entering the labor market for the first time.

/1 See, for example, Graeme Hugo, "Circular Migration," Bulletin of Indonesian Economic Studies, Vol. XIII, No. 3, November 1977, and Bisrat Aklilu and John R. Harris "Migration, Employment and Earnings in Indonesia," Boston University, 1977.

2.47 Although measures of underemployment could perhaps give a better indication of labor surplus than measured open unemployment, precise figures are not presented here. It is sufficient to note that there are large seasonal movements in the size of the labor force, an unknown degree of temporary unemployment and many people who work less than a full working week, particularly in the rural areas. Data limitations, however, prevent any statement as to whether a measure of underemployment would have shown an increase or decrease during the 1971-76 period.

Table 7: POPULATION, LABOR FORCE AND EMPLOYMENT, 1971-76
(In '000)

	Sep 1971 <u>/a</u>	Oct 1976 <u>/b</u>	Annual percentage/ <u>e</u> growth rate (%)
Population	119,233	131,797	2.0
Labor force	40,369	51,014	4.7
Participation rate (%) <u>/c</u>	49.9	54.9	-
Employment	39,474	49,842	4.7
(i) Urban	5,796	7,000	3.8
(ii) Rural	33,678	42,842	4.8
Unemployment rate (%) <u>/d</u>	2.2	2.3	-

/a Population census 1971, Series C, Table 2 (adjusted for geographical coverage) Biro Pusat Statistik, Jakarta, 1972.

/b Population is estimated by applying growth rates observed between September 1971 and March 1976 to the March 1976 Intercensal Population Survey (SUPAS) figures, separately for Java/other islands and urban/rural. Labor force and employment figures are based on labor force participation rates from the National Labor Force Survey (SAKERNAS) applied to population figures calculated as indicated.

/c Labor force as a percentage of population aged 10 and above.

/d The difference between labor force and employment as a percentage of labor force.

/e Labor force and employment growth rates for the period September 1971-October 1976 may have been somewhat lower than indicated in Table 7 and in the text of this report. For a technical explanation of this possibility and a calculation of alternative growth rates based on higher (adjusted) labor force and employment figures in the base period (September 1971) refer to "Employment and Income Distribution in Indonesia", World Bank Report No. 2378-IND, dated February 20, 1979, Tables 1.4 (page 11) and 1.6 (page 14) and Appendix page 3.

2.48 The data on the sectoral composition of employment reported in Table 8 reveal that the rapid growth in employment was also associated with a shift from agricultural to non-agricultural activities. The share of agriculture in total employment decreased from about 66% in 1971 to about 62% in 1976 implying a major expansion in non-agricultural employment. In spite of its declining share in total employment, agriculture has remained by far the largest single source of additional employment during the period 1971-76, accounting for 46% of incremental employment. The capacity of the agricultural sector to absorb additional labor has remained surprisingly high during that period in spite of the widely reported introduction of labor displacing cultivation and harvesting techniques. It should be stressed, however, that the annual rates of employment growth shown in Table 8 should be interpreted with caution. Because of the many conceptual and measuring problems, they are at best indicative of approximate orders of magnitude. A large part of the explanation for the high employment growth in agriculture lies undoubtedly in the tremendous expansion of rice production efforts during this period through irrigation (rehabilitation and expansion) and the rapid spread of high-yielding varieties and fertilizer use. In Indonesia, rice is by far the most labor-intensive of the major food crops, both in terms of man-day inputs per hectare cultivated and per ton produced. It should furthermore be noted that labor productivity in agriculture did apparently not increase. If it had, the capacity of the sector to provide additional employment would presumably have been lower.

Table 8: SECTORAL COMPOSITION OF EMPLOYMENT AND LABOR PRODUCTIVITY, 1971-76

	<u>September 1971 /a</u>		<u>October 1976 /b</u>		Annual growth rate of employment
	Employ- ment share /c	Labor produc- tivity/d	Employ- ment share /c	Labor produc- tivity/d	
Agriculture, forestry, fishing	65.9	100	61.8	98	3.4
Mining & quarrying	0.2	11,742	0.2	15,292	4.9
Manufacturing	7.8	163	8.4	213	6.2
Construction	2.0	305	1.7	600	1.9
Electricity, gas, water	0.1	871	0.1	2,192	-6.8
Transport, storage, communication	2.4	276	2.7	311	6.7
Trade, banking, insurance	11.2 }	201	14.5 }	238	10.2
Services	10.4 }		10.6 }		4.9
<u>All sectors</u>	<u>100.0</u>	<u>165</u>	<u>100.0</u>	<u>195</u>	
<u>Employment</u> ('000)	<u>39,474</u>		<u>49,842</u>		<u>4.7</u>

/a Population Census, 1971, Series C, Table 7, Biro Pusat Statistik, Jakarta, 1972.

/b Based on Intercensal Population Survey, 1976 and the National Labor Force Survey 1976, as explained footnote b, Table 7.

/c In calculating employment share, the category "unknown" was assumed to have the same sectoral composition as the rest of the employed.

/d Labor productivity is set at 100 for agriculture in 1971. The indices for labor productivity should be viewed as approximate orders of magnitude only as both sectoral employment and sectoral value added data in constant prices are of questionable accuracy.

2.49 About 54% of the total increase in employment occurred in non-agricultural sectors. The rapid growth of employment in trade and transport, especially in rural areas (see Table 9) may be related to the substantial increases in agricultural production and incomes during that period. Manufacturing employment (including enterprises of all sizes) also increased rapidly (6.2%). The low level of industrialization in Indonesia, however, remains apparent in the observation that in 1976 manufacturing employment still amounted to less than 9% of total employment.

2.50 Table 8 also contains information on labor productivity by sector. While average labor productivity cannot, of course, be equated with returns to labor, it is, nevertheless, interesting to note that apart from mining and quarrying, the sectors which have expanded most rapidly in terms of employment exhibit higher levels of average labor productivity than agriculture and have improved their position relative to agriculture during the period.

Employment and Wage Rates in Rural Areas

2.51 The agricultural sector remains the most important source of rural employment: in 1976 approximately two-thirds of rural households relied on agriculture as a major source of income. Table 9 reveals that between September 1971 and October 1976 the absolute numbers engaged in agriculture at least part of the time grew at a rate of 3.4% although in relative terms the share of agricultural employment in total rural employment declined from 75% to 70%.

2.52 The existence of two surveys in 1976 (the Intercensal Population Survey in March and the National Labor Force Survey in September-December) allows some assessment of the significance of seasonality in Indonesian agriculture. Between March and October 1976 /1 agricultural employment decreased by about six million workers or about 17% of the March total. The decline in total rural employment was somewhat lower (five million) while urban employment remained more or less constant (see Table 12). Thus, the peak demand for labor in agriculture is met primarily by an expansion in the labor force rather than by a re-allocation of the slack season labor force. From the available evidence, however, it is difficult to determine whether the expansion is supplied primarily by family labor (i.e., by households operating their own land) or by hired labor (especially from landless households). Data from the 1971 Population Census suggest that 70% to 75% of the increment in the labor force required for the cropping season comprises unpaid family workers. Village studies, on the other hand, indicate as much as 85% of total wet season labor input being supplied by hired labor./2 The most reasonable interpretation is that the increase in the return to labor during the peak season draws forth an increased supply of labor from both operating and landless families. Either way, the data attest to the high degree of responsiveness of the labor force to seasonal changes in labor market conditions.

/1 October 1976 employment and labor force figures used in text and tables represent averages for the period September-December 1976.

/2 William L. Collier and Sajogyo: "Employment Opportunities Created by the High Yielding Rice Varieties in Several Areas on Java," Research Note No. 8, Agro-Economic Survey, Bogor, June 1972.

Table 9: SECTORAL COMPOSITION OF EMPLOYMENT IN RURAL AREAS, 1971-76
(In '000)

	Sep 1971/ <u>a</u>	Mar 1976/ <u>b</u>	Oct 1976/ <u>b</u>	Annual growth rate (%) <u>c</u> Sep '71-Oct '76
Agriculture, forestry, fishing	24,364 (25,371)	35,729	30,065	3.4
Mining & quarrying	46 (48)	23	97	14.8
Manufacturing	2,288 (2,383)	2,991	3,291	6.5
Construction	451 (470)	664	520	2.0
Electricity, gas, water	11 (11)	11	7	-8.5
Trade, banking, insurance	2,691 (2,802)	4,556	5,141	12.6
Transport, storage, communication	405 (422)	566	733	11.4
Services	2,084 (2,170)	2,882	2,987	6.5
Unknown	1,337 (0)	669	0	-
<u>Total</u>	<u>33,678</u>	<u>48,092</u>	<u>42,842</u>	<u>4.8</u>

/a Population Census, 1971, Series C, Table 7 (adjusted for geographical coverage), Biro Pusat Statistik, Jakarta, 1972. Figures in parentheses include an adjustment on the assumption that the sector distribution of the category "unknown" is the same as that of the rest of employment.

/b Based on the Intercensal Population Survey, 1976 and the National Labor Force Survey 1976, as explained in footnote b, Table 7.

/c Growth rates calculated on the assumption that the sector distribution of the category "unknown" is the same as that of the rest of employment.

2.53 Results for 1976 from the Intercensal Population Survey and the National Labor Force Survey also give some indication of hours worked per week by those engaged for at least two days in agriculture in the week preceding the surveys. In the slack season (September-December), 13.7 million workers (44% of total agricultural employment) were engaged for more than 35 hours per week; for the busy season (March) the corresponding figure is 21.2 million (57%). At the other end of the scale, 11.9 million (38.5%) worked less than 25 hours per week in September compared to 10.0 million (27%) in March. The figures indicate that approximately the same number of workers is employed in agriculture for short periods of time (less than 25 hours per week) in both the busy and the slack season and that the increase in the seasonal labor input results from an expansion in the numbers working a full week (defined as more than 35 hours).

2.54 Within the agricultural sector, important changes have been occurring in recent years which have affected the level of labor demand in a number of different ways. On the positive side, the area cultivated in Indonesia expanded from 14.5 million ha in 1963 to 16.4 million ha in 1973. Almost the entire additional area, however, and, therefore, any potential employment impact, was outside Java. In addition, the area harvested on irrigated and wet land has increased between 1968 and 1976 at a rate of 1.2% p.a. on Java and 2.0% on the other islands,^{/1} and the area planted to new varieties of rice has expanded rapidly from 2.5% of the country's total rice land in 1968/69 to over 40% in 1974/75, although the rate of expansion has slowed since then.^{/2} All these factors can be expected to have increased the demand for agricultural labor.

Effects of Institutional and Technological Change on Rural Employment

2.55 While the expansion of cultivated and harvested area together with the strong emphasis on rice have increased agricultural employment, a number of institutional and technological changes were, and still are, taking place which lead to reductions in the demand for agricultural labor. One such change is the switch from the bawon or open-harvest system, in which all-comers may participate, to tebasan or contract harvesting where teams of workers under the direct control of a penebas or middleman handle the harvest operations.^{/3} By itself this need not lead to a reduction in total labor input but may reduce the number finding employment at harvesting time. As such, the process may be viewed as a transitional phenomenon related to the increasing specialization of the labor force. However, an associated technological change, the switch from the ani-ani to the sickle, could have major implications for labor demand at harvesting. Unfortunately, neither the magnitude of the switch to tebasan harvesting nor the extent to which the sickle is used can be established with any degree of certainty. What can be concluded is that such changes are usually associated with modernization and productivity growth in agriculture and are, therefore, likely to become more pervasive.

2.56 Other technological changes have also been observed to varying degrees. Of these, the change in rice-milling techniques, begun in the late 1960's and continued into the 1970's, is the most widely reported. The use of small mechanical rice mills is generally recognized to be more efficient than hand pounding even when the labor of the pounder, usually a woman, is thought to be costless. This reflects the higher extraction rate and better quality of rice produced by mechanical units. For the same crop, however,

^{/1} "Indonesia: Irrigation Program Review," World Bank Report No. 2027a-IND, dated October 16, 1978.

^{/2} Adelita Palacpac, World Rice Statistics, IRRI, April 1977.

^{/3} William L. Collier, Gunawan Wiradi and Soentoro, "Recent Changes in Rice Harvesting Methods," Bulletin of Indonesian Economic Studies, Vol. IX, No. 2, 1973.

rice mills require only a fraction of the labor input needed for hand pounding. To the extent that households now choose to have their padi crop mechanically milled rather than hand pounded by family members, the emergence of rice mills is to be welcomed; the exercise of choice is always an indicator of household preference. To the extent, however, that the choice is between hand pounding by non-family, female labor and mechanical milling, the switch to milling represents a loss of employment opportunities for women. An important advantage of the small mechanical rice mill is that it permits quality milling in rural areas near consumption areas. This contributes to rural industrialization and reduces overall transport costs.

2.57 The potentially most important change in techniques is the slowly emerging use of hand tractors for land preparation. Outside Java, in areas where labor supply may become a constraint at certain critical times of the season, the use of tractors permits an increased area to be cultivated, whereas in Java, where land availability is more or less fixed, the use of tractors becomes feasible only in such circumstances as, for example, where another crop can be fitted in by using tractors or where a farmer has access to sufficient land to ensure reasonably full utilization of the tractor. The use of a hand tractor requires about 12 man-days for land preparation per hectare compared to 55 man-days if the process is entirely manual.^{/1} Although not presently widespread, the use of tractors is almost certain to become more extensive in the future especially if contract plowing proves feasible. The recent (November 1978) devaluation of the rupiah, however, should, at least temporarily, slow down the rate of mechanization which will help to smooth the process of transition in rural areas.

2.58 A further development which, although not necessarily affecting labor demand, may have serious implications for income distribution is the increasing incidence of reports of high rates of land sales, often to people outside the village. The overall size distribution of farms changed only marginally during the 1963-73 period, though the degree of aggregation in such statistics may well conceal divergent trends. It is also possible that high rates of land sales may have become more prevalent after 1973, particularly as the growth and distribution of incomes was affected by rapid economic growth in the following years.

2.59 Some reports of high rates of land sales originate from areas planted to the high yielding rice varieties. Although other factors are undoubtedly relevant, the risks associated with the high yielding varieties and their susceptibility to pests and disease may be adding to the pressures to sell. It is believed that this process may be contributing to an increasing concentration of land ownership in some areas. It is suggested that a major effort to document these changes and an analysis of their effects on rural society and agricultural productivity are urgently needed in preparation for appropriate remedial policies.

^{/1} R.A. Morris. "The Potential Impact of Mechanical Land Preparation in the Indonesian Smallholder Rice Production Sector," IRRI/IPI, LP3, Bogor, 1975.

2.60 As a result of the various institutional and technological changes in agriculture and the ever increasing pressure on land, especially on Java, particular groups are undoubtedly experiencing severe hardship and rural households in general are becoming increasingly dependent on participation in labor markets to provide additional sources of income. A crucial issue, therefore, is the degree to which the expansion in non-farm rural employment ^{/1} reflects an expansion in the demand for non-agricultural labor and rising real wage rates or an attempt by displaced workers to secure at least some income in a situation of declining real wages.

2.61 Unfortunately, data on rural wages are extremely scarce; some series are, however, reported in Tables 10 and 11. Real wages for permanent workers on rubber estates in Java stagnated while those for workers in Javanese tea estates increased substantially in the period 1969-75. In North Sumatra, real wages increased noticeably in both rubber and tea estates over the same period. Real wages for two agricultural activities outside the estates sector are also shown in Table 10.

2.62 Using the retail price of rice as deflator, real wages in the rural sector have risen since the late 1960's but not continuously. Some of the variability in these wage indices can be attributed to fluctuations in the price of rice, and it may not be appropriate to use the rice index as a deflator in this case because wages are not spent exclusively on rice. But since the retail price of rice increased more rapidly than the prices of other commodities, ^{/2} the figures reported in Table 10 probably understate the true increase in real wages. The sample, however, is extremely small and even within the sample not all villages experienced increasing real wages for all activities.

2.63 The Kabupaten public works program (INPRES) provides a further source of indirect information on wages, which are presented in Table 11. Local officials are required to estimate prevailing wage rates for budgeting purposes. Thus, although the reported wages do not necessarily correspond to any wages actually paid, they can be expected to reflect general trends in local wage levels. The pattern revealed in this series for 1971 to 1977 suggests rising real wages in the rural areas of Aceh and West Sumatra, East Nusa Tenggara, Central, South and Southeast Sulawesi and throughout Java but declining real wages in most of the other provinces except those in Kalimantan for which data were not available.

^{/1} From Table 9, of the total increase in rural employment between September 1971 and October 1976 of 9.2 million, 51% was in agriculture, 10% in manufacturing, 25% in trade and 9% in services.

^{/2} For example, the rice component of the Nine Essential Commodities Price Index increased by a factor of 3.38 between 1971 and 1977 whereas the overall index only increased by a factor of 3.01.

Table 10: INDICES OF REAL WAGES IN RURAL AREAS, 1969-77

		1969	1970	1971	1972	1973	1974	1975	1976	1977
<u>Estates /a</u>										
Java:	Tea	100	162	175	176	136	151	183	-	-
	Rubber	100	100	100	101	93	89	100	-	-
N. Sumatra:	Tea	100	114	117	136	124	129	140	-	-
	Rubber	100	140	113	132	119	102	120	-	-
<u>Selected Agricultural Activities in Java /b</u>										
	Hoeing	100	96	112	109	117	133	140	138	125
	Weeding	100	102	101	97	108	123	119	122	110

/a Earnings calculated from "Wages Paid on Estates 1966/75," Biro Pusat Statistika Jakarta. For Java nominal wages are deflated by the 12 Food Articles Price Index in Rural Markets of Java and Madura. The Cost of Living Index for Medan is used for North Sumatran wages.

/b Benjamin White "Political Aspects of Poverty, Income Distribution and its Measurements: Some Examples from Rural Java" (draft), Agro-Economic Survey, Bogor, 1977. The data for hoeing and weeding are unweighted averages for six Javanese villages deflated by the retail price of milled rice.

**Table 11: MONEY AND REAL DAILY WAGES IN RURAL AND URBAN AREAS
FOR UNSKILLED CONSTRUCTION LABOR IN THE INPRES
KABUPATEN/KOTAMADYA PROGRAM, 1971/72 - 1977/78
(In Rp)**

	R U R A L			U R B A N		
	Nominal daily wages		Real	Nominal daily wages		Real
	1971/72	1977/78	wages /a 1977/78	1971/72	1977/78	wages /b 1977/78
Aceh	160	501	189	175	425	151
N. Sumatra	293	514	..	258	483	161
W. Sumatra	182	482	220	183	358	121
Riau	320	630	273	250	450	184
Jambi	350	560	253	250	500	209
S. Sumatra	262	419	149	250	425	140
Lampung	183	400	149	200	500	172
Bengkulu	250	467	169	250	500	..
Jakarta	..	..	..	260	400	131
W. Java	155	476	165	150	531	188
C. Java	95	319	111	94	333	130
Jogjakarta	86	256	89	85	250	84
E. Java	117	418	145	111	400	148
Bali	123	328	115	..	..	..
W. Nusatenggara	130	350	124	..	..	..
E. Nusatenggara	94	307	120	..	..	..
W. Kalimantan	325	717	..	300	700	275
C. Kalimantan	370	601	..	350	600	272
S. Kalimantan	194	422	..	250	500	175
E. Kalimantan	375	..	..	375	..	..
N. Sulawesi	297	505	216	250	525	182
C. Sulawesi	138	475	213	..	..	..
S. Sulawesi	133	349	147	112	350	140
S.E. Sulawesi	100	338	127	..	..	..
Maluku	..	500	..	..	500	179
W. Irian	..	533	..	..	..	..

/a At 1971/72 prices. Nominal wages deflated by price indices (Nine Essential Commodities) in rural markets.

/b At 1971/72 nominal wages deflated by Cost of Living Indexes for selected cities in the various provinces.

Source: Data supplied by BAPPENAS.

2.64 Despite the weakness of the data, it is significant that the various series reveal no general tendency for decreased real wage levels in rural Java. From the evidence at hand, it appears that the rapid increase in employment of recent years especially in non-agricultural sectors has been accomplished with no downward trend and possibly an upward trend in real wages, even in the densely populated areas of rural Java. During the 1971-76 period, the demand for labor in non-agricultural activities has apparently expanded sufficiently to maintain or even increase real wages, despite increasing participation rates and the structural changes in agriculture described above. But, as will be argued in Part III, one cannot confidently expect that these comparatively favorable developments in rural labor markets will continue.

2.65 As a footnote to the analysis of real wages in rural areas, it should be noted that despite the lack of a generalized trend over time, there have been quite sharp movements in real wages from year to year. To a large extent, these fluctuations have been due to lags in the adjustment of wages to price changes. But the compressibility of real wages even in the short term suggests that this adjustment is not automatic, and that if the growth in demand for labor were to slacken, real wages could be lowered permanently. This consideration is perhaps of renewed relevance since the devaluation of the rupiah against the US dollar, as the period is likely to be characterized by renewed price increases, despite the short-term deflationary impact of the devaluation.

Employment and Wage Rates in Urban Areas

2.66 Urban employment has grown at a slower rate than rural employment between 1971 and 1976, 3.8% compared to 4.8% p.a. Table 12 suggests that there has been remarkably little change in the sectoral pattern or urban employment over the five-year period, and from the March-October comparison in 1976, there appears to be relatively little seasonal change in the absolute level of urban employment, although agricultural employment expands relative to manufacturing and trade.

2.67 There is some evidence that the lower growth rate in urban manufacturing employment (5%) compared to that in rural areas (6.5%) may reflect the slower rate of employment increases in large-scale enterprises which are located primarily in urban areas and which received the bulk of new industrial investment. Although the data from the 1971 and 1975 Surveys of Manufacturing [/] are not wholly comparable they suggest that the annual growth in employment in enterprises with more than five employees was about 5.5% in that period.

^{/1} "Survey of Large and Medium Scale Manufacturing Establishments" 1971 and 1975, BPS, Jakarta.

Table 12: SECTORAL COMPOSITION OF EMPLOYMENT IN URBAN AREAS, 1971-76
(In '000)

	Sep 1971/ <u>a</u>	Mar 1976/ <u>b</u>	Oct 1976/ <u>b</u>	Annual growth rate (%) <u>/c</u> Sep '71-Oct '76	
Agriculture, forestry, fishing	600	(629)	915	749	3.5
Mining & quarrying	44	(46)	22	23	-12.7
Manufacturing	661	(693)	685	888	5.0
Construction	289	(303)	459	329	1.6
Electricity, gas, water	27	(28)	24	21	-4.8
Trade, banking, insurance	1,539	(1,613)	1,948	2,112	5.4
Transport, storage, communication	514	(539)	568	604	2.3
Services	1,856	(1,945)	2,387	2,274	3.1
Unknown	266	(0)	210	0	-
<u>Total</u>	<u>5,796</u>	<u>7,218</u>	<u>7,000</u>	<u>3.8</u>	

/a Population Census, 1971, Series C, Table 7, Biro Pusat Statistik, Jakarta, 1972. Figures in parentheses are calculated on the assumption that the sector distribution of the category "unknown" is the same as that of the rest of employment.

/b Based on Intercensal Population Survey 1976 and the National Labor Force Survey 1976.

/c Growth rates calculated on the assumption that the sector distribution of the category "unknown" is the same as that of the rest of employment.

2.68 The great diversity in systems of wage payments, especially the practice of relating a significant proportion of wages to the employee's family size, and the general dearth of information make quantification of wage levels, trends and differentials extremely difficult. Some broad indication of wage levels, skill differentials and urban-rural differences can be derived from the wage rates used in the budgeting exercises for the INPRES Kabupaten public works program. This source indicates wide inter-provincial differences in nominal wages for unskilled construction labor but relatively small rural-urban differentials within provinces. The inter-provincial pattern is generally in line with what might be expected on economic grounds: wage levels are higher in Sumatra and Kalimantan than in the densely populated Javanese provinces, and within Java wage levels are lower in Central Java and Jogjakarta. The absence of an urban-rural differential is also consistent with the observed high degree of labor mobility and the relative absence of institutional influences in the labor market. The comparisons suggest that, as might be expected, urban-rural movements are accommodated much more easily

than inter-provincial movements.^{/1} With respect to skill differentials, skilled workers (masons, carpenters, foremen) receive wages 40-60% higher than those of the unskilled in construction. Similar differentials are also found in other sectors.^{/2}

2.69 Returns to self-employed labor and the wages earned by labor in small enterprises are not dissimilar to those paid in larger establishments. A 1973 study of hawkers in Jakarta found that net daily earnings varied between Rp 100 and more than Rp 5,000.^{/3} Over 75% had an income of less than Rp 500, and almost 95% an income of less than Rp 1,000 a day. Average daily earnings were Rp 425, which is not unlike the daily wages earned by unskilled workers in large-scale enterprises.^{/4} Similarly, the Jakarta Informal Sector study of 1975 indicates remarkably little variation in sectoral wage rates paid by small establishments, with average daily wages being comparable to those paid by large-scale enterprise.^{/5} This is to be expected in a labor market characterized by high mobility and an absence of institutional impediments.

2.70 With respect to trends in real wages, data emerging from the Kabupaten public works program (Table 11), indicate increasing real wages in Java except for Jakarta and Jogjakarta and declining real wages for Sumatra and Kalimantan. A comparison ^{/6} of changes in real wages for the lowest paid workers in 16 selected large-scale enterprises for the period 1973-77 shows increases in real wages of up to 30% for six enterprises while ten show decreases of up to 30%, and in one case more than 50%. Real wages cannot be said to have increased or decreased on the basis of available evidence. The wide range of the observed trends suggests that wage rate adjustments in a period of extremely rapid inflation occur at different rates in different establishments.

^{/1} Technological advances in transport, especially the emergence of the Japanese minibus, have undoubtedly increased labor mobility in Java, and hence the degree of market integration.

^{/2} See Proyek Bersama, Results of a Survey 1973-74 undertaken by ILO and the Department of Manpower, Transmigration and Cooperatives.

^{/3} "Hawkers in Jakarta," Volume I: Literature Study and Hawkers Sample Survey, Atma Jaya Research Center, Jakarta, 1976.

^{/4} Proyek Bersama, op cit.

^{/5} "The Jakarta Informal Sector," Hazel V.J. Moir, National Institute of Economic and Social Research (LEKNAS), Jakarta, 1977.

^{/6} "Employment and Income Distribution in Indonesia", World Bank Report No. 2378-IND, dated February 20, 1979, Table 3.8, p. 64.

2.71 Observations on wages of the lowest-paid workers, however, fail to give any indication of changes in the overall quality of the urban labor force due to skill acquisition. Results of one small survey suggest that, despite low literacy rates, scarcity of skills in general was not a constraint on the maintenance and expansion of industrial production.^{/1} On-the-job training for periods of 6-9 months ensured an adequate supply of skilled labor, at least at the lower levels. Large-scale enterprises, however, reported a scarcity of supervisory and middle-level managerial personnel. The future development and productivity of Indonesian manufacturing and other non-agricultural activities as well as the average returns to non-agricultural labor will depend critically on the speed and extent of skill acquisition through both formal and informal education.^{/2}

Summary

2.72 The data analyzed in this chapter are of varying degrees of quality: population data are thought to be reliable, employment data less so, and wage rate data are considered questionable. With these points in mind, the analysis indicates the following conclusions:

- (a) the population growth rate has declined to around 2% p.a. in the 1970s largely as a result of declining rates of fertility in Java and Bali;
- (b) growth of the labor force has been much faster (4.7% p.a.) and has been matched by expansion in employment;
- (c) the share of agricultural employment has decreased from about 66% in 1971 to about 62% in 1976;
- (d) point (b) in conjunction with point (c) imply a rapid rate of growth in non-agricultural employment (7.0% p.a.) and the limited available evidence suggests that this has been achieved with constant or increasing real wages in rural areas and stagnating or declining real wages in urban areas; and
- (e) despite the vigorous growth in employment, wage levels for unskilled labor remain extremely low (approximately US\$1 a day at 1976 prices and exchange rate).

2.73 The historical analysis suggests that major structural changes in the pattern of employment can occur without depressing real wages provided the agricultural sector expands rapidly and the non-agricultural sector expands even more rapidly. Thus between 1971 and 1976 value added in agriculture grew at a rate of 3.8% p.a. in real terms compared to a growth rate of 10.6% p.a. for the non-agricultural sectors (at 1976 constant prices). The overall

^{/1} Ivergen B. Donges, Bernd Stecher and Frank Walter, "Industrial Development Policies for Indonesia," JCB Mohr (Paul Siebeck), Tübingen, 1974.

^{/2} Formal education is discussed further in Chapter 3.

incremental output/employment ratio was nearly 0.6. One of the main factors underlying the high rate of labor absorption during the period was the relatively strong performance of the rice subsector which accounts for about 38% of total value added in the agricultural sector.

2.74 For the agricultural sector as a whole, the incremental output/employment ratio during this period was of the order of 1.00, which means that average labor productivity did not increase. This is an indication that the yield improvements that were achieved in agriculture /1 during the period under review have been primarily the result of improved inputs (seed varieties, fertilizer, etc.) and cultivation techniques (including increasing cropping intensities) and not of labor displacing mechanization. In the case of rice, several studies have indicated that the use of higher yielding seed varieties does not necessarily lead to a reduction of labor input requirements per unit of output. On the contrary, it may even lead to an increased use of labor per unit of output./2 This would provide a major part of the explanation for the extremely strong agricultural employment growth during the period 1971-76 which was also a period during which, at least until 1974, the use of high-yielding varieties was still rapidly expanding in Indonesia.

/1 For a detailed discussion of agricultural performance, changes in cultivated and harvested area, cropping intensity and yields, refer to "Indonesia: Irrigation Program Review," World Bank Report No. 2027a-IND, dated October 16, 1978 and "Indonesia: Supply Prospects for Major Food Crops," World Bank Report No. 2374-IND, dated March 3, 1979.

/2 See, for example, William Collier and Sajogyo, "Employment Opportunities Created by the High Yielding Rice Varieties in Several Areas of Java," Agro-Economic Survey, Research Note No. 8, June 1972.

CHAPTER 3: THE DELIVERY OF BASIC SERVICES: HEALTH,
EDUCATION AND WATER SUPPLY

Overview

2.75 A further measure of overall well-being is the extent to which the population benefits from services provided by the public sector. Since such services are frequently supplied at subsidized or zero prices, a simple analysis of consumption expenditure along the lines of Chapter 1 does not adequately measure the benefits accruing to the population from the increased supply, or improved quality of the major publicly-provided social services. In this chapter we focus, in particular, on the provision of basic health services (especially through the National Health Centers (PUSKESMAS) program), education at the primary and secondary levels, water supply and housing.

2.76 Table 13 provides a broad indication of Indonesia's health, education and water supply status in 1971. With respect to vital statistics Indonesia's situation was not dissimilar to that of India in 1971; the crude death rates being 17.0 per 1,000 for both countries and life expectancy at birth being 45.0 and 49.5 years respectively.^{/1} By way of contrast, the Philippines has a crude death rate of 10.5 and a life expectancy at birth of 58.5 years, whereas the corresponding figures for Bangladesh are 28.1 and 35.8. Indonesia's relative position improves in the comparison of educational attainment. The adult literacy rate in Indonesia was around 62% in 1974 ^{/2} compared to 36% in India, 23% in Bangladesh and 21% in Pakistan. In the Philippines and Thailand, however, 87% and 82% respectively of the adult population was literate.^{/3} The pattern for primary school enrollment is similar: the enrollment ratio for Indonesia is 81 (1975) compared to 65 in India and 73 in Bangladesh whereas the Philippines achieved a figure of 105.^{/3} Unfortunately, comparative data relating to water supply are not readily available.

2.77 Table 13 also provides a comparison between islands and between urban and rural areas. The most conclusive deduction from these data is the superior position of urban areas relative to rural areas in all respects. Infant mortality rates are noticeably lower in urban areas than in rural areas on both Java and the other islands. Infant mortality rates are also

^{/1} All comparative data in this paragraph are from "World Economic and Social Indicators," World Bank, 1978. The reported figures are for the latest year for which estimates were available at the time of its publication. Life expectancy at birth has subsequently increased to 50.0 in Java (average both sexes) and 47.5 outside Java.

^{/2} The adult literacy rate had increased to 68% by 1976.

^{/3} World Development Report, 1978. World Bank, August 1978, Table 18. These ratios include over-age students.

lower on Java than on the other islands regardless of urban or rural location, although crude death rates are similar. Differences emerge from the comparison of educational attainment. Whereas between 40 and 50% of the 1971 rural population of ten years or over was illiterate, the illiteracy rate in urban areas was around 20%. As might be expected, the data on water supply also reveal marked urban-rural differentials. Less than 1% of rural households had piped drinking water facilities in their houses or yards compared to more than 10% in urban areas, and less than 10% of rural households had access to a flush toilet (whether owned, shared or public) compared to between 40 and 50% in urban areas.

Table 13: SOCIAL INDICATORS OF HEALTH,
EDUCATION AND WATER SUPPLY

	<u>Java</u>		<u>Other Islands</u>		Indonesia
	Urban	Rural	Urban	Rural	
<u>Vital Statistics, 1971 /a</u>					
Infant mortality rate (per 1,000 births)	110	136	116	151	137
Crude death rate (per 1,000)	15	17	15	18	17
Life expectancy (years)	-	-	-	-	45 /b
<u>Educational Attainment, 1971 /c</u>					
% of population, 10 years or over, illiterate	22	47	19	40	38 /e
% of population, 10 years or over without schooling	23	48	20	41	40 /e
<u>Housing Characteristics, 1971 /d</u>					
% of households with piped drinking water	12.4	0.3	10.5	0.3	2.1
% of households with access to flush toilet	49.1	5.3	43.9	8.0	12.7

/a Indikator Sosial, Table 2.3, 1976, Biro Pusat Statistik.

/b As noted above the life expectancy at birth for both sexes has subsequently increased to 50 years in Java and 47.5 years outside Java.

/c Population Census, 1971, Bir Pusat Statistik.

/d "Housing Conditions in Indonesia," Tables 4, 9 and 17, 1974, Biro Pusat Statistik.

/e According to the Intercensal Population Survey 1976, Series 3, the percentage of population aged 10 years or over that was illiterate was 32 and without schooling, also 32.

2.78 In recent years Indonesia has allocated rapidly growing amounts of public resources to improving the provision of social services. Table 14 reveals an extraordinary growth in real expenditures on health (37% p.a.), education (45% p.a.), housing and water supply (31% p.a.) for the period 1971/72 to 1976/77 or 1977/78. Since 1973/74, large and rapidly growing amounts of this expenditure were channelled to social development through the various INPRES programs. The growing real expenditure reflects, of course, the rapid expansion in the total public sector budget as a result of increased oil revenues, and underlines Indonesia's commitment to a program which ensures that all members of society can participate in the newly acquired wealth.

Table 14: DEVELOPMENT EXPENDITURE ON SOCIAL SERVICES, 1971/72-1977/78 /a
(Billions of rupiah at 1976 prices)

	1971/72	72/73	73/74	74/75	75/76	76/77	77/78	Average annual growth rate (%)
<u>Health and Family</u>								
<u>Planning</u>	13	16	26	39	62	62	-	37
Development expenditure	13	16	26	32	45	45	-	28
INPRES health	-	-	-	7	17	17	-	-
<u>Education /b</u>								
Development expenditure	30	36	84	100	189	190	258	45
INPRES primary schools	-	-	29	25	55	54	80	-
<u>Housing and Water Supply /c</u>								
Development expenditure	7	10	19	16	16	27	-	31
<u>Total Social Services</u>								
Development expenditure	50	62	129	155	267	279	-	41
INPRES	-	-	29	32	72	71	-	-
<u>All Sectors</u>								
Development expenditure	413	510	659	1,418	1,678	2,043	-	38
INPRES	317	425	547	1,236	1,459	1,796	-	42
INPRES	96	85	112	182	219	247	-	21

/a Constant prices obtained by application of Gross Domestic Investment Deflator.

/b For education, the level of recurrent expenditure is also an important indicator. Recurrent expenditures on education during Repelita II have been: 1974/75 Rp 86.2 bn; 1975/76 Rp 100.2 bn; 1976/77 Rp 112.4 bn; 1977/78 Rp 147.2 bn; 1978/79 174.6 bn.

/c Most of this expenditure is for water supply though some is allocated to the provision of low-cost housing through PERUMNAS.

Developments in Health Care

2.79 Since the late 1960s and early 1970s, health care efforts have concentrated on the development of a basic infrastructure consisting of provincial hospitals, regency or Kabupaten hospitals, subdistrict or Kecamatan health centers, maternal and child health clinics and other polyclinics, and the parallel creation of the manpower required to staff the new facilities. The major efforts to improve health services for the population at large has been the extension of the PUSKESMAS program, according to which each subdistrict was to be provided with at least one health center, staffed by one physician, nurse or midwife, and several technical and administrative assistants, such that these would be capable of providing a range of basic health care services.

2.80 In terms of facilities constructed, the program has been a major success. In 1969, Indonesia possessed 1,058 health centers; by 1977 the country boasted 4,029, or more than one center for each of the 3,251 sub-districts. Apart from physical construction, manpower availability was at first a problem but is being overcome. In particular, the staffing situation of rural health centers has improved as a result of a new Government policy requiring medical school graduates to serve in the Government health centers before being licensed for private practice. Thus, while in 1974 only 34% of the PUSKESMAS were served by physicians, by mid-1978, the proportion was 91%. Nationwide, the supply in 1973 of about 6,200 physicians had been increased to almost 9,000 by 1976. Similarly, the supply of nurses and midwives has increased from 16,500 in 1973 to nearly 25,000 in 1976. Current estimates indicate that the majority (75%) of total health personnel is posted in Java and Bali. There are approximately six physicians per 100,000 people in Indonesia as a whole, but 25% of the total practice in Jakarta and a further 35% in 10 other major urban areas, mostly in Java. On average Indonesia has 19 nurses and midwives per 100,000 people. In addition, more than 50,000 traditional midwives have received some basic training.

2.81 The basic disease patterns and health problems do not yet appear to have changed very much in response to the investments in facilities and the improved staffing. On the other hand, trends of increasing morbidity observed during the first half of the 1960's were arrested. About 5% of the population is ill at any one time, and 25% of all illness is in pre-school children (less than 5 years). The three most commonly reported illnesses in order of importance are acute upper respiratory infections (accounting for 18% of the total reported cases), skin infections (13%) and tuberculosis (10%).^{/1} Apart from certain obvious exceptions (e.g. malaria which is much more prevalent in the other islands than in Java), the general pattern of reported morbidity appears to be the same throughout urban and rural areas of Indonesia. New health problems associated with urban living are, however, beginning to appear; the emergence of cardiovascular and cerebrovascular diseases has recently been noted, particularly among the urban affluent. The incidence from traffic accidents has also increased sharply.

^{/1} Household Survey, Ministry of Health, 1972. The ranking is still considered valid by the Ministry of Health despite the passage of time.

2.82 Mortality statistics for 1977 provided by the Ministry of Health indicate 16 deaths per 1,000 people per year, of which almost 50% are child deaths (under 5 years) and 2% are maternal deaths. This corresponds to about 0.6 million deaths per year for infants less than one year old and 0.3 million deaths per year for children aged one to five. The three major causes of death are diarrhea and gastroenteritis (especially in the case of children under two), pneumonia and bronchitis, and accidents, poisoning and violence.

2.83 Although health patterns appear to be similar to those of the past, life expectancy has been increasing (see Chapter 1). A comparison of the periods 1965-70 and 1970-75 reveals an increase in life expectancy by about five years for both sexes to about 47.5 years for females and 43.0 years for males. While the improvement may represent a recovery from the deterioration in health conditions during the 1960s, it nevertheless suggests that the earlier conclusion on trends in disease patterns and incidence should be interpreted with caution.

2.84 The observation that a major expansion in health infrastructure has so far not been accompanied by a measurable improvement in overall health conditions is a matter for concern, and Government is trying to improve the efficiency and utilization of health facilities. At least until recently, low rates of utilization characterized the majority of these health centers. For example, the average patient load at health centers varied from 2 to 35 persons a day. Similarly, the bed occupancy ratio in hospitals ranged between 17 and 63%. In part, this reflects a popular preference for traditional health care; it also reflects, however, the extent of poorly constructed, badly maintained, and understaffed facilities. Government has already made considerable progress in staffing the health centers with physicians, as noted in the increasing proportion of PUSKESMAS served by qualified doctors. Government has also launched a pilot scheme in 200 villages to involve the community in health activities, following the same lines as the family planning program which has proved highly successful in this respect mainly through the agency of well-supervised field workers. In this approach the village, rather than the clinic, becomes the focus of activity and some of the responsibility for implementation is transferred from the public sector to the community.

2.85 One critical area in which Government is involving itself is in bridging the gap between traditional attitudes and beliefs and modern medical science. The traditional healers and their medications are both highly regarded and widely used by the Indonesian population, especially in rural areas but also in urban areas. A 1977 study in Jogjakarta, for example, showed that only 45% of the sample had ever been to a doctor and only 16% to the health center located only one kilometer away, even though 40% had been ill the previous month. Most had sought help from traditional healers, or else treated themselves. Government has a program to improve the skills of traditional healers and midwives, many of whom now offer both traditional and modern medications.

2.86 Several factors outside the direct control of Government continue to hinder the improvement of the overall health situation. For example, the extremely low calorie intakes of the bottom 40% observed in 1970 and in 1976 (see Chapter 1) are not likely to have alleviated the severe protein-calorie malnutrition, which affects one-third of all children under the age of five (about 7 million) and is a major cause of Indonesia's high rate of infant mortality. If protein-calorie malnutrition is untreated before the age of two years, it may retard physical growth and mental development; after the age of three years, lost growth is almost impossible to recover. The malnourished are also more susceptible to infections which, in turn, can precipitate malnutrition by increasing caloric needs.

2.87 Another factor which affects the prevalence of water-borne diseases such as the diarrheal diseases, including cholera and typhoid, is the inadequacy of protected water supplies. In 1975/76, a survey in over 15,000 villages covering 42 million people revealed that only 2.5 million (about 6%) used protected water for drinking or cooking; the remaining 94% used unprotected water from rivers, lakes, and open wells.^{/1} The habit of boiling water whenever possible before internal consumption, however, is widespread. Similar problems arise in urban areas. Jakarta, for example, like many other S.E. Asian cities, does not have a city-wide system for sewage and industrial waste disposal; as a result the Ciliwung Canal of Jakarta is severely polluted by fecal material, household garbage and waste from the pharmaceutical and textile industries.

2.88 Thus, although dramatic progress has been made in constructing essential health facilities and producing trained manpower, the population, for a variety of reasons, has not benefitted to a corresponding extent. The most obvious area for improvement in this respect is the need to increase the utilization of existing facilities and maximize community participation.

Provision of Education Services

2.89 The provision of primary education has received high priority in recent years. Table 15 reveals that between 1971 and 1978 enrollment grew at an annual average rate of 5.8%. By 1978, 75% of the age cohort (7-12) were enrolled in primary schools.^{/2} During the same period the teaching staff

^{/1} Keadaan Status Kesehatan Masyarakat Dan Faktor Lingkungan Fisik, Biologis Serta Sosial (Public Health Situation and the Physical, Biological Milieu), Jakarta, 1977. Water supply is discussed below.

^{/2} The total enrollment rate, including over-age students was over 80; if the 3 million estimated enrollment in religious schools (madrasah) is included, the enrollment rate was approximately 93%.

increased at an annual average rate of 5.1%. As a result the pupil/teacher ratio rose slightly from 31 in 1971 to 33 in 1978.^{/1} A decline was observed in drop-out rates: over 10% of students dropped out in 1971 compared to around 8% in 1978. The number of primary schools has also increased rapidly; in all 31,000, or 35% of primary schools were constructed during the 1973-78 period. The physical dimensions of these achievements are certainly impressive.

Table 15: ASPECTS OF PRIMARY AND SECONDARY EDUCATION, 1971-78 /a

	1971	1978	Average Annual growth rate
<u>Primary School</u>			
Enrollment (million students)	12.9	19.2	5.8
Teaching staff (thousands)	414.8	586.5	5.1
Student-teacher ratio	31.1	30.6	-
Drop-out rate (%)	10.6	8.1	-
<u>Junior Secondary</u>			
Enrollment (million students)	1.4	2.6	9.2
Teaching staff (thousands)	104.1	125.6	2.7
Student-teacher ratio	13.6	20.3	-
Drop-out rate (%)	11.9	7.4	-
<u>Senior Secondary</u>			
Enrollment (million students)	0.7	1.2	8.0
Teaching staff (thousands)	56.3	65.5	2.2
Student-teacher ratio	11.6	18.7	-
Drop-out rate (%)	12.7	7.8	-

/a These data are only for schools under the jurisdiction of the Department of Education and Culture. A significant number of schools and educational services at all levels are provided by the Islamic Church and other private organizations.

/1 Since most teachers work only part-time, the figures reported must be interpreted with caution.

2.90 Other recent developments aimed at raising the quality as well as the quantity of education are worthy of note. First, a new curriculum was introduced for primary schools in 1975 which incorporated innovations in both syllabus and teaching style. Over 1.2 million teachers received retraining during recent years and 240 million Indonesian language, primary school text books have been printed and distributed. And second, a non-formal education program (PENMAS) has been initiated to increase the basic employable skills of those members of the labor force who have never attended school (19 million in 1976) and those who left school without completing their primary education (a further 21 million). While this program is still in its infancy, it is expected that it will be extended to cover most of Indonesia during REPELITA III.

2.91 Apart from some questions concerning the quality of teachers and teaching materials which are bound to arise during a period of such rapid expansion, the remaining issues relate primarily to the ability of certain sections of the population to benefit from the new facilities. For example, in the more remote rural areas with low population densities (e.g. Kalimantan and Irian Jaya) inadequate communications may prevent students attending school. Similarly, parents may not be prepared to allow children to attend school since the real cost includes not only school fees, but also lost earnings.

2.92 Some of these problems can be alleviated. In 1977, for example, school fees for the first three grades of primary school were abolished and in 1978 fees for grades four through six were also abolished.^{/1} The existence of these problems indicates that additional expansion of primary enrollment rates beyond the target of 85% set for the end of Repelita II will become increasingly costly in terms of cost per pupil. But the total investment for an additional two million enrollment set as a target for Repelita III will be much less than that required to meet the 7.3 million target of Repelita II. Universal primary education has been set as a target for Repelita III.

2.93 Table 15 also shows the rate of expansion at junior secondary level (13-15 years) and senior secondary levels (16-18 years). The high rates of growth of student enrollments is associated with a rising pupil/teacher ratio and an improvement in the drop-out rate. Expansion at the primary education level has, as was to be anticipated, apparently led to an increased demand for education at the secondary level; while at the same time, the increase in the number of senior secondary graduates has led to a situation of excess supply. At the tertiary level, however, supply shortages have emerged for teachers, scientists, technicians and accountants, and Government plans to establish polytechnics during Repelita III to increase the supply of industrial technicians and teachers. Table 16, for example, shows that while the vast majority of primary and junior secondary graduates

^{/1} In some areas, however, certain charges continue to be levied by local school authorities to supplement teacher salaries and school budgets.

continue their education, 30% of senior secondary graduates are listed as looking for work one year after leaving school. This is consistent with the observed trend towards higher open unemployment among first-time entrants to the labor force reported in Chapter 2 and related in part to the high remuneration expected by those graduates.

Table 16: ACTIVITY OF SCHOOL LEAVERS ONE YEAR AFTER LEAVING SCHOOL IN 1976 /a
(In percentages)

Type of school	Activity			
	Continuing school	Working	Looking for work	Inactive
Primary	76	8	10	7
Junior secondary	88	3	4	4
Senior secondary	34	24	30	7

/a Data from "The Employment Experience of School Leavers", 1978, Department of Education and Culture.

Water Supply and Sanitation

2.94 A safe water supply and satisfactory sewerage disposal are essential for the well-being of the population. In 1976, however, only 33% of the urban population and 4% of the rural population had easy access to safe water.^{/1} Of those served, approximately 40% in urban areas had house connections, while in rural areas less than 20% received piped water supplies. The percentage of the population served with satisfactory sewerage disposal was also low, the figures being 17 and 20% for the urban and rural populations respectively. Three quarters of the 1971 urban population were served by latrines, but only 17% of these were considered sanitary; the remainder had no facilities of any kind. Conditions in low-income urban communities are even worse. In rural areas, about 20% of the population was served by latrines while 60% had no facilities whatsoever.

2.95 The inadequacy of water supply and sanitation services was underlined by the results of a Household Survey conducted by the Ministry of Health

/1 The statistics reported in this paragraph are from "Indonesia: Water Supply and Sanitation Sector Study," WHO/World Bank Cooperative Program, 1977. While there is no universally accepted precise definition of "safe" water for human consumption, the World Bank generally uses the drinking water standards recommended by WHO.

in 1972. In the six provinces surveyed, waterborne, water-related and parasitic diseases had the highest incidence and were a primary cause of the high infant mortality rate. Diseases related to lack of proper water supply and sanitation constitute a principal cause of morbidity and mortality.

2.96 Over the period 1970 to 1975 the percentage of the urban population having access to safe water declined from 36% to 33%. Insufficient awareness of the importance of maintenance and rehabilitation of the older networks has led to a situation in which as much as two-thirds of the nominal capacity of the urban water supply is lost as a result of waste, leakages and illegal connections.^{/1} In addition, many public hydrants operate on insufficient pressure and most of the older urban systems operate only intermittently. However, a concerted effort is being made to improve the situation. An additional 3 million people are expected to be provided with safe water by the end of Repelita II, thus bringing the total served up to 40% of the 1979 urban population. With respect to sewerage, however, there are no specific investment plans except for the Jakarta sewerage project which is under consideration and the Kampung Improvement Program which includes the provision of latrines and water supply. During Repelita III, besides continuation of ongoing works, 150 small towns are to be provided with safe water. In larger cities, public hydrants are to have priority as a step towards meeting the needs of low-income groups.

2.97 The water supply program in rural areas has been expanded considerably and the official target of supplying 10% of the rural population or 11.3 million people by 1979 is likely to be reached. This represents an increase of about 7 million with access to safe water since 1976. With respect to sanitation, 0.2 million latrines are built annually serving a population of 1 million. The crash program for training sanitarians should allow an expansion of the latrine program over the medium-term.

2.98 While much has been achieved, standards of service and coverage remain very low. Even if the various targets are fully met, well over 100 million Indonesians will remain without access to safe water in 1979.^{/2} Inadequate sewerage and sanitation facilities will also continue to constitute major health hazards. The need for expansion of both water supply and

^{/1} WHO/World Bank Cooperative Program, op. cit.

^{/2} Refer footnote on previous page.

sewerage programs in REPELITA III is more than apparent, not only in the inadequacy of existing facilities, but also in the extremely high incidence of waterborne and water-related diseases.

Housing

2.99 Apart from the inadequate provision of safe water, housing conditions in general are very unsatisfactory. For example,^{/1} the most commonly used material for the floor in urban areas is cement (used in 32% of all houses), whereas only 12% use cement in rural areas. Earth is used mainly by the poor, serving 25% of houses in urban areas and 52% in rural areas. The picture is similar with respect to material used for walls: in rural areas 56% of all houses use bamboo whereas only one-third of the urban houses use bamboo. Similarly, 31% of urban houses have electricity compared to 2% of rural houses. The majority of houses in rural areas (84%) rely on oil lamps.

2.100 Despite the superior condition of urban housing, the Government's main efforts have been directed towards alleviating the very visible overcrowding in the cities. Average occupancy in the 27 largest urban areas, for example, was estimated at over 1.4 households per dwelling in 1970. Even without attempting to relieve the overcrowding, at least 200,000 units would have to be constructed annually in order to house the future increase in the urban population. Commercial private housing construction primarily serves the upper income groups and probably produces less than 20,000 units per year. The remainder of the population relies almost completely on self-built kampung housing and squatter settlements.

2.101 Of the total REPELITA II allocation for housing of Rp 101.7 billion, Rp 90 billion was earmarked for the National Housing Corporation (PERUMNAS). Efforts were to be directed principally towards the low-income groups which was understood to mean families between the 20th and 70th percentile of income. Families below the 20th percentile were to benefit from the Kampung Improvement Program (KIP), which includes the provision of paved footpaths, improved drainage, public taps but not housing per se. The original PERUMNAS program envisaged the construction of 73,000 units between 1974 and 1979 partly through sites and services projects and partly as low-cost housing. It was anticipated that construction would accelerate from 2,268 units in 1975/76 to 41,468 units in 1978/79, but by the end of 1976/77 only 3,764 units out of an expected total of 10,484 had been completed. A crash program of construction was begun in 1977, and by the end of 1978, PERUMNAS had completed about 23,126 units. In addition, efforts have begun to improve village housing and environmental conditions during Repelita II through a pilot village housing rehabilitation program (Pemugaran Perumahan Desa). Just over 500 demonstration villages participated in the pilot program, which is planned to expand to 6,000 villages during Repelita III.

^{/1} Data in this paragraph are from the 1976 Intercensal Population Survey, or provided directly by BAPPENAS.

2.102 Costs for the sites and service units have varied from Rp 450,000 to Rp 1.01 million and for the low-cost housing units from Rp 1.0 million to Rp 2.64 million. Monthly rents are about Rp 2,800 for the former and Rp 4,100-8,600 for the latter. These figures imply a subsidy of about 65% of the cost for those obtaining public housing, vast majority of whom are Government employees. Thus, according to the Presidential guidelines, 75% of the sites and service units are to be allocated to Government employees with monthly household incomes of Rp 20,000 to Rp 33,750, which corresponds to the 30th to 45th percentile of the urban income distribution, and 75% of the low-cost housing units are to be allocated to Government employees with monthly household incomes of Rp 33,750 to Rp 90,000 which corresponds to the 45th to 90th percentile.

2.103 The achievements in the housing sector therefore are not quantitatively significant and those that have occurred serve primarily to benefit public servants. Some of the disappointing performance can be attributed to the normal start-up difficulties encountered by new institutions. An additional factor, however, is the long process of land acquisition. Approval for land acquisition is necessary from the provincial governor, and recommendations are needed from the mayor or the Bupati (regency chief) concerned. A local land committee must decide on compensation, but landowners cannot be forced to accept the committee-determined price. In some cases, PERUMNAS has been forced to acquire land at some distance from city centers because such acquisition consumes less time and land is usually cheaper. Such land, however, is often unsuitable for low-income housing.

2.104 PERUMNAS' program for REPELITA III is expected to include 60,000 units as part of sites and services projects and a further 60,000 low-cost units, the total cost of which is estimated to be about Rp 165 billion. If PERUMNAS follows the current practice of renting all units at highly subsidized terms, it would require the Government contribution of nearly Rp 23 billion in 1979/80 to increase to Rp 56 billion in 1983/84 in order to carry out the proposed REPELITA III program. Despite the considerable cost, the program is unlikely to meet the growing demand for housing especially that originating with the poor. A further 30,000 housing units outside the PERUMNAS program are also expected to be financed by Bank Tabungan Negara, the Government sponsored mortgage bank.

Summary

2.105 Although the provision of services has increased dramatically in recent years, the population has not always benefitted to a corresponding extent and the dimensions of the remaining problems are still daunting. With respect to health services, for example, almost 3,000 health centers were constructed between 1969 and 1977; yet disease patterns do not appear to have changed noticeably so far and facilities remain underutilized. The provision of educational services has been pursued vigorously and appears to have been more successful: universal primary education is within sight and secondary school enrollment is increasing rapidly. On the other hand, the provision of water supply, sewerage facilities and housing remains inadequate. Despite the achievements of the recent past, the task which has to be undertaken in REPELITA III is indeed enormous.

CHAPTER 4: LESSONS ABOUT EMPLOYMENT GROWTH, CONSUMPTION GROWTH,
WAGE RATES AND DEVELOPMENT IN THE PAST AND THE TASK AHEAD

Observed Links Between Employment Growth and Income Growth

2.106 An important observation emerging from the analysis in Chapters 1 and 2 is that during the period 1970-76, real per capita consumption levels have apparently risen at fairly substantial rates, even at the lowest levels (bottom 10%),^{/1} in spite of stagnating minimum wage rates.^{/2} The latter suggests that the marginal productivity of labor did not increase. With unchanged real minimum wages and productivity, where did the additional income needed to support rising consumption at the lowest rungs come from? It is not unreasonable to assume that those who have no assets (land or capital) and who only have their own unskilled labor to sell, generally belong to the lowest income groups. An increase in their consumption level could be explained in light of one or more of the following:

- (a) the poorest groups systematically received income or asset transfers from relatives in higher income groups, or from the Government in the form of subsidies or grants;
- (b) they worked longer hours or took second jobs;
- (c) more members of the family started working so that family incomes rose without an increase in wage rates; or
- (d) a gradual shift occurred towards higher productivity employment.

2.107 Reason (a) has probably been a factor but it is not possible to quantify its relative significance. Direct income transfers from the Government to the poor are generally limited to emergency food aid in the case of drought or other disasters, however, this is not a systematic factor. Indirect income transfers from the Government in the form of price subsidies may be discounted as they are already reflected in the price deflators that were used to calculate changes in real consumption and wage levels. Income transfers from relatives may be important and fairly systematic but there is no basis for a quantitative estimate.

2.108 Reason (b) has probably also been a factor, but again no quantitative estimate is possible. Several micro-studies have observed the extremely long working hours of men, women and children in poor parts of Java and it is

^{/1} Refer to Table 5, Chapter 1.

^{/2} Chapter 2 suggests that rural minimum wages stagnated or tended to increase marginally, while urban minimum wages stagnated or tended to decrease marginally. In looking at the employment picture as a whole there appears to be no evidence of consistent trends either upward or downward in real minimum wage levels.

entirely possible that working hours have increased over time in an effort to keep up with the rising consumption levels of others./1

2.109 Almost beyond doubt, reasons (c) and (d) are the most important of the four suggested reasons. As has been observed, labor force participation rates have risen significantly during the period 1971-76. The labor force and employment both grew significantly faster than total population, implying a drop in the dependency ratio. The overall labor force participation rate for the population aged 10 and over increased from 49.9% in September 1971 to 54.9% in October 1976. The relative increase was greatest for women in the childbearing age groups. It is therefore plausible that part of the real consumption increases observed for the lowest income groups has been achieved as a result of greater labor inputs at more or less constant real returns. This explanation would at the same time provide elements of a possible reconciliation between the two opposing schools of thought as to what has actually happened to the poor in Indonesia, particularly in Java./2

2.110 The possibility of a gradual shift in occupation structure - reason (d) - is also a plausible explanation of the paradox of rising consumption levels combined with constant real minimum wages. The decline in the proportion of the labor force engaged in agriculture and the accompanying increase in employment in other sectors may have offered many an opportunity to raise their effective real wages through modest productivity gains. The correlation noted between poverty and inadequate education suggests that improvements in the educational profile of the labor force between 1971 and 1976 may also have been a factor enabling many to undertake tasks and occupations that would previously have been unattainable. Literacy, for instance, will provide many new opportunities.

2.111 What are the lessons that can be derived from these observations for future development and employment policies? There is obviously a limit to increased labor input as a source of income and consumption growth at the lower income levels. But it is hard to say where the limit lies. Comparison with other countries in Southeast Asia suggests that Indonesian labor force participation rates are already relatively high./3 It is nevertheless possible that, because of projected changes in the age structure of the Indonesian population (see paragraph 2.119 and Table 18 below) labor force participation rates will continue to increase for a while, especially for women in the childbearing age groups. But the real question is whether the additional labor force growth can be absorbed without depressing real wage rates.

/1 See for example, Benjamin White, "Population, Involution and Employment," in Economic Development and Cultural Change, No. 7, 1976.

/2 Refer to para. 2.6 above.

/3 ILO, Labor Force, 1950-2000, Volume 1.

2.112 It is clearly very difficult to determine even qualitatively the relationships between value added growth, employment growth, consumption growth, changes in labor force participation rates and wage rates. To a limited extent the growth of employment is dependent on the growth of output. As a model for determining the growth of wage employment it would be correct to focus on the development of production in the more formal sectors of the economy, as a means of generating additional demand for labor. Yet, in a labor surplus economy where the main source of income for many of the poor is self-employment, it may also be appropriate to look at the supply of additional labor as co-determining the rate of output growth. To ensure that all additional output can be absorbed by the market without depressing product prices and real wages, it is essential that aggregate demand grows commensurately. In the recent past (1971-76), the rapid growth in wage earnings, spurred by the oil boom and increased public expenditure, successfully sustained an adequate growth of demand.

2.113 In summary, the period 1971-76 appears to be of limited use as a guide for the formulation of future employment and development policies. It was an unusual period in many respects. And, it is obviously not prudent to base a long-term poverty reduction strategy on the assumption that dependency ratios will continue to fall indefinitely, or on the expectation that incremental labor supply will continue to find employment without depressing minimum wage rates. To ensure the possibility of full employment with increasing returns to labor at all levels, it is essential that the demand for labor grows at least as fast as the labor force and that there is a continuous process of skill upgrading and structural change in the economy towards higher productivity types of activities. On the margin it may be possible to alleviate specific aspects of poverty through increasing and improving social services for the poor, particularly in the fields of health, education, water supply, and housing, but these elements of a strategy cannot substitute for labor demand growth and skill upgrading in going to the heart of the poverty problem.

Dimensions of the Future Poverty Reduction Problem

2.114 In its approach to poverty reduction, the Government faces enormous problems. The following statistics erode any sense of complacency about the task ahead:

- (a) in 1976, over 50 million Indonesians spent less than US\$90 on consumption items (at 1976 prices);
- (b) minimum daily wage rates for unskilled labor are approximately US\$1 or less in most parts of the country;
- (c) life expectancy at birth is still very low by international standards, mainly because of high infant mortality and malnutrition;
- (d) well over 100 million people do not have easy access to safe drinking water ^{/1}; and
- (e) close to 30 million people aged 15 and over are still illiterate.

^{/1} Refer footnote 1, page 63.

2.115 In seeking long-term solutions to the country's poverty problems, a number of difficulties stand in the way. The pace of population and labor force growth alone precludes any easy solutions. But furthermore, many economic factors will be less favorable than in the recent past, when the increase in resources from the oil sector greatly facilitated the expansion of employment in both the private and the public sector. The broad dimensions of the poverty redressal problem are outlined in the following paragraphs. The principal policy issues are deferred for more detailed consideration in Part III.

Population Projections

2.116 Detailed population statistics and projections until the year 2001 for Java and Indonesia by age groups, based on alternative mortality decline assumptions are contained in the Statistical Annex and in the Quantitative Projections Appendix. Indonesia's population is now expected to reach about 210-220 million in the year 2001. By contrast, the World Bank's previous Basic Economic Report on Indonesia projected a range of 219-250 million for the year 2001./¹ The decline in projected population growth is in large part due to the success of the Government's family planning programs.

2.117 Under the new population projections based on the assumption of moderate mortality decline, Indonesia would reach a net reproduction rate (NRR) of one around the year 2020. The population would continue to grow, however, until the year 2145, when it would stabilize at an ultimate size of 356 million. The alternative (more rapid) mortality decline assumption would bring the achievement of a NRR = 1 forward by about 8 years (to 2012). Under that assumption the ultimate population size would be 369 million and this would be reached around the year 2135.

2.118 The population projections have two outstanding features for the period at least up to 1990 and probably to the end of the century. Firstly, the overall reduction in fertility will be offset by a decline in mortality, so that the population growth is likely to be unchanged from its current rate of 2.0% p.a. It is therefore necessary that long-term economic planning be carried out on that basis. Secondly, there is likely to be a widening gap between population growth rates in Java/Madura/Bali and in the other islands. A rapid fertility decline has already resulted in a reduced population growth rate for Java, and further systematic reductions are projected for the future. In the other islands, however, a reduction in fertility is not yet widely apparent, while mortality rates have already begun to decline. Even on the assumption that fertility declines can be achieved in the immediate future, a slight acceleration of the population growth rate is projected for the period through 1990, though thereafter reduced fertility is also likely to be translated into a declining growth rate. Natural increases alone will therefore tend to make the population sizes of Java and the other islands more similar over time. With successful efforts to increase the net migration from Java to the other islands, it is conceivable that these areas might have almost equal populations by the end of the century.

¹ Indonesia: Development Prospects and Needs. World Bank Report No. 708-IND, dated April 15, 1975.

Table 17: AVERAGE ANNUAL GROWTH RATES OF THE POPULATION, 1976-2001
(%)

Year	Java	Other Islands	Indonesia
1976-1981	1.8	2.4	2.0
1982-1986	1.7	2.5	2.0
1987-1991	1.6	2.6	2.0
1992-1996	1.4	2.5	1.8
1997-2001	1.2	2.4	1.7

Source: Quantitative Projections Appendix, Table 1.1; assuming moderate mortality decline.

Labor Force Projections for Java and Indonesia

2.119 The age structure of Indonesia's population is likely to change drastically in the next 25 years, and this has major implications for the growth of the labor force. In 1976, 29% of the population was in the age group 0-9, but by the end of the century this proportion is likely to be reduced to 23% (the figures are 41% and 34%, respectively, for the 0-14 age group); conversely, the proportion of people in the working age groups is expected to increase. Between 1976 and 2001, the population aged 10 and over is, in fact, projected to increase by 72%, whereas the population aged 0-9 will increase by only 30%, and the population as a whole by 60%.

2.120 Even with reasonably reliable population projections for the working age groups, labor force projections for a labor surplus economy like Indonesia are inevitably conjectural because of changing participation rates. The magnitude of the changes in participation rates in the past increases the uncertainty of projections for the coming years. For the purpose of illustrating the magnitude of future employment needs, the following projections have been prepared (based on the moderate mortality decline population projections contained in the Quantitative Projections Appendix). In these, it has been assumed that the age specific participation rates observed in March 1976 ^{/1} represent the absolute minimum that would be desired in a full employment situation, with the following exceptions: for the age group 10-14 it was assumed that their participation rate would gradually drop to zero by the year 2001 as a reflection of Government education policies; for the age group 15-19 and for those over 65 the drop would be one-half percentage point per year. Although constant rates have been assumed for other age groups, past experience suggests that participation rates for the 20-65 age groups, particularly for women, could continue to increase. Thus the labor force growth projections in Table 19 should be regarded as minima.

^{/1} The March rates were chosen, rather than the September rates, because March is the peak agricultural season when total employment in the economy is at a maximum.

**Table 18: POPULATION AND WORKING AGE POPULATION PROJECTIONS
THROUGH DECEMBER 2001
(In '000)**

	Sept. 1971	Oct. 1976	Dec. 1981	Dec. 1991	Dec. 2001
<u>Indonesia</u>					
Population	119,233	131,797	145,038	176,402	210,233
Population aged 10+	80,947	92,870	105,605	130,804	161,053
Dependency ratio <u>/a</u>	1.47	1.42	1.37	1.35	1.31
<u>Java</u>					
Population	76,103	82,941	91,239	107,274	122,002
Population aged 10+	52,314	59,272	67,896	82,148	97,396
Dependency ratio <u>/a</u>	1.45	1.40	1.34	1.31	1.25
<u>Other Islands</u>					
Population	43,130	48,856	53,799	69,128	88,231
Population aged 10+	28,633	33,599	37,708	48,656	63,657
Dependency ratio <u>/a</u>	1.51	1.45	1.43	1.42	1.39

/a Defined in this case as population divided by population aged 10 and over.

Source: "Employment and Income Distribution in Indonesia," World Bank Report No. 2378-IND, dated February 20, 1979, Appendix Table A-2 and Quantitative Projections Appendix, Table 1.1; assuming moderate mortality decline.

**Table 19: MINIMUM AVERAGE ANNUAL GROWTH RATES OF
THE LABOR FORCE, 1976-2001
(%)**

Year	Java	Other Islands	Indonesia
1976-1981	2.0	2.3	2.1
1982-1986	1.9	2.3	2.1
1987-1991	1.7	2.3	1.9
1992-1996	1.6	2.3	1.8
1997-2001	1.5	2.4	1.8

Source: Quantitative Projects Appendix, Table 1.3.

2.121 It is of special interest to note that the effect of recent fertility decline on Java will soon have a major impact on the growth of the age group 15-24. Recent employment surveys, as discussed in Chapter 2, have shown that this is the age group where most open unemployment is concentrated, particularly among secondary school leavers. The following table shows the projected growth of the population in that age group for Java and for other islands, and this suggests that for the future, the problem of open unemployment could become more serious outside Java.

Table 20: PROJECTED ANNUAL GROWTH OF POPULATION IN
AGE GROUP 15-24, 1976-2001
(%)

Year	Java	Other Islands	Indonesia
1976-1981	3.1	2.7	2.9
1982-1986	2.1	2.6	2.3
1987-1991	0.5	1.7	1.0
1992-1996	0.3	2.1	1.0
1997-2001	1.0	2.7	1.7

Source: Quantitative Projects Appendix, Table 1.1; assuming moderate mortality decline.

Implications for Regional Growth Requirements and Transmigration

2.122 Even under the conservative labor force projections presented in Table 19, the Indonesian labor force would grow by at least 36 million people or 80% during the 25-year period 1976-2001. Due to the decline of the growth rate, the absolute annual increment would remain about constant at 1.44 million through 2001. Of this annual increment, 56% or about 800,000 people would reside in Java. It is important to note that mainly because of different fertility rates, the labor force in Java will grow considerably slower than in the other islands.

2.123 No account is taken in these projections of the possibility of increased net migration from Java to the other islands. However, transmigration could eventually have a substantial impact on the regional pattern of labor force growth rates. Assuming that the rate of net transmigration from Java to other islands gradually increases to 100,000 families per year by 1986 (and if age composition and labor force participation rates of transmigrants is the same as for Java as a whole) the annual labor force growth rate in Java during the period 1987-91 would drop from 1.7% to 1.3% and in the other islands it would rise from 2.3% to 3.0%. In later years these relative shifts would become even more pronounced. This suggests the need for very high rates of economic growth in the other islands. For the next several decades the remaining land development potential of Sumatra and Kalimantan offers the possibility to accommodate high rates of population and labor force growth through the rapid expansion of cultivated area and associated development.

A well conceived transmigration program can indeed be a very important, cost-effective component of an overall employment and regional development strategy.

2.124 The rate of total net transmigration from Java to the other islands is difficult to predict and depends in part on the pattern of regional growth itself. As far as official Government sponsored transmigration is concerned, the high growth required in transmigration areas does not pose a separate policy problem. Such transmigration is principally a function of the rate at which new areas can be opened up and prepared for settlement; there is apparently no shortage of applicants for official transmigration projects. The situation is somewhat different with respect to spontaneous transmigration, but the distinction between official and spontaneous transmigration should not be overdrawn. They are obviously interrelated and officially sponsored transmigration projects should be designed so as to encourage and facilitate the flow of spontaneous, follow-up transmigration. Both types of transmigration may induce accelerated growth in the other islands through multiplier effects and thus attract more migrants to support the development of secondary and tertiary sectors. Ultimately, the need for high rates of labor intensive industrial development in the other islands may become as pressing as it is in Java, where most poverty is now concentrated.

PART III

FUTURE DEVELOPMENT PERSPECTIVES AND POLICIES

INTRODUCTION

3.1 As reported in Parts I and II, the economy has been growing at a healthy pace of almost 8.0% per annum for a full decade,^{/1} the population growth rate on Java and Bali has been reduced through fertility decline, a reasonable degree of monetary stability has been established; and most importantly, data on employment, consumption expenditures and education suggest that participation in development has been widespread. The country's capital stock is now considerably larger and in better shape than it was 10 or even 5 years ago. The capacity of most Government departments to manage and monitor development processes, and to prepare and implement policies and projects has been strengthened. At the same time, the very successes of the past decade have increased the complexity of the management task ahead. The need for improved coordination of actions and policies within the public sector is undoubtedly one of the greatest challenges facing Indonesia's economic managers today. However, looking at the Indonesian economy from the perspective of ten years ago, one cannot fail to be impressed by the progress that has been made on many fronts.

3.2 But, as has also been amply demonstrated there is no time for complacency. Indonesia has yet to resolve the fundamental problems of a labor surplus economy. The central theme around which most of the discussion in this part revolves is the need for a long-term, employment-oriented development strategy. This entails a massive domestic resource mobilization effort both public and private - the thrust of which should be aimed at achieving a much higher rate of industrial development and non-oil export growth. Several associated and subsidiary development objectives such as the need for increased food production, financial system development and geographical dispersion of the development effort will also be discussed. Indonesia's long-term development strategy should be to reduce dependence on exhaustible natural resources and to mobilize its greatest inexhaustible resource - people - to the fullest extent. These issues are hardly new; they have been at the center of Government's concern and the focus of several earlier World Bank reports on Indonesia's future development needs. They assume a new significance and urgency, however, in light of the expectation that several of the factors which contributed to the enormous expansion of public sector resources, investment and growth during the past decade will not be repeated. During the next decade, and particularly the first half of the decade, high growth may become more difficult to achieve.

3.3 Population policy issues will not be discussed separately in this Part. This is not because population policy has lost any of its fundamental importance for Indonesia's long-term development, but simply because it is not clear that a meaningful new contribution can be made on this subject at this time. The Government's population policy and family planning programs appear to be well conceived, well executed and cost effective.

^{/1} Due to favorable terms of trade effects, growth of domestic income (GDY) was even higher; it amounted to over 9% p.a. over the past decade.

Promising initial successes have been scored. As mentioned, most of the programs have so far been concentrated in Java and Bali where the population pressure is greatest and where they enjoy growing popular support. An enormous task lies still ahead, but at this stage there is probably not much that can or should be done beyond continuing and intensifying on-going programs and extending them geographically as rapidly as possible. This is entirely in line with Government's plans and actions. Similarly, transmigration will not be discussed separately in Part III. Instead, specific aspects of transmigration are dealt with in the general discussion relating, for instance to food strategies, employment generation or industrialization in the relevant chapters.

3.4 The structure of Part III is as follows: Chapter 1 reviews factors influencing medium term growth prospects and likely effects of the recent devaluation of the rupiah. Chapter 2 focuses on administrative constraints and on the general incentive framework as determined by trade taxes, subsidies and the exchange rate. Chapters 3, 4 and 5 deal with inter-related strategy issues concerning agricultural exports, industrialization, manufactured exports, private investment and financial system development. Chapter 6 outlines elements of a possible food production and consumption strategy. Chapter 7 deals with the expected public sector resource constraints and ways to overcome them. Chapter 8 focuses on external borrowing strategies in light of balance of payments projections and development needs. Finally Chapter 9 presents some concluding thoughts on overall development prospects.

3.5 The time frame for quantitative projections used in this report varies with the subject. Thus, the domestic resource picture is presented through 1983/84 and the balance of payments and external sector projections through 1990/91. Population and labor force projections, already discussed in Part II, are presented through the year 2001. Generally the focus is on long-term development objectives; however, the emphasis in much of the discussion is on the policy issues facing the country now.

CHAPTER 1: FACTORS DETERMINING MEDIUM-TERM GROWTH PROSPECTS
AND IMPLICATIONS OF THE RECENT DEVALUATION

3.6 Projecting growth is always hazardous, particularly so in the case of an open economy like Indonesia which is widely exposed to strong and unpredictable external influences. The current instability on international currency markets, the decline of the US dollar and the recent devaluation of the rupiah add to the spectre of uncertainty. There are, nonetheless, a number of reasons to believe that the high overall growth rates of the past decade will become more difficult to attain and that the pressure on resources will increase significantly. The following discussion focuses on factors influencing medium-term/1 growth prospects.

Prospects for Oil

3.7 Underlying the expectation that high growth may become more difficult to achieve and that the pressure on resources will increase is the prospect that oil production is expected to stagnate during the next few years and grow only slowly thereafter. In addition, a rapidly growing share of total production is expected to come from higher cost offshore wells and from secondary recovery, which will depress net returns. International oil price developments are more difficult to predict. Even if nominal price increases are sufficient to compensate for international inflation in terms of US dollars, as expected by the World Bank's Commodity division, the real value of oil in terms of other major currencies may well change. Much depends on international political and economic developments over which Indonesia has little or no control. Yet, the economy is extremely exposed to oil sector developments. Net-oil exports/2 account for 55% of total commodity exports (1977/78), 55% of domestic Government tax and non-tax revenues (1977/ 1978) and about 13% of GNP (1977).

3.8 Key oil sector assumptions and projections used in this report are shown in Table 1 below:

/1 For purposes of this discussion, medium-term refers to the next 3-5 years.

/2 Gross oil exports minus oil sector imports and other foreign exchange requirements, including debt service and factor payments to foreign companies.

Table 1: KEY OIL SECTOR PROJECTIONS AND ASSUMPTIONS, 1978-1990

	1978	1979	1980	1981	1982	1983	1990
Crude oil production (million bbl)	615	616	594	621	651	660	732
of which secondary recovery and produc-) tion from new wells)	7%	11%	15%	23%	31%	34%	more than 50%
Domestic consumption (million bbl crude equivalent)	109	122	134	147	160	174	298
Exportable surplus (million bbl crude equivalent)	506	494	460	474	491	486	434

Source: IBRD estimates based on information supplied by MIGAS.

Given the complexity of the oil sector, these projections are highly conjectural, especially since a rapidly growing share of total production will have to come from new wells (mostly in new fields) and from secondary recovery. Possible market constraints have not been taken into account.

3.9 Primary production from existing wells is expected to decline rapidly due to natural exhaustion. The projected rate of secondary recovery (primarily from the large Minas field in Sumatra operated by Caltex) is a function of investment decisions that have yet to be made. The projected rate of production from new wells, particularly in the later years, is a function of the rate of new oil discoveries. More than half of Indonesia's oil is produced by a multitude of relatively small fields and all new discoveries during the past several decades have been modest in size.

3.10 Therefore, continuous large scale exploration is required to maintain a minimum ratio between estimated recoverable reserves/¹ and current production. This ratio has declined in recent years as a result of a sharp drop in exploration activities following a general weakening of the international oil market in 1977 and 1978, uncertainties concerning the interpretation of certain tax rulings by the US Internal Revenue Service affecting US oil companies operating abroad, and Indonesian oil tax increases in 1976. The various tax problems have now been resolved and to revive the search for new oil reserves, the Government introduced an important new incentive package

¹ Recoverable reserves are variously estimated by the oil industry between 10-15 billion bbl. This is the equivalent of 16-24 years of production at current levels of output.

effective January 1, 1978. Subsequently, major new exploration plans have been announced by most concession holders. The crude oil production projection for 1990 in Table 1 is based on the assumption that the level of exploration will soon return to the 1973/74 level of around 200 new wells drilled per year and that the success ratio will continue to be around 25%.

3.11 The annual growth of domestic consumption of oil is projected to decelerate from 12% in 1979 to 8.5% in 1983 on the assumption that domestic oil prices will be drastically increased over the next several years and that alternative sources of energy will be developed. Balance of payments and public sector resource projections for Indonesia are strongly dependent on this assumption.

3.12 If current investment plans for the expansion of the Badak (Kalimantan) and Arun (Sumatra) plants materialize, LNG and condensate exports are expected to increase rapidly and this will partly compensate for the slowdown in oil. On balance, however, the combined value of net-oil and gas exports and their contributions to Government revenues will grow more slowly than during the past decade. A stagnation or decline in oil revenues would have serious implications for the growth of Government savings and public investment. During the past 5 years, revenues from the Corporate Tax on oil have accounted for more than 100% of the Government's rupiah development budget and an estimated 65% of total public sector investments. The outlook for oil adds considerable weight and urgency to the argument for greatly expanded export promotion and domestic resource mobilization efforts.

Non-Oil Mineral Prospects

3.13 While Indonesia has tremendous potential for (non-oil) mineral development and exports (particularly tin, nickel, copper, aluminum, coal and possibly uranium), the medium-term outlook is not especially promising. Reduced nickel prices and rising investment costs led a foreign consortium to postpone in 1977 work on a large (\$1 billion investment) nickel project on Gag Island near Irian Jaya. The pricing factor plus a series of technical problems have also hampered start-up of another major nickel project in Sulawesi. Early in 1978 the Royal Dutch Shell Group cancelled a large (\$1.2 billion investment) export-oriented coal mining project in the Lampung Province of Sumatra. Other major coal projects sponsored by the Government, and designed to develop southern Sumatra coal deposits primarily for use in domestic electric power generation, however, are moving ahead. Prospects for a large (low grade) bauxite mining cum alumina project on Bintan island remain uncertain on grounds of economic feasibility and financing. The large joint Indonesia/Japan hydro-electric cum aluminum smelter project on the Asahan river in Northern Sumatra is moving ahead on schedule in spite of enormous dollar cost overruns, due in part to exchange rate movements. But the direct contribution of this project to GNP and net-export earnings is likely to be modest in the medium-term, even if it is associated with domestic bauxite mining and alumina making on Bintan island. Tin production is expected to grow about 3% per annum through 1988, when full smelter capacity of 33,000 m.t. is expected to be reached. Copper production is expected to remain about constant, at least during the next decade. On balance, current prospects for non-oil mineral development are modest and, contrary to some earlier expectations, no

major growth stimulus is to be expected from that sector in the medium-term future. Furthermore, the contribution of these projects to employment growth is negligible, except during construction.

Agricultural Prospects

3.14 During the past decade, agriculture and especially the rice sub-sector, has been a major impetus behind growth in incomes and employment. In the agricultural sector as a whole, and despite the boost given to the tree crop sector by the recent devaluation, there is little to suggest major changes in the near future in either the pace or the pattern of agricultural development. While major new projects and programs for secondary crops, transmigration, rubber and other perennial crops have been or are being formulated, these will inevitably take time to bear fruit. In the medium-term it is difficult to foresee an agricultural growth rate (including forestry and fisheries) higher than that of the past decade (about 3.8% p.a.). The draft third Five-Year Development Plan (Repelita III) anticipates an agricultural growth rate of 3.5% p.a. on average through 1983/84.

The Pattern of Investment

3.15 Most of the Government's quick and high yielding rehabilitation projects in agriculture and infrastructure that were started in the late 1960s and early 1970s have been, or are about to be completed. A new generation of public sector projects and programs designed to create a large number of basic new industries and to vastly expand infrastructure, as well as public services was started after 1972/73 when financial resources appeared to be less of a constraint.^{/1} They include inter alia, the Krakatau steel mill and its subsequent expansion, the Asahan aluminum project, national and urban communication projects, urban highways and trunk roads, fertilizer and cement factories, petroleum refineries, LNG manufacturing and loading facilities, large new (extension) irrigation projects, a major program for the expansion of power generation, transmission and distribution facilities, and coal mining.

3.16 Some of the new generation industrial and infrastructure projects will only become fully operational towards the end of Repelita III or later. Meanwhile, they will lay claim on a substantial proportion of public sector resources during Repelita III, which limits the scope for redirecting public investment towards quick yielding projects and programs with a high direct employment effect in the near future. If in addition, the Government decides to go ahead in the near future with such major new projects as the proposed new Jakarta International Airport, the Bintan bauxite/alumina project, the Dumai refinery hydro-cracker, the Batam refinery and other major projects that have been on the drawing boards for some time, it is possible, depending on their financing, that few public sector savings will remain uncommitted for Repelita III. Generally, the Government should perhaps refrain from investing

^{/1} This is not to detract from the important new projects and programs in health, education and other social sectors that, as discussed in Part II, were launched at the same time.

budgetary resources in capital-intensive projects unless they are more or less guaranteed to have a very high rate of return, to contribute significantly to alleviating the balance of payments problem, or if they are essential for the support of labor-intensive development elsewhere in the economy.

3.17 These considerations are already reflected in the Government's new external borrowing policy which actively encourages public sector enterprises to seek private external loan and equity financing for many of their projects. In this way the Government expects to free sufficient budgetary resources for the funding of several major new social programs during Repelita III. Meanwhile, the long gestation period of many of the new generation public sector industrial and infrastructure projects may have the effect of temporarily depressing GDP growth as a result of an increase in the incremental national capital/output ratio.

3.18 The decline in recent years of private investment in manufacturing and mining is another source of concern that the rate of economic growth may slacken somewhat in the medium-term future. As discussed in Part I, the indigenization policies and the anti-inflation package of April 1974, just prior to the international recession, have all contributed to the lackluster performance of private investment in recent years. For the immediate future, the private investment outlook is uncertain. The reasons for this are complex and vary from industry to industry. The Pertamina crisis and the revision of the oil tax formula in 1976 (which was partly offset by new incentives offered in 1977) did undoubtedly leave some scars but those should soon be fading into the background. Another factor is that during the private investment boom of the early 1970s many foreign investors had over-estimated the size and growth of their market potential or under-estimated the intensity of foreign competition, including that from smuggled imports. Consequently, much excess capacity was created and this is still plaguing parts of the manufacturing sector. The recent devaluation has improved the relative profitability of export-oriented and domestic resource based industries and this should stimulate private investment in those sectors, but it is too early for such responses to have registered. The following table/1 illustrates the slackening of private investment in recent years:

1 Data presented in this table do not represent the total private investment picture; comprehensive information is not available. For example, no information is available on private investment financed with the aid of private foreign credit. It is believed that "offshore borrowing" constitutes an important element in the financing of private investment.

Table 2: MEDIUM TERM INVESTMENT CREDITS SUPPLIED BY INDONESIAN BANKS
TO PRIVATE SECTOR AND DIRECT PRIVATE FOREIGN INVESTMENT, 1972-77
(in current prices)

Year End	<u>Domestic Bank Credits</u>		Direct Private Foreign Investment (US\$ million)
	Approved (billion Rp)	Disbursed	
1972	104	72	254
1973	124	88	331
1974	145	100	538
1975	151	114	454
1976	149	117	287
1977	149	113	285

Source: Bank Indonesia

Perhaps as a result of a somewhat subdued private investment climate, growth of value added in the manufacturing sector fell from around 15-16% during the early 1970s to 11-12% during the last few years.

3.19 Finally, the high cost of administrative obstacles, including long delays in licensing and customs clearance add to the uncertainty surrounding the private investment outlook. Although Government has recently taken steps to expedite the screening and approval of investment proposals, and launched a nationwide campaign to eliminate "pungli",^{/1} much remains to be done to make the bureaucracy more responsive to the needs of the economy. An unresponsive bureaucracy adds to the cost of production and retards development in many different ways. It also adversely affects the allocation of resources in the sense that it is generally a greater burden on small enterprises and domestic entrepreneurs than it is on large corporations, which may have the skill and the resources to deal with the problem.

External Debt and Net Resource Transfers from Abroad

3.20 Another factor which is expected to add to the pressure on public sector resources in the medium-term is the maturity profile of Indonesia's external debt as it has evolved since the early 1970s. Large amounts of medium and short-term commercial debt were accumulated during the early 1970s and at the time of the Pertamina crisis in 1975. The adverse effect of the debt profile on medium-term debt service obligations has been mitigated somewhat by the replacement, in early 1978, on more favorable terms of \$575 million remaining payments on cash loans originally totalling \$1 billion. But it is nonetheless probable that the import capacity of net transfers from abroad to the public sector during the next five years will be appreciably lower than during Repelita II.

/1 Unofficial levies.

3.21 A complicating factor which aggravates the resource problem associated with the debt profile is the decline of the dollar vis-a-vis other major world currencies during 1977 and 1978 and, in particular, against the Japanese Yen and the Deutschmark. Indonesia's total public and publicly guaranteed external debt at the end of 1977 (excluding the undisbursed portion) amounted to the equivalent of about \$11.7 billion calculated at June 1978 exchange rates. The same debt would have amounted to the equivalent of about \$11.1 billion at December 31, 1976 exchange rates. This means that exchange rate movements have increased Indonesia's outstanding external debt expressed in US currency by about \$600 million or 6% in a period of 1-1/2 years. Since most of Indonesia's exports are dollar priced (including, of course, oil) there are no significant offsetting factors to compensate for this real loss to the economy.

3.22 The effect of recent exchange rate movements on Indonesia's external debt would have been even more serious if Japan, Indonesia's largest bilateral creditor, had made all bilateral loans and credits in Japanese Yen. Though Japan accounted for about 31% of Indonesia's outstanding external public debt at the end of 1977, only about 18% of the outstanding debt is expressed in Japanese Yen. Table 3 below shows the approximate breakdown of the debt by currency and by creditor.

Table 3: INDONESIA'S EXTERNAL PUBLIC AND PUBLICLY GUARANTEED DEBT AS OF DECEMBER 31, 1977 (DISBURSED ONLY) BASED ON JUNE 1978 EXCHANGE RATES

Currency	Amount (US\$ billion)	Share	Source	Amount (US\$ billion)	Share
US dollar	5.65	48.3	Japan	3.60	30.8
Yen	2.05	17.5	USA	2.90	24.8
DM	0.89	7.6	W. Germany	0.86	7.4
Ruble	0.77	6.6	USSR	0.77	6.6
D.fl	0.71	6.1	Netherlands	0.73	6.2
Fr. Franc	0.44	3.8	France	0.49	4.2
Other	0.66	5.7	Other Bilateral	1.36	11.6
Multiple	0.52	4.4	Int. Org.	0.98	8.4
	11.69	100.0		11.69	100.0

Source: IBRD external debt files.

Terms of Trade Movements and External Demand Growth

3.23 Terms of trade movements which have been so heavily in Indonesia's favor during the early and mid-1970s but turned against her in 1977 and 1978 are not expected to be a major factor in the medium-term future. Much depends, of course, on the movement of exchange rates and particularly on

changes in the dollar price of oil. Projections by the World Bank's Commodity Division suggest that the long-term price prospects for most of Indonesia's non-oil mineral and agricultural exports are favorable and that moderately positive terms of trade affects may be expected. But it should be stressed that even a moderate decline in the constant dollar price of exported oil could easily wipe out the expected terms of trade gains for non-oil exports.

3.24 As Indonesia's exports amount to about one-fifth of GNP, with 85% of total exports going to OECD countries (mainly Japan, USA and Singapore) it is evident that overall medium-term export and growth prospects are to some extent related to future developments in those countries. An overall OECD growth performance of just over 4% is expected through 1985.^{/1} This rate is considerably lower than the one which contributed to Indonesia's extremely high growth performance of the early 1970s. OECD growth is therefore unlikely to exert a strong pull effect on the Indonesian economy in the medium-term future. This is important because in the medium-term rapid export growth is required to sustain a high rate of GNP growth. In the longer-term, as the economy develops a tighter network of domestic input-output relationships, particularly between the agricultural and industrial sectors, domestic growth could become less dependent on external demand growth.

Implications of the Recent Devaluation of the Rupiah

3.25 In conclusion, the above analysis of major parameters that are likely to condition economic developments in Indonesia during the next few years, suggests the possibility of an overall resource constraint which could slow the momentum of growth and development.

3.26 It is against this backdrop that Government announced the devaluation of the rupiah to Rp 625 per US dollar on November 15, 1978. While devaluation does not change the real resource position of Indonesia, it provides the means to do so by facilitating certain fundamental structural changes. Such changes are needed to set Indonesia firmly on a growth path that would lead to reduced dependence on oil and greater mobilization of other resources, in particular labor.

3.27 At this point in time, an assessment of the impact of the devaluation on development prospects is premature. Nonetheless, indications are that in the short and medium-term, the impact will be seen largely in an improved public sector resource position and some curtailment of imports. The full benefits can only emerge in the longer-run and then, only to the extent that growth of labor-intensive, export-oriented and import-substitution industries is stimulated and devaluation-induced inflation contained. At the present time, Government actions are indicative of its firm intention to take full advantage of the opportunities presented through the devaluation.

3.28 The November 1978 devaluation was unique in several respects. Occurring at a time of relatively stable domestic prices, following an unprecedentedly good rice harvest and when reserves were in a healthy position, the devaluation

^{/1} World Development Report 1978, The World Bank, August 1978.

was not forced by external circumstances. Its timing, several months prior to the beginning of Repelita III, allowing sufficient time for the economy and investors to adjust to the new situation, was also excellent. The magnitude of the devaluation /1 is also unusual but has the advantage of eliminating fears of further devaluations and consequent speculative runs on the currency, and thus provides Government considerable leeway within which to introduce supportive measures to encourage structural changes in the economy.

3.29 The immediate distributional effect of the devaluation and the associated changes in tariffs is a massive transfer of income from import users to the export sector. Since the Government itself, because of the composition of revenues and expenditures, is a substantial net-exporter, the budget is one of the main beneficiaries of this income transfer, even after allowance is made for the additional consumer subsidies that may be needed as transitional measures to prevent sudden, socially disruptive domestic price increases. Apart from the initial income shift from the private to the public sector, it is very difficult to predict what the effect of the devaluation on the distribution of personal incomes and expenditures will be. Several forces will be at work both on the income and on the expenditure side and they will not necessarily work in the same direction. Of special importance will be the allocation of the additional Government revenues and the Government's management of relative price shifts between tradable and nontradable goods and services. Ultimately, the structural economic changes aimed at through the devaluation should lead to increased demand for labor, in particular unskilled and semi-skilled labor, and this may be the principle vehicle for the conveyance of devaluation-related benefits to the poor.

3.30 While the potential medium and long-term benefits of the devaluation for the economy as a whole are substantial, there is a danger of short-term contractionary influences caused by cost-push effects and liquidity (cash flow) problems facing import dependent industries and those with external debt repayment obligations. Since the Government is determined to prevent precipitous domestic price increases, transitional measures aimed at facilitating smooth adjustment of the economy to the new price relationships, may have to include temporary, additional credit facilities for certain categories of enterprises. There are no hard and fast rules for monetary policy under these circumstances. The Government's short-term objective of price stability for a wide range of domestically produced but internationally traded goods may conflict with the objective of stimulating private investment in the context of the desired structural changes. On balance, it seems that a strong emphasis on strict credit controls to contain monetary expansion could be counter-productive. Apart from the need to neutralize a large part or all of the devaluation-induced budgetary surplus there may, at least initially, be little or no need for additional restrictive monetary measures.

/1 The new exchange rate implies that there are 50% more rupiahs to the dollar than under the old exchange rate, which in the definition of the IMF amounts to a devaluation of 33.4% .

3.31 The short term effects of the devaluation on the balance of payments are likely to be stronger on the import side than on the export side. Externally funded (program) imports are unlikely to be reduced as a result of the devaluation but growth of non-program imports (currently about \$4 billion or 50% of total imports) will certainly decelerate in the short term. Assuming an import price elasticity of -0.5 for non-program imports, a domestic devaluation-induced price increase of say 15% during the first year and taking account of the 50% import duty reduction for intermediate inputs and the simplified duty draw back system introduced simultaneously with the devaluation, it is plausible that total imports in 1979 will be some \$400 million (or about 5%) less than they otherwise would have been.

3.32 On the export side, realization of the potential devaluation benefits will take longer. The effect on mineral exports, including oil and LNG, however, is likely to be very small, even in the longer-run. Some of the minor agricultural exports (e.g. pepper, spices, tobacco) may be able to respond quickly. But the more important traditional tree crop exports typically have long supply lags (3-5 years) and will require supportive institutional development. Industrial exports may be able to respond relatively quickly (1-2 years), providing everything is done to reduce or remove administrative obstacles that are presently constraining their output growth and export orientation.

3.33 Even more importantly, import and export developments will depend on the impact of the devaluation on the overall growth performance of the economy, which in turn hinges on the ability of Government to contain devaluation-induced inflation and to effect the desired kind of relative price shifts in the economy. On balance there seems now, after the devaluation, less ground for fears that the balance of payments will become a development constraint. Nonetheless, dramatic improvements are not foreseen. The next few years, on account of project commitments and gestation lags, could still show some temporary deterioration in the overall external position. Furthermore, the devaluation does not reduce but rather intensifies the need for eliminating institutional obstacles and improving support services in the promotion of labor-intensive agricultural and industrial export and import-substitution items. The report places great emphasis on the importance in Indonesia of institutional factors as constituting, perhaps, greater supply constraints than relative pricing factors. It is, therefore, essential that Government does not regard devaluation as an alternative to redressing the fundamental institutional problems plaguing various parts of the economy, but acts promptly to mitigate the distortions.

CHAPTER 2: ADMINISTRATIVE CONSTRAINTS, PRICING POLICIES
AND THE STRUCTURE OF INCENTIVES

Introduction

3.34 The utility of whatever economics may have to contribute to policy making is conditioned by the degree of political commitment to development and by the ability of the administration to formulate and carry out appropriate policies and programs. There is no lack of political commitment to development in Indonesia but the administration, though much stronger than 10 years ago, is still weak relative to the magnitude and complexity of its task. This weakness should be a temporary problem only, but for the moment it may be the single most important constraint to the acceleration of development. The problem is primarily an inheritance from the past as was discussed in Part I. It is evident in the acute shortage of skilled and experienced managers and technicians in nearly all Government departments. In some fields of policy making, a lack of coordination between various departments and agencies is a major problem. In others, a very high degree of centralization in decision making processes appears to be slowing down development.

3.35 Policy makers in Indonesia generally agree that increasing effective demand of the poor through accelerated growth of remunerative employment is one of the key development tasks. The answer does not lie in the development of one particular sector, or in the promotion of small-scale production units only, or in labor intensive public works, or in other efforts concentrated on one particular aspect of the problem. It is the coordination of regional and sector strategies, of social services, and macro policies that really matters. For example, the principal key to the solution of Indonesia's nutrition problem does not necessarily lie in policies for the agricultural sector. A good industrial strategy may have as much or more to contribute. The emphasis in this and the following chapters is on the inter-relationships between sector strategies and general development policies.

The Incentive Framework as Determined by Trade Taxes
and Administrative Bottlenecks

3.36 The incentive framework influences the allocation of resources and therefore the quality and the rate of development. This may be more true for private investment than it is for public investment but it is nevertheless important that incentives should be supportive of the general development effort. The general incentive framework has just been given a jolt in the right direction by the devaluation of the rupiah in November 1978. But there is still room for improving the allocative and distributional efficiency of pricing signals in the economy.

3.37 The Indonesian pattern of import tariffs indicates the classic pattern of protection which escalates with the degree of manufacture. Capital goods and basic industrial inputs enjoy the least protection followed by intermediate goods and finally, traded consumption goods which often enjoy high rates of nominal and even higher rates of effective protection. Quantitative import restrictions and complete import bans are rare. They are only

used in the case of a few industries of which automobile assembly is perhaps the most important example. Tariff preferences granted to ASEAN trading partners do not change the general picture of escalating protection in favor of finished consumer goods. The typical pattern of tariffs and sales taxes before the devaluation of November 1978 and associated measures was as follows:

Capital goods and basic industrial inputs	5% import tariff <u>+5% sales tax</u>
	10% total indirect tax
Intermediate inputs	15% import tariff <u>+10% sales tax</u>
	25% total indirect tax
Manufactured consumer goods	30-50% import tariff <u>20% sales tax</u>
	50-70% total indirect tax

The actual range of rates is much wider than suggested by this "typical pattern". The recent reduction of import duties by 50% on a wide range on intermediate and basic inputs (designed to reduce the inflationary impact of the devaluation) without a simultaneous reduction of duties on finished goods, has strengthened the general bias of the structure of trade taxes in favor of final stage processing. In other words, the tariff structure is not conducive to the promotion of intermediate goods manufacturing or the development of backward linkages in general.

3.38 The devaluation has significantly increased export incentives generally. Most export taxes and cesses on traditional agricultural exports had already been reduced or removed in recent years. Many, but not all, processed goods are exempt from export taxes. In spite of the reductions and exemptions, export taxes still accounted for some 20% of total revenues from external trade taxes, about 5% of non-oil revenues and 5.5% of total non-oil exports in 1977/78. Timber and tin exports account for nearly two thirds of Government non-oil export tax revenues. Some further reduction of export taxes on goods other than timber and tin may eventually be desirable, but the devaluation has reduced the urgency of such measures. Temporary selective increases may in fact be called for to tax windfall profits that are not needed as supply inducements. There are no export subsidies but since April 1978, there are modest preferential interest rates favoring export oriented industries. There is, however, a duty drawback system for manufactured exports. Because of elaborate safeguards and time consuming procedures, its incentive value was very limited until, at the time of the devaluation a new system was introduced. Under the new system, exporters incur a nominal liability upon importing inputs used in the manufacture of exports and this liability is cancelled upon certification of export.

3.39 On balance, the official incentive framework as determined by trade taxes and tariffs, though not seriously distortive, does not seem to be fully in harmony with the needs of the economy. The potentially significant benefits of the devaluation notwithstanding, it continues to favor final stage assembly over intermediate goods and capital goods manufacturing. The framework also favors import-substituting manufacturing over export-oriented industries. In addition, pervasive corporate income tax incentives such as tax holidays and accelerated depreciation provisions tend to favor the use of capital over labor where factor substitution is possible.

3.40 The official incentive framework, however, gives an incomplete and in some cases possibly misleading picture of the actual situation. Although the smuggling of imported consumer goods has been reduced in recent years, it is still believed to be widespread. This tends to retard the growth of import substitution industries.^{/1}

3.41 Intermediate input manufacturing industries that do exist, such as cable and pipe industries, often suffer from a public sector import bias resulting from procurement requirements under externally aided projects. Preference rules for local contractors and equipment suppliers are generally becoming more prevalent but a considerable portion of bilateral foreign aid is still tied to procurement in the aid providing country.

3.42 Although many processed goods are exempt from export duties, industrial exports tend to be discouraged by administrative obstacles or unofficial levies. High handling charges and long delays in the ports, including delays in clearance from bonded warehouses and customs clearance in general, serve effectively as taxes on exports and additional protection to existing import substituting industries. The interest on capital associated with the tying-up of goods in the ports is often a significant element of these additional costs. The devaluation has undoubtedly improved the climate for export promotion but institutional factors may continue to present an obstacle to the rapid growth of export-oriented and import-dependent manufacturing industries, particularly the smaller ones. The allocative and distribution distortions caused by these factors are probably more serious than those related to the system of official trade taxes.

3.43 With regard to the tariff structure, it is important to avoid going any further along the path of increased industrial protection. Change in opposite direction would be desirable. It should be stressed that every tax on imports, official or unofficial, ultimately serves as a tax on exports. The following changes in tariff policy may be worth considering:

- (a) move towards a more uniform tariff rate structure to reduce and eventually eliminate disincentives for input manufacturing, particularly in those cases where import substitution would be economically possible. In light of the recent devaluation and the simultaneous reduction of import duties on many intermediate inputs

^{/1} See for example "Problems and Prospects for Industrial Development in Indonesia," World Bank Report No. 1647-IND, dated May 25, 1978, Volume II, p. 89.

by 50%, movement towards a more uniform rate structure should probably be accomplished through a reduction of duties on finished goods. To this end a special tariff commission might be established. Lower duties may at the same time reduce the incentive to smuggle and this would in some cases conceivably help to increase revenues;

- (b) for revenue purposes, move towards greater reliance on sales taxes, applied equally to imported and domestically manufactured goods of the same description.

Interest Rates, Subsidies and Investment Incentives

3.44 With the exception of the subsidy on domestic oil consumption, most large, budgetary subsidies that existed in the early and middle 1970s (particularly on rice, fertilizer and certain types of time deposits) had, at the time of the recent devaluation, been significantly reduced or eliminated. Hidden subsidies, however, can be found in a number of sectors of the economy. The devaluation of November 1978 is likely to require the reintroduction of large consumer subsidies as a transitional measure to prevent sudden, socially disruptive domestic price shocks. The following analysis, however, deals essentially with the situation as it had evolved up to the moment of the devaluation on the assumption that the "shock absorption" subsidies that are likely to be needed will indeed be temporary. The devaluation has, of course, raised major new pricing policy issues, particularly with respect to rice and petroleum products, but these issues will be taken up in Chapter 6 and Chapter 7.

3.45 The total budgetary subsidy on the consumption of imported food and fertilizer was reduced from almost \$1.0 billion in 1974/75 to \$80 million (in current prices) in 1977/78. Lower level civil servants and military personnel continue to receive low priced food rations but these remaining "subsidies" are not believed to cause serious distortions in the economy. They have traditionally formed part of the income of the employees concerned. Elimination of the ration system (involving wages in kind worth about \$400 million in 1977/78) would probably be desirable in the long run, but compensatory monetary wage increases would be required. The gradual reduction of rice and other (import) food consumption subsidies has been the combined effect of the normalization of commodity markets after 1973/74 and slowly rising domestic prices.

3.46 The large fertilizer subsidies of the mid-1970s were associated with the huge Government nitrogen imports at peak international prices following the rice harvest failure of 1972. To encourage fertilizer use under the BIMAS and INMAS programs and to prevent steep rice consumer price increases, it was then decided to keep the farmgate fertilizer price low. The budgetary cost of the rice and fertilizer subsidies was very high but could easily be absorbed - thanks to rapidly rising oil revenues. The pre-devaluation farmgate price for nitrogen fertilizer was very close to the international price and the relatively small remaining subsidy covered only distribution and storage costs. Indonesia now has a growing exportable surplus of urea and the question of domestic subsidies is not expected to become a major issue in the near future. The natural gas used in the production

of fertilizer by PUSRI in Palembang, Sumatra is produced from a relatively small gas field with, at least for the moment, few if any alternative uses. The fact that the gas is sold to PUSRI at production costs does therefore not introduce an allocative distortion.

3.47 Budgetary subsidies to the five major State Banks (about \$10 million per year at present), which together account for some 70% of domestic lending by commercial banks are largely an historical accident. They are needed to cover the small remaining negative interest spread between Government credit programs and certain types of term deposits. The negative spread was originally (early 1970s) much wider when term deposit and term lending rates were set independently in an inverted structure to achieve different objectives (i.e., liquidity absorption and investment promotion) at a time of high inflation. The progressive lowering of nominal lending and deposit rates since the early 1970s, with the exception of 1973/74, up to the latest (January 1978) reform package may be viewed as part of the financial normalization process in keeping with the gradual reduction in the rate of domestic price inflation.

3.48 The entire interest rate structure will have to be reviewed from time to time in light of the changing needs of the economy, as has been the practice in the past. Although the recent devaluation will inevitably lead to a temporary acceleration of domestic price inflation if only because of cost push effects, it is for practical reasons probably not advisable to raise lending rates in anticipation of devaluation-induced price inflation.

3.49 Similarly, in view of the current rather liquid position of the banking system, there does not appear to be an urgent need for increases in deposit rates. The desirability of long term positive real interest rates notwithstanding, negative real interest rates (both deposit and lending rates) may have to be accepted as part of a package of transitional monetary and pricing policies to help the economy adjust to the new exchange rate with a minimum of disruption. If, as a result of the devaluation, the rate of monetary expansion should exceed desired levels, the re-introduction of an inverted rate structure might be considered as a temporary measure to absorb excess liquidity.

3.50 Term lending rates are at present on the low side from a factor allocation point of view, but, because of the Government's policy to maintain the system of a convertible currency with a minimum of exchange restrictions the freedom of the Government to set domestic lending rates in isolation from prevailing international rates is limited. The fact that real lending rates are at present only barely positive and in some cases negative has to be viewed in the context of other policy objectives and the associated limitations imposed upon monetary authorities.

3.51 Moreover, a large gap between domestic and international lending rates would tend to discriminate between borrowers who have access to foreign credits (including for example private, foreign-owned companies and some domestic non-indigenous entrepreneurs) and those who do not (including the bulk of the indigenous Indonesian entrepreneurs). Such discrimination would conflict with the Government's indigenization policies. On balance, there does not appear to be at present an urgent need for drastic changes in the

structure and level of interest rates. Term lending rates could perhaps be increased somewhat and the structure of rates could undoubtedly be simplified. As part of a policy aimed at the development of domestic capital markets and greater allocative and operational efficiency of the banking system, it may be desirable, however, to move gradually towards a freer interest rate regime with market forces playing a more important role in determining rates at least with regard to non-program lending. But it would probably not be desirable to introduce major changes until the economy has adjusted to the effects of the devaluation.

3.52 A discretionary but hidden subsidy which may require revision is the blanket tax exemption of interest earned on bank deposits. This subsidy is additional to the small remaining open subsidy to State Banks to pay the relatively high interest on certain types of time deposits. The tax exemption was designed to encourage private savings but also had the unintentional effect of favoring capital owners without simultaneously providing encouragement to private investment in productive enterprise. But removal of this subsidy is not easy and its adverse distributional implications may be considered a price that has to be paid for domestic private savings mobilization efforts within the context of a convertible currency system in South East Asia.

3.53 Apart from the relatively minor budgetary subsidy on deposits and the blanket tax exemption of deposit interest earnings, there are other subsidies implicit in the use by Bank Indonesia of the rediscount mechanism as an instrument to promote particular types of lending operations by the State Banks. This system effectively conceals the various major costs incurred by the State Banks as a result of the high risk (bad debts) of lending to priority sectors at preferential rates. If subsidies are needed to provide adequate credit to priority sectors it may, from a resource allocation point of view, be preferable to clarify the cost of promoting certain sectors. It may also be desirable to provide greater freedom to Bank Indonesia to use the rediscount mechanism more as an instrument of monetary policy rather than as a mechanism to subsidize certain sectors of the economy at the expense of others.

3.54 In addition, an exceptionally high default rate on outstanding credit of a major State Bank caused by inadequate credit risk assessment has recently (June 1978) come to light in the course of inquiries by a Parliamentary Commission on Finance, Trade and Banking. This has probably been a serious source of allocative and distributional distortions, and real losses to the economy. Steps to prevent recurrence of such losses have already been taken by Bank Indonesia.

3.55 Another important hidden subsidy in the Indonesian economy with both allocative and distributional implications arises from the Government's extensive scheme of investment incentives, including tax holidays, investment allowances, loss carry forward provisions, and accelerated depreciation of capital assets. These incentives are formalized in a frequently updated list intended to stimulate investment in priority sectors and priority geographical areas. From available information it is impossible to judge whether the scheme has succeeded in achieving its objectives. Its costs have not been

subjected to the scrutiny which is generally devoted to budgetary expenditures. The costs to the economy not only include revenues foregone (which are believed to be substantial) and administration expenditures, but also the adverse effects on employment growth which, in certain industries, may be associated with incentives that reduce the cost of capital relative to labor.

3.56 A general review of tax incentives to determine their economic justification may be called for. Lessons from other developing countries /1 suggest that their importance in attracting private investments that would otherwise not take place or shift to other countries is often over-estimated.

Domestic Oil Pricing and Pricing by State Enterprises

3.57 Perhaps the most serious subsidy related distortions in the economy warranting separate discussion, are caused by the under-pricing of petroleum products and the under-costing of services provided by a number of State Enterprises. The budgetary subsidy on domestic oil consumption which, in the absence of domestic price increases, would amount to about \$250 million in fiscal 1978/79 (not including the effects of the devaluation) is only a fraction of the true economic subsidy calculated on the basis of economic opportunity costs. The economic subsidy has, of course, increased as a result of the devaluation and the Government's decision to freeze domestic oil prices at pre-devaluation levels, at least for the moment. The weighted average domestic sales price of petroleum products (calculated at the new exchange rate) is about \$8.00 per barrel of crude equivalent. /2 At a domestic consumption level of approximately 112 million barrel of crude equivalent (1978/79), the economic subsidy is of the order of \$1.1 billion, or more than 2% of GNP. Just before the devaluation, domestic prices for regular and high test gasoline (together accounting for less than 20% of total sales in volume terms) were more or less in line with economic opportunity costs and practically the entire domestic oil subsidy accrued to the users of kerosene, diesel and heavy industrial oils. Under the new, post-devaluation pricing situation all domestic petroleum consumption is subsidized and substantial supplementary budgetary outlays will be needed as part of the Government's package of transitional pricing policies.

3.58 The under-costing of certain Government services, in particular electricity, road, rail, and water transport is not only related to the oil subsidy, but also to relatively low user charges, and in some cases to under-depreciation of assets which would become more serious if assets are not revalued, following the devaluation. In addition, several public sector enterprises did, until recently, not impute the cost of investment capital received from the Government and virtually all public sector enterprises do not bear foreign exchange risks on foreign borrowing which in the post-devaluation situation amounts to a significant de-facto capital subsidy. /3

/1 See for example George E. Lent, Tax Incentives in Developing Countries, in Readings on Taxation in Developing Countries, Edited by R.M. Bird and O. Oldman, John Hopkins University Press, Baltimore, 1975.

/2 The economic opportunity cost is the current export price (about \$13.90 per bbl plus approximately \$5.00 per bbl for refining, storage and distribution, or about \$18.90 per bbl.

/3 This subsidy is reduced in some cases by higher onlending rates charged by the Government to cover the foreign exchange risk.

The Government is generally committed to gradually move towards economic costing and economic pricing for most public goods and services. In this process the Government is often confronted with the dilemma that price adjustments must be orderly and that hardship for the poor has to be avoided.

3.59 Many of the subsidies discussed are designed to benefit middle and lower income groups but they do not always reach the lowest income groups. This applies for instance to the kerosene subsidy which accounts for more than half the economic subsidy on domestic oil consumption. Analysis of the 1976 SUSENAS household consumption expenditures suggests that about half the kerosene is consumed in urban areas and that the lowest 40% in the expenditure distribution scale uses only 20% of all kerosene. Increased kerosene prices would, of course, not be painless to the poor and present for that reason an extremely difficult social and political problem. /1 Another complication is that kerosene competes with wood and charcoal as a source of energy for cooking in the rural areas. A significant relative price shift against kerosene could lead to increased cutting, which could be ecologically harmful, especially on the steep slopes of Java where erosion is already a major problem. A policy to reduce or remove the subsidy on kerosene should therefore be accompanied by measures to increase the supply of alternative sources of energy, including perhaps coal or coal briquettes.

3.60 The allocative and distributional implications of domestic oil subsidies and public service under-costing may not be conducive to sound economic development. In addition to a number of factors such as inadequate public transport services in the cities, domestic oil pricing has probably contributed to the extremely rapid expansion of private motorized road transport after 1973. The average annual rate of increase of motor vehicle registrations (including cars, trucks, buses and motor cycles) accelerated from 12.5% during the period 1967-1972 to 20.5% from 1973-1976. For cars alone the relevant rates of increase were 8.2% and 11% respectively. /2 While these developments increased the mobility of people and expanded markets, which are undoubtedly major benefits, they have also contributed to serious traffic congestion and air pollution in the major cities and to a high rate of traffic accidents. Associated developments have been the banning of becaks /3 from downtown Jakarta during most of the day, the stagnation of passenger/km traveled by rail and the absolute decline of freight carried by railways, /4 as well as the proliferation of small, inefficient car assembly plants requiring a total import ban for their protection.

/1 The share of kerosene in the average consumption expenditures for rural Java is 4.1%. It is of interest to note, however, that this is less than the share of cigarettes (5.8%).

/2 Source: Central Bureau of Statistics, Statistik Kendaraan Bermotor dan Panjang Jalan.

/3 A tricycle traditionally used for short distance.

/4 Partly as a result of increased competition from road transport but also due to inadequate efficiency, the operating deficit of the railways (before imputing the cost of interest free capital) increased from about Rp 600 million in 1971 to Rp 5.4 billion in 1977).

3.61 In the transport sector major policy questions have to be addressed with regard to the future role of private automobiles and the respective roles of road, rail, air and coastal traffic modes. Obviously, the domestic oil pricing question is only one dimension of this complex set of questions. The future pattern of transport development will have important long-range consequences for private consumption patterns, the rate and pattern of urbanization, and the demands on public sector resources for infrastructure investment. Apart from general development and equity considerations, space limitations on Java suggest that the use of private automobiles has to be discouraged. The recent increase of the sales tax on automobiles from 20% to 50% followed by the devaluation of November 1978 may be expected to slow significantly the demand for private automobiles.

Exchange Rate Policy

3.62 Between the devaluation of August 1971 (which brought the exchange rate from Rp 378 to Rp 415 per US\$) and the devaluation of November 1978, the rupiah was tied to the US dollar at a fixed rate of exchange. During this period a system of practically unrestricted convertibility was maintained, in spite of the fact that domestic price inflation during most of the intervening years far exceeded international and internal US inflation. In 1977 and 1978 (prior to the recent devaluation), however, domestic price inflation slowed down significantly while at the same time several important world currencies floated up against the rupiah and the dollar, which compensated at least partly for the differential inflation rates of earlier years. The effective depreciation of the rupiah against a trade weighted basket of currencies, including the dollar, was of the order of 15% between January 1977 and June 1978.

3.63 To provide some perspective to the question of exchange rate policy as part of Indonesia's general incentive policy, it may be useful to go back a few steps in history and review some important relative price shifts in the economy since August 1971. These shifts tended to strengthen general incentive framework biases against labor-intensive export industries (including agricultural exports) and in favor of production for the domestic market. In addition, biases in favor of capital-intensive methods of production have been strengthened by the fact that during the period 1971-76, the cost of unskilled labor in Indonesia rose by about 40% relative to the cost of imported capital goods.

3.64 The various relative price shifts in the economy since 1971, were, of course, not only determined by the Government's exchange rate policy but also by policies with regard to credit expansion, interest rates, tariffs, subsidies and relative commodity price changes in world markets. It is nevertheless useful to focus on the exchange rate per se. Table 4 below indicates the direction and magnitude of the principal relative price shifts in the economy since 1971 as determined by the exchange rate and other factors. The exchange rate adjustment of November 1978 approximately restored the relative price relationship that existed in 1971 between domestic non-tradable inputs and imported capital goods.

Table 4: CHANGES IN RELATIVE PRICES, 1971-1976

	Imported /a cap. goods	Unskilled labor /b wages	Output Price Indices		Tradable /c price index	Jakarta Cost of Living Index
			Manuf. /a	Agric. /a		
1971	100	100	100	100	100	100
1972	100	119	110	118	106	106
1973	133	141	154	159	142	139
1974	168	186	189	218	199	196
1975	183	254	202	256	186	233
1976	201	280	238	333	192	280

/a Statistical Pocketbook, 1977.

/b Mission estimates.

/c Average of non-oil export and import price indices weighted by value of Indonesian non-oil exports and imports respectively.

3.65 The high level of aggregation in this table only permits its use for illustrative purposes. Nonetheless, the general pattern is clear. The cost of domestic inputs as reflected in the wage index for unskilled labor and the Jakarta Cost of Living Index had risen considerably faster than the cost of imported capital goods and the general weighted price index for Indonesia's (non-oil) exports and imports. Since the agricultural sector works with fewer imported inputs than the manufacturing sector, the general price shift between tradables and non-tradables is also reflected in the movement of agricultural and industrial output prices. The observed relative price shifts must have put a cost/price squeeze on non-oil exports in general and on labor-intensive export industries in particular. The intensity of that squeeze has, of course, differed from commodity to commodity depending on international price movements. Although increased profitability of production for the domestic market may have attracted additional investment and thus contributed to some additional employment growth, the long-term structural implications of these relative price shifts would have been generally adverse. The exchange rate adjustment of November 1978 was undoubtedly motivated in part by the perceived need to compensate for these earlier relative price shifts.

3.66 The timing of the devaluation was opportune. The Government acted from a position of strength. The 1978 rice harvest was known to have been very good and supplies were plentiful. The country's external reserve position was still improving and domestic price inflation had been reduced to less than 5%. After about 5 years of tumultuous economic change, the economy had finally reached calmer waters. Had the Government acted earlier,

say in 1976, 1977 or early 1978, it would probably have been much more difficult to contain devaluation-induced price inflation as the economy was still riding on the inflationary wave which had started during the years of the commodity and oil boom and also because the balance of payments showed substantial overall surpluses. Moreover, the need for supplementary transitional budgetary subsidies would have been larger because of poor harvests in those years. The size of the devaluation suggests that the Government now aims at a long period of exchange rate stability, and that all efforts will be concentrated on realising the intended structural changes in the economy with a minimum of transitional disruption.

3.67 The unpegging of the exclusive link between the rupiah and the US dollar and substitution of a link with a basket of currencies is understandable in light of the recent instability of the US dollar. Several countries had taken similar action earlier. The new system has the obvious advantage of greater flexibility in exchange rate management but it also has the disadvantage of creating a new element of uncertainty for all those engaged in international financial transactions. Although Bank Indonesia offers an optional facility to protect foreign currency depositors against exchange rate risk, the Indonesian money market has not yet developed to the point where it can easily provide hedging facilities against the new currency risks to which traders and bankers will be exposed. The new exchange rate regime will undoubtedly promote the development of such facilities.

CHAPTER 3: AGRICULTURAL EXPORT PROSPECTS

General Considerations

3.68 Indonesia has traditionally exported a wide range of primary and semi-processed agricultural commodities which, together with timber and fish exports presently account for some 80% of non-oil exports and approximately 35% of total exports. Prospects for these exports assume added significance since, as will be discussed more fully in Chapter 8, balance of payments projections based on trends and expectations prior to the November devaluation suggest that import capacity would have become a serious development constraint before the end of the next Plan. In addition, these commodities provide employment and income to a large part of the rural population and are therefore of great social significance.

3.69 Since the early 1970s growth of agricultural exports, in value terms has been very healthy - increasing from approximately \$0.6 billion in 1971/72 to \$2.8 billion in 1977/78. However, the price increases enjoyed by many of Indonesia's exports during this period obscure the fact that the volume of several important traditional agricultural exports, including in particular rubber, copra, cassava and maize has been essentially stagnant or declining. In the light of the recent devaluation, it is of particular interest to examine the extent to which this problem is related to price shifts in the economy resulting from the fixed dollar/rupiah parity and high domestic inflation since 1971. /1

3.70 As can be seen from Table 5, the answer is by no means unambiguous. The composite volume indices show that non-extractive exports as a group have not stagnated; the trend volume growth rate was 3.6% p.a. if base year (1971) export values are used as weights, and 6.6% p.a. if terminal year weights are used. The latter rate is much higher than the former because of the dramatic shift in the weight of coffee. This was caused partly by sustained high volume growth and partly by the exceptionally high international coffee prices that prevailed through 1977. Several traditional agricultural exports, including coffee, palm oil (at least until 1976), pepper and tobacco have managed to perform reasonably or very well in spite of the shift in the general incentive framework against labor intensive exports. Coffee, in fact, has been the star performer throughout this period and now vies with rubber for third place on Indonesia's export list after oil and timber.

/1 The position that the exchange rate was a major factor is taken by several economic analysts, including for example Douglas S. Paauw, in "Exchange rate policy and non-extractive exports," Economics and Finance in Indonesia, Vol. XXVI, No. 2, June 1978.

Table 5: VOLUME INDICES FOR NON-EXTRACTIVE TRADITIONAL EXPORTS, 1971-1977
(1971 = 100)

Base year value weights	Terminal year value weights		1971	1972	1973	1974	1975	1976	1977
52.8	35.6	Rubber	100	98	113	107	100	103	101
13.2	36.3	Coffee	100	144	136	151	173	134	216
6.9	7.2	Tea	100	98	88	124	103	106	115
3.6	3.4	Tobacco	100	143	182	154	107	112	142
10.6	11.1	Palm oil	100	113	126	135	185	194	194
1.2	0.3	Palm kernel	100	106	81	59	43	53	52
3.0	0.0	Copra	100	55	58	-	43	5	-
2.8	2.2	Copra cake	100	116	97	103	121	160	137
<u>100.0</u>	<u>100.0</u>								
	Composite volume index using base year weights		100	107	115	112	115	123	128
	Composite volume index using terminal year weights		100	119	122	127	135	145	157

Source: Indikator Ekonomi.

3.71 Simultaneously, several relatively new agricultural exports, especially timber and fish, have performed extremely well. Since furthermore, the poor export performance of some traditional export crops such as copra, tea and recently palm oil, does not so much reflect a poor production performance but rapid domestic consumption growth which has gnawed away at exportable surpluses, it is very difficult to generalize about the effect of relative price shifts since 1971 on the export performance of traditional non-extractive exports. Thus, while it is not possible to prove conclusively that the overall effect of the exchange rate has been a depressing one, there is some plausibility attached to this general proposition, particularly in the case of rubber, cassava and maize and also, in the case of copra.

3.72 This chapter, therefore, argues that while the devaluation is undoubtedly supportive of agricultural export promotion in general, it does not obviate the need for redressing those institutional factors which have undoubtedly constrained the supply of certain crops and of tree crops in particular. The chapter also considers the potential for non-traditional agricultural exports and the need for special measures to accelerate their export growth.

Rubber

3.73 In spite of its relative stagnation for over 15 years, Indonesia's rubber industry is still the third or fourth largest foreign exchange earner (after oil and timber) and the principal source of cash income for at least half a million families (smallholders and plantation workers), mostly in Sumatra and West Kalimantan. Stagnation began during the early 1960s and continued in response to the sustained fall of world market prices in real terms through 1972. Trees were either replanted at the wrong time or not at all and large areas under rubber gradually reverted to secondary forest to be tapped only when prices were high. There were, until some years ago, no major Government services to slow or reverse the declining production of smallholder rubber, and such services are still inadequate today.

3.74 The total area under smallholder rubber was about 1.9 million ha in 1975 /1 but this includes an area of senile and untapped rubber, estimated between 300,000 and 350,000 ha. A modest start has now been made with the rehabilitation of smallholder rubber in some areas but the progress made so far is small in relation to the magnitude of the task ahead. Total smallholder production, currently accounting for about two-thirds of national output, will probably continue to stagnate or slowly decline for some years unless the rehabilitation effort is expanded dramatically and until newly planted trees reach maturity. The potential for development is great. Average smallholder yields are estimated at about 350 kg per harvested ha and the quality is low. Modern estate yields are at least three times as high and the quality of their product is superior. In view of bullish long-term price expectations for natural rubber, rehabilitation of smallholder rubber in Indonesia offers a significant opportunity for income, employment and export growth. There are areas under rubber that may be better suited to other crops and alternative land use studies may be required in many instances prior to replanting decisions. This applies in particular to the remaining 160,000 ha /2 under rubber in Java.

3.75 Private rubber estates (accounting for about 14% of total output) replanted part of their areas with genetically improved varieties, but since they simultaneously shifted into other crops such as palm oil and cocoa, their output of rubber has stagnated. Until the recent devaluation, only Government rubber estates (accounting for 20% of total output) were expanding production and remained profitable - due to systematic replanting and sustained efforts to improve yields, maintenance and processing quality standards.

3.76 The point of this brief historical overview is that even at the old exchange rate, rubber production in Indonesia could be profitable under good management using modern agronomic technology and high yielding planting material. Price incentive policies through the exchange rate or otherwise

/1 Statistical Pocketbook, BPS.

/2 World Bank estimate.

are important to help revive smallholder rubber in Indonesia but not a substitute for institutional efforts required to introduce modern production and maintenance standards. Rubber, like coconut and other traditional tree crops, has become a high technology - though still very labor intensive-industry. Sufficient capital has to be provided to smallholders for replanting with quicker and higher yielding clones together with technical production, quality control and marketing support services. The technology requirements for smallholders and estates are essentially the same.

3.77 The urgent need for improving agronomic practices, adapting technology and developing institutional support and marketing services is not limited to tree crops, but applies to all traditional smallholder export crops - including food and feedstuffs, beverages, pepper and spices - and to potential export crops such as legumes, poultry, fruits and vegetables.

Cassava

3.78 In the case of annual crops, cassava may serve as a further example to illustrate the general conclusion about the relative importance of developing improved technical support services. Since the beginning of World War II, when Indonesia was the world's leading exporter of cassava products, exports have declined. In the past seven years, coinciding with rapidly rising domestic per capita incomes, and essentially stagnant domestic production, cassava exports fell from approximately 0.5 million tons in 1971 to just over 0.1 million tons in 1977. Thus, in value terms, cassava exports now account for a negligible proportion of traditional non-extractive exports. During the same period, exports of cassava from Thailand, where it was only recently - and specifically - introduced as a cash crop, increased from 1 to 4 million tons of dry cassava products, such that Thailand is now the world's leading cassava exporter.

3.79 Cassava is grown in most parts of Indonesia, predominantly by smallholders although recently a number of specialized commercial farms have been established. In terms of food energy produced, cassava is the second most important food crop in Indonesia after rice. The greater part of total production (currently around 12-13 million tons of fresh cassava per year) is used domestically for human food (66%), with 22% being used as an industrial input and only an estimated 2% for animal food. /1

3.80 In light of the rapid growth in international cassava trade during this period and strong domestic price incentives - in fact, retail prices of cassava in the rural markets of Java and Madura /2 increased more rapidly than the general cost of living index and also rose more sharply than either the price of rice or maize - the virtual stagnation of cassava production in Indonesia suggests that there are serious domestic supply constraints. Such constraints are believed to be primarily of an institutional nature.

/1 Statistical Annex, Table 7.12. One ton of fresh cassava yields approximately 0.3 ton dry cassava.

/2 Data on prices received by farmers are not available.

3.81 The conditions under which cassava is grown in Indonesia and Thailand are very different but a comparative analysis of cassava production and export performance of the two countries may, nevertheless, help to throw some light on the question of the relative significance of pricing and institutional factors as export and supply constraints for relevant products in Indonesia. The following table illustrates the problem; it also suggests that there is indeed a causal relationship between the behavior of Indonesian cassava exports and relative price shifts in favor of domestic sales.

Table 6: CASSAVA EXPORT VOLUME AND PRICE INDICES,
INDONESIA AND THAILAND, 1971-1977
(1971 = 100)

	1971	1972	1973	1974	1975	1976	1977
Thai Export Volume Index /a	100	117	140	213	213	331	353
Indonesian Production Volume Index	100	97	105	122	117	114	114
Indonesian Export Volume Index /b	100	70	27/1	105	54	31	29
Thai Export Unit Price Index /a	100	107	125	145	175	183	176
Indonesian Export Unit Price Index /b	100	122	188	206	228	234	222
Jakarta Cost of Living Index	100	106	139	196	233	280	314
Java/Madura Rural Market Cassava Price Index /c	100	129	222	179	233	373	388
Indonesian Export Price Index divided by Rural Java/Madura Price Index	100	95	85	115	98	63	57

Sources: (a) World Bank Basic Economic Report on Thailand, Report No. 2059-TH, dated September 1, 1978.

(b) Bank Indonesia.

(c) Indikator Ekonomi.

/1 For part of 1973, following a poor rice harvest, a cassava export ban was in force which explains the sudden drop in the volume of exports that year.

3.82 Even allowing for quality differentials, Table 6 indicates that Thai cassava export prices have risen less fast than Indonesian export prices. The table also suggests that it has indeed become more profitable in Indonesia to grow cassava for domestic consumption than for export sales. What might be termed a "relative export profitability index" (bottom line in table) declined from 100 in 1971 to 57 in 1977.

3.83 Had domestic cassava supply in Indonesia responded to the strong price incentives, domestic market prices would not have risen so fast and a bias against exports might not have developed. If domestic cassava prices had only kept pace with the Jakarta consumer price index, the relative export profitability index would have remained above 100 through 1974 and declined to about 85 by 1977.

3.84 Finally, the ability of Thailand to successfully expand exports of non-traditional crops, such as cassava and maize is related to the excellent support (marketing and transport) services which have both facilitated actual exports and helped exporters to take advantage of the substantial economies of scale involved in shipping low value, bulk commodities.

3.85 Thus, the lack of supply response for cassava, as for certain other traditional non-extractive exports, such as maize and copra is believed to be related in part to institutional factors. To stimulate supply, the devaluation and other price incentives will no doubt help, but their effectiveness is bound to be limited in the absence of appropriate agronomic-technological and marketing support services, including efficient inter-island shipping.

3.86 Already, there are indications that the prolonged institutional neglect of non-rice crops is over. In the case of maize which in recent years has been imported rather than exported - a potentially significant program was introduced by BULOG in 1978 to provide price support plus marketing and storage facilities in East Java, the main maize growing area in Indonesia. It is anticipated that this will become a national scheme in 1979. A support program for cassava is under preparation. Similarly, a smallholder rubber research institute was established recently in Sumbawa, Central Sumatra. Finally, BIMAS intensification programs for coffee, cloves and pepper, introduced in the course of Repelita II have already provided evidence as to the income and export potential to be derived from raising the productivity of those traditional agricultural smallholder crops.

3.87 The scope for raising productivity of the traditional non-extractive export crops, and thereby, rural incomes is enormous. In addition, Indonesia possesses considerable potential to further develop non-traditional exports, such as timber and fish and also to develop new agricultural exports, such as high value fruits and vegetables, legumes (especially soybeans) and poultry.

3.88 Timber and marine fish are special cases. Both have enormous potential for production, employment and export growth. Export performance does not seem to have been affected by relative price shifts in the economy. Appropriate regulatory intervention and promotion of domestic enterprises appear to be the priority issues at this time.

Fish

3.89 World trade in fishery products has grown quite dramatically since the early 1960s and during the present decade, Indonesia has participated fully in this growth. Although small in relation to total production,

Indonesia's fish exports have grown rapidly in volume terms, and even more rapidly in terms of value. Since the beginning of Repelita I, fish export earnings have increased from less than \$2.5 million to \$165 million in 1977/78, or about 5% of non-oil exports. The increase in export earnings reflects primarily the growing selectivity of fishermen in catching higher-valued fish (especially shrimp, which account for almost 60% of export volume and 90% of export value). It is anticipated that import requirements in the major markets (Japan, USA, Western Europe) will continue to grow rapidly. Total marine fish production in Indonesia (about 1 million tons) is only about 20% of the estimated annual sustainable catch, and thus Indonesia enjoys the prospect of substantially increasing its fish exports.

3.90 Government's policy is aimed at securing a maximum share of production and exports for domestic Indonesian fishing companies. It also seems appropriate to continue and to better enforce the policy of reserving, at least temporarily, certain coastal fishing waters for traditional small-scale fishing operations. The ecological changes caused by the sudden introduction of large modern trawlers, can be economically and socially very disruptive for traditional fishing villages as has been analyzed by Collier, et. al, for coastal areas of Java. /1 The changes have to be gradual and traditional fishing villages have to be given a chance to develop alternative employment opportunities or to acquire the capital and training required to enter the age of marine fishing based on modern technology.

Timber

3.91 As in the case of fish exports, appropriate regulatory intervention in the logging industry and promotion of domestic Indonesian logging and processing companies should probably continue to be the Government's chief policy concerns. Stricter enforcement of concession and forestry agreements, particularly with regard to logging limits, logging techniques and selective cutting may be required, especially for ecological reasons. But an acute shortage of trained Government foresters is a serious constraint.

3.92 Indonesia possesses the richest forest resources in East Asia. Aside from its contribution to export earnings, the forestry sector offers great potential for industrialization and employment growth in Kalimantan and Sumatra where 86% of classified production forests are located. Total log production in Indonesia has grown rapidly from about 4.6 million cu m in 1968 to a peak of 26.2 million cu m in 1973. At the same time log exports increased from 1.2 million cu m to 19.4 million cu m. In value terms the growth of timber exports was even more dramatic (from \$11.1 million in 1968/69 to almost \$1 billion in 1977/78). As a result of the recession in industrial nations, the volume of Indonesia's timber production and exports declined sharply in 1975. It has since recovered, though not yet fully to the levels that were achieved in 1973.

/1 William L. Collier, Harjadi Hadikoeworo and Suwardi Saropi, "Income, Employment, and Food Systems in Javanese Coastal Villages" Ohio University, Center for International Studies, Athens, Ohio, 1977.

3.93 The maximum sustainable annual cut from classified production forests totalling 52.2 million ha ^{/1} (based on a recovery factor of 0.725 and an average life cycle of 35 years) is estimated in the range of 55-60 million cu m or an indicative production level of 40-43 million cu m. Current production is of the order of 55% of this indicative maximum. Assuming a 5-6% annual increase in log production, the indicative production level could be reached by 1990. It should be stressed, however, that forestry inventory surveys are as yet incomplete and that revisions of the estimated maximum sustainable cut should be expected.

3.94 Aside from logs, timber products exported from Indonesia include sawnwood, plywood, chips, hardboard, moldings and most recently furniture. In order to boost domestic processing of logs, Government adopted the policy of linking forestry agreements to an obligation on the part of the concession holders to develop wood processing facilities. Nonetheless, the gross value of processed exports is still only about 5% of the gross value of timber exports, although an estimated 70% of processed timber products are consumed domestically. Export growth of downstream products appears to be constrained by high conversion cost and uneven quality. The problems are typically those occurring in the early stage of many industries, namely, a shortage of skilled labor, inefficient production operations, low capacity utilization, marketing problems and inadequate shipping facilities. In order to improve capacity utilization, Government has recently eased requirements concerning the location of processing facilities and instituted measures whereby concession holders are obliged to supply domestic sawmills with a certain percentage of their log production. As an additional incentive, export taxes on processed woods were eliminated in January 1978, while the export tax on logs was simultaneously increased to 20%.

3.95 It is expected that the next few years will see considerable rationalization and improvement in the sawmilling and downstream processing industry, particularly with regard to shipping facilities, the supply of skilled labor and marketing. Demand should not be the principal constraint to the rapid development of this potentially very significant export industry. A large part of Indonesia's log exports are currently processed for re-export in transit processing countries such as South Korea, Taiwan and Singapore. Even before the devaluation of November 1978, wages in those countries were considerably higher than in Indonesia though labor costs per unit of output may still be lower because of superior productivity. Eventually, however, Indonesia should be able to develop a comparative advantage over the transit-processing countries and capture a larger share of the market for processed tropical woods, particularly in Europe, the Middle East and North America. In the case of log exports the limiting factor is world demand but in the case of processed timber products the primary constraint is on the supply side. Human skill development and quality control are at this stage the principal tools to overcome those constraints.

^{/1} 1975 National Forest Development Plan. This estimate excludes commercial timber from landclearing operations in transmigration and other settlement areas.

Summary

3.96 The scope for raising productivity of both traditional and non-traditional export crops, and thereby rural incomes, is enormous. However, while the devaluation is undoubtedly supportive of agricultural export promotion in general, it cannot eliminate the need for redressing those institutional factors that have constrained their supply. Programs and policies to reverse prolonged institutional neglect have been introduced (through BIMAS and otherwise) for a number of crops, including rubber, maize, coffee, tobacco, pepper and cloves, but the scope and coverage of these remain as yet very modest in relation to the needs.

3.97 Some of the minor traditional export crops (tobacco, pepper and some of the spices) with a relatively elastic supply, could be expected to respond quickly to the devaluation. Indonesia should also be able to build-up export markets for a range of (non-traditional) high value vegetables and fruits, both fresh and processed. The development of such exports, however, is again highly dependent on marketing, storage and transport support services, either private or public. The supply response of the major traditional export tree crops (rubber, coffee, tea, coconut) is bound to be slow, even with adequate institutional support services, because of long gestation periods of the crops involved. Export growth of tea is in addition constrained by slow growing world import demand. The supply response of fish and processed timber could be significant and could materialize within a relatively short period (1-2 years).

3.98 On balance, dramatic changes in either the pace or the composition of agricultural exports as a result of the devaluation are not foreseen in the short run but there is bound to be improvement. This is important for balance of payments prospects and rural income and employment generation. The only major traditional agricultural exports which could show a very significant supply response within 3 or 4 years are palm oil and kernel oil but this is unlikely to result in rapid export growth because an acceleration in production growth is required merely to keep pace with domestic consumption growth. Domestic vegetable oil consumption does already account for all domestic coconut oil production (in fact, coconut oil is already being imported) and began to eat into the exportable surplus of palm oil several years ago. The recurrence of an exportable surplus of coconut oil is not foreseen and the export volume growth rate of palm oil and palm kernel oil is expected to decline from 14% (1973-76 average) to 4 or 5% p.a. on average through 1990. Rubber export growth is projected to double (from 1% to 2% p.a.) after 1985. The conclusion, that export prospects for agricultural exports as a whole are unlikely to improve dramatically as a result of the devaluation underlines the need for industrial export promotion as will be discussed in the next chapter.

CHAPTER 4: INDUSTRIALIZATION AND MANUFACTURED EXPORTS

Current Trends and Constraints

3.99 The issues of industrialization and manufactured export promotion cannot be separated. As has been observed before, the recent devaluation has not removed all obstacles to the promotion of labor intensive export-oriented industries. One remaining problem is that even after the devaluation, export-oriented industries do not enjoy the same degree of protection as import substitution industries. This bias of the incentive framework against exports is reinforced by unofficial levies and administrative obstacles which tend to discriminate in particular against small, labor intensive industries. The recent devaluation should nevertheless give a significant boost to industrial export promotion efforts by the Government through NAFED /1 and otherwise.

3.100 Available export statistics do not permit a detailed analysis of the export performance of non-traditional, non-extractive labor intensive manufactures. As a group they represent a small proportion (less than 5%) of non-oil exports; in export statistics they are usually grouped together under "miscellaneous" or "other" categories. Although individual items may have shown strong export performance, there do not seem to be indications, however, of a big surge in labor intensive manufactured exports as a whole.

3.101 The manufacturing sector /2 is, in spite of rapid growth during the past decade, still quite small and accounts for about 11% of non-oil GDP (1977) and about 8.4% of total employment (October 1976). The growth rate of manufacturing value added /2 appears to have declined from about 15-16% p.a. during the early 1970s to 11-12% in recent years. The decline of the growth rate, the lack of export orientation, the stagnation of private investment, the geographical imbalance in industrial development and the concentration of new investment in capital intensive units and final stage processing of luxury goods for domestic consumption are all matters of serious concern. Given its low base, the industrial sector in Indonesia is the only goods producing sector capable of sustained high rates of growth for a long period without being constrained by a lack of financial or natural resources. With the prospect of slower expansion in the mineral (including oil) and timber sectors, it becomes all the more important to stimulate industrial development as one of the main hopes for future employment and export growth. Poverty elimination in Indonesia and sustainable rapid development are becoming increasingly dependent on the rate and quality of industrialization.

/1 National Agency for Export Development.

/2 Excluding oil refining and other mineral processing.

The Need to Accelerate Industrial Growth and Exports

3.102 To generate a significant impact on the growth rate of employment and manufactured exports, Indonesia should probably aim at a pattern of rapid labor intensive industrial development, with value added in manufacturing growing by not less than 15% annually, and manufactured exports growing by not less than 20% annually. This is a tall order. Obviously, such high rates cannot be sustained indefinitely but other developing countries such as South Korea, Taiwan, Brazil, Colombia have done so for sufficiently long periods. Indonesia is fortunate in having a potentially very large domestic market. But at present that market is too small to support the high manufacturing growth rates that are needed. For example, the Indonesian market for manufactured consumer goods is at present smaller than that of South Korea, a country about one-quarter its size in terms of population.^{/1} This is only to illustrate the compelling case for a stronger export orientation of Indonesian industry. To achieve that greater export orientation, a strong political commitment is required.

3.103 The fact that Indonesia would be a newcomer in the league of semi-industrialized nations brings with it a number of major advantages as well as disadvantages. A major advantage is the possibility of using the experience of more developed countries to avoid costly mistakes; in particular those related to the pursuance of a high-protection, inward-looking strategy. There is now a substantial number of authoritative empirical studies showing that relatively open developing economies generally develop faster than closed ones and that exports are generally highly responsive to a reduction or elimination of biases against them.^{/2} The major disadvantage presently facing Indonesia is that it is a newcomer in one of the most competitive areas of the world. Not the least of obstacles will be the fact that many countries, including developing countries, are still pursuing highly protectionist policies for precisely those labor intensive industries in which Indonesia might have a comparative advantage such as for example, garments, electronics, various kinds of processed food, tires and other rubber products, plastics, wood based products, and light engineering.

3.104 Indonesia has the largest remaining pool of inexpensive, and relatively literate labor in East Asia. Even before the recent devaluation, wages for unskilled labor were amongst the lowest in the world; lower than in Singapore, Hong Kong, South Korea and Taiwan. Labor is not unionized and

^{/1} The 1976 SUSENAS suggest that total sales of clothing, footwear, plus durable and semi-durable consumption goods in that year in Indonesia were of the order of \$1.3 billion. The comparable figure for South Korea is of the order of \$1.7 billion.

^{/2} A brief overview of the relevant literature is presented by I.M.D. Little, "Import Controls and Exports in Developing Countries", in Finance and Development, September 1978.

Government has largely refrained from intervening in the labor market. Indonesia also has a large number of potentially efficient seaports/¹ and relatively well developed communications and other infrastructure, at least in Java, where most of the surplus labor is located. Perhaps the greatest obstacles to the realization of a much higher rate of labor intensive industrial development and exports are physical and administrative bottlenecks, a relatively under-developed financial system, and other cost raising factors, including unofficial levies. Intensified efforts to overcome these obstacles are needed. In addition, it is possible that selective relaxation of indigenization policies may contribute to the mobilization of entrepreneurial skills needed to achieve a much higher rate of industrial development.

3.105 Whether special export incentives in the form of subsidies or export bonuses are needed in addition to the removal of anti-export biases in the incentive framework and institutional obstacles is hard to say at this stage. The new exchange rate certainly does not appear to be inhibiting the promotion of manufactured exports. The experience of other developing countries suggests that the removal of obstacles is a powerful export incentive by itself because of the additional growth potential it provides to individual enterprises. Post-devaluation indications are that the Government is indeed moving to remove such obstacles. One of the first decisions for example was to simplify the duty drawback system in such a way that import duties on inputs destined to be re-exported in processed form are registered as a potential liability only, to be cancelled upon certification of export.

Export Processing Zones

3.106 While much remains to be done to simplify procedures and further improve the incentive framework for industrial exporters, it may, as an interim solution be desirable to create a series of export manufacturing zones where new industries can develop and buy not only imported inputs but also domestic inputs at international prices free of trade taxes. Such zones have been effective in several countries in early stages of an export drive as a means to attract and reassure foreign investors, to demonstrate the country's export potential, to promote backward linkages within the economy and to provide training and experience in technical skills, quality control and international marketing. One such zone already exists (in Jakarta), but for various reasons, it has not yet become fully effective. A decision in principle to create additional export processing zones has already been taken by the Government.

3.107 In promoting industrial exports there is no particular merit in concentrating such efforts on small enterprises only. To have a real impact on the economy, a major export drive cannot be based exclusively or primarily on cottage industries. In fact, it may be preferable to aim in particular at the establishment of medium-sized and large units to economize on scarce managerial skills, to facilitate access to foreign technology and to achieve effective quality control which is so vital for external market penetration. Larger units do not have to be less labor intensive than smaller ones.

¹ Silting, however, is a major problem in many ports.

Elements of a Labor-Intensive Rural Industrialization Strategy

3.108 An estimated 72% of industrial employment in Indonesia is in Java, and as shown in Table 7 below, nearly three quarters of this share (53% of the total) is accounted for by East Java, Central Java and Jogjakarta. Less than 25% of all industrial employment (including all types and all sizes of manufacturing establishments, excluding mines) is provided by medium- and large-scale enterprises. The bulk of industrial employment is provided by small-scale, often single family enterprises, and most of these are located in Java.

Table 7: INDONESIA: MANUFACTURING EMPLOYMENT, 1971-76 /a

	September 1971		October 1976		Annual growth
	('000)	(%)	('000)	(%)	1971-76 (%)
Java	2,378	77.3	3,017	72.3	4.8
East	(544)	(17.7)	(755)	(18.1)	6.6
Central	(1,101)	(35.8)	(1,280)	(30.7)	3.0
West	(466)	(14.5)	(616)	(14.8)	6.5
Jakarta	(125)	(4.0)	(185)	(4.4)	8.0
Jogjakarta	(162)	(5.3)	(181)	(4.3)	2.2
Sumatra	189	6.1	385	9.2	15.0
Kalimantan	44	1.4	154	3.7	27.8
Sulawesi	244	7.9	283	6.8	3.0
Indonesia	3,076	100.0	4,174	100.0	6.2

/a Employees whose sector of employment is unknown have been allocated to the manufacturing sector in proportion to the distribution of other employed workers.

Sources: 1971 Population Census Series C. Tables 7.0-7.9
1976 National Labor Force Survey, Table 14.9

3.109 There appears to be a serious imbalance between the regional distribution of industrial investment on the one hand and the regional distribution of industrial employment growth on the other. Jakarta is the hub of modern manufacturing in Indonesia and it is also the center of import-related activities including wholesale trade, banking and insurance. Sritua Arief estimated that, as of the end of 1975, 42% of industrial plants built under the foreign investment schemes and 50% of the plants built under domestic investment schemes were located in

greater Jakarta.^{/1} Yet, greater Jakarta (which includes part of West Java in Table 7) accounts for a much smaller proportion of industrial employment and the growth of industrial employment in that area has been modest relative to the magnitude of investment. Much of the geographical concentration of industrial investment in greater Jakarta is related to the location of Government and banks. The congestion in Jakarta resulting from this concentration of industry and import-related activities has reached serious proportions and may become a constraint on further rapid development of the area. A policy aimed at the promotion of additional primary, as well as secondary industrial growth centers in Java and the other islands appears to be a necessary part of an overall industrial strategy. A step in this direction was recently taken with the introduction of geographically differentiated investment incentives.

3.110 As discussed in Part II, the provinces of East and Central Java are the two provinces where most poverty in Indonesia is concentrated. Those two provinces and Jogjakarta would seem to be logical choices for the location of new industrial growth centers including perhaps export manufacturing zones. However, regional population and labor force projections suggest that there is also an urgent need for accelerated industrial employment growth in other islands. Whereas the scope for agricultural employment growth in several other islands is greater than in Java, there are nevertheless areas outside Java where the need to increase the rate of off-farm employment growth is already very pressing because of poverty and population density. This applies in particular to Bali, Lampung, South Sulawesi, and to some of the Nusa Tenggara islands. Without accelerated labor intensive industrial growth, several provinces outside Java could in 10 or 20 years become new poverty concentration areas. Greater geographical dispersion of industrial development requires greater decentralization of decision-making with regard to investment approval, industrial licensing, bank financing, etc. This is as relevant to the larger manufacturing units as it is to small-scale local industry.

3.111 Provincial Governments and Regional Development Banks should be called upon to play a much more active role in the promotion of local entrepreneurs and manufacturing enterprises. This, of course, requires institutional growth at the local level but it also requires a political commitment to work towards greater decentralization in planning and administrative control. Several steps in this direction have already been taken but most effective decision-making power regarding new industrial investment continues to be concentrated in Jakarta. The draft Third Five-Year Development Plan (Repelita III) confirms that the Government is indeed aiming at a far greater devolution of power to lower level authorities than presently exists.

^{/1} Sritua Arief, Indonesia: Growth, Income Disparity and Mass Poverty, Jakarta, 1977.

Agro-Industrial Growth Centers

3.112 As part of a policy aimed at greater geographical dispersion of industrial investment and at promoting the growth of off-farm employment in priority areas it might be useful to employ the concept of agro-industrial centers. The main purpose of such centers would be to combine agricultural and rural development programs with the mobilization of local entrepreneurship to create and manage processing and manufacturing facilities close to production areas. Local banks, in particular the Regional Development Banks and their branch offices could become the prime movers in the establishment of such rural industries. Agro-industrial centers do not necessarily have to be small nor do their market areas have to be limited to the production area. Some may even be export-oriented.

3.113 There is tremendous scope for increased agricultural processing in many parts of Indonesia. This would not only reduce the perishability of many goods and thus increase their marketability in a larger area, but simultaneously ease seasonal and regional price variations. Most agro-industrial centers would concentrate on agricultural processing and at the same time develop into centers for the manufacturing and repair of a wide-range of simple household needs, agricultural tools, furniture and building materials. They could also become decentralized instruments to promote productivity in agriculture by concentrating on alleviating supply constraints that are typical of the area. In some areas this may be the lack of simple water pumps and pipes, in others it may be the lack of drying facilities or proper storage for fish, meat, water or crops. The point here is not to identify the wide range of products that could be locally manufactured but to suggest that there is considerable scope for a rural industrialization strategy that would be consistent with the need for geographical decentralization, accelerated employment growth in the most hard pressed labor surplus areas and the promotion of agricultural productivity in those areas.

Conclusion

3.114 Improving the incentive framework is a necessary but probably not a sufficient condition to bring about the high rate of labor-intensive manufacturing development that is needed in Indonesia for the next several decades. Increased and improved institutional support services are also needed, particularly in rural areas that could be designated as priority areas in Java and other islands. For some services, such as the provision of improved rural infrastructure, ongoing INPRES programs may be the proper vehicles. Additional programs aimed for example at the provision of rural electrification in areas with promising industrial potential may be needed. Improved services, particularly banking services are also needed to encourage local initiative and entrepreneurial and organizational talent to create productive facilities. Local banks, in particular the Regional Development Banks, could become the main catalysts in bringing about this type of development. Outside Jakarta, development banking services are generally under-developed. Therefore, one of the highest priorities for the execution of a policy aimed at accelerated and decentralized labor intensive rural industrialization is the strengthening of local banking institutions, and the promotion of their development orientation. The concept of agro-industrial centers could be helpful to focus the thinking on what might be done in particular areas.

CHAPTER 5: PRIVATE INVESTMENT AND FINANCIAL SYSTEM DEVELOPMENT

3.115 A major drive to accelerate industrialization and promote manufactured exports as intended by the recent devaluation would have to rely heavily on domestic and foreign private investment. Public sector resources would be inadequate to achieve the high levels of investment required, especially in the near future when a large proportion of public resources is already committed to ongoing projects. Financial resources of the banking system, including liberal rediscount facilities with Bank Indonesia, are at present not a constraint to the expansion of private investment in Indonesia. Most of the large State Banks, which together account for almost 90% of banking system assets, have been very liquid for the past several years and a reluctance to accept new time deposits has recently been noted./1

3.116 Although private investment statistics are not available, it is estimated that the balance between private and public sector investment during the past five years has been approximately 35-65. If the recent devaluation is to succeed in its objective of stimulating growth in labor intensive directions, a massive increase in the level of private investment and a shift in the balance between private and public sector investment towards the former, are needed.

Development Banking, Credit Policies and Interest Rates

3.117 One of the key requirements for a significant expansion of private investment in Indonesia is the development of a larger and more sophisticated domestic capital market to assist in the term transformation of savings deposits and in the channeling of resources through investment banks. Indonesia's financial system is still in a relatively early stage of development as is reflected, for example by the fact that monetary assets are the dominant form of gross financial accumulation in the country. About 98% of identifiable domestic financial assets consist of money and quasi-money. To date, only one stock is listed on the revived Jakarta stock exchange, the Bursa. About two-thirds of total liquidity in the economy consists of currency in circulation and demand deposits. An important characteristic of financial asset-holding in Indonesia, therefore, is its short maturity.

3.118 The relative lack of long-term financial assets in Indonesia may eventually become a serious constraint on the development process, particularly if, as under the present circumstances, greater reliance has to be placed on private investment. Although the maximum maturity for certain types of credit

/1 Since early 1978, excess liquidity of the banking system was in large part due to a lowering of reserve requirements and an upward revision of Bank Indonesia refinancing facilities.

programs has recently been extended from 5 to 10 years, further efforts are needed to stretch maturities to finance long gestating projects and to promote long-term savings. A shortage of equity capital is already a constraint on the development of many small and medium-sized private enterprises. Eventually, investment banks such as BAPINDO, IDFC, PDFCI, PT Bahana,^{/1} and possibly also some of the larger Regional Development Banks should be able to float their own bonds or broaden their equity base through share issues, perhaps initially with a Government guarantee. BAPINDO, PDFCI and IDFC cater primarily to the needs of medium and large scale enterprises, while PT Bahana concentrates on smaller undertakings.

3.119 Thus, although progress is being made, the domestic banking system has not yet sufficiently geared up to serve the needs of small and medium-sized enterprises in the private sectors, nor those of the housing sector.^{/2} The various selective credit programs of Bank Indonesia (such as, for example, Kredit Investasi and KIK/KMKP) to provide loans to medium and small-scale enterprises, determine the flow of a growing share of State Bank resources. And under this system there has been an encouraging shift towards small scale investment and permanent working capital credits. But, although they have been growing rapidly, these programs are still very small in relation to the needs. In December 1978, the KIK and KMKP programs which were introduced in early 1974, accounted for only 2.8% and 3.5% respectively of total domestic credit outstanding to the private sectors. The capacity of State Banks to process and supervise Bank Indonesia sponsored investment credit programs is still rather limited which often leads to delays and inadequate project appraisal.

3.120 The structural constraints on the State Banks inherent in the pervasive system of selective credit policies and an interest rate structure fixed by Bank Indonesia may have contributed in recent years to an uneven provision of funds and financial services to various economic sectors. Some large public sector enterprises have to date had access to a reasonably well assured supply of funds. In times of a credit squeeze, they are likely to receive priority treatment. Within the private sector, the large multi-nationals and joint ventures with foreign firms appear to have no great difficulty in obtaining needed funds and financial services either domestically or from foreign banks.

^{/1} PT Bahana which was established by the Government (1973) as a specialized equity financing company to aid small businesses has only just started functioning.

^{/2} However, the draft third Five Year Development Plan (Repelita III) provides for a significant expansion of the resources and the level of operations of the state-owned mortgage bank.

3.121 The lack of financing facilities from the organized financial system is in some areas made up for by domestic informal money markets. However, little is known about the size of those informal markets and about the rates and terms prevailing in them.^{/1} The informal money markets may, for the time being, be indispensable for the support of very small enterprises but this system of business financing cannot be relied upon to promote the gradual evolution of small industries into larger, more productive and more powerful units. Often, informal money lenders are at the same time input suppliers or output purchasers and the protection of their relatively strong economic position is not necessarily always compatible with rapid productivity growth in the manufacturing units they are supporting. Several financing facilities for small borrowers have been provided by the Government through special credit programs offering concessionary terms and simple procedures. In addition to the KIK/KMKP programs already mentioned, these include the Kredit Mini Programs introduced in early 1974 and the Kredit Candak Kulak (KCK) program introduced in 1976. These programs probably offer the best opportunities for further rapid expansion of credit facilities for small entrepreneurs, but the investment banks also urgently require strengthening and an expansion of their equity base. The same applies to the Regional Development Banks, many of which are still quite small or not yet operational. With growing experience and adequate resources, they should be able to make a significant contribution to private investment in their respective areas.

3.122 To promote allocational efficiency, the Government might at some point consider opening up the financial system by allowing greater freedom to the State Banks in setting their own interest rates for non-program lending and by reducing reliance on sector-specific credit ceilings for program lending.^{/2} Making the banking system less fragmented and credit restrictions less pervasive would probably also contribute to the development of domestic capital markets which is essential for the mobilization of long-term savings and the creation of long-term financial instruments.

3.123 In summary, the domestic financial sector needs to develop greater depth and flexibility to efficiently mobilize and allocate financial resources in support of greater private sector investment and development in the 1980s. This is particularly important in light of the expected pressure on resources which will undoubtedly lead to greater competition between the private and the public sector for available funds. Another important aspect of the need for institutional growth within the financial sector is the need for a more

^{/1} Indications are that the "typical" range of lending rates is from 2% to 20% per month.

^{/2} The extremely detailed planning by Bank Indonesia of the allocation of credit by bank and by program gives the impression of fragmentation and rigidity in commercial banking. In practice, however, State Banks have considerable freedom to switch available credit facilities between sectors and programs within the overall credit ceilings set by B.I.

active development orientation of the lending departments of State-owned commercial and development banks, including the Regional Banks. More attention could be devoted by bank managers to identifying suitable projects and helping domestic entrepreneurs to establish themselves.

Private Foreign Investment and Project Appraisal

3.124 A significant increase in the level of private industrial investment will require an increase in private foreign capital inflows. Many new industries will need foreign technology and, at least initially, foreign management. Given the convertibility of the rupiah and the virtual absence of restrictions on external capital transactions, an increased private capital flow from abroad could quickly mount again, as it did during the late 1960s and early 1970s. No comprehensive information is available on private international capital transactions or on private external debt.

3.125 In view of the high levels of effective protection or net effective subsidy afforded to certain types of industries through the tariff structure and the pervasive, often hidden subsidies in the economy, there is a danger that certain new industries might make a negative net contribution to foreign exchange earnings or savings. The present procedures for the appraisal of private investment proposals by the Government's Investment Coordination Board and relevant functional ministries, offer no adequate protection against this. The Board is primarily concerned with ascertaining the domestic market potential for relevant products, applying the Government's indigenization requirements, and considering applications for tax exemptions under foreign and domestic investment schemes. The Board also acts as a channel through which the interests of different Government departments are coordinated. The technical side of project appraisal is the responsibility of the planning and investment bureau of the respective Directors General while economic and financial considerations are examined at the ministry level.

CHAPTER 6: ELEMENTS OF A FOOD SUPPLY AND CONSUMPTION STRATEGY

Food Supply and Demand Trends

3.126 Although part of the solution for Indonesia's nutrition problem lies in accelerating productive employment growth outside the agricultural sector, there is also a need for a comprehensive food production, marketing and consumption strategy. The only major food staple which has shown high production growth rates since 1968 is rice. This has been the result of concentrated Government efforts to rehabilitate and expand irrigation works, to spread the use of HYVs and associated inputs and to provide the necessary support services, including an increasingly effective marketing and price stabilization agency. Other food crops have not been neglected entirely, but they have received less Government support and attention than rice, in part because of difficulties related to their greater perishability. Marketing services for secondary food crops are generally underdeveloped, particularly outside Java, and most production takes place under conditions that are typical of a subsistence economy. However, Government has recently (February 1978) introduced organized storage, marketing and price support services for maize and plans for the introduction of a support scheme for cassava are being considered.

3.127 The evolution of the overall food supply and demand picture during the past decade (1968-77) can be characterized as follows:

- (a) total domestic production of the six main staple crops (rice, cassava, maize, sweet potatoes, peanuts and soybeans) together accounting for about 75% of food production in Indonesia grew at a trend rate of about 3% p.a. in terms of calorie equivalent. The rice trend production growth rate was about 3.5% p.a. and the composite trend growth rate of the 5 other staples was about 1.6%;
- (b) total availability of rice (accounting for roughly 50% of total food energy consumption in Indonesia) has grown almost 4% p.a. on a trend basis. Per capita rice availability is estimated to have reached about 126 kg in 1977;
- (c) total availability for domestic human consumption of the 5 main secondary crops is more difficult to estimate because information on their use as animal feed and industrial inputs is incomplete. But availability has almost certainly grown faster than domestic production because of declining exports. Assuming no change in the pattern of end use, availability for human consumption is estimated to have increased around 2% p.a., about the same rate as population growth;
- (d) domestic wheat production has remained negligible but imports have been growing rapidly (around 7% p.a.) and are expected to

reach nearly 1.4 million tons in 1978/79. Information on sorghum and millet production is not available but the total quantities are believed to be insignificant in relation to total food supply;

- (e) total domestic production and availability of other foods, including mainly sugar, meat, fish, vegetables, milk, fruits, vegetable oils and poultry products is estimated to have grown around 4.5-5% p.a.;
- (f) the composite trend growth rate of domestic food energy availability is estimated to have been around 3.7% p.a. (1.6% per capita) and the composite trend growth rate of domestic food energy production is estimated to have been around 3.2% p.a. The gap between production and availability growth rates indicates a growing food import dependency and is reflected primarily in reduced or disappearing maize, cassava, meat, and copra exports and increased rice, wheat and sugar imports;
- (g) average annual foodgrain imports during the last three years (1975-77) amounted to approximately 2.6 million tons or about 20 kg per capita. This may be taken as a measure of the current overall food deficit as reflected in effective market demand. It does not include the food deficit associated with malnutrition, i.e. the need for calories which is not expressed in effective market demand, whether for lack of purchasing power or otherwise. The nutrition gap, though difficult to estimate because of insufficient data, is probably of the order of several million tons of cereal equivalent.

3.128 Table 8 presents key data on recent food crop production, rice imports and fertilizer consumption. Extrapolation of food crop production and consumption trends observed during the period 1968-77, suggests growing import requirements of rice, sugar, wheat, and possibly also maize. Though not reflected in Table 8, it is important to note that Indonesia has in recent years also become a net-importer of refined vegetable oils (mainly coconut oil and palm oil). An apparent departure from long-run rice production growth trends was witnessed during the three-year period 1975-77, when output virtually stagnated. However, a number of incidental and temporary factors were responsible for this stagnation, including unusually severe drought and flooding in 1976 and 1977 in several parts of Java, severe pest attacks (from plant hopper) in many irrigated areas, and a temporary stagnation in fertilizer use.^{/1} The rapid expansion of fertilizer distribution during the 1977/78

^{/1} For a discussion of fertilizer distribution, BIMAS and other agricultural support services, see "Indonesia: A Review of the Support Services for Food Crop Production," World Bank Report No. 2060-IND, dated December 11, 1978.

cropping season (by almost 20%) following the relaxation of distribution restrictions and the 10% preliminary rice production growth estimate for 1978, tend to confirm that the years 1975-77 represented an aberration and not the beginning of a period of drastically lower growth.

Table 8: SELECTED FOOD PRODUCTION, IMPORTS AND FERTILIZER DATA, 1968-77
(Million tons)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Rice production	11.7	12.2	13.1	13.7	13.2	14.6	15.3	15.2	15.7	15.9
Rice imports	0.6	0.6	1.0	0.5	0.7	1.7	1.1	0.7	1.3	2.3
Wheat imports <u>/a</u>	-	0.5	0.5	0.3	0.4	0.9	0.9	0.8	1.0	1.0
Maize production	3.2	2.3	2.8	2.6	2.3	3.7	3.0	2.9	2.5	3.0
Cassava production	11.4	10.9	10.5	10.7	10.4	11.2	13.0	12.5	12.2	12.2
Sweet potato production	2.4	2.3	2.2	2.2	2.1	2.4	2.5	2.4	2.4	2.5
Groundnut production	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3
Soybean production	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.4
Urea consumption	0.21	0.31	0.34	0.41	0.49	0.72	0.69	0.74	0.77	0.91
P205 consumption	-	-	-	-	-	0.07	0.10	0.12	0.09	0.12

/a Including wheat equivalent of flour imports.

Rice Demand and Supply Prospects

3.129 Rice is the preferred staple in nearly all parts of the country and at all levels of society. It accounts for about 50% of domestic food energy consumption and about 13% of GNP. It has a heavier weight (about 15%) /1 in the Jakarta cost of living index than any other component. Out of a total area of about 9.2 million ha under annual crops in Indonesia, nearly 6.5 million ha, or more than two-thirds is devoted to the production of at least one crop of rice./2 In spite of its dependency on oil for the financing of

/1 The weight in the Jakarta Cost of Living Index is frequently cited as 31%. Mears, L.A. and Sidik Moeljono, "Food Policy", unpub. mimeo, Nov. 1977, Jakarta, however, claim this is a misconception arising from the manner in which the index is calculated. The weight of rice in 1957/58 was actually 31% but the revised weight in 1966 when the index was updated was only 21%. Subsequently, the weight had dropped to 18% in 1976 and 15% by late 1977.

/2 For a more detailed analysis of agricultural land use statistics, see "Indonesia: Supply Prospects for Major Food Crops," World Bank Report No. 2374, dated March 3, 1979.

imports and public sector investments, Indonesia remains above all a rice economy. Rice directly affects the lives and well-being of more Indonesians than any other crop or product.

3.130 If there are no major changes in relative prices or in the pattern of income distribution, it is probable that the national expenditure elasticity for rice will be around 0.4 for at least half a decade.^{/1} Assuming a population growth rate of 2% p.a. and a per capita expenditure growth of 4.5% p.a., total demand for rice would grow about 3.8% p.a. and reach about 23-24 million tons in 1985. Average per capita consumption would by then have increased to around 145 kg. At that level of average per capita consumption the national expenditure elasticity will probably have fallen below 0.4 but if consumption patterns remain the same, a saturation consumption level ^{/2} in Indonesia would probably not be less than about 170 kg per capita.

3.131 The usefulness of long-term crop specific demand and supply projections in estimating ex-ante gaps is limited to identifying measures required to prevent their ex-post realization. If the 1968-77 rice production trend growth rate of 3.5% is projected to continue through 1985, domestic output would reach about 21 million tons and import requirements would be of the order of 2-3 million tons. Therefore, in the absence of unforeseen production increases or policy measures to slow down rice consumption growth, it seems likely that Indonesia's rice import requirements will continue to grow and exceed acceptable levels.

3.132 The consequence of rice deficits of the projected magnitude - apart from the considerable strain on the balance of payments - would be a worrisome lack of food security and dependence on the thin and volatile international rice market. Indonesia's massive rice imports of 2.3 million tons in 1977/78 accounted for more than one-quarter of total world exports that year and it was only BULOG's skillful buying that prevented Indonesia from bidding rice prices against itself. Due to the good rice harvest of 1978, Indonesia's rice imports are expected to be limited to 1.3 million tons in 1978/79.

^{/1} Cross-section analysis of the 1976 SUSENAS suggests that the weighted average per capita consumption expenditure elasticity for rice in that year was 0.47.

^{/2} The point at which the weighted average expenditure elasticity approaches zero. Analysis of the 1976 SUSENAS suggests that this point would not be reached until average per capita consumption expenditures p.a. are well above \$250 (in 1976 prices). The 1976 average per capita consumption expenditure level (according to SUSENAS) was about \$130.

Irrigation Development

3.133 The importance of irrigation in Indonesia can hardly be over-emphasized. About 94% of all rice output in Indonesia is produced on sawah land,^{/1} 85% of which is irrigated and 15% rainfed. The share of upland rice in total rice output has been steadily declining and is at present about 6%. Apart from sugar, rice is the only major crop under irrigation in Indonesia. All incremental rice output between 1968 and 1977 was produced on irrigated and rainfed sawah. Of the total incremental rice output between 1968 and 1977, Java accounted for about 60%. Four-fifths of incremental production was related to yield increases, and only 20% to increases in harvested area. Java's share in total rice production has remained constant at around 62%.^{/2}

3.134 The binding constraint to irrigation development during the next 5-10 years is probably the project design, appraisal, and implementation capacity of the relevant Government agencies. During the past decade, most of this capacity was allocated to rehabilitation projects in Java. Impressive progress was made. From 1969/70 through 1975/76 an average of about 160,000 ha p.a. was added to the stock of rehabilitated irrigation works. This achievement rate was close to original Government targets. Irrigation rehabilitation is likely to have been responsible for most of the high rate of annual yield improvements (2.8% p.a.) that were achieved over the past decade. At the same time (1969/70-1975/76) an average of 45,000 ha p.a. of extension irrigation and 36,000 ha p.a. of swamp and tidal land drainage and irrigation development on Java and the other islands were completed. Most of the major irrigation rehabilitation has now been completed although more fine tuning, including tertiary development, remains to be done on Java. In addition, there is much scope for further increasing the efficiency of rehabilitated works by completing the program for quaternary canal construction and assuring their proper maintenance. This is probably the highest irrigation development priority in Java at this stage. Completion of quaternaries would not only improve the efficiency of irrigation and hence production, but also serve to spread the benefits of irrigation more widely.

^{/1} Sawah land refers to fields which feature small banks (bunds) around them to retain irrigation or rain water.

^{/2} For a more detailed analysis of irrigated rice production and irrigation development prospects, see "Indonesia: Irrigation Program Review," World Bank Report No. 2027a, dated October 16, 1978.

3.135 A technically feasible annual completion rate for economically viable new (extension) irrigation (including tidal and swamp land) development through 1985 is estimated to be of the order of 85,000 ha./1 This completion rate would probably require a relatively moderate increase in budgetary outlays for irrigation development of 3-4% p.a. in real terms. Most new (extension) irrigation project completion through 1985 would be outside Java. The expected rate of annual completion in Java through 1985 is modest (around 5,000 ha p.a.). Most irrigation development in Java would be the further rehabilitation and fine tuning of existing works. Plausible new (extension) irrigation development through 1985 would add about 1.5% p.a. to total harvested rice area in Indonesia. This, together with plausible average annual yield improvements of 2% p.a., would result in an annual production growth rate of about 3.5%, or about the same as the trend growth rate observed for the period 1968-1977. It should be stressed, however, that this projection is based on the assumption that ongoing irrigation investments mature on schedule, that supporting services such as research, extension, credit and plant protection improve, and that adequate producer price incentives are maintained.

3.136 After 1985 new (extension) irrigation projects already underway, or to be started shortly, would add about 30,000 ha p.a. in Java through 1990 (one third of which would be conversion of rainfed sawah to irrigated sawah) and about 75,000 ha in areas outside Java./1 These projects would again add about 1.5% p.a. to harvested rice area from 1985 through 1990. If in addition, through intensified support services efforts the rate of annual yield increases can be maintained at 2% p.a., the rice production growth rate could be maintained at around 3.5% p.a. through 1990./2

3.137 It is difficult to say where the limits to further rice yield improvements lie. Average yields per harvested ha of sawah land in Indonesia (about 2 tons in recent years) are already at the upper end of yields realized elsewhere in Asia. But this does not necessarily mean that yield limits are in sight. Average fertilizer application rates (about 120 kg of urea per harvested ha of sawah land in 1977) are still relatively low by the standards of more advanced rice growing countries and well below the BIMAS recommended level of about 200 kg/ha on average for different areas. The present use of insecticides in Indonesia is also still quite limited. Moreover, with the continuing conversion of rainfed sawah into irrigated sawah, the scope for increased use of high yielding varieties and associated modern inputs will increase. There is also much room for improving adaptive rice research in Indonesia.

/1 "Indonesia: Supply Prospects for Major Food Crops," ibid.

/2 The assumption of a 2% p.a. yield improvement used in this report implies an average yield of around 2.6 tons per harvested ha by 1990.

3.138 The limits to irrigation development in Indonesia are not less difficult to assess than the limits to yield improvement. Areas totalling about 5.4 million ha have been tentatively identified as suitable for new (extension) irrigation and swamp development./1 This is only a little less than the total area under any form of irrigation (including rainfed sawah) at the present time. At a projected completion rate of 95,000 ha /2 p.a. after 1985, the tentatively identified remaining irrigation potential would not be exhausted until well into the 21st century. However, the economic viability of most potential projects has yet to be established. Nor is there certainty about the adequacy of water resources. The need for a long term water resources development plan, including an assessment of the future water requirements for industrial use and human consumption is suggested by the competition for limited surface water resources apparent in certain areas.

3.139 The groundwater potential for additional irrigation in Java appears, on present indications, to be limited although hydro-geological surveys are still ongoing. In most other islands, systematic examination of groundwater potential has barely started. Crude estimates of Indonesia's ultimate irrigated rice production potential based on low to moderate average yield and cropping intensity increases and present estimates about the remaining irrigation area potential range from 35 to 55 million tons. If water availability should become the binding constraint to irrigated rice production expansion, a gradual shift towards foodcrops that are less water intensive than rice would be the logical solution to stretch limited water resources.

Rice Producer Price and Fertilizer Price

3.140 Although the rate of new (extension) irrigation development (Government investment) and technological progress (Government support services and improved water management through rehabilitation and fine tuning of irrigation works) are probably the principal long term rice supply determinants, it is useful to examine the importance of producer pricing as a policy instrument. Unfortunately there is no agreed opinion on the own or cross-price elasticity of rice supply and in empirical analysis of supply determining factors, it is extremely difficult to isolate the pricing factor. Rice is the only major food crop in Indonesia the producer price of which is directly influenced by Government price setting. The control is exercised by BULOG through market intervention and not through legal enforcement. Until recently, little information was available on prices actually received by farmers./3 The

/1 "Indonesia: Irrigation Program Review," ibid.

/2 The gross completion rate would be 105,000 ha, including 10,000 ha conversion of rainfed sawah to technically irrigated sawah.

/3 The actual farmgate price is generally lower than the Government support price which is an into-store price paid by BULOG for gabah (paddy).

official paddy support price was raised in early 1978 from Rp 72 to Rp 75 and a further increase to Rp 85 per kg, effective February 1979 was announced in early November 1978.^{/1} As shown in Table 9 below, the Indonesian paddy support price tended to be higher in 1977 than in other Asian countries. The official farmgate urea price was in 1977 not very different from what it was in other countries and the relative cost of urea (relative to the paddy support price) was lower in Indonesia than in other rice-producing countries.

Table 9: PADDY AND UREA PRICES IN SELECTED COUNTRIES, 1977
(US cents/kg)

Country	Paddy price	Urea price	Kg paddy required to purchase 1 kg of urea
Pakistan	8.05	13.7	1.70
Thailand	13.3	19.7	1.48
Bangladesh	14.7	12.7	0.86
India	9.5	20.4	2.15
Indonesia	16.5	16.9	1.00

Source: Various IBRD Country Economic Reports.

1.141 In Indonesia, the emphasis in rice pricing has traditionally been on keeping the price to consumers low and it has often been alleged that producer prices have been kept too low as a result. This may have been true in the late 1960s and early 1970s, but it has not been true in recent years.

^{/1} At the then prevailing exchange rate, this implied a milled rice producer price of approximately \$280 per metric ton, which is roughly in line with then prevailing international market prices. The effect of the devaluation was to reduce the official rice support price effective February 1979 to the equivalent of about \$210, which is, of course, far below the import parity level.

Table 10: PADDY SUPPORT PRICE AND OTHER MAJOR PRICE INDICES, 1972-77
(1972 = 100)

	Paddy floor price index	Urea price index	Jakarta cost of living index	Jakarta wholesale rice price index	Price index of 12 major food items in rural markets of Java and Madura
1972	100	100	100	100	100
1973	145	100	128	156	152
1974	200	154	170	160	182
1975	280	231	209	197	205
1976	325	308	237	243	260
1977	343	280	267	264	280

Source: BULOG, Bank Indonesia, Indikator Ekonomi.

3.142 The data in Table 10 suggest that relative price shifts within the economy over the period 1972-1977 have generally tended to favor rice producers although their relative gain has been slightly eroded since 1975. Information on producer prices for other crops is not available. On the retail level, rice prices in rural markets of Java and Madura appear to have moved more or less in harmony with the prices of other major food crops, as is shown in Table 11. Rice prices increased somewhat less fast, however. The official paddy support price (Table 10) on the other hand increased faster than rice retail prices which suggests that marketing margins, or milling costs, or both have declined in relative terms. On the whole, it seems plausible that there have been no major shifts in the relative profitability of rice production vis-a-vis other staples.

Table 11: RETAIL PRICE INDICES FOR MAJOR FOOD ITEMS IN RURAL
MARKETS OF JAVA AND MADURA, 1972-1977
(1972 = 100)

	Rice	Maize	Soybeans	Groundnuts	Cassava	Sweet potato
1972	100	100	100	100	100	100
1973	154	131	156	140	172	176
1974	163	176	201	217	139	151
1975	196	226	258	232	181	196
1976	259	290	276	271	289	290
1977	278	266	308	319	301	313

Source: Indikator Ekonomi.

3.143 The question how and when to adjust domestic rice prices in the post-devaluation situation is undoubtedly one of the key domestic pricing policy issues facing the Government. The price of rice has a major practical and psychological influence on many other prices throughout the economy, particularly on minimum wages. In fact, the rice price and the exchange rate of the rupiah are probably the two most important pricing policy instruments available to the Government of Indonesia. With regard to rice, there are conflicting objectives to be achieved and definition of the "best policy" clearly depends on priorities which may change over time. The devaluation opens the possibility to increase producer prices faster and somewhat more than otherwise would have been feasible. But there does not seem to be an overriding need to quickly restore approximate parity between domestic and international rice prices. In fact, a major sudden increase in the rupiah price of rice to restore such parity might defeat one of the principal objectives of the devaluation, namely a significant relative price shift between tradable and non-tradable goods and services. Prior to the devaluation there seemed to be no indication that an official paddy support price of Rp 85 per kg was inadequate from a production incentive point of view. A temporary consumer subsidy on imported rice may have to be accepted as an element of post-devaluation economic management.

3.144 Another reason underlying the view that there is no need for a major immediate upward adjustment of the paddy support price following devaluation is that the short-term price elasticity of supply is probably rather low because of rigidities in the supply of land and irrigation water. Practically all available irrigated land is devoted to rice. Upland rice production is relatively insignificant and has steadily declined since 1968. The short-term supply response to a support price increase may furthermore be limited as only a relatively small proportion (about 30%) of total rice produced enters the market. Most rice is consumed in the households and villages where it is produced.

3.145 A reduction in the relative price of fertilizer (either through a higher paddy price or through lower fertilizer prices) may have some impact on fertilizer demand, but by and large the present fertilizer price does not seem to be a constraint to rice production. Timely availability of adequate fertilizer supplies is probably a much more important factor than price. On balance, it seems that no major immediate rice producer or fertilizer price adjustments are needed. After the transitional post-devaluation period, moderately higher price increases than would otherwise have been granted, would be consistent with both distributional and supply objectives.

Supply and Demand Prospects for Major Secondary Food Crops

3.146 The 1968-77 trend production growth rate for the five major secondary food crops (cassava, maize, sweet potato, groundnuts and soybeans) was about 1.6% p.a. but because of declining exports, domestic supply increased somewhat faster (about 2% p.a.). Together they account for about 25% of food energy

consumption in Indonesia. Exports have now virtually disappeared and extrapolation of past trends suggests the possibility of deficits, rising prices, or imports which would compound the food security problems associated with projected rice deficits. Small quantities of maize and soybeans are already being imported.

3.147 This suggests the need for far greater emphasis on the production and consumption of secondary crops than in the past. It should be technically possible to achieve annual production increases of 3-3.5% for most secondary crops, comprising a 1% annual increase in area (all outside Java) and a 2.5% yield increase. Table 12 below provides a few international yield indicators suggesting that, in contrast to rice, Indonesia's yields of secondary food crops are comparatively low.

Table 12: COMPARATIVE YIELDS OF SECONDARY CROPS
(1974-76 average; ton/ha)

	Indonesia	Thailand	Philippines	Malaysia	Vietnam
Maize	1.06	2.36	0.84	n.a.	1.26
Cassava (fresh wt.)	8.39	15.22	6.63	17.86	7.39
Sweet potatoes (fresh wt.)	7.26	8.29	5.36	14.26	5.24
Groundnuts (in shell)	1.27	1.29	0.63	n.a.	1.06
Soybeans	0.75	0.96	0.98	n.a.	0.61

Source: FAO Production Yearbook, 1976.

3.148 Consumer preferences for rice could run counter to the need for a food production strategy placing greater emphasis on secondary crops. But consumer preferences could change over time in response to relative price shifts and public relations efforts. The Government's power to change relative consumer prices is at present limited to changing the price of rice because there are no national or regional marketing agencies intervening in the markets for other crops (except maize in East Java). As mentioned earlier, effective Government intervention in the markets for secondary food crops is more difficult to organize because of the greater perishability of those crops, in particular fresh cassava. Most major secondary food crops are grown under subsistence economy conditions. Farmers have no guaranteed market, there are strong spatial and seasonal price differentials and agronomic, marketing, and processing support services are underdeveloped, particularly outside Java.

3.149 Land availability is no constraint to area expansion for secondary crops. Unalienated arable land with a slope of less than 8% is estimated at about 23 million ha, 75% of which is located in Sumatra and Kalimantan. /1 The present area harvested for secondary crops is of the order of 5 million ha or less than a quarter of estimated remaining land resources with less than 8% slope. The greatest immediate supply potential, however, lies no doubt in productivity increases, particularly in Java which accounts for an estimated 70% of total secondary crop production in Indonesia. The ultimate potential for secondary crop production relative to current production levels is probably far greater than it is in the case of rice. Unless deliberate steps, including in particular the assurances of market outlets, are taken to encourage the wider use and export of secondary crops, it seems likely that rice will be grown in areas better suited for other crops and that these lands, especially outside Java, will not be put to their best agronomic use. Such steps would include improved and increased research, extension and marketing services. Capital investments required would be relatively modest, except in opening up new areas for transmigration and other settlement.

3.150 From all angles, it seems essential that greater emphasis is given to the production and consumption of secondary crops. Failure to achieve a gradual shift in the overall food production and consumption pattern from rice towards other crops could compromise other development objectives because of the cost and risks (vulnerability) associated with excessive rice import dependency. In addition to greater emphasis on the production and consumption of secondary crops, a comprehensive food strategy may also require higher rice prices to the consumer to slow down demand growth.

Transmigration

3.151 To achieve a secondary food crop production target of 3.5% p.a. new land will have to be opened up. And it is in this context that transmigration could make a crucial contribution to the solution of Indonesia's food problem as well as to national and regional development efforts in general. It would not be realistic, however, to expect transmigration areas to become significant surplus food areas in the near future. Settlement based on a land allocation of 5 ha per family, including initially 1.25 ha for food crop production would under present average yields, assure food self-sufficiency but no substantial surplus in the early years. /2 Eventually, selective

/1 Source: D. Muljadi, Sumberdaya tanah kering, penyebaran dan potensinya untuk kemungkinan budaya pertanian. Kongress Agronomi, Bogor, 1977.

/2 Average food energy produced per ha under secondary crops outside Java in 1976, was estimated at 6.2 million calories. A family of 5 would require a minimum for own consumption of about 4 million calories.

mechanization and productivity increases could turn transmigration areas into significant food surplus areas but for these longer term prospects to materialize, assured market outlets and adequate processing storage and shipping facilities would have to be built up simultaneously.

Wheat and Sorghum

3.152 Wheat is rapidly becoming important as a convenience food (bread and noodles) in both urban and rural areas, in substitution for rice. In 1977, wheat is estimated to have accounted for about 3% of total food energy consumption in Indonesia. Imports were around 1 million tons. The observed expenditure elasticity of demand is high (at least unity) in spite of the fact that before the devaluation, bread and wheat flour were sold domestically much above their import parity levels. Wheat flour and rice prices were about the same in Indonesia whereas the price of imported wheat was less than half the price of imported rice. It should be stressed therefore, that if and when wheat milling and marketing margins come down, consumer demand for bread may be expected to increase rapidly, but the effect of the devaluation will push in the opposite direction. However, even after the devaluation, wheat is a lower cost cereal per unit of food energy than rice and since it is traded internationally on a much larger scale, Indonesia would be less exposed to the risk of bidding up the international wheat price than it is with rice.

3.153 Whereas an unrestricted wheat import policy may be useful as a temporary component of an overall food strategy, there is need for caution when taking a longer term perspective. Wheat imports could rapidly become very large indeed and create a permanent import dependency because the agronomic potential for growing wheat in Indonesia appears to be very limited. Sorghum on the other hand - though relatively insignificant as a food crop in Indonesia at the present and primarily grown as a subsistence crop or feedgrain in drier areas - might have some limited potential as a substitute for wheat in composite flours to make bread or other cereal products. This would, of course, require extensive technical research and testing of consumer acceptance. The major potential for sorghum, however, is more likely to be as feedgrain for both domestic use and export.

CHAPTER 7: PUBLIC SECTOR RESOURCES AND EXPENDITURES

Introduction

3.154 One of the most dramatic immediate effects of the recent devaluation is a drastic short-term improvement in the Government's budgetary situation. The Government of Indonesia is a net exporter (it earns more foreign exchange than it spends in foreign exchange) and it therefore benefits from the devaluation in much the same way as other exporters. Oil revenues, which accounted for roughly half of total budget revenues and for all of budget savings, are earned, at the source, in foreign exchange (US dollars) and therefore increased as a result of the devaluation by about 50% in rupiah terms; for 1979/80 this means that oil revenues will amount to about Rp 3.0 trillion or Rp 1.0 trillion more than expected earlier. Together with the effects on some other taxes (e.g. LNG revenues and various international trade related taxes), this would result in total budget revenues of close to Rp 1.5 trillion (or about 30%) in excess of earlier expectations. After deduction of devaluation related incremental rupiah expenditures (including foreign purchases, external debt service, some additional price increases for local purchases and sharply increased consumer subsidies to prevent the price of basic essentials from rising too suddenly), it should prove feasible to achieve an incremental net budget surplus of Rp 200-300 billion in the 1979/80 fiscal year. Neutralization of all or most of this surplus would be an indispensable element of a strategy aimed at mitigating the inflationary impact of the devaluation. While in the short run additional consumer subsidies may be needed as transitional measures aimed at preserving monetary stability, they should not be permitted to become a permanent feature of the post-devaluation situation.

3.155 While short-term budget prospects have improved significantly, it is for reasons explained in Chapter 1, nevertheless, expected that the pressure on public sector resources will increase considerably in the medium-term. The main reason for this is that under present domestic oil pricing policies, expected oil sector developments will lead to a greater relative decline of Government oil revenues net of subsidies, than of the value of net oil exports. The expected oil sector developments will also be felt on the balance of payments but a number of compensating factors, including the export promotion effects of the recent devaluation, are likely to prevent the emergence of a foreign exchange shortage in the medium-term.

3.156 In the absence of positive fiscal policy action it is unlikely that Government revenues could grow faster than about 2-3% per annum in real terms after 1979/80. This means that Government savings in real terms would almost certainly decline as a percentage of GNP which could frustrate public sector development efforts and eventually require a cutback in essential social services and projects. A shortage of budgetary rupiah resources could also hamper the effective mobilization of associated foreign funding. With vigorous fiscal policy action, including substantial domestic oil price increases, it should be possible to raise the growth rate of net Government revenues (gross revenues minus budgetary subsidies) to about 6.5% per annum in real terms (or about the same rate as the expected medium term GNP growth rate).

Domestic Oil Pricing

3.157 Although the devaluation has temporarily reduced the pressure on public sector resources and thereby delayed the need for additional taxation in other forms, it is fair to say that domestic oil pricing has remained one of the most important fiscal policy issues facing Indonesia. Domestic oil consumption is at present not taxed at all. In fact there is a budgetary subsidy which in 1978/79 may amount to about \$250 million.^{/1} And, as has been observed in Chapter 1, this budgetary subsidy is only a fraction of the true economic subsidy. The Corporate Tax on oil accounts currently for more than half of total revenues and more than 10% of GNP. Most of the oil tax is saved and used for investment.

3.158 Domestic oil consumption in Indonesia is about to reach the point where the crude oil equivalent of that consumption will begin to exceed the total amount of inexpensive crude available to the country under present contractual arrangements. The sources of inexpensive crude are the pro-rata ^{/2} shares of the Government and Pertamina in the crude oil produced by foreign oil companies operating under "Contracts of Work" or "Production Sharing Agreements" and Pertamina's own production. This is a very simplistic presentation of the actual situation - Pertamina does not necessarily use that particular crude to supply the domestic market and in addition there are substantial import and export flows of refined products - but it is nevertheless a convenient presentation that helps to focus the issues. The crude equivalent of domestic oil consumption has in the past been lower, but growing much more rapidly, than the amount of inexpensive crude available to the Indonesian Government. Once the former is equal to or exceeds the latter - as is about to happen - any increment in domestic consumption would have to be priced at international prices in the home market to prevent the need for additional budgetary subsidies. The budgetary implications of policy choices with regard to domestic oil pricing are potentially very large. Most other individual fiscal policy measures that could be taken to increase revenues are less important by comparison and generally require greater administrative effort.

3.159 To illustrate the financial magnitudes involved, Table 13 below compares Government revenues from oil under three alternative domestic pricing policy options. Option 1 would be to require the consumer to pay a price

^{/1} This amount excludes supplementary estimates that will be needed if domestic oil prices in rupiah terms are not adjusted for the effects of the devaluation of November 1978 and the January 1979 OPEC price increase.

^{/2} Pro-rata crude is a form of taxation whereby Indonesia receives a certain proportion of crude produced by foreign companies at production cost plus \$0.20 per bbl up to a maximum of 25% of their total crude production. Production costs in the case of "Contracts of Work" were on average about \$0.51 per bbl in 1977 and for companies working under "Production Sharing Agreements" the average was about \$2.79 per bbl.

which only covers the actual cost of production, refining, and marketing of oil products (but not the cost of Corporate Tax on incremental crude required for the domestic market), and to pay Pertamina a (rapidly) growing subsidy to cover the difference between the full cost of this incremental crude and domestic sales prices. Only exported oil would be taxed under this option. Option II would be to eliminate the present budgetary oil subsidy and to pass on to the consumer all incremental cost of incremental oil consumption, including taxation due to Government under present contractual arrangements. Under this option the Government would receive the same revenues on incremental domestic consumption as on exported oil. Option III would be to remove all explicit and implicit (budgetary and economic) subsidies. This means that the Government would collect the same amount of revenue per barrel whether the oil is sold abroad or domestically.

Table 13: ESTIMATED CORPORATE TAX ON OIL, UNDER THREE ALTERNATIVE DOMESTIC OIL PRICING POLICY OPTIONS, 1979/80-1983/84 (Rp trillion)

	1979/80	1980/81	1981/82	1982/83	1983/84	Total Repelita III
International oil price index (1976=100)	117	127	135	143	152	
Option I	3.1	3.1	3.3	3.6	3.8	16.9
Option II	3.3	3.4	3.7	4.1	4.3	18.9
Option III	4.0	4.1	4.5	5.0	5.4	23.0

Source: Table 5.3 Quantitative Projections Appendix. Oil production and export assumptions are spelled out in Part III, Chapter 1, Table 1.

3.160 It is evident from these estimates that the domestic oil pricing issue is of great quantitative significance for the evolution of public sector finances in the future. The difference in the Government's net financial position between Options I and II (under the international oil price assumption) would be of the order of Rp 2.0 trillion (US\$3.2 billion) in current prices over 5 years, or about 1% of GNP during that period.^{/1} The difference in the Government's net financial position between oil pricing policy Options I and III (elimination of all implicit and explicit domestic consumption subsidies, i.e., equal tax treatment of domestic and foreign consumers) would be Rp 6.1 trillion (US\$9.8 billion, or about 3% of GNP).

3.161 It should be stressed that all these calculations are based on the standard assumption that the growth of domestic oil consumption will steadily

^{/1} The difference is equal to the amount of incremental subsidies that would have to be paid under Option I.

decline from 12% in 1979/80 to 8.5% in 1983/84. This is, of course, not entirely realistic since the rate of domestic demand growth is in part determined by domestic oil pricing policies. Under policy Option I, domestic oil prices would be lower than under Option II. Therefore domestic demand would presumably be higher, net oil exports lower and revenues also lower than indicated in Table 13. Similarly, domestic prices would be lower under Option II than under Option III and the actual difference between the Government's net oil tax revenues under the two options would be even wider than suggested by Table 13. The relative and absolute magnitudes are so large, however, and the main issue so clear that any further refinement of the argument seems unnecessary. A parallel argument in favor of higher domestic oil prices can be constructed with reference to their positive impact on export earnings.

3.162 Pricing policy Options I, II and III are used for illustrative purposes only. There are, of course, many intermediate possibilities, and Option III, while extreme in relation to current Indonesian domestic oil pricing policies, is not at all extreme by the standards of many oil importing countries that impose heavy domestic sales taxes on top of the OPEC export price, such that their domestic retail prices of oil products are a multiple of domestic Indonesian prices.

3.163 In the post-devaluation situation, under Option I, the weighted average retail price of oil products in the domestic market would have to be increased by approximately 40% ^{/1} from the present level of Rp 32 per liter. ^{/2} Under Option II, assuming immediate removal of the explicit budgetary subsidy, the present average price would have to be roughly doubled while under Option III, assuming immediate removal of all explicit and implicit subsidies, the weighted average retail price of oil products on the domestic market would have to be roughly tripled. Annual price increases required following the initial adjustment would depend, in part, on international oil price movements and on Pertamina's success in reducing costs.

3.164 Such domestic oil price increases as would be required to remove all explicit and implicit subsidies on domestic oil consumption over a period of say five years would undoubtedly pose severe social and political problems and

^{/1} It is difficult to calculate with precision the domestic oil pricing implications for Indonesia of the various policy options. The difficulty lies in the fact that Pertamina currently enjoys a gross sales margin which is believed to be much wider than a reasonable allowance for refining, storage and distribution costs. The need for this extra margin may well decline over time as the rationalization of Pertamina operations and accounts, started after the crisis of 1975, progresses. This could reduce somewhat the magnitude of domestic retail price increases required.

^{/2} This is the current (1978) weighted average Pertamina sales price for all oil products sold in the domestic market.

they would also have a strong inflationary impact on the economy. Therefore, complete removal of all subsidies (Option III) may not be feasible within the next five years. Allowing for some cascading and multiplier effects, a 40% domestic oil price increase as would be required under Option I, would raise the general cost of living index by around 2.0%./1 But that would seem to be a tolerable price to pay for what would amount to a very significant national savings effort. Table 14 below shows the approximate breakdown of domestic oil consumption by main product groups.

Table 14: SHARES OF VARIOUS OIL PRODUCTS IN DOMESTIC SALES BY VOLUME AND VALUE, AND PRICE PER LITER IN 1978
1976/77-1978/79 Average

	<u>Sales Volume</u> %	<u>Sales Proceeds</u> %	1978 Prices rupiah per liter
Kerosene	37.3	21.4	18
Diesel and fuel oil	41.8	31.9	24
Gasoline	18.5	41.3	71
Other	2.4	5.4	70
<u>Total</u>	<u>100.0</u>	<u>100.0</u>	<u>32</u>

3.165 It is evident that the domestic oil subsidy primarily benefits kerosene and diesel consumers. Significant increases in the weighted average domestic oil price are hardly possible without significant increases in the price of both diesel and kerosene. The share of gasoline in total consumption is too small for this product to carry the entire or most of the burden. Diesel and kerosene prices have to move in harmony because of their technical substitutability in certain end uses. Some of the complications involved in raising the price of kerosene have already been discussed in Chapter 2.

3.166 In the public sector resource projections used in this Chapter, it has been assumed that the price increases required under Option I would take place within 12 months after the devaluation, and that price levels required under Option II would be reached by the end of Repelita III. As mentioned, this would require a steep initial overall price increase of around 40% (though the percentage increase does not have to be the same for all products). Annual price increases required thereafter, through 1983/84, would amount to around 20%, depending in part, as indicated earlier, on the development of international oil prices and Pertamina's cost levels. This would have the effect of gradually removing the entire budgetary subsidy and of gradually deriving from incremental domestic consumption the same revenues earned as on exported oil. The elimination of all subsidies (Option III) could perhaps serve as a longer term target. In spite of the significant domestic oil price increases

/1 About 3.0% of GNP is currently spent on oil products.

assumed under Option II, the real value of oil revenues (in constant price rupiahs) would remain roughly constant between 1979/80 and 1983/84, while the share of oil revenues in GNP would decline from around 11% in 1979/80 to around 8%/1 in 1983/84.

3.167 These numbers and ratios underline the magnitude of the expected public sector resource problem and they also suggest that domestic oil price increases should not be regarded as a substitute for additional domestic resource mobilization efforts in other fields. Growing LNG revenues may offer significant relief. If all current production expansion plans and projected export prices materialize, Government LNG revenues would account for more than 1% of GNP by 1983/84 or about one-third of the reduction in the share of oil revenues. A greater general tax effort in addition to higher oil prices will almost certainly be needed to prevent a decline in the share of Government savings in GNP.

The Need and Scope for Additional Non-Oil Tax Efforts

3.168 To achieve a net revenue /2 growth rate of about 6.5% p.a. in real terms per annum for the next five years, given the expected decline of the share of oil revenues (Option II) and taking maximum plausible LNG revenues into account, non-oil revenues would have to grow by about 7.5% p.a. in real terms during Repelita III and all budgetary subsidies would have to be gradually eliminated by 1983/84. This would raise the share of non-oil revenues in GNP from about 8.6% in 1977/78 to about 9.5% /3 by 1983/84 which is still relatively modest by international standards. Table 15 shows some comparative data for other developing oil exporting countries.

Table 15: SHARE OF NON-OIL GOVERNMENT REVENUES IN GNP IN SELECTED COUNTRIES

Indonesia	1977	8.6%
Iran	1976	11.7%
Nigeria	1973	10.2%
Venezuela	1974	12.7%
Mexico	1975	12.5%

/1 Of which about 1% (about Rp 600 billion in current prices) would be on account of domestic consumption.

/2 The term net revenues refers to budget revenues minus subsidies.

/3 Excluding revenues on account of domestic oil consumption which would reach 1% of GNP by 1983/84.

3.169 To reach the goal of a 6.5% real increase in net Government revenues during the next five years, the overall resource mobilization effort expressed as a percentage of incremental GNP during Repelita III is of the order of 20%. Approximately one third of the additional revenues (in current rupiah terms) would accrue to the Government in the form of revenues from exported oil and LNG but about two thirds represents the magnitude of the domestic tax effort needed in the form of increased non-oil revenues and elimination of all budgetary subsidies. A non-oil revenue growth (in real terms) of 7.5% beyond 1979/80 and a gradual elimination of subsidies by 1983/84 imply a buoyancy factor with respect to GNP of 1.4 /1 during Repelita III.

3.170 In spite of the improvements in tax administration made in recent years, there remains scope for significant further improvements in the collection of taxes in Indonesia, to make the tax system more income elastic, and also to make it more equitable. For example, personal income tax collections are still very low (0.8% of GNP in 1978/79) and relatively inelastic. Table 16 provides some comparative information on tax structures in selected Asian countries. If the tax effort is successful, total Government revenues as a percentage of total GNP would remain about constant around 18-19%, if GNP grows at 6.5% per annum in real terms.

Table 16: COMPARISON OF TAX STRUCTURES IN SELECTED ASIAN COUNTRIES
(1974-76 AVERAGE SHARE OF TAX REVENUES IN GNP)

Country	1976 <u>/a</u> per capita (US\$)	Personal income taxes	Corp. taxes	Total direct taxes	Taxes on int'l trade	Sales taxes	Excises	Total ind. taxes	Total tax rev.
Indonesia <u>/b</u>	280	0.7	1.6	2.8	2.8	1.0	0.8	4.7	7.4
India <u>/c</u>	140	1.4	1.3	3.3	2.1	2.7	4.3	12.7	16.1
Pakistan	180	1.2	0.4	1.6	5.1	1.1	3.9	10.8	12.5
Philippines	420	1.3	2.0	3.3	4.3	2.1	2.3	10.5	13.8
Thailand	380	1.0	1.3	2.6	4.5	3.1	2.6	11.5	14.1

/a 1978 World Bank Atlas.

/b Non-oil tax revenues as percent of GNP.

/c Includes both Central and State Government tax revenues.

Source: IBRD Economic Reports on individual countries.

/1 This buoyancy factor reflects both the increase in non-oil revenues and the elimination of budget subsidies, through inter alia, higher domestic oil prices.

3.171 Corporate tax collections (including withholding taxes) are also relatively modest. Over the past four years Bank Indonesia accounted for about 40% of state enterprise corporate tax payments and about 20% of total corporate tax receipts. The bulk of the remaining state enterprise corporation tax payments is accounted for by a limited number of other state enterprises.^{/1} A majority of Indonesia's state enterprises (estimated at over 200) pay little or no income tax. Corporate income tax collections from private corporations are also relatively low due to the extensive system of investment incentives (tax holidays, etc.), late payments and weak enforcement of tax laws. This again is primarily related to the current shortage of tax inspectors.

3.172 There is also scope for improved collection of domestic sales taxes and excises which together account for about 2.5% of GNP. It is often suggested that the excise on kretek (clove) cigarettes (which account for 60% of cigarette consumption in Indonesia) is much lower than it ought to be because the tax is levied on a bandrol price which is much lower than the actual retail price. The manufacturing of kretek cigarettes, however, is an important source of industrial employment in Indonesia. Because of their cone shape they are generally hand made. It is estimated that around 200,000 people find permanent employment in this industry, notably in Java. Therefore, any shift in demand from kretek to mechanically produced "white" cigarettes that might result from a higher excise on the former could have adverse employment implications.

3.173 With regard to the domestic taxation of goods and services generally, movement towards a general sales tax at the retail level or a value added tax, though eventually desirable, may be premature at this stage because of administrative complexity. The medium-term objective should probably be to improve the present system of a single stage taxation at the manufacturing level, with emphasis on increasing its yield, and improving its progressivity (luxury consumption items are still relatively lightly taxed).

3.174 With regard to international trade taxes the emphasis should not be on increasing rates but on movement towards a more uniform rate structure, greater reliance on sales taxes levied equally on imported and domestically manufactured goods and on better collection. In the post-devaluation situation there may be scope for some temporary export tax increases, but in the longer run it seems more appropriate to phase them out altogether and replace them by sales taxes or royalties applying to foreign and domestic sales in the case of commodities such as timber and hard minerals to capture the "rent."

3.175 Although Indonesia's modest non-oil revenue performance is generally a collection problem and not a rate problem, there are certain areas where new taxes or significantly higher rates could be considered. There is undoubtedly scope for increased taxation of the rich. This applies in particular to land taxes and urban property taxes. The present property tax (IPEDA) accounts for only about 3% of total non-oil tax revenues collected by the central Government. Ninety percent of IPEDA revenues are transferred to lower level

^{/1} Including in particular Government tree crop estates in Northern Sumatra and the State tin mining and smelting company.

Governments (Provinces and Kabupatens). There appears to be a wide gap between actual and potential property tax collections. There is an urgent need for IPEDA reform to improve the budgetary position of Provincial and Kabupaten Governments. In addition, steps may be required to regulate the ownership of land.^{/1} Changing patterns of land ownership and tenure may be harmful to agricultural productivity and to social stability. Some of the ongoing changes - though not fully understood and incompletely documented - are probably related to the gradual erosion of traditional social structures reported to be taking place at the village level. This process may contribute to the concentration of political and economic power in the hands of people, often strangers, who do not necessarily have a harmony of interests with small farmers and other local residents. The matter clearly requires intensive study. Its importance extends far beyond the possible fiscal implications and, if undesirable trends need to be corrected, fiscal policy measures may not be adequate by themselves.

Non-Tax Revenues

3.176 Not all additional revenues need come from higher domestic oil prices, other forms of taxation or improved tax collection. It would also seem to be desirable from a revenue, an allocative and a distributional point of view, to bring the output pricing of certain public sector corporations more in line with their actual economic costs. Cost reductions through improved operating efficiency are believed to be possible in many public service enterprises. Better financial performance of state enterprises reduces their dependence on the central Government budget and hence contributes to an improvement of the public sector resource position in much the same way as higher taxes.

Other Public Sector Resources

3.177 External borrowing by the public sector will be discussed in the next Chapter. Here it suffices to say that net resource transfers from abroad (gross disbursements minus debt service payments) are unlikely to grow very much (in real terms) during the next five years and are almost bound to remain below the levels of recent years. These projections are based on estimated future aid flows, commercial borrowing capacity as related to export performance and debt service obligations resulting from debt outstanding at the beginning of the period and new commitments.

3.178 The aggregate amount of net resource transfers from abroad to the public sector during the five-year period 1979/80-1983/84 is estimated at Rp 2.5 trillion (US\$4 billion) in current prices, or a little over 1% of GNP. During the previous Plan period, 1974/75-1978/79, net resource transfers from abroad amounted to about Rp 2.3 trillion (US\$5.3 billion) in current prices, or about 3% of GNP. The expected relative and absolute reduction in

^{/1} The Government's intention to tighten land ownership regulations was announced by H.E. President Suharto, in his Annual Address of State before the House of the People's Representatives, Jakarta, August 16, 1978..

net resource transfers from abroad will have a significant influence on the overall public sector resource picture during the next five years. It means that, a major domestic resource mobilization effort notwithstanding, there will almost inevitably be some decline in the relative share in GNP of total domestic revenues plus net foreign resource transfers.

3.179 During Repelita II, public sector domestic monetary financing (net borrowing from the banking system) added about Rp 700 billion in current prices, or about 1% of GNP, to public sector resources. If efforts to stimulate private sector activity are to be successful, the Government should not resort to monetary financing of its operations and should attempt to limit to a bare minimum the extent to which public sector enterprises lay claims on increases in total liquidity during Repelita III. The projections which follow assume no reliance on public sector monetary financing to augment public sector resources.

Overall Public Sector Resources Picture

3.180 Unfortunately it is not possible to construct a comprehensive picture of overall public sector resources because information on the savings (or dissavings) of public sector enterprises which do not flow through the central Government budget is not available. Table 17 below presents an approximate picture of Government revenues and public sector net resource transfers, assuming (i) real GNP growth of 6.5% p.a., (ii) domestic oil pricing Option I as of 1980/81 and Option II by 1983/84, (iii) non-oil revenue growth of 7.5% p.a. between 1978/79 and 1983/84, and (iv) gradual elimination of all budget subsidies by 1983/84. The other important assumption underlying Table 17 is that oil production and exports will reach projected levels (Table 1) and that international oil prices will move in accordance with the World Bank Commodity Division's projections (Table 13).

3.181 Table 17 suggests that under these assumptions, public sector resources available for the financing of both recurrent (routine) and development expenditures could grow at an annual average rate of about 5.5% in real terms during Repelita III or somewhat less than projected GNP growth (6.5%). It should be emphasized again that this otherwise rather unimpressive result is dependent on the success of a truly major domestic resource mobilization effort. If the growth rate of non-oil revenues would be considerably less and if budgetary subsidies, particularly on oil, were not to be eliminated, aggregate public sector resources would probably show no increase in real terms after 1979/80. Since there is usually much less flexibility to reduce routine expenditures than development expenditures, the latter might, in the absence of a major domestic resource mobilization effort, have to be reduced in real terms.

Public Sector Investment

3.182 Table 18 shows two alternative public sector investment pictures through 1983/84. The first is based on the assumption of oil production levels and international price developments assumed in Tables 1 and 13, and a high domestic resource mobilization effort and the second on the

assumption of a 10% shortfall in oil and LNG revenues and a lower non-oil revenue effort. In both cases net resource transfers from abroad are assumed to be the same. /1 The growth of recurrent (routine) expenditures /2 is assumed to be limited to 6.5% p.a. (in real terms) beyond 1979/80 under both revenue growth assumptions. This clearly is an austerity assumption which may require special measures to be realized. Table 18 leads to the following important conclusions:

/1 This is a simplistic and probably somewhat unrealistic assumption as the low revenue scenario may well lead to reduced GNP growth and a shortage of rupiah counterpart funds to mobilize associated foreign funding. Therefore, Table 18 tends to underestimate the difference between the two alternative estimates of public sector investible resources under the high and the low revenue scenarios.

/2 Excluding budget subsidies and external debt service payments.

Table 17: PUBLIC SECTOR RESOURCES, 1979/80-1983/84
(Rp billion current prices)

	Est. (78/79)	Total Repelita II (74/75-78/79)	Projected		Total Repelita III (79/80-83/84)
			79/80	83/84	
1. Oil & LNG revenues <u>/a</u>	2,400	8,120	3,325	4,975	20,850
2. Non-oil revenues	2,000	6,672	2,450	5,100	18,175
3. Total revenues (gross) <u>/b</u>	4,400	14,792	5,775	10,075	39,025
4. Subsidies <u>/b</u>	300	1,111	550	-	1,200
5. Total revenues (net)	4,100	13,681	5,225	10,075	37,825
6. Net resource transfers from abroad	200	2,301	350	575	2,525
7. Total resources gross (3+6) <u>/c</u>	4,600	17,093	6,125	10,650	41,550
8. Total resources net (5+6) <u>/c</u>	4,300	15,982	5,675	10,650	40,350
<u>As % of GNP</u>					
Total resources - gross	21.3	22.1	22.2	19.8	20.6
Total resources - net	19.9	20.6	20.6	19.8	20.0
<u>Rp billion constant 76/77 prices</u>					
Total resources - gross	3,566	16,426	3,850	4,675	21,125
Total resources - net	3,335	15,278	3,500	4,675	20,425

/a Revenues resulting from present contractual arrangements. LNG revenues are before public debt service payments.

/b Subsidies on oil, food and fertilizer. It has been assumed that subsidies, which are expected to amount to Rp 550 billion in 1979/80 will be gradually eliminated during Repelita III.

/c Excluding monetary financing, which during Repelita II amounted to about Rp 700 billion in current prices, or 0.9% of GNP.

Source: Tables 5.1-5.5 - Quantitative Projections Appendix.

- Under the high revenue growth scenario, budget savings during Repelita III would be about Rp 3.4 trillion (US\$5.4 billion) higher (in constant 1976/77 prices) than during Repelita II and the share of budget savings in GNP would increase from 8.4% to 9.3% on average for the two periods.
- Together with net resource transfers from abroad, public sector investible resources during Repelita III would be about Rp 2.3 trillion (US\$3.6 billion) higher (in constant 1976/77 prices) than during Repelita II but the share of this total in GNP would decline from 11.3% to 10.5% on average for the two periods. The average annual growth rate of public sector investments during Repelita III under the high revenue growth scenario could be of the order of 5.5%.
- Under the low revenue growth scenario, which would still require a not insignificant domestic resource mobilization effort, budget savings during Repelita III would not grow at all in real terms and their share in GNP would decline from 8.4% to 7.4% on average for the two periods.
- Together with net resource transfers from abroad, public sector investible resources during Repelita III would be roughly the same in real terms as during Repelita II and the share of this total in GNP would decline from 11.3% to 8.6% on average for the two periods. Under the low revenue growth scenario, public sector investments during Repelita III would not increase in real terms.

3.183 Even under the high revenue growth scenario, difficult choices will have to be made between projects and programs competing for the same limited resources. It should be possible, however, to accommodate most of the high priority projects in agriculture (irrigation, support services and land settlement, including transmigration), industry (including in particular credit for small and medium scale enterprises), and social services (in particular water and housing). It may be necessary, however, to postpone or redesign some of the large lumpy projects in transportation and industry that are currently being considered, unless alternative private foreign investment sources can be utilized in a manner consistent with longer term balance of payments considerations. Under the low revenue growth scenario the situation would be much more difficult. It is possible that even some high priority projects may have to be postponed or scaled down.

3.184 For most of the past five years the emphasis in planning was on the preparation of suitable projects and programs. Resources were not the principal constraint. In fact, large budgetary surpluses were accumulated during the last few years, up to the present. This situation is expected to change in the near-term future, even if a major domestic resource mobilization effort as suggested is undertaken. A judicious choice among projects and programs will therefore be required to ensure that those that have the highest priority will be implemented.

Table 18: BUDGET SAVINGS AND INVESTIBLE RESOURCES /a
(billion rupiah)

	Total Repelita II 74/75-78/79	79/80	80/81	81/82	82/83	83/84	Total Repelita III (79/80-83/84)
<u>High Revenue Growth /b</u>							
Total budget revenues - gross	14,792	5,775	6,625	7,650	8,900	10,075	39,025
Subsidies	1,111	550	400	225	25	-	1,200
Total budget revenues - net	13,681	5,225	6,225	7,425	8,875	10,075	37,825
Current expenditures	7,202	2,550	3,150	3,800	4,475	5,125	19,100
Budget savings - current prices	6,479	2,675	3,075	3,625	4,400	4,950	18,725
- constant 76/77 prices	6,100	1,675	1,725	1,850	2,075	2,175	9,500
- as % of GNP	8.4	9.7	9.2	9.1	9.4	9.2	9.3
<u>Budget Savings plus Net Resource</u>							
<u>Transfers</u> - current prices	8,780	3,025	3,550	4,175	4,975	5,525	21,250
- constant 76/77 prices	8,414	1,875	1,950	2,100	2,325	2,425	10,675
- as % of GNP	11.3	11.0	10.6	10.5	10.6	10.3	10.5
<u>Low Revenue Growth /c</u>							
Total budget revenues - gross	14,792	5,450	6,375	7,125	8,000	8,750	35,700
Total budget revenues - net	13,681	4,900	5,925	6,775	7,750	8,600	33,950
Budget savings - current prices	6,479	2,350	2,775	2,975	3,275	3,475	14,850
- constant 76/77 prices	6,100	1,500	1,575	1,525	1,550	1,525	7,675
- as % of GNP	8.4	8.5	8.3	7.4	7.0	6.5	7.4
<u>Budget Savings plus Net Resource</u>							
<u>Transfers</u> - current prices	8,780	2,700	3,250	3,525	3,850	4,050	17,375
- constant 76/77 prices	8,414	1,700	1,800	1,775	1,800	1,775	8,850
- as % of GNP	11.3	9.8	9.7	8.8	8.2	7.5	8.6

/a Excluding savings or dissavings of public sector enterprises and monetary financing.

/b Assuming no shortfall in oil and LNG revenues, gross non-oil revenue growth of 7.5% p.a. in real terms during Repelita III, and a gradual elimination of subsidies by 1983/84.

/c Assuming 10% shortfall in oil and LNG revenues, non-oil revenue growth of 4.0% p.a. in real terms during Repelita III and a more gradual reduction of subsidies.

3.185 The overall conclusion of this Chapter is that, whereas the recent devaluation has reduced immediate pressures on the budget, it has not removed the need for a major domestic resource mobilization effort in other forms. One of these forms would be the reduction and ultimate removal of the very large additional budgetary subsidies that are likely to be needed immediately after the devaluation in order to prevent sudden, disruptive price shifts in the economy. It is also suggested that, to avoid excessive monetary expansion during the year following the devaluation, all or most of the devaluation induced budgetary surplus (estimated at Rp 200-300 billion in 1979/80) should be neutralized and not used for the financing of additional Government expenditures. As the subsidy on domestic oil consumption has been further increased by a substantial margin as a result of the devaluation, domestic oil pricing may be identified as a priority area for domestic fiscal policy action.

CHAPTER 8: BALANCE OF PAYMENTS

Introduction

3.186 As discussed in earlier Chapters, Indonesia's export prospects were, by and large, not very promising. Indonesia faced an almost inevitable decline of oil export volumes and slow growth of non-oil exports. Net resource transfers were expected to decline rather sharply from their recent levels. As a consequence, balance of payments difficulties would probably have developed in the course of Repelita III. Balance of payments prospects have improved as a result of the recent devaluation. It is now expected that with appropriate support policies, the non-oil export growth rate can be somewhat higher in the medium-term and significantly higher in the longer term, while imports will most likely grow at a slower pace, especially in the short-term. The pre- and post-devaluation balance of payments prospects are discussed in the remainder of this Chapter following some remarks about the projection methodology.

Projection Methodology: Current Account

3.187 Apart from the usual uncertainty about future export and import volumes and prices, especially immediately following a sizeable devaluation, there are two special difficulties in projecting the likely evolution of Indonesia's balance of payments. The first is that available historical information on private capital flows (including factor payments) in and out of the country and the amount of private external debt is incomplete. The second is that there are no disaggregated commodity import trade statistics that match the totals for commodity imports in the balance of payments statements as published by Bank Indonesia. The latter show a higher level of imports and are presumed to present a more accurate picture of total imports than the disaggregated statistics based on customs data and letters of credit openings. The difference between the various import statistics, however, has become so large in recent years that it has become difficult to relate changes in imports to particular developments in the country.

3.188 In view of the sketchy nature of official available information on private capital flows and private external debt, the assumption has been made that the net effect of private capital flows and factor payments in and out of Indonesia on the country's balance of payments is zero. In recent years the net effect has probably been negative, as private foreign investment dropped significantly after 1974. It is, however, likely that higher levels of foreign investment in the future will at least offset outflows resulting from previous and new investments. The assumption of a zero balance of payments effect thus appears reasonable. It means that all projected factor payments and capital transactions refer only to the public sector. This is, of course, a simplification but one that may be permissible for analytical purposes.

Pre-devaluation Balance of Payments Prospects

3.189 Since 1973/74, imports have grown rapidly, around 14% p.a. in volume terms and 25% p.a. in value terms. Imports of basic foods and capital goods accounted for most of the increase in imports. In 1973/74 capital goods imports accounted for less than 30% of the total imports whereas by 1977/78 their share had reached nearly 50%. Expectations were that with a relative decline of the gross domestic investment rate and a less capital intensive pattern of investment, the rate of growth of capital goods imports would be reduced substantially. But it nevertheless was expected that given international and domestic price relationships, the volume of total imports would have grown at a minimum rate of around 5.5% in the future assuming an income elasticity of around 0.85.

3.190 In recent years, growth of non-oil exports has on the whole been disappointing. Despite significant increases in the export volumes of timber, fish, palm oil and coffee, total agricultural export /1 growth amounted to only 1-2% in real terms since 1973/74. It is considered plausible that with some policy action, the growth rate of total non-oil exports could be roughly doubled from around 2-3% p.a. in real terms since 1973/74 to around 5% up to 1985/86; beyond 1985/86 increased domestic consumption of a number of exportable commodities is projected to reduce the export growth rate to around 4% p.a. up to 1990/91.

3.191 With the projected decline in the oil export volume and notwithstanding significant earnings from LNG exports, pre-devaluation balance of payments prospects through 1990 were rather bleak. Table 18 shows the ex-ante resource gap that would have developed. Given plausible levels of net resource transfers (which will be further discussed below), Indonesia would probably have begun to face balance of payments difficulties early in Repelita III. Ceteris paribus, this would, in turn, have depressed import levels and consequently would have led to reduced investment activity and economic growth.

3.192 The devaluation by itself has not necessarily solved all the balance of payments problems that were to be expected. The Government is, of course, aware that imports might well increase rapidly beyond the next two years if domestic price increases exceed international inflation by a large margin for some years or if the domestic manufacturing sector fails to realize its new potential. Lack of institutional and other policy action may also cause export growth to be slower than should be feasible under the new circumstances. Nevertheless, assuming supporting policy actions and a positive private sector response to new incentives, overall balance of payments prospects have improved in the post-devaluation situation.

/1 Agricultural exports are defined to include timber and fish in this Chapter.

Table 19: PROJECTED RESOURCE GAP, 1978/79-1990/91: PRE-DEVALUATION
(US\$ billion, current prices)

	78/79	79/80	80/81	81/82	82/83	83/84	85/86	90/91
1. Oil & LNG exports	4.6	5.0	5.1	5.4	6.1	6.6	7.4	8.4
2. Non-oil exports <u>/a</u>	3.5	3.9	4.4	5.0	5.6	6.4	8.3	14.1
3. Total exports (1+2)	8.1	8.9	9.5	10.4	11.7	13.0	15.7	22.5
4. Imports (including N.F.S.) <u>/b</u>	8.2	9.4	10.5	11.8	13.2	14.9	18.6	31.2
5. Resource gap (3-4)	-0.1	-0.5	-1.0	-1.4	-1.5	-1.9	-2.9	-8.7
6. Net resource transfers <u>/c</u>	0.4	0.5	0.8	0.9	0.9	0.9	1.1	1.5

/a Assuming volume growth rates of about 5% up to 1985/86 and about 4% thereafter.

/b Assuming volume growth rates of about 5.5%.

/c For details refer tables 4.4 and 4.5, Statistical Projections Appendix.

Post-devaluation Balance of Payments Projections

Import Projections

3.193 With regard to projected imports, a distinction was made between 5 broad categories, including rice, other consumption goods, intermediate goods, capital goods, and non-factor service payments. In the case of rice it was assumed, on the basis of recent trends, that import requirements would be 2 million tons p.a. through 1980/81 and 2.5 million tons during 1981/82-83/84, thereafter growing to 3 million tons by 1985/86 and to 3.5 million tons by 1990/91. Rice import requirements could be much lower if a comprehensive food supply and demand policy as discussed in Chapter 6 is formulated and successfully implemented. Import projections for goods other than rice are based on estimates of the growth of domestic demand and supply. These suggest an average annual import growth rate of 4% p.a./1 (assuming GNP growth of 6.5% p.a.) through 1983/84 and 3% p.a. thereafter. The projected

/1 In view of the price effect of the devaluation, volume growth of consumer good imports in 1979/80 may well be lower (or even negative) and somewhat higher thereafter. However, for projection purposes the same annual rate of growth has been assumed up to 1985.

decline in the growth rate is based on the assumption that Indonesia will become increasingly self-sufficient in a wide range of consumer goods. Intermediate goods import projections are based on an average elasticity of 0.55 with respect to the growth of manufacturing value added through 1983/84, gradually declining thereafter to 0.35 by 1990/91. The decline of the elasticity would be the result of increased domestic input manufacturing and a gradual shift towards a pattern of manufacturing growth which is more closely related to Indonesia's richly varied domestic resource base.

3.194 Capital goods imports are notoriously difficult to project not least because they tend to be non-linear and lumpy. Their growth depends above all on the pattern and level of investment, both public and private. It is conceivable that capital goods imports would decline appreciably as a percentage of gross domestic investment (GDI) if the incentive framework, aided by positive Government action with regard to the pattern of public sector investment and construction methods used, leads to a greater use of labor in the creation of new assets. This should be a policy objective in any event. In the balance of payments projections used in this report, the share of imported capital goods in GDI is assumed to decline gradually from 40% (1975-77 average)/1 to 30% by 1983/84 and to 25% by 1990/91.

3.195 GDI is projected to decline from 20.6% of GDP (1975-77 average) to 19% by 1983/84. A decline is likely in view of the probable evolution of public sector resources as discussed in Chapter 7. The rate of decline will be determined by oil production levels and international price movements, domestic revenue (savings) efforts and changes in the level and rate of private investment. If private investment expands significantly, as it should, this might compensate for the almost inevitable decline of the share of Government savings in GDP. However, for projection purposes it has been assumed that GDI will account for a constant 19% of GDP after 1983/84. This is still a respectable investment rate by international standards and higher than the 17% rate that was achieved by Indonesia during Repelita I (1969/70-1973/74). With proper allocative incentives and a greater emphasis on agriculture and on employment oriented medium and small-scale manufacturing development, it should eventually be possible with this investment rate to achieve a GNP growth rate of 7-8% p.a. or even more. Net non-factor service payments abroad (freight, insurance, travel, etc.) are projected to grow at 5% p.a. (in real terms).

Export Projections

3.196 Export projections for most commodities are based on a combination of current trends and an assessment of domestic supply potential and international demand. Supply rigidities with regard to oil, LNG, copper, tin, nickel, rubber, and some other agricultural exports and demand constraints with regard to some others suggest that around 85% of total commodity exports may indeed be assumed to be largely exogenously determined, at

1 By comparison, the share amounted to less than 30% during 1973/74.

least in the medium-term. The main export items on which the devaluation and supporting Government policies could have an appreciable impact, even in the medium-term, are a limited range of agricultural products (including for example quickly maturing oil palm and products whose export volume could be increased at the expense of domestic consumption,^{/1} e.g. coffee) and manufactures. Government decisions with regard to the proposed LNG expansion and a number of non-oil mineral projects (e.g. aluminum) could also have a significant impact on export earnings before the end of Repelita III. In the export projections it has been assumed that these projects will mature on schedule.

3.197 In the longer term all exports can be influenced by Government policies, but for analytical purposes, manufactures exports have been treated as the main residual item in the balance of payment projections. This was done deliberately to underline the arguments that have been made in this report in favor of a higher rate of labor intensive manufacturing growth and to demonstrate that such a policy, while undoubtedly needed with regard to the needs for employment growth and regional development would simultaneously be an indispensable element in preserving long term external balance within the context of a high growth strategy.

3.198 The basic assumptions underlying projected net oil export earnings, have been discussed in Chapter 1 and can be summarized as follows: (i) the exportable oil surplus is likely to decline during 1979 and 1980 and recover somewhat during the latter half of Repelita III. Beyond 1983, the exportable surplus would decline; (ii) the international oil price is projected to remain stable in terms of constant dollars, implying nominal price increases of 6% p.a. during 1980-85 and of 5% thereafter; (iii) the net export value per barrel is expected to decline somewhat as higher cost offshore wells and secondary recovery will account for a growing share of total production. On the basis of existing and planned production capacity, net earnings from LNG exports are expected to gradually increase to \$1.0 billion by 1983/84 and to \$1.4 billion by 1990/91 (in current prices).

3.199 As regards non-oil exports, it should in the post-devaluation situation be possible to achieve a level of export volume growth which in the medium-term would somewhat and in the longer term significantly exceed the expected growth rates in the pre-devaluation scenario. For the purpose of balance of payments projections it has been assumed that non-oil export growth would amount to about 6.5-7.0% p.a. up to 1985/86 and to around 8% p.a. between 1985/86 and 1990/91. The non-oil export projections ^{/2} assume that the

^{/1} But even for these products there are production constraints which can only be removed in the longer term.

^{/2} For details, see Tables 3.1 and 3.5 of the Quantitative Projections Appendix.

average long-term growth rates /1 of agricultural and mineral exports would reach around 3% and 9% respectively, while manufacturing export growth has been projected at an average rate of 20% p.a. throughout the projection period. Under these assumptions, manufactures exports would reach a level of about \$1.2 billion (in current prices) by 1983/84 and \$6.3 billion (in current prices) by 1990/91. In the short term, this growth level would be achieved primarily as a result of projected surpluses of fertilizer and cement, but in the medium and longer term, labor-intensive manufactures exports should provide the bulk of increases in manufactures export earnings.

3.200 The manufacturing sector is the only goods producing sector offering the possibility for very high levels of production and export growth sustainable over a long period. To get the industrial sector going on a sound basis with as little protection as possible and with considerable export orientation is now perhaps the single most important overall policy requirement from a structural macro-economic point of view. If, with supporting policies and increased private investment, manufactures export growth can be sustained at a rate of 20% p.a., the overall balance of payments situation would remain manageable through 1990/91.

Table 20: PROJECTED RESOURCE GAP, 1978/79-1990/91: POST-DEVALUATION /a
(US\$ billion, current prices)

	78/79	79/80	80/81	81/82	82/83	83/84	85/86	90/91
1. Oil & LNG exports	4.6	5.0	5.1	5.4	6.1	6.6	7.4	8.4
2. Non-oil exports	3.6	4.0	4.6	5.2	6.0	7.0	9.4	18.5
3. Total exports (1+2)	8.2	9.0	9.7	10.6	12.1	13.6	16.8	26.9
4. Imports (including NFS)	8.1	9.0	10.0	11.1	12.3	13.7	17.2	27.0
5. Resource gap (3-4)	0.1	-	-0.3	-0.5	-0.2	-0.1	-0.4	-1.1
6. Net resource transfers	0.4	0.5	0.8	0.9	0.9	0.9	1.1	1.5

/a For details refer to Tables 3.1 - 3.8 Quantitative Projections Appendix.

/1 Between 1976/77 (1975/76-1977/78 average) and 1990/91.

3.201 The projections also show that with successful export promotion policies, Indonesia would gradually reduce her dependency on oil. The share of net oil and LNG exports in total exports would decline from close to 60% at present to around 30% by 1990/91. This reduced commodity concentration would provide a healthier basis for future development particularly if the much higher level of industrial growth needed to achieve this goal is based on a pattern of labor-intensive and geographically dispersed development.

External Borrowing and Capital Account Projections

3.202 The method used to project the capital account of Indonesia's balance of payments is perhaps somewhat unorthodox but it is geared to the particular circumstances of Indonesia and the concern of the Government to keep debt service obligations below a ceiling of around 20% of current export earnings, including oil and LNG exports calculated on a net basis.^{/1} There is no scientific basis for this ceiling, nor should it be regarded as an immutable law that has to be rigidly applied regardless of circumstances but it is a rule of thumb which has some general validity as a tool for external debt management in Indonesia. In recent years the Government of Indonesia has been very cautious not to exceed prudent levels of new external commercial loan commitments. In fact, several hundred million dollars more could have been borrowed prudently in 1976 and 1977. In an effort to limit the external commercial debt exposure of the Government proper, Indonesia has recently started exploring the possibility of other arrangements for the financing of major industrial and infrastructure projects including leasing, unguaranteed borrowing by public sector enterprises or private borrowing, with or without public sector purchase obligation of the products. Such arrangements may, in certain cases, have advantages over Government guaranteed loans or direct Government external borrowing. However, the Government is, of course, convinced that the substance rather than form of future liabilities should remain the main guiding criterion for entering into financial obligations.

3.203 Grants and concessionary loan commitments from multilateral and bilateral aid agencies have been projected on the basis of recent trends and expectations as to what seems plausible in light of current indications. The next step in this iterative projection process was to project debt service payments resulting from existing debt (both outstanding and undisbursed portions) and new concessionary loan commitments. Projected debt service obligations thus calculated in combination with projected export earnings permits the estimation of annual levels of new commercial borrowing consistent with a maximum debt service ratio of around 20%. Thus, net capital inflows were projected in two separate steps not necessarily linked to Indonesia's possible future capital requirements but related to the expected availability of concessionary aid and to the Government's desire to keep the debt service ratio at or below 20%.

^{/1} Net oil and net LNG export earnings are defined as gross export values minus (i) imports and other foreign exchange costs of production, refining and marketing; and (ii) factor payments to foreign partners. In this definition "foreign exchange cost" excludes service payments on Pertamina's own debt.

3.204 The total of net resource transfers resulting from grants and loans (both commercial and concessionary) projected in this manner plus export earnings yields estimates of projected import capacity. A comparison of projected import capacity and projected import requirements taking into account additional foreign exchange reserves required to support a growing level of imports, thus becomes the principal tool for considering the question whether foreign exchange is or is not likely to become a development constraint.

3.205 The methodology used does not permit a separate presentation of the balance of payments on current account since all factor service payments have been grouped together in an overall picture of net resource transfers. The resource gap, however, is shown separately /1 as the difference between merchandise exports and merchandise imports including net non factor service payments.

Results of Projections

3.206 Detailed projections of exports, imports and net resource transfers resulting from both grants and old and new loan commitments, together with the assumptions underlying these projections, are contained in the Quantitative Projections Appendix, Tables 3.1 through 4.4. Table 21 below summarizes the projections. Under the projected export and concessionary aid scenario, Indonesia could afford to increase the level of external commercial borrowing by approximately 12% p.a. in nominal terms if the debt service ratio is to remain below 20%. The projected ratio differs a little from year to year but would not rise above 20% at any point during the projection period (1978/79-1990/91).

3.207 The permissible level of new commercial borrowing consistent with prudent external debt management defined in these terms would rise from \$750 million in 1978 to about \$2.0 billion in 1986 and to about \$3.0 billion in 1990. The amount of total external debt outstanding and disbursed (including concessionary loans) under this scenario would rise from \$11.4 billion at the end of 1977 to \$38.0 billion at the end of 1990. The ratio of total external debt outstanding and disbursed to export earnings would however remain constant at around 1.5 between 1977 and 1990.

3.208 Under the assumptions discussed so far, foreign exchange problems would not arise during the projection period. Through 1990, Indonesia would enjoy overall balance of payments surpluses averaging about \$600 million p.a.. Up to 1985/86, the foreign exchange reserve coverage would increase steadily from the equivalent of about 4 months imports at present to more than 5 months. The coverage would decline slightly beyond 1985/86 but still amount to a comfortable 4.5 months of imports by 1990/91.

3.209 Because of the weight of oil and LNG in total exports, the results of the foregoing projections are extremely sensitive to a shortfall in oil and LNG earnings. If, for any reason, the net value of oil and LNG exports would be 10% lower than shown in Table 21, under otherwise identical non-oil

/1 Quantitative Projections Appendix, Table 3.6.

export, import and borrowing projections, the debt service ratio would still remain below 20% throughout the projection period. The balance of payments would continue to show a small surplus through the end of Repelita III (1983/84), and the foreign exchange reserve coverage would remain at close to 3 months of imports. But from the mid-1980s, foreign exchange problems would arise as a result of such a shortfall. In view of the possibility that oil and LNG earnings may indeed fall short of current expectations, increased capital assistance from IGGI countries and other sources may temporarily be needed but in the longer term, the only satisfactory solution for a shortfall of oil and LNG export earnings would be to improve non-oil export performance.

3.210 Not surprisingly, the signals for policy requirements provided by the foreign exchange availability and requirement projections under the lower oil and LNG export assumption are fully consistent with and reinforce the signals provided by employment, food and public sector savings projections discussed in earlier chapters. They suggest the need for: (i) significant domestic oil price increases to slow down internal demand growth and thus increase the exportable oil surplus; (ii) increased efforts to promote food production (to reduce rice and other food import requirements) and stimulate agricultural exports, in particular high value tree crops such as rubber, oil palm and coconut; and (iii) a concerted effort to promote labor-intensive manufacturing and sustained high levels of manufactures export growth.

3.211 A sensitivity analysis shows that the foreign exchange shortage projected from the mid-1980s under the lower oil and LNG export assumption could be avoided if any of the following conditions are met: (i) non-oil export volume growth beyond 1983/84 of about 1 percent higher than the projected rate of growth; (ii) no increase in the volume of rice imports beyond the 2.5 millions projected for 1983/84; (iii) a decline in the growth rate of domestic oil consumption by about 2% beyond the mid-1980s. It is therefore plausible that various combinations of policy measures could easily prevent foreign exchange from becoming a binding constraint on development in the case of a shortfall of oil and LNG export revenues.

Conclusion

3.212 The expected increase of pressure on resources discussed throughout Part III of this report appears to be within Indonesia's capacity to deal with through domestic policy action. The projections illustrate the significant implications for the balance of payments and, therefore, for overall development prospects of Indonesia, of achieving and sustaining a manufactures export volume growth rate of not less than 20% p.a. The recent devaluation has provided a framework for reaching this target but supporting measures will be required. As these and other policy actions (oil pricing, promotion of food production) may take some time to be formulated and implemented and as Indonesia may be confronted with a decline in the real price of international oil, some additional concessional and semi-concessional capital assistance from foreign donors over and above projected levels may still be required.

**Table 21: BORROWING PROGRAM, PROJECTED FOREIGN EXCHANGE AVAILABILITY
AND REQUIREMENT, 1978/79-1990/91
(US\$ Million - Current Prices)**

	1978	1979	1980	1981	1982	1983	1985	1990
Concessional and semicon- cessional loan commitments	1,650	1,825	1,975	2,150	2,350	2,550	2,925	4,000
Commercial borrowing	750	850	950	1,075	1,200	1,350	1,700	2,900
Total loan commitments	2,400	2,675	2,925	3,225	3,550	3,900	4,625	6,900
Grants	100	100	100	125	125	125	150	200

	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1985/86	1990/91
Oil & LNG exports (net)	4,641	4,955	5,098	5,408	6,068	6,581	7,354	8,355
Non-oil exports	3,551	4,042	4,561	5,242	6,060	6,993	9,448	18,567
Total exports	8,192	8,997	9,659	10,650	12,128	13,574	16,802	26,922
Net resource transfers	413	547	754	877	921	929	1,124	1,474
Foreign exchange availability	8,605	9,544	10,413	11,537	13,049	14,503	17,926	28,396
Import requirements (including net NFS)	8,075	8,988	9,961	11,113	12,317	13,649	17,202	28,037
Increase in reserves	530	556	452	424	732	854	724	359
Level of reserves	2,730	3,286	3,738	4,162	4,894	5,748	7,376	10,520
Reserve coverage (months of imports)	4.1	4.4	4.5	4.5	4.8	5.1	5.2	4.5
Debt service ratio	18.1	17.2	17.1	17.5	17.4	17.2	17.1	17.1

Source: Quantitative Projections Appendix, Tables 3.1 through 4.4.

CHAPTER 9: CONCLUDING THOUGHTS ON GROWTH AND EMPLOYMENT PROSPECTS

3.213 While the devaluation has improved Indonesia's longer term development prospects, the next 3-5 years are, for various reasons explained in earlier chapters, likely to show somewhat slower growth than the average for the past decade. A 6.5% annual GDP growth rate appears to be at the upper end of the range that can plausibly be projected in light of current trends and recent policy initiatives.

3.214 These projections are, in fact, very close to the targets set by Government for the third Five Year Development Plan (Repelita III, 1979/80-1983/84). Assuming every effort is made to stimulate agriculture and manufacturing development within a favorable and secure climate for increased private investment, the medium-term sectoral growth picture might look approximately as follows:

	<u>Annual Growth Rates</u>	<u>Share in Base Year (1977)</u>
Agriculture (incl. forestry)	3.5-4.0%	31.3
Mining (including oil and gas)	3.5%	19.4
Manufacturing	13.0-15.0%	9.5
Power, water, construction, transport and communications	12.0%	9.8
Banking, trade and other services	6.0-6.5%	30.0
<u>GDP</u>	<u>6.0-6.5%</u>	<u>100.0</u>

3.215 If the broad quantitative relationships between output growth and employment growth that were observed for the period 1971-76 (see Part II) are projected to continue for the next few years, a 6-6.5% rate of GDP growth would be compatible with a growth of employment (at constant real minimum wages) of around 3%. There are, however, a number of caveats and conditions attached to this assertion. For example, a slight slowdown in agricultural growth would cause a significant slowdown in the rate of overall employment growth. Similarly, a shortfall in growth in the manufacturing sector below the fairly ambitious medium-term rates projected could mean the loss of many potential employment opportunities in the sector that should be the dynamic element of the Government's new growth strategy.

3.216 There is, of course, no guarantee that the broad quantitative relations between output growth and employment growth noted in the past will continue indefinitely. Nor is it in Indonesia's long-term interest to base a development strategy on the expectation or assumption that labor productivity growth in agriculture and in the residual service sectors, as during the 1971-76 period, will be zero or close to zero. In the agricultural sector, past growth has been accompanied by a remarkably high rate of employment growth, that is to say with almost no increases in the productivity of labor. Most of the production gains have resulted from labor-using tech-

nology - irrigation extension, fertilizer application, spraying with insecticides, etc. while few technical innovations have actually resulted in severe labor displacement on a national scale. For the future, this need not be the case, and some innovations, particularly the spread of hand tractors, might reverse the past trend. Ultimately, development depends on technological progress and increases in labor productivity. The introduction of new methods of production, even if initially labor-displacing, should therefore not be artificially stunted, provided the benefits of increased output outweigh the true costs of the new investments.

3.217 For the industrial sector, the main question is how the employment impact of new investment can be improved. New projects - particularly those of the public sector, where Government can have direct control - should be closely scrutinized for their direct and indirect employment impact. To stimulate industrial employment growth, it is essential to assign higher priority to private sector investment. This requires a climate of trust and security which has been somewhat shaken in recent times. The public sector and private sector should work together in harmony and in a spirit of mutual confidence and cooperation.

3.218 Even with no major changes in output-employment relationships, a 6-6.5% p.a. GDP growth rate associated with a 3% growth in employment cannot be expected to provide a panacea to the country's labor surplus problem. At best, further progress in poverty reduction would be slow. To accelerate the improvement of the incomes of the poor, an acceleration of GDP growth in the longer term is highly desirable, as this would permit higher levels of labor productivity growth consistent with an employment growth target of not less than 3% p.a. The devaluation of the rupiah enhances the possibility of accelerated growth, but to take full advantage of the new incentives thus provided to domestic producers, actions to reduce or remove institutional supply constraints are essential. Whereas before the devaluation of the rupiah, a 20% target for the volume growth of manufactures exports was a tempting but perhaps remote contingency, such a rate - and the multiplier benefits that it would spread through the economy - now becomes a feasible target. Therefore, beyond the next few years it is not unreasonable to look forward to the overall GDP growth rate accelerating to 7-8% p.a.

3.219 In concluding, it should be remembered that one of the most essential factors in ultimately alleviating the poverty of many Indonesians has already been set in motion, namely successful population policies. Within the next decade the lower fertility patterns observed in Java and Bali will be translated into significantly slower growth of the labor force, which will help to ease the crushing employment and poverty problems. But so far, the reduction in fertility has not become conspicuous in the other islands, and it is to be hoped that the extension of the National Family Planning Program into these areas will soon be met with the same degree of success. In achieving a combination of lower population and labor force growth with high growth of output the Indonesian population can indeed expect continuing improvements in their well-being and the eradication of poverty within the next two decades.



PROVINCÉS

- 1 EAST JAVA
- 2 CENTRAL JAVA
- 3 WEST JAVA
- 4 SPECIAL CAPITAL TERRITORY SAKARTÁ
- 5 SPECIAL TERRITORY YOGYAKARTA
- 6 NORTH SUMATERA
- 7 JAMBÍ
- 8 RÍAU
- 9 WEST SUMATERA
- 10 SOUTH SUMATERA
- 11 LAMPUNG
- 12 SPECIAL TERRITORY ACEH
- 13 BENGKULU
- 14 WEST KALIMANTAN
- 15 EAST KALIMANTAN
- 16 SOUTH KALIMANTAN
- 17 CENTRAL KALIMANTAN
- 18 SOUTH SULAWESI
- 19 CENTRAL SULAWESI
- 20 SOUTH-EAST SULAWESI
- 21 NORTH SULAWESI
- 22 MALUKU
- 23 BALI
- 24 WEST NUSA TENGGARA
- 25 EAST NUSA TENGGARA
- 26 IRIAN JAYA

- 9 RÍAU
- 9 WEST SUMATERA
- 10 SOUTH SUMATERA
- 11 LAMPUNG
- 12 SPECIAL TERRITORY ACEH
- 13 BENGKULU
- 14 WEST KALIMANTAN
- 15 EAST KALIMANTAN
- 16 SOUTH KALIMANTAN
- 17 CENTRAL KALIMANTAN
- 18 SOUTH SULAWESI
- 19 CENTRAL SULAWESI
- 20 SOUTH-EAST SULAWESI
- 21 NORTH SULAWESI
- 22 MALUKU
- 23 BALI
- 24 WEST NUSA TENGGARA
- 25 EAST NUSA TENGGARA
- 26 IRIAN JAYA

IBRD 12696 63
FEBRUARY 1978

Monetary Statistics

- 6.1 Money Supply
- 6.2 Changes in Factors Affecting Money Supply
- 6.3 Consolidated Balance Sheet of Monetary System, 1973-77
- 6.4 Banking System Credits by Economic Sectors
- 6.5 Banking System Credits by Type of Bank (Rp billion)
- 6.6 Small-Scale Investment Credits and Permanent Working Capital Credits
- 6.7 Medium-Term Investment Credits by Economic Sectors
- 6.8 Time Deposits with State Banks

Agricultural Statistics

- 7.1 Principal Agriculture Products by Subsectors, 1969-77
- 7.2 Agricultural Production of Major Crops by Type of Product
- 7.3 Rice, Area Harvested, Production and Yield 1968-77
- 7.4 Rice Production, Imports, Procurement and Consumption, 1960-77
- 7.5 Area Covered under Rice Intensification Programs, 1967-77
- 7.6 Volume and Value of Log Exports by Species, 1968-76
- 7.7 Volume and Value of Log Exports by Destination, 1969-76
- 7.8 Fisheries Production by Subsector, 1960-76
- 7.9 Volume and Value of Fish Exports and Imports, 1960-76
- 7.10 Export Volume of Fish by Type (tons) 1968-76
- 7.11 Export Value of Fish by Type (US\$) 1968-76
- 7.12 Output, Trade and Domestic Consumption Data for Cassava, 1968-76
- 7.13 Output, Trade and Domestic Consumption Data for Maize, 1968-77
- 7.14 Trade and Domestic Consumption Data for Wheat and Wheat Flour, 1968-77
- 7.15 Aggregate Output, Trade, and Domestic Consumption Data for Vegetables and Sweet Potatoes, 1968-76
- 7.16 Per Capita Consumption of Selected Food Items, 1968-75

Other Sectors

- 8.1 Production of Selected Industrial Goods 1969/70-1977/78
- 8.2 Production, Imports and Estimated Consumption of Cement
- 8.3 Estimated Cement Production and Capacity through 1980
- 8.4 Forest Based Industries in Indonesia
- 8.5 Crude Oil Production, 1973-78
- 8.6 Petroleum Products - Supply and Demand, 1969-76
- 8.7 Domestic Sales of Petroleum Products, 1971-76
- 8.8 Imports and Consumption of Petroleum Products, 1971-76
- 8.9 Kerosene Consumption, 1970 and 1976
- 8.10 Public Highway Network 1977
- 8.11 Railway Traffic Data, 1971-77
- 8.12 Motor Vehicle Registration, 1967-76

Prices

- 9.1 Cost of Living Index in Jakarta
- 9.2 Price Index of Nine Essential Commodities in Selected Cities
- 9.3 Wholesale Price Indices in Indonesia
- 9.4 Annual Retail Prices of Six Basic Food Crops, 1952-76
- 9.5 Price of Rice in Selected Cities
- 9.6 Domestic Price of Petroleum Products, 1972-78

Investment

- 10.1 Approved Foreign Investment by Sector, 1967-77
- 10.2 Approved Domestic Investment by Sector, 1967-77

N.B. The Statistical Annex is followed by a Quantitative Projections Appendix.

INDONESIA

Population 1930, 1961, 1971, 1976: Average Annual Growth Rates, 1930-76
and Population Density, by Region and Province
(' 000)

Region	Census 1930	Census /a 1961	Census /a 1971	Survey /b 1976	Growth Rate (%)			Density (Persons/ sq km)	
					1930/61	1961/71	1971/76	1971	1976
<u>Java</u>	<u>41,718</u>	<u>62,993</u>	<u>76,103</u>	<u>82,107</u>	<u>1.3</u>	<u>1.9</u>	<u>1.7</u>	<u>576</u>	<u>621</u>
D.C.I. Jakarta	811	2,907	4,576	5,367	4.2	4.6	3.8	7,756	9,097
West Java	10,586	17,615	21,633	23,454	1.7	2.1	1.8	467	507
Central Java	13,706	18,407	21,877	23,558	1.0	1.7	1.7	640	689
D.I. Jogjakarta	1,559	2,241	2,490	2,625	1.2	1.1	1.2	786	828
East Java	15,056	21,823	25,527	27,103	1.2	1.6	1.4	533	566
<u>Sumatra</u>	<u>8,255</u>	<u>15,743</u>	<u>20,813</u>	<u>23,510</u>	<u>2.1</u>	<u>2.8</u>	<u>2.8</u>	<u>44</u>	<u>50</u>
Lampung	361	1,668	2,777	3,439	5.1	5.2	4.9	83	103
Bengkulu	323	406	519	567	0.7	2.5	2.0	25	27
South Sumatra	1,378	2,773	3,444	3,871	2.3	2.2	2.7	33	37
Riau	493	1,235	1,642	1,843	3.0	2.9	2.6	17	19
Jambi	245	744	1,006	1,103	3.6	3.1	2.1	22	25
West Sumatra	1,910	2,319	2,793	2,994	0.6	1.9	1.6	56	60
North Sumatra	2,541	4,969	6,623	7,467	2.2	2.9	2.7	94	105
Aceh	1,003	1,629	2,009	2,226	1.6	2.1	2.3	36	40
<u>Kalimantan</u>	<u>2,169</u>	<u>4,102</u>	<u>5,153</u>	<u>5,866</u>	<u>2.1</u>	<u>2.3</u>	<u>3.0</u>	<u>10</u>	<u>11</u>
West Kalimantan	802	1,581	2,020	2,281	2.2	2.5	2.7	14	16
Central Kalimantan	203	497	700	812	2.9	3.5	3.3	5	5
South Kalimantan	836	1,473	1,699	1,846	1.8	1.4	1.9	45	49
East Kalimantan	329	551	734	927	1.7	2.9	5.4	4	5
<u>Sulawesi</u>	<u>4,232</u>	<u>7,079</u>	<u>8,535</u>	<u>9,379</u>	<u>1.9</u>	<u>1.9</u>	<u>2.1</u>	<u>45</u>	<u>50</u>
Central Sulawesi	390	652	914	1,014	1.7	3.4	2.4	13	15
North Sulawesi	748	1,351	1,718	1,899	1.9	2.4	2.3	90	100
South Sulawesi	2,657	4,517	5,189	5,681	1.7	1.4	2.1	71	78
Southeast Sulawesi	436	559	714	785	0.8	2.5	2.1	26	28
Bali	1,101	1,783	2,120	2,293	1.6	1.8	1.8	381	412
West Nusa Tenggara	1,016	1,808	2,202	2,401	1.9	2.0	1.9	109	119
East Nusa Tenggara	1,343	1,967	2,295	2,462	1.2	1.6	1.6	48	51
Maluku	579	790	1,089	1,258/c	1.0	3.3	3.3	15	17
Irian Jaya	179	758	923	1,008	4.8	2.0	2.0	2	2
<u>Total Indonesia</u>	<u>60,593</u>	<u>97,019</u>	<u>119,233</u>	<u>130,284/c</u>	<u>1.5</u>	<u>2.1</u>	<u>2.0</u>	<u>63</u>	<u>68</u>

n.a. = not available

/a Includes adjustment for the exclusion of Rural-Irian Jaya.

/b Includes adjustment for the exclusion of Rural Irian Jaya, Maluku and East Nusa Tenggara.

/c In an earlier draft, an error was made in estimating the 1976 population of Maluku. The earlier estimate was 1,215 and the total population 130,241. Population and projection figures in the remaining sections of this report do not incorporate this minor error.

Sources: Population Census Reports, 1961 and 1971, Intercensal Population Survey, 1976; and Statistical Year book, 1975.

INDONESIA
Population Indicators

	1961	1971	1976
Total population	97,019/a	119,232/a	131,331/b
Urban (%)	14.8	17.5	17.9
Rural (%)	85.2	82.5	82.1
Annual growth rate	..	2.1/c	2.0/d
Crude birth rate (per '000)	..	42	40
Crude death rate (per '000)	27.6	21.0	20.0
Total fertility rate	..	5.5	5.2
Life expectancy at birth			
Males	34.9	43.0	44.0
Females	42.5	47.5	47.5
Number of acceptors ('000)	..	519	1,973
Age distribution (%)			
0 - 14	42.1	44.0	42.0
15 - 64	55.4	53.4	55.0
65+	2.5	2.6	3.0
Age dependency ratio	0.81	0.87	0.82
Median age	19.9	16.9	18.7
Primary school enrollment ratio (7-12 year) (%)	..	75	81
Secondary school enrollment ratio (13-18 years) (%)	..	15	18

.. = Not available.

/a Census.

/b Intercensal survey.

/c 1961-71.

/d 1971-76.

INDONESIA

Distribution of Population by Age Group and Sex
('000)

Age Group	1961			1971			1976		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
0-4	8,524	8,644	17,168	9,716	9,571	19,287	9,939	9,618	19,557
5-9	7,741	7,696	15,437	9,641	9,357	18,998	9,621	9,287	18,908
10-14	4,345	3,888	8,233	7,374	6,946	14,320	8,371	8,007	16,378
15-19	3,861	3,901	7,762	5,678	5,784	11,462	6,801	7,157	13,958
20-24	3,476	4,369	7,845	3,577	4,433	8,010	4,918	5,272	10,189
25-34	7,386	8,604	15,991	7,747	9,300	16,047	7,741	8,753	16,493
35-44	5,762	5,403	11,164	7,069	7,134	14,203	7,268	7,632	14,900
45-54	3,586	3,509	7,095	4,315	4,223	8,538	5,123	5,068	10,191
55-64	1,912	1,864	3,776	2,122	2,265	4,387	3,866	3,007	5,873
65+	1,182	1,245	2,427	1,415	1,557	2,971	1,729	2,019	3,749
Unknown	60	57	118	4	4	8	29	15	44
<u>Total</u>	<u>47,838</u>	<u>49,181</u>	<u>97,019</u>	<u>58,658</u>	<u>60,575</u>	<u>119,233</u>	<u>64,406</u>	<u>65,835</u>	<u>130,341</u>
----- Percentage distribution -----									
0-4	17.8	17.6	17.7	16.6	15.8	16.2	15.4	14.6	15.0
5-9	16.2	15.6	15.9	16.4	15.4	15.9	14.9	14.1	14.5
10-14	9.1	7.9	8.5	12.6	11.5	12.0	13.0	12.2	12.6
15-19	8.1	7.9	8.0	9.7	9.5	9.6	10.6	10.9	10.7
20-24	7.3	8.9	8.1	6.1	7.3	6.7	7.6	8.0	7.8
25-34	15.4	17.5	16.5	13.2	15.4	14.3	12.0	13.3	12.7
35-44	12.0	11.0	11.5	12.1	11.8	11.9	11.3	11.6	11.4
45-54	7.5	7.1	7.3	7.4	7.0	7.2	8.0	7.7	7.8
55-64	4.0	3.8	3.9	3.6	3.7	3.7	4.4	4.6	4.5
65+	2.5	2.5	2.5	2.4	2.6	2.5	2.7	3.1	2.9
Unknown	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
<u>Total</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Source: Employment and Income Distribution in Indonesia, Appendix Tables A-1, A-2 and A-3.

INDONESIADistribution of Population by Consumption Expenditure, 1976
(%)

Monthly per capita consumption expendi- ture (Rp)	<u>Indonesia</u>		<u>Java</u>		<u>Outer islands /a</u>	
	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Up to 1,000	0.39	1.14	0.52	1.01	0.11	1.39
1,000- 1,999	4.09	16.10	4.49	20.16	3.42	8.76
2,000- 2,999	10.92	26.90	12.46	31.88	8.15	18.24
3,000- 3,999	16.27	20.60	17.01	20.31	14.98	21.42
4,000- 4,999	14.95	3.36	14.39	10.98	15.99	15.93
5,000- 5,999	12.13	7.94	10.98	6.76	14.18	9.99
6,000- 7,999	14.99	7.99	13.56	5.16	17.52	12.81
8,000- 9,999	9.56	3.39	9.10	1.99	10.45	5.75
10,000-14,999	9.88	2.56	9.77	1.25	9.92	4.75
15,000-19,999	3.42	0.43	3.67	0.26	3.02	0.65
20,000-29,999	2.30	0.22	2.72	0.19	1.56	0.26
30,000 or more	1.10	0.06	1.33	0.06	0.68	0.06
<u>Total</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>

/a Excluding Maluka and Irian Jaya.

Source: Survey Social Ekonomi Nasional (January-April 1976), BPS.

INDONESIA

Population, Labor Force and Employment, 1961 1971, 1976
('000)

	September 1961			September 1971			March 1976			October 1976		
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
<u>Java</u>												
<u>Urban</u>												
Total population	4,863	4,944	9,807	6,764	6,964	13,728	7,343	7,549	14,892	7,424	7,631	15,055
Population aged 10+	3,399	3,503	6,902	4,749	5,031	9,780	5,284	5,560	10,844	5,342	5,621	10,963
Population aged 15+	2,941	3,055	5,996	3,921	4,194	8,115	...	...	...	...	...	...
Employment	2,251	847	3,098	2,781	1,202	3,983	3,220	1,455	4,675	3,115	1,440	4,555
Unemployment	174	107	282	153	51	204	...	...	277	223	62	285
Labor force	2,425	955	3,380	2,934	1,253	4,187	...	...	4,952	3,338	1,502	4,840
<u>Rural</u>												
Total population	25,938	27,248	53,186	30,407	31,967	62,375	33,038	34,172	67,211	33,371	34,515	67,886
Population aged 10+	17,093	18,270	35,363	20,418	22,116	42,534	23,242	24,587	47,829	23,475	24,834	48,309
Population aged 15+	14,820	16,314	31,134	16,582	18,540	35,122	...	...	...	...	...	...
Employment	13,324	5,033	18,358	14,229	7,546	21,775	18,531	13,096	31,627	17,975	10,023	27,998
Unemployment	652	337	989	278	122	400	...	...	368	285	96	381
Labor force	13,976	5,371	19,347	14,507	7,668	22,175	...	...	31,996	18,260	10,119	28,379
<u>Total</u>												
Total population	30,801	32,192	62,993	37,172	38,931	76,102	40,381	41,722	82,103	40,793	42,148	82,941
Population aged 10+	20,491	21,773	42,264	25,167	27,147	52,314	28,526	30,147	58,673	28,817	30,455	59,272
Population aged 15+	17,761	19,370	37,130	20,503	22,734	43,237	...	...	...	...	...	...
Employment	13,575	5,881	21,456	17,010	8,747	25,757	21,751	14,551	36,302	21,090	11,462	32,552
Unemployment	826	445	1,271	431	174	605	393	253	646	508	159	667
Labor force	16,401	6,325	22,727	17,441	8,921	26,362	22,144	14,804	36,949	21,598	11,621	33,219
<u>Other Islands</u>												
<u>Urban</u>												
Total population	2,320	2,232	4,551	3,619	3,418	7,037	4,247	4,190	8,438	4,353	4,293	8,646
Population aged 10+	1,572	1,507	3,079	2,497	2,341	4,837	2,976	2,978	5,954	3,049	3,052	6,101
Population aged 15+	1,330	1,271	2,601	2,034	1,899	3,933	...	...	...	...	...	...
Employment	997	203	1,200	1,436	378	1,813	1,874	669	2,543	1,822	623	2,445
Unemployment	86	34	119	67	24	91	...	...	147	141	48	189
Labor force	1,084	236	1,319	1,502	402	1,904	...	...	2,690	1,963	671	2,634
<u>Rural</u>												
Total population	14,718	14,756	29,474	17,868	18,225	36,093	19,778	19,923	39,700	20,031	20,179	40,210
Population aged 10+	9,508	9,561	19,070	11,637	12,159	23,796	13,345	13,804	27,149	13,517	13,981	27,498
Population aged 15+	8,133	8,313	16,446	9,389	10,068	19,457	...	...	...	...	...	...
Employment	7,409	2,887	10,295	7,912	3,991	11,903	10,288	6,176	16,464	9,727	5,117	14,844
Unemployment	299	193	492	154	46	200	...	...	280	249	67	316
Labor force	7,708	3,079	10,787	8,066	4,037	12,103	...	...	16,743	9,976	5,184	15,160
<u>Total</u>												
Total population	17,038	16,988	34,026	21,486	21,644	43,130	24,025	24,113	48,138	24,384	24,472	48,856
Population aged 10+	11,082	11,068	22,150	14,133	14,500	28,633	16,320	16,783	33,103	16,566	17,033	33,599
Population aged 15+	9,463	9,583	19,047	11,423	11,967	23,390	...	...	...	...	...	...
Employment	8,406	3,089	11,495	9,348	4,370	13,717	12,162	6,845	19,007	11,549	5,740	17,289
Unemployment	385	226	611	221	69	290	255	171	426	390	116	506
Labor force	8,792	3,316	12,107	9,568	4,439	14,007	12,417	7,016	19,432	11,939	5,856	17,795
<u>Indonesia</u>												
<u>Urban</u>												
Total population	7,183	7,176	14,358	10,383	10,382	20,765	11,590	11,730	23,330	11,777	11,925	23,702
Population aged 10+	4,971	5,010	9,981	7,246	7,372	14,617	8,260	8,538	16,798	8,392	8,672	17,064
Population aged 15+	4,271	4,326	8,597	5,955	6,093	12,048	6,774	7,033	13,806	...	...	...
Employment	3,248	1,050	4,298	4,217	1,580	5,796	5,093	2,125	7,218	4,937	2,063	7,000
Unemployment	260	141	401	220	75	295	290	134	424	364	111	475
Labor force	3,509	1,191	4,699	4,436	1,655	6,091	5,383	2,258	7,642	5,301	2,174	7,475
<u>Rural</u>												
Total population	40,656	42,004	82,660	48,275	50,192	98,468	52,816	54,095	106,911	53,401	54,694	108,095
Population aged 10+	26,601	27,831	54,433	32,055	34,275	66,330	36,587	38,391	74,978	36,992	38,815	75,807
Population aged 15+	22,953	24,627	47,580	25,971	28,608	54,579	29,701	31,890	61,592	...	...	...
Employment	20,733	7,920	28,653	22,141	11,537	33,678	28,819	19,272	48,091	27,702	15,140	42,842
Unemployment	951	530	1,481	432	168	600	359	289	648	533	164	697
Labor force	21,684	8,450	30,134	22,573	11,705	34,278	29,178	19,561	48,739	28,235	15,304	43,539
<u>Total</u>												
Total population	47,839	49,180	97,019	58,658	60,575	119,232	64,406	65,835	130,241	65,178	66,619	131,797
Population aged 10+	31,573	32,841	64,414	39,300	41,647	80,947	44,846	46,930	91,776	45,383	47,487	92,870
Population aged 15+	27,224	28,953	56,177	31,926	34,701	66,627	36,475	38,923	75,398	...	...	...
Employment	23,981	8,970	32,951	26,358	13,117	39,474	33,912	21,397	55,309	32,639	17,203	49,842
Unemployment	1,211	671	1,882	652	243	895	649	423	1,072	898	274	1,172
Labor force	25,193	9,641	34,834	27,009	13,360	40,369	34,561	21,320	56,381	33,537	17,477	51,014

... Not available.

Source: Employment and Income distribution in Indonesia, Appendix Table A-4 and A-5.

INDONESIA

Labor Force Participation Rates, 1961-76
(%)

<u>Age Group</u>	<u>September</u> 1961	<u>September</u> 1971	<u>March</u> 1976	<u>October</u> 1976
<u>Males</u>				
10-14	22.7	18.3	26.1	16.7
15-19	66.7	49.0	66.5	58.8
20-24	87.2	76.5	88.3	87.1
25-44	95.5	92.3	98.2	98.6
45-54	95.6	90.1	97.0	95.4
55-64	89.6	81.1	90.3	85.3
65 and over	72.8	60.6	69.6	60.9
<u>Total /a</u>	<u>79.8</u>	<u>68.7</u>	<u>77.1</u>	<u>73.8</u>
<u>Females</u>				
10-14	15.6	14.4	20.9	10.9
15-19	30.6	28.7	45.4	34.2
20-24	27.4	31.9	48.5	37.5
25-44	29.6	38.2	55.2	45.6
45-54	39.8	43.3	61.7	50.5
55-64	39.1	36.3	51.2	40.3
65 and over	27.8	22.8	31.0	20.0
<u>Total /a</u>	<u>29.4</u>	<u>32.1</u>	<u>46.5</u>	<u>36.8</u>
<u>Both Sexes</u>				
10-14	19.3	16.4	23.6	13.9
15-19	48.6	38.7	55.7	46.6
20-24	53.9	51.8	67.7	60.1
25-44	61.5	63.9	75.8	70.4
45-54	68.0	67.0	79.4	74.0
55-64	64.7	58.0	70.3	62.7
65 and over	49.7	40.8	48.8	39.4
<u>Total /a</u>	<u>54.1</u>	<u>49.9</u>	<u>61.4</u>	<u>54.9</u>

/a Totals include unknowns.

Source: Employment and Income Distribution in Indonesia, Appendix Tables A-6 and A-8.

INDONESIA

Employment by Industry 1961-76
('000)

Industry	September 1961			September 1971			March 1976			October 1976
	Males	Females	Total	Males	Females	Total	Males	Females	Total	1976
Agriculture	17,517	6,196	23,713	17,006	7,958	24,963	22,192	14,452	36,644	30,814
Mining & quarrying	77	11	88	85	6	91	41	4	45	120
Manufacturing	1,164	702	1,866	1,524	1,426	2,950	1,940	1,736	3,676	4,179
Electricity, gas & water	48	3	51	36	2	38	33	2	35	28
Construction	563	22	585	731	10	741	1,092	32	1,124	849
Finance	1,158	688	2,205	79	16	95	64	10	75	97
Trade				2,342	1,793	4,134	3,329	3,100	6,429	7,156
Transportation	669	25	694	902	18	919	1,115	8	1,134	1,337
Other	376	264	640	778	825	1,604	494	386	879	-
<u>Total</u>	<u>23,981</u>	<u>8,970</u>	<u>32,951</u>	<u>26,357</u>	<u>13,117</u>	<u>39,474</u>	<u>33,913</u>	<u>21,397</u>	<u>55,310</u>	<u>49,841</u>
----- Percentage distribution -----										
Agriculture	73.0	69.1	72.0	64.5	60.7	63.2	65.4	67.5	66.3	61.8
Mining & quarrying	0.3	0.1	0.3	0.3	-	0.2	0.1	-	0.1	0.2
Manufacturing	4.9	7.8	5.7	5.8	10.9	7.5	5.7	8.1	6.7	8.4
Electricity, gas & water	0.2	-	0.2	0.1	-	0.1	0.1	-	-	0.1
Construction	2.4	0.3	1.8	2.8	0.1	2.0	3.2	0.1	2.0	1.7
				0.3	0.1	0.2	0.2	-	0.1	0.2
Finance	6.3	7.7	6.7	8.9	13.7	10.5	9.8	14.5	11.6	14.4
Trade				2.8	0.3	2.1	3.4	0.1	2.3	3.3	-	2.1
Transportation	2.8	0.3	2.1	3.4	0.1	2.3	3.3	-	2.1	2.7
Other services	8.5	11.8	9.4	10.9	8.1	10.0	10.7	7.8	9.5	10.6
Other	1.6	2.9	1.9	3.0	6.3	4.1	1.5	2.0	1.6	-
<u>Total</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Source: Employment and Income Distribution in Indonesia, Appendix Tables A-10, A-11, A-13 and A-14.

INDONESIA

Gross Domestic Product by Industrial Origin at Current Market Prices
(Rp billion)

	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Agriculture	457	1,069	1,339	1,575	1,646	1,837	2,710	3,497	6,003	4,824	5,968
Farm food crops	301	726	823	962	961	1,071	1,573	2,096	2,555	3,044	
Farm nonfood crops	46	133	199	214	) 226	323	386	358	481		
Estate crops	19	47	69	83	685)	118	152	191	184	213	
Livestock products	33	53	89	103	) 135	173	223	303	358		
Forestry	6	35	59	102	) 173	355	423	413	513		
Fishery	54	75	101	112	) 114	134	179	191	215		
Mining & quarrying	23	87	129	173	294	491	831	2,374	2,485	2,930	3,694
Manufacturing	62	179	251	312	307	448	650	890	1,124	1,418	1,810
Electricity, gas & water	3	9	13	15	18	20	30	52	70	98	122
Construction	14	45	75	100	128	174	262	406	590	813	912
Commerce, hotels, etc.	149	356	476	619	.. /a	769	1,118	1,775	2,104	2,554	.. /a
Transport & communication	19	57	77	96	162	182	257	442	521	663	827)
Banking, etc.	4	12	22	33	) 53	83	113	151	207)
Ownership of dwelling	17	41	53	66	1,117)	103	143	194	258	368	5,714)
Public administration & defense	41	116	136	183	) 290	405	645	864	1,074)
Other services	59	125	147	169	) 197	264	380	473	547)
<u>Gross Domestic Product</u>	<u>848</u>	<u>2,097</u>	<u>2,718</u>	<u>3,340</u>	<u>3,672</u>	<u>4,564</u>	<u>6,753</u>	<u>10,768</u>	<u>12,643</u>	<u>15,494</u>	<u>19,047</u>

/a Included with services.

Note: Totals do not add due to rounding.

Source: BPS.

INDONESIA

Gross Domestic Product by Industrial Origin at Constant 1976 Market Prices
(Rp billion)

	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Agriculture	<u>3,137</u>	<u>3,484</u>	<u>3,571</u>	<u>3,757</u>	<u>3,986</u>	<u>4,036</u>	<u>4,435</u>	<u>4,601</u>	<u>4,594</u>	<u>4,824</u>	<u>4,974</u>
Farm food crops	<u>1,952</u>	<u>2,254</u>	<u>2,264</u>	<u>2,337</u>	<u>2,490</u>)	<u>2,454</u>	<u>2,728</u>	<u>2,915</u>	<u>2,941</u>	<u>3,044</u>	
Farm nonfood crops	453	467	469	477	)	487	478	455	462	481	
Estate crops	141	142	159	168	1,496)	181	172	197	208	213	
Livestock products	246	221	231	243	)	270	277	297	324	358	
Forestry	173	230	271	349	)	457	588	538	453	513	
Fishery	173	170	179	184	)	187	193	199	207	215	
Mining & quarrying	849	1,159	1,408	1,637	1,696	2,074	2,557	2,643	2,548	2,930	3,287
Manufacturing	545	593	678	743	766	882	1,016	1,180	1,325	1,419	1,627
Electricity, gas & water	35	37	41	48	53	56	64	78	87	98	111
Construction	154	194	255	320	361	469	554	676	771	813	855
Commerce, hotels, etc.	1,111	1,236	1,393	1,572	.. /a	1,942	2,112	2,312	2,444	2,554	.. /a
Transport & communication	276	282	292	308	405	443	497	557	585	663	750
Banking, etc.	37	43	70	92	)	132	146	155	179	207)
Ownership of dwelling	125	138	148	159	3,138)	185	218	265	301	368	5,018)
Public administration & defense	534	636	651	668	)	709	731	749	1,018	1,074)
Other services	436	445	456	468	)	492	508	519	533	547)
<u>Gross Domestic Product</u>	<u>7,240</u>	<u>8,246</u>	<u>8,963</u>	<u>9,771</u>	<u>10,405</u>	<u>11,419</u>	<u>12,837</u>	<u>13,736</u>	<u>14,387</u>	<u>15,494</u>	<u>16,622</u>

/a Included with services.

Note: Totals do not add due to rounding.

Source: BPS.

INDONESIA

Percentage Distribution of GDP at Constant 1976 Market Prices, 1968-77
(%)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
<u>Economic Sectors</u>										
Agriculture, forestry, fishery	42.3	39.8	38.5	38.3	35.3	34.5	33.5	32.0	31.1	29.9
Mining	14.1	15.7	16.8	16.3	18.2	19.9	19.2	17.7	18.9	19.7
Manufacturing	7.2	7.6	7.6	7.4	7.7	7.9	8.6	9.2	9.2	9.8
Electricity, gas & water	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.7
Construction	2.4	2.8	3.3	3.5	4.1	4.3	4.9	5.4	5.2	5.1
Transport & communication	3.4	3.3	3.2	3.9	3.9	3.9	4.1	4.1	4.3	4.5
Other services	30.2	30.3	30.1	30.1	30.3	29.0	29.1	31.0	30.7	30.3
Gross domestic product	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<u>Expenditure Categories</u>										
Private consumption	73.9	72.9	68.9	66.7	65.0	64.4	66.3	68.2	67.7	65.3
Government consumption	8.9	8.4	9.0	9.1	8.1	9.9	10.0	10.3	10.3	11.1
Gross domestic investment	9.4	11.0	13.3	15.3	16.6	17.2	19.2	21.0	20.7	20.3
Exports, net	7.8	7.7	8.8	8.9	10.3	8.5	4.5	0.5	1.3	3.3
Gross domestic product	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

INDONESIA

Expenditures on GDP at Current Market Prices, 1971-77
(Rp billion)

	1971	1972	1973	1974	1975	1976	1977
Private consumption /a	2,833	3,402	4,791	7,013	8,744	10,491	12,845
Government consumption	341	414	716	1,147	1,254	1,591	2,069
Gross domestic investment	580	857	1,208	1,797	2,572	3,205	3,597
Export of goods & nonfactor services	529	754	1,354	3,105	2,851	3,430	4,119
Less import of goods and nonfactor services	611	863	1,316	2,294	2,778	3,222	3,583
Gross Domestic Product	<u>3,672</u>	<u>4,564</u>	<u>6,753</u>	<u>10,768</u>	<u>12,643</u>	<u>15,494</u>	<u>19,047</u>
Net factor income abroad	-67	-159	-245	-507	-556	-432	-627
GNP	3,605	4,405	6,508	10,261	12,087	15,062	18,420
GDS	498	748	1,246	2,608	2,645	3,412	4,133
GNS	431	589	739	2,101	2,089	2,980	3,506
GDI/GDP	15.8	18.8	17.9	16.7	20.3	20.7	18.9
GDS/GDP	13.6	16.4	18.5	24.2	20.9	22.0	21.7
GNS/GNP	12.0	13.4	16.4	20.5	17.3	19.8	19.0

/a Residual.

Note: Totals do not add due to rounding.

Source: BPS.

INDONESIA

Expenditures on GDP at Constant 1976 Market Prices, 1968-77
(Rp billion)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Private consumption /a	6,090	6,537	6,728	6,935	7,427	8,273	9,108	9,813	10,491	10,860
Government consumption	733	751	876	947	930	1,270	1,375	1,482	1,591	1,845
Gross domestic investment	775	983	1,305	1,588	1,891	2,213	2,638	3,023	3,205	3,368
Export of goods and nonfactor services	1,459	1,674	1,961	2,144	2,703	3,258	3,377	3,048	3,430	3,801
Less import of goods and nonfactor services	811	982	1,100	1,209	1,531	2,177	2,762	2,980	3,222	3,252
Gross Domestic Product	<u>8,246</u>	<u>8,963</u>	<u>9,771</u>	<u>10,405</u>	<u>11,419</u>	<u>12,837</u>	<u>13,736</u>	<u>14,387</u>	<u>15,494</u>	<u>16,622</u>
Terms of trade effect	-893	-1,076	-1,069	-1,096	-1,364	-1,016	364	11	0	-63
GDY	7,353	7,887	8,702	9,309	10,055	11,821	14,100	14,398	15,494	16,559
GNP	8,174	8,878	9,667	10,311	11,136	12,431	13,125	13,791	15,062	16,163
GNY	7,281	7,802	8,598	9,215	9,772	11,415	13,489	13,802	15,062	16,100
GDS	530	600	1,097	1,427	1,698	2,278	3,617	3,102	3,412	3,854
GNS	458	515	993	1,333	1,415	1,871	3,006	2,506	2,980	3,395
GDI ÷ GDP (%)	9.4	11.0	13.4	15.3	17.6	17.2	19.2	21.0	20.7	20.3
GDS ÷ GDY (%)	7.2	8.6	13.6	15.3	17.9	19.3	25.6	22.5	22.0	23.3
GNS ÷ GNY (%)	6.3	6.6	11.5	14.5	14.5	16.4	22.3	18.2	19.8	21.1

/a Residual.

Note: Totals do not add due to rounding.

Source: BPS.

INDONESIAAverage Growth Rates, 1968-77
(%)

	<u>Actual /a</u> <u>1968-73</u>	<u>Actual /a</u> <u>1973-77</u>	<u>Actual /a</u> <u>1968-77</u>
Agriculture	5.0	2.9	4.0
Mining	17.2	6.5	12.3
Manufacturing	11.4	12.5	11.9
Other sectors	9.9	8.7	9.4
GDP	9.3	6.7	8.1
Private consumption	6.3	7.0	6.6
Government consumption	11.6	9.8	10.8
GDI	23.3	11.1	17.7
Exports	17.4	3.9	11.2
Imports	21.8	10.6	16.7
GDY	10.0	8.8	9.4
Factor payments	41.3	3.1	22.9
GNP	8.7	6.8	7.9
GNY	9.4	9.0	9.2
GDS	33.9	14.0	24.7
GNS	32.5	16.1	24.9

/a Compound average.

INDONESIA

Estimates of the Terms of Trade Effect
(Rp billion)

	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
Exports in current prices	228	245	429	529	754	1,354	3,105	2,851	3,430	4,119
Exports in 1976 prices	1,459	1,674	1,961	2,144	2,703	3,258	3,377	3,048	3,430	3,801
Exports price index	15.6	14.6	21.9	24.7	27.9	41.6	91.9	93.5	100.0	108.4
Imports in current prices	327	403	529	611	863	1,316	2,294	2,778	3,222	3,583
Imports in 1976 prices	811	982	1,100	1,209	1,531	2,177	2,762	2,980	3,222	3,252
Imports price index	40.3	41.0	48.1	50.5	56.3	60.4	83.0	93.2	100.0	110.2
Exports (Imports capacity)	566	598	892	1,048	1,339	2,242	3,741	3,059	3,430	3,738
Terms of trade effect	-893	-1,076	-1,069	-1,096	-1,364	-1,016	364	11	0	-63
Net factor income from abroad in current prices	-29	-35	-50	-67	-159	-246	-507	-556	-432	-627
Net factor income from abroad in 1976 prices	-72	-85	-104	-94	-283	-407	-611	-596	-432	-459
Net foreign inflows (1976 prices)	-317	-469	-312	-255	-475	-342	+368	-517	-224	+27
Net foreign inflows (current prices)	-128	-193	-150	-149	-268	-208	+304	-483	-224	-91

INDONESIA

Balance of Payments 1971/72-1977/78
(US\$ million)

	1971/72 (actual)	1972/73 (actual)	1973/74 (actual)	1974/75 (actual)	1975/76 (actual)	1976/77 (actual)	1977/78 Est. Actual
1. Net Oil /a	204	399	641	2,638	3,138	3,710	4,416
2. Net LNG /a	--	--	--	--	--	--	78
3. Non Oil (net)	-669	-956	-1,397	-2,776	-3,992	-4,512	-5,056
a. Exports, fob	784	974	1,905	2,033	1,873	2,863	3,489
b. Imports, c&f	-1,155	-1,661	-2,938	-4,341	-5,090	-6,167	-7,144
c. Service (non freight)	- 298	- 269	- 364	- 468	- 775	-1,208	-1,401
4. Current Account (1+2+3)	- 465	- 557	- 756	- 138	- 854	- 802	- 562
5. Official Transfer & Capital	420	481	643	660	1,995	1,823	2,122
a. IGGI	420	481	556	513	945	1,596	1,710
i. Program Aid	306	336	281	180	74	147	173
ii. Project Aid	114	145	275	333	871	1,449	1,537
- ODA		(145)	(275)	(333)	(482)	(513)	(661)
- Non ODA		(-)	(-)	(-)	(389)	(936)	(876)
b. Non IGGI			87	147	1	227	412
c. Cash Loan					1,049		
6. Debt Repayment (principal)	- 107	- 66	- 81	- 89	- 77	- 166	- 744
7. Miscellaneous Capital	190	480	549	- 131	-1,075	38	21
a. Direct Investment	186	254	331	538	454	287	285
b. Trade Credits	4	11	18	13	14	- 32	- 50
c. Others	--	215	200	- 682	-1,543	- 217	- 214
8. Total (4 through 7)	38	338	355	302	- 11	893	813
9. Errors & Omissions.	- 13	87	5	- 311	- 353	108	- 186
10. Monetary Movements	- 25	- 425	- 360	9	364	-1,001	- 651

/a Gross export value minus (i) oil sector imports and other foreign exchange cost of production, refining and marketing of oil; and (ii) factor payments to foreign companies. In the foregoing definition "foreign exchange cost" are exclusive of service payments on account of Pertamina's debts but include payments resulting from tanker deals. Net LNG is defined similarly.

Source: Bank Indonesia.

INDONESIA
Nonoil Exports, 1971/72-1977/78

	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78
1. Timber							
Value	170	275	720	615	527	885	854
Volume	8,840	12,701	15,704	12,434	11,335	15,770	14,306
Price	19	22	46	49	46	56	60
2. Rubber							
Value	215	211	483	425	381	577	560
Volume	809	826	902	842	846	892	846
Price	266	255	535	505	450	647	662
3. Palm oil							
Value	45	42	89	184	142	147	214
Volume	212	245	279	303	417	415	406
Price	212	171	319	607	341	354	527
4. Coffee							
Value	54	83	79	92	112	330	630
Volume	72	111	96	105	142	143	188
Price	750	748	823	876	789	2,308	3,351
5. Tea							
Value	31	31	31	50	50	64	131
Volume	46	46	46	51	61	64	60
Price	674	674	674	980	820	1,000	2,183
6. Tobacco							
Value	20	32	46	36	40	41	82
Volume	19	27	35	26	23	21	41
Price	1,053	1,185	1,314	1,385	1,739	1,952	2,000
7. Pepper							
Value	21	21	31	22	25	55	85
Volume	24	24	25	14	17	33	39
Price	875	875	1,240	1,571	1,471	1,667	2,179
8. Palm kernel							
Value	5	4	6	8	4	4	7
Volume	59	51	37	30	41	30	28
Price	85	78	162	267	98	133	236
9. Copra							
Value	8	6	3	-	-	-	-
Volume	67	61	21	-	-	-	-
Price	119	98	143	-	-	-	-
10. Copra cake							
Value	12	14	19	22	29	36	27
Volume	236	303	224	236	363	375	244
Price	51	46	85	93	80	96	112
11. Tapioca							
Value	14	12	7	30	17	10	14
Volume	434	304	117	455	234	133	185
Price	32	39	60	66	73	75	74
12. Other food stuff							
Value	28	26	49	47	37	52	53
Volume	640	604	1,047	926	731	834	808
Price	44	43	47	51	51	62	66
13. Animal & product							
Value	23	42	90	92	105	146	179
Volume	294	101	84	76	70	82	86
Price	78	416	1,071	1,211	1,500	1,780	2,077
14. Tin							
Value	64	70	98	166	158	181	241
Volume	20	21	22	24	22	21	25
Price	3,200	3,333	4,455	6,917	7,182	8,619	9,640
15. Copper							
Value	-	13	56	102	74	95	84
Volume	-	28	126	222	189	230	210
Price	-	464	444	459	392	413	400
16. Other mineral							
Value	18	19	21	28	25	44	45
Volume	2,176	2,432	2,418	2,515	1,869	2,281	2,556
Price	8	8	9	11	13	19	18
17. Miscellaneous							
Value	56	76	77	114	144	196	283
Volume	184	228	238	202	286	278	770
Price	304	333	324	564	503	705	367
<u>Total</u>							
Value	784	977	1,905	2,033	1,973	2,863	3,489
Volume	14,132	18,113	21,421	18,461	16,730	21,602	20,808
Price	55	54	89	110	112	133	182

Value: In millions of US\$
Volume: In thousands of tons
Price: US\$/ton

Source: Bank Indonesia.

INDONESIA

Export Values by Country of Destination
(%)

	1971	1972	1973	1974	1975	1976	1977
Japan	44.6	50.7	53.2	53.5	44.1	41.1	40.2
ASEAN	15.1	8.0	10.6	7.6	10.3	8.9	10.6
Malaysia	..	..	..	..	0.9	0.3	0.2
Philippines	2.1	0.5	-	-	0.5	1.0	1.2
Singapore	13.0	7.5	10.6	7.5	8.9	7.5	9.3
Thailand	-	-	-	0.1	-	-	-
Other Asia	5.2	6.4	6.4	4.8	4.3	4.3	5.8
USA	15.6	14.9	14.5	21.3	26.3	28.7	27.8
Other America	0.5	4.2	3.4	6.0	8.3	7.6	5.3
E.E.C.	13.6	11.9	8.8	4.9	5.6	7.2	8.5
France	0.6	0.6	0.5	0.3	0.2	0.4	0.6
West Germany	5.0	3.7	3.7	2.2	1.9	2.4	2.2
Netherlands	5.8	4.4	3.1	1.9	2.5	2.7	3.4
United Kingdom	1.0	1.3	1.0	0.3	0.4	0.5	0.6
Other E.E.C.	1.2	1.9	0.5	0.1	0.6	1.2	1.7
Other Europe	2.3	2.7	2.4	1.3	0.7	1.0	1.0
Australia	2.0	0.8	0.5	0.3	0.3	0.4	0.5
Other oceanic	-	0.1	-	-	-	-	-
Africa	0.1	0.3	0.2	0.2	0.1	0.2	0.3
<u>Total</u>	<u>100.0</u>	100.0	100.0	100.0	100.0	100.0	100.0

Source: Indikator Ekonomi (BPS)

INDONESIA

Import Values by Country of Origin
(%)

	1971	1972	1973	1974	1975	1976	1977
Japan	32.8	34.0	29.3	29.4	29.9	26.2	27.1
ASEAN	7.1	8.5	7.7	8.7	8.6	14.0	14.3
Malaysia	..	..	..	..	0.4	0.4	0.3
Philippines	..	..	..	..	0.3	0.3	0.3
Singapore	6.3	6.5	4.9	6.5	7.2	9.7	8.6
Thailand	0.8	2.0	2.8	2.2	0.7	3.6	5.1
Other Asia	12.1	12.6	18.3	17.1	14.3	12.8	16.9
USA	15.8	15.5	18.8	15.9	14.1	17.4	12.4
Other America	0.5	0.7	0.9	1.4	1.8	1.2	2.3
E.E.C.	20.5	17.8	16.6	17.7	18.6	21.2	20.8
France	1.5	1.3	1.7	1.9	1.9	3.5	3.0
West Germany	9.5	7.5	7.2	8.2	7.6	8.6	7.8
Netherlands	4.6	4.3	3.3	2.7	2.8	3.0	4.2
United Kingdom	4.2	4.1	3.8	3.8	3.5	3.1	3.8
Other E.E.C.	0.7	0.6	0.6	1.1	2.8	3.0	2.0
Other Europe	5.3	3.9	3.2	5.4	5.8	2.4	2.2
Australia	2.9	3.3	3.3	3.4	3.3	3.4	3.0
Other oceanic	0.1	0.3	0.2	0.4	0.3	0.4	0.5
Africa	2.9	3.4	1.7	0.6	2.3	1.0	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Indikator Ekonomi (BPS)

INDONESIA

External Public Debt Outstanding Including Undisbursed
as of December 31, 1977 /aDebt Repayable in Foreign Currency and Goods
(US\$ million)

Type of creditor Creditor country	D E B T O U T S T A N D I N G		
	Disbursed	Undisbursed	Total
Suppliers Credits			
Australia	1.1	5.8	6.9
France	8.5	-	8.5
Japan	1,391.4	73.7	1,465.1
Korea, Republic of	-	45.7	45.7
Netherlands	28.4	-	28.4
Total Suppliers Credits	1,429.4	125.2	1,554.6
Financial Institutions			
Belgium	120.6	19.5	140.1
France	277.0	202.0	479.0
Germany, Fed. Rep. of	275.1	191.1	466.2
Hong Kong	91.0	2.5	93.5
Italy	6.6	0.3	6.9
Japan	241.1	-	241.1
Netherlands	250.5	86.0	336.5
Norway	62.2	28.9	91.1
Singapore	40.0	2.7	42.7
United Kingdom	117.6	42.1	159.7
United States	1,238.5	118.7	1,357.2
Total Financial Institutions	2,720.2	693.8	3,414.0
Nationalization			
Netherlands	214.1	-	214.1
Total Nationalization	214.1	-	214.1
Multilateral Loans			
Asian Development Bank	114.9	383.7	498.6
IBRD	402.3	1,012.4	1,414.7
IDA	466.4	106.2	572.6
Total Multilateral Loans	983.6	1,502.3	2,485.9
Bilateral Loans			
Abu Dhabi	-	14.4	14.4
Austria	0.6	0.1	0.7
Belgium	67.7	-	67.7
Bulgaria	2.1	-	2.1
Canada	142.1	145.7	287.8
Czechoslovakia	69.1	-	69.1
Denmark	12.2	58.7	70.9
Egypt, Arab Rep. of	3.3	-	3.3
France	202.9	113.5	316.4
German Dem. Rep.	56.8	-	56.8
Germany, Fed. Rep. of	582.2	206.4	788.7
Hungary	17.2	-	17.2
India	4.0	6.0	10.0
Iran	104.9	95.1	200.0
Italy	77.8	-	77.8
Japan	1,964.6	204.8	2,869.3
Kuwait	-	32.0	32.0
Netherlands	241.5	144.1	385.0
New Zealand	3.1	0.5	3.6
Pakistan	12.1	-	12.1
Poland	97.1	-	97.1
Romania	13.9	-	13.9
Saudi Arabia	28.0	25.0	123.0
Switzerland	1.4	14.2	15.6
United Kingdom	83.3	5.0	88.3
United States	1,664.6	372.4	2,037.0
USSR	770.0	-	770.0
Yugoslavia	120.9	119.0	239.9
Total Bilateral Loans	6,343.4	2,326.9	8,669.8
Total External Public Debt	11,691.0	4,648.0	16,339.0

/a At June 1978 exchange rates.

INDONESIA

External Public Debt /a as of December 31, 1977 by Type of Creditor
(US\$ million)

Country	Suppliers and financial institutions	Bilateral	Multilateral	Total
<u>Bilateral IGGI Members</u>				
Japan	1,706	2,869		4,575
USA	1,357	2,037		3,394
West Germany	466	789		1,255
Netherlands	365	599		964
France	488	316		804
Canada	-	288		288
United Kingdom	160	88		248
Belgium	140	68		208
Other	14	170		184
Subtotal	<u>4,696</u>	<u>7,224</u>		<u>11,920</u>
<u>Multilateral IGGI Members</u>				
IBRD/IDA			1,987	1,987
ADB			499	499
Subtotal			<u>2,486</u>	<u>2,486</u>
<u>Total IGGI</u>	<u>4,696</u>	<u>7,224</u>	<u>2,486</u>	<u>14,406</u>
Non-IGGI	273	1,660	-	1,933
<u>Total</u>	<u>4,969</u>	<u>8,884</u>	<u>2,486</u>	<u>16,339</u>

/a Including undisbursed, at June 1977 exchange rates.

INDONESIA

External Public Debt as of December 31, 1977, by Major Currencies and Countries

Currency	Amount (\$ billion)		Share (%)		Country	Amount (\$ billion)		Share (%)	
	Disbursed	Total	Disbursed	Total		Disbursed	Total	Disbursed	Total
US Dollar	5.65	6.81	48.3	41.7	Japan	3.60	4.58	30.8	28.0
Yen	2.05	2.97	17.5	18.2	USA	2.90	3.40	24.8	20.8
D.M.	0.89	1.29	7.6	7.9	West Germany	0.86	1.25	7.4	7.7
DFL	0.71	0.94	6.1	5.7	Netherlands	0.73	0.96	6.2	5.9
Ruble	0.77	0.77	6.6	4.7	France	0.49	0.80	4.2	4.9
Fr. Franc.	0.44	0.75	3.8	4.6	USSR	0.77	0.77	6.6	4.7
Other	0.66	1.14	5.7	7.0	Other countries	1.36	2.09	11.6	12.8
Multiple	0.52	1.67	4.4	10.2	Multilateral organizations	0.98	2.49	8.4	15.2
Total at June '78 exchange rates	<u>11.69</u>	<u>16.34</u>	<u>100.0</u>	<u>100.0</u>		<u>16.34</u>	<u>16.34</u>	<u>100.0</u>	<u>100.0</u>
Total at Dec. '77 exchange rates	11.4	15.9				11.4	15.9		
Total at Dec. '76 exchange rates	11.1	15.5				11.1	15.5		

Source: IBRD External Debt Files.

INDONESIA

Central Government Budget Summary 1972/73-1978/79
(Rp billion)

	<u>1972/73</u> (actual)	<u>1973/74</u> (actual)	<u>1974/75</u> (actual)	<u>1975/76</u> (actual)	<u>1976/77</u> (actual)	<u>1977/78</u> Est. Actual	<u>1978</u> Budget
1. Domestic Revenues	585.1	977.1	1,759.2	2,200.8	2,877.0	3,535.4	3,970.0
2. Routine expenditures/a	444.3	704.1	1,000.5	1,246.8	1,610.3	2,148.9	2,371.6
3. Government saving (1-2)	140.8	273.0	758.7	954.0	1,266.7	1,386.5	1,598.4
4. Development expenditures	290.7	473.7	966.4	1,425.2	2,043.5	2,156.8	2,454.7
5. Balance (3-4)	-149.9	-200.7	-207.7	-471.2	-776.8	-770.3	-856.3
Financed by:							
6. Counterpart funds /b	87.2	93.6	37.6	20.5	10.2	35.8	45.1
7. Project aid	62.3	114.1	195.9	471.4	773.6	737.6	811.2
8. Change in balances (--- = increase)	0.4	-7.0	-25.8	-20.7	-7.0	-3.1	-

/a Includes debt service payments.

/b Program aid

Source: Ministry of Finance.

Central Government Receipts, 1972/73-1978/79
(Rp billion)

	<u>1972/73</u> (actual)	<u>1973/74</u> (actual)	<u>1974/75</u> (actual)	<u>1975/76</u> (actual)	<u>1976/77</u> (actual)	<u>1977/78</u> Est. Actual	<u>1978/79</u> Budget
I. Taxes on Income	<u>301.1</u>	<u>511.1</u>	<u>1,234.5</u>	<u>1,558.3</u>	<u>2,029.2</u>	<u>2,511.3</u>	<u>2,808.0</u>
1. Income tax	25.9	33.3	43.4	65.3	87.4	104.6	138.3
2. Corporate tax	30.4	49.3	100.0	131.3	132.1	269.5	195.3
3. Corporate tax on oil	197.9	346.9	973.3/a	1,205.2	1,593.4	1,948.7	2,067.4
4. Withholding tax	31.8	56.5	78.4	97.0	147.0	201.7	312.0
5. IPEDA	15.1	19.5	29.0	35.8	42.6	52.5	57.5
6. Other	-	5.2	10.4	23.7	26.7	34.3	37.5
II. Taxes on Domestic Consumption	<u>125.9</u>	<u>168.0</u>	<u>161.0</u>	<u>234.4</u>	<u>322.1</u>	<u>397.8</u>	<u>502.0</u>
1. Sales tax	36.2	55.6	86.3	122.4	164.6	203.4	259.2
2. Excises	46.8	62.4	76.2	98.5	131.7	181.9	225.1
3. Other oil revenues	31.6	37.8	-16.0	-1.3	16.6	-	- /b
4. Miscellaneous levies	11.3	12.2	15.4	14.8	9.2	12.5	17.7
III. Taxes on International Trade	<u>141.4</u>	<u>253.6</u>	<u>300.7</u>	<u>309.5</u>	<u>421.5</u>	<u>482.7</u>	<u>540.7</u>
1. Import duties	76.8	132.4	160.9	175.1	256.0	286.9	326.2
2. Sales tax on imports	29.9	51.5	69.1	73.4	102.0	114.6	132.1
3. Export tax	34.7	69.7	70.7	61.0	63.5	81.2	82.4
IV. Nontax receipt	<u>16.7</u>	<u>44.4</u>	<u>62.1</u>	<u>98.6</u>	<u>104.2</u>	<u>143.6</u>	<u>119.3</u>
Domestic revenue	<u>585.1</u>	<u>977.1</u>	<u>1,759.2</u>	<u>2,200.8</u>	<u>2,877.0</u>	<u>3,535.4</u>	<u>3,970.0</u>
V. Development Funds	<u>149.5</u>	<u>207.7</u>	<u>233.5</u>	<u>491.9</u>	<u>783.8</u>	<u>773.4</u>	<u>856.3</u>
1. Counterpart funds /c	87.2	93.6	37.6	20.5	10.2	35.8	45.1
2. Project aid /d	62.3	114.1	195.9	471.4	773.6	737.6	811.2
Total revenues	<u>734.6</u>	<u>1,184.8</u>	<u>1,992.7</u>	<u>2,692.7</u>	<u>3,660.8</u>	<u>4,308.8</u>	<u>4,826.3</u>

/a Excludes underpayment of revenues, estimated at about Rp 340 billion, due to the Government by Pertamina.

/b Oil subsidies shown as Government expenditures (see Table 5.3).

/c Program aid.

/d Includes commercial bank and suppliers credits for development programs/projects.

Source: Ministry of Finance.

INDONESIA

Central Government Expenditures, 1972/73-1978/79
(Rp billion)

	1972/73 (actual)	1973/74 (actual)	1974/75 (actual)	1975/76 (actual)	1976/77 (actual)	1977/78 Est. Actual	1978/79 Budget
<u>Personal Expenditures</u>	197.4	258.9	408.0	565.0	639.4	893.2	1,027.4
Wages and Salaries	125.6	166.5	292.8	386.4	420.6	672.9	797.2
Rice Allowance	32.2	50.7	60.2	116.5	129.4	126.2	131.2
Food Allowance	13.3	16.2	26.5	33.1	49.7	47.8	51.2
Other	19.4	18.2	17.9	17.5	26.2	31.5	31.7
External	6.9	7.3	10.6	11.5	13.5	14.8	16.1
<u>Material Expenditures</u>	92.1	109.1	167.0	292.3	390.1	376.8	406.3
Domestic	82.5	99.5	155.2	280.1	380.7	358.6	388.8
External	9.6	9.6	11.8	12.2	9.4	18.2	17.5
<u>Subsidies to Regions</u>	94.6	113.1	206.9	256.6	311.0	478.4	522.3
West Irian	10.6	8.2	13.2	13.4	18.6	21.7	22.1
Other regions	84.0	104.9	193.7	243.2	292.4	456.7	500.2
<u>Debt Service Payments</u>	49.4	73.7	69.2	67.9	180.3	228.3	346.1
Internal	5.3	11.1	5.2	2.8	11.3	7.3	8.5
External	44.1	62.6	64.0	65.1	169.0	221.0	337.6
<u>Other Expenditures</u>	10.8	149.3	149.4 /a	55.0 /b	89.5 /c	172.2 /d	69.5/e
<u>Routine Expenditures</u>	444.3	704.1	1,000.5	1,246.8	1,610.3	2,148.9	2,371.6
<u>Development Expenditures</u>	290.7	473.7	966.4	1,425.2	2,043.5	2,156.3	2,454.7
General	192.6	319.0	693.9	870.6	1,167.6	1,291.3	1,500.3
In Lieu of ADO	20.7	20.7	47.6	47.4	39.7	75.4	85.7
IPEDA	15.1	19.9	29.0	35.8	42.6	52.5	57.5
Project Aid	62.3	114.1	195.9	471.4	773.6	737.6	811.2
<u>Total Expenditures</u>	735.0	1,117.8	1,966.9	2,672.0	3,653.8	4,305.7	4,826.3

/a Includes food subsidy (Rp 144 billion), other (Rp 5.4 billion).

/b Includes food subsidy (Rp 50 billion), others (Rp 15 billion).

/c Includes food subsidy (Rp 39.1 billion), others (Rp 50.4 billion).

/d Includes oil subsidy (Rp 65.1 billion), Program loan debt service (Rp 86.4 billion), and others (Rp 20.7 billion).

/e Includes oil subsidy (Rp 59.1 billion), others (Rp 10.4 billion).

Source: Ministry of Finance.

INDONESIA

Development Expenditures, 1972/73-1978/79
(Rp billion)

	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79
	----- Actual -----			-----		Est. Act.	Budget
<u>General /a</u>							
Departments	126.8	171.4	226.2	403.5	568.5	744.5	1,029.8
Subsidies to villages	7.1	5.7	11.4	14.4	19.8	23.2	24.0
Subsidies to kabupatens	16.3	19.2	42.7	55.8	62.1	69.1	70.9
Irian Jaya	1.6	3.3	4.2	6.0	5.1	5.5	5.5
Subsidies on commercial import of fertilizer	-	33.5	224.7	133.5	105.4	31.8	38.0
Investment through the banking system	36.4	57.1	98.0	125.7	226.7	166.9	68.6
Primary schools	-	16.4	19.7	48.2	57.7	85.0	112.3
Others /b	4.4	12.4	67.0	83.5	122.3	165.3	151.2
Subtotal	<u>192.6</u>	<u>319.0</u>	<u>693.9</u>	<u>870.6</u>	<u>1,116.6</u>	<u>1,291.3</u>	<u>1,500.3</u>
Subsidies to provinces	20.7	20.7	47.6	47.4	59.7	75.4	85.7
IPEDA	15.1	19.9	29.0	35.8	42.6	52.5	57.5
Total (excl. project aid)	<u>228.4</u>	<u>359.6</u>	<u>770.5</u>	<u>953.8</u>	<u>1,269.9</u>	<u>1,419.2</u>	<u>1,643.5</u>
Project aid	62.3	114.1	195.9	471.4	773.6	737.6	811.2
Total (incl. project aid)	<u>290.7</u>	<u>473.7</u>	<u>966.4</u>	<u>1,425.2</u>	<u>2,043.5</u>	<u>2,156.8</u>	<u>2,454.7</u>

/a Excluding project aid.

/b Includes Inpres.

Source: Ministry of Finance.

INDONESIA

Development Expenditures by Sector
(Rp. billion)

Sector	Actual								Budget		Total	
	1974/75		1975/76		1976/77		1977/78		1978/79		Repelita II	
	Amt	% share	Amt	% share	Amt	% share	Amt	% share	Amt	% share	Amt	% share
Agriculture & irrigation	299	31.0	270	19.0	364	17.8	380	17.6	414	16.9	1,726	19.1
(of which fertilizer subsidy)	(255)	(23.3)	(134)	(9.4)	(105)	(5.1)	(32)	(1.5)	(38)	(1.8)	(534)	(5.9)
Industry & mining	70	7.3	120	8.4	201	9.8	139	6.4	222	9.0	751	8.3
Electric power	78	8.1	123	8.6	224	11.0	223	10.3	266	10.8	914	10.1
Transportation & tourism	125	12.9	326	22.9	408	20.0	355	16.5	389	15.8	1,603	17.7
Manpower and transmigration	3	0.3	10	0.7	27	1.3	61	2.8	122	5.0	223	2.5
Regional development	138	14.3	165	11.6	190	9.3	251	11.6	271	11.0	1,015	11.2
Education	51	5.3	114	8.0	136	6.7	211	9.8	269	11.0	780	8.6
Health	22	2.3	38	2.7	45	2.2	71	3.3	87	3.5	263	2.9
Housing & water supply	6	0.6	14	1.0	27	1.3	90	4.2	60	2.4	196	2.2
General public services /a	52	5.4	74	5.2	110	5.4	123	5.7	195	8.0	553	6.1
Government capital participation	105	10.9	132	9.3	234	11.5	190	8.8	82	3.3	743	8.2
Others /b	18	1.9	39	2.7	79	3.9	65	3.0	80	3.3	280	3.1
<u>Total development expenditures</u>	<u>966</u>	<u>100.0</u>	<u>1,425</u>	<u>100.0</u>	<u>2,044</u>	<u>100.0</u>	<u>2,157</u>	<u>100.0</u>	<u>2,455</u>	<u>100.0</u>	<u>9,047</u>	<u>100.0</u>
<u>Total (excl. fertilizer subsidies)</u>	<u>741</u>		<u>1,291</u>		<u>1,939</u>		<u>2,125</u>		<u>2,417</u>		<u>8,513</u>	

/a Law and order, defence and security, government apparatus.

/b Trade and cooperatives, religion, information and science.

Source: Ministry of Finance

INDONESIA

Project Aid by Sector, 1974/75-1978/79
(Rp billion)

	Actual								Budget		Total	
	1974/75		1975/76		1976/77		1977/78		1978/79		Repelita III	
	Amt.	%	Amt.	%	Amt.	%	Amt.	%	Amt.	%	Amt.	%
griculture & irrigation	26	13	43	9	116	15	146	20	101	12	432	14
ndustry & mining	64	33	77	16	143	18	95	13	168	21	547	18
lectric power	39	20	90	19	171	22	164	22	185	23	649	22
ransportation & tourism	42	21	227	48	283	37	213	29	199	25	964	32
anpower & transmigration	.	.	1	.	1	.	10	1	12	1	23	1
egional development	.	.	.	.	2	.	8	1	8	1	18	1
ducation	8	4	7	1	5	1	30	4	22	3	72	2
ealth	7	4	7	1	6	1	15	2	22	3	57	2
ousing & water supply	1	.	3	1	3	.	28	4	18	2	53	2
eneral public services	-	-	-	-	-	-	-	-	54	7	54	2
overnment capital												
participation	7	4	7	1	1	.	8	1	14	2	37	1
thers	1	.	11	2	37	5	23	3	10	1	82	3
<u>Total Project Aid /a</u>	<u>196</u>	<u>100</u>	<u>471</u>	<u>100</u>	<u>774</u>	<u>100</u>	<u>738</u>	<u>100</u>	<u>811</u>	<u>100</u>	<u>2,990</u>	<u>100</u>

a Includes commercial credits for development programs/projects.

ote: . = less than 1

Totals may not add due to rounding.

ource: Ministry of Finance.

INDONESIA

Money Supply
(Rp billion)

End of period	Total	Change	(%)	Currency		Demand deposits	
				Position	(%)	Position	(%)
<u>1971</u>	320.8	+ 70.5	+28.2	199.4	62	121.4	38
<u>1972</u>	474.6	+153.8	+48.0	271.8	57	202.8	43
<u>1973</u>	669.0	+194.4	+41.0	375.0	56	294.0	44
<u>1974</u>	937.5	+268.5	+40.1	494.2	53	443.3	47
<u>1975</u>		<u>+312.6</u>	<u>+33.3</u>				
Qtr I	1,027.1	+ 89.6	+ 9.6	538.5	52	488.6	48
Qtr II	1,116.9	+ 89.8	+ 8.7	548.5	49	568.4	51
Qtr III	1,264.3	+147.4	+13.2	653.9	52	610.4	48
Qtr IV	1,250.1	- 14.2	- 1.1	625.3	50	624.8	50
<u>1976</u>		<u>+407.9</u>	<u>+32.6</u>				
Qtr I	1,427.9	+177.8	+14.2	659.2	46	768.7	54
Qtr II	1,432.7	+ 4.8	+ 0.3	679.9	47	752.8	53
Qtr III	1,607.5	+174.8	+12.2	799.9	50	807.6	50
Qtr IV	1,603.0	- 4.5	- 0.5	781.0	49	822.0	51
<u>1977</u>		<u>+403.4</u>	<u>+25.2</u>				
Qtr I	1,815.4	+212.4	+12.3	853.4	47	962.0	53
Qtr II	1,960.8	+145.4	+ 8.0	924.4	47	1,036.4	53
Qtr III	2,014.3	+ 53.5	+ 2.7	970.9	48	1,043.4	52
Qtr IV	2,006.4	- 7.9	- 0.4	979.1	49	1,027.3	51
<u>1978</u>							
Qtr I	2,107.9	+101.5		1,035.8	49	1,072.0	51
Qtr II	2,211.3	+103.4		1,100.6	50	1,110.7	50

Source: Bank Indonesia.

INDONESIA

Changes in Factors Affecting Money Supply
(Rp billion)

End of period	Net foreign assets	Net claims on Central Government	Claims on official entities & public enterprises	Blocked account	Claims on business & individuals	Time & savings deposits /a	Net other items
1972	212.3	- 50.8	- 3.0	-	183.4	- 72.2	-115.9
1973	75.3	- 42.5	66.9	-	407.6	- 98.1	-214.8
1974	364.0	-116.6	280.4	-	145.9	-196.3	-208.9
1975	-588.5	162.3	926.0	-415.0	298.4	-213.3	142.6
1976	345.0	-290.1	401.9	- 51.4	361.5	-300.3	-113.7
Qtr I	4.2	52.6	127.8	- 20.3	115.3	-106.4	4.5
Qtr II	54.5	-149.1	128.5	-	69.3	- 47.1	- 51.3
Qtr III	107.4	- 2.3	91.8	-	84.7	- 77.2	- 29.6
Qtr IV	179.0	-191.4	53.7	- 31.1	92.1	- 69.6	- 37.3
1977	568.5	-259.1	-22.5	67.2	325.6	- 96.5	-179.9
Qtr I	135.5	2.4	76.1	-	75.9	- 1.1	- 76.2
Qtr II	215.1	-129.5	20.4	29.3	88.2	- 35.7	- 42.7
Qtr III	165.2	-117.0	-16.7	16.3	68.0	- 43.6	- 19.6
Qtr IV	52.7	- 15.0	-135.7	54.2	93.4	- 16.1	- 41.4
1978							
Qtr I	12.5	14.3	10.9	81.7	109.9	- 39.7	- 88.1
Qtr II	- 60.7	- 94.9	179.7	6.7	104.2	- 63.1	31.6

/a Includes foreign currencies deposits held by residents.

Source: Bank Indonesia.

INDONESIA

Consolidated Balance Sheet of Monetary System, 1973-77
(Rp billion)

	1973	1974	1975	1976	1977
<u>Assets</u>					
<u>Foreign Assets (net)</u>	289	653	148	525	1,061
<u>Domestic Credit</u>	<u>1,085</u>	<u>1,395</u>	<u>2,366</u>	<u>2,789</u>	<u>2,928</u>
<u>Claims on Public Sector</u>	<u>153</u>	<u>317</u>	<u>991</u>	<u>1,052</u>	<u>865</u>
Central Government	-32	-149	14	-276	-520
Official entities and public enterprises	185	466	1,392	1,794	1,784
Government-blocked account	-	-	-415	-466	-399
<u>Claims on Private Sector</u>	<u>932</u>	<u>1,078</u>	<u>1,376</u>	<u>1,727</u>	<u>2,063</u>
Loans	809	1,032	1,321	1,650	1,985
Other claims	123	46	55	77	78
<u>Total Assets/Liabilities</u>	<u>1,374</u>	<u>2,048</u>	<u>2,514</u>	<u>3,314</u>	<u>3,989</u>
<u>Liabilities</u>					
Import deposits	116	283	79	88	146
Other items (net)	271	313	457	595	696
<u>Money and Quasi Money</u>	<u>987</u>	<u>1,452</u>	<u>1,978</u>	<u>2,631</u>	<u>3,147</u>
<u>Money</u>	<u>669</u>	<u>937</u>	<u>1,250</u>	<u>1,603</u>	<u>2,006</u>
Currency	375	494	625	781	979
Demand deposits	294	443	625	822	1,027
Quasi money	<u>318</u>	<u>515</u>	<u>728</u>	<u>1,028</u>	<u>1,141</u>

Source: Bank Indonesia.

INDONESIA

Banking System Credits by Economic Sector /a
(Rp billion)

Sectors	1973	1974	1975	1976	1977		1978
					End June	End Dec.	End June
1. <u>Agriculture /b</u>	87.0	116.4	220.2	265.5	301.1	270.0	327.9
In Rupiah	87.0	116.4	211.9	255.3	289.3	264.4	327.6
In foreign exchange	-	-	8.3	10.2	11.8	5.6	0.4
2. <u>Mining</u>	8.1	10.7	741.3	1,035.9	1,084.2	1,061.7	1,100.5
In Rupiah	8.1	10.7	88.4	175.6	192.3	197.2	212.4
In foreign exchange /c	-	-	652.7	860.3	891.9	864.5	888.1
3. <u>Manufacturing Industry /b</u>	277.6	358.9	718.8	990.5	1,099.5	1,156.2	1,309.3
In Rupiah	277.6	358.9	508.1	739.4	838.1	904.4	1,064.6
In foreign exchange	-	-	210.7	251.1	261.4	251.7	244.6
4. <u>Trade /d</u>	428.1	626.8	766.3	858.1	853.7	911.2	1,039.2
In Rupiah	390.9	604.5	741.1	836.7	840.6	897.7	1,031.8
In foreign exchange	37.2	22.3	25.2	21.4	13.1	13.5	7.4
5. <u>Service Rendering Industry</u>	78.9	121.7	171.6	260.4	284.0	319.2	355.5
In Rupiah	78.9	121.7	166.2	253.3	277.9	310.9	353.5
In foreign exchange	-	-	5.4	7.1	6.1	8.2	2.0
6. <u>Others</u>	179.5	339.9	133.9	163.5	203.6	223.9	190.1
In Rupiah	127.5	175.2	129.0	161.8	199.7	223.4	188.1
In foreign exchange	52.0/e	164.7/e	4.9	1.7	3.9	0.5	2.0
<u>Total</u>	<u>1,059.3</u>	<u>1,574.3</u>	<u>2,752.1</u>	<u>3,573.9</u>	<u>3,826.1</u>	<u>3,942.1</u>	<u>4,322.5</u>
In Rupiah /f	970.1	1,387.3	1,844.6	2,422.2	2,637.8	2,798.1	3,178.0
In foreign exchange	89.3	187.0	907.5	1,151.7	1,188.3	1,144.0	1,144.4

/a Credits outstanding end of period. Includes unpaid interest. Excludes interbank credits, credits to Government and to nonresidents, special liquidity credits, special credit and foreign exchange component of project aid.

/b Processing of agricultural products is classified into manufacturing industry according to International Standard Industrial Classification (ISIC) 1968.

/c Includes credits to state oil company for repayment of foreign borrowing.

/d Includes credits for food procurement and hotel projects.

/e Includes credits in foreign exchange for all sectors.

/f Includes investment credits, small scale investment credits (KIK) and permanent working capital credits (KMKP).

Source: Bank Indonesia.

INDONESIA

Banking System Credits by Type of Bank /a
(Rp billion)

	1974	1975	1976	1977
<u>Bank Indonesia (Direct Credits) /b</u>	232.3	895.3	1,219.0	1,234.9
In rupiah	232.3	246.4	358.7	370.4
In foreign exchange /c	-	648.9	860.3	864.5
<u>State Commercial Banks /d</u>	1,135.8	1,601.9	2,007.5	2,279.4
In rupiah	1,003.8	1,397.2	1,774.7	2,070.9
In foreign exchange	132.0	204.7	232.8	208.5
<u>National Private Banks</u>	89.1	132.7	197.4	257.0
In rupiah	88.9	131.2	195.8	254.1
In foreign exchange	0.2	1.5	1.6	2.9
<u>Foreign Banks</u>	117.1	122.3	150.0	183.5
In rupiah	62.3	69.8	93.0	115.4
In foreign exchange	54.8	52.5	57.0	68.1
<u>Total</u>	1,574.3	2,752.1	3,573.9	3,954.8
In rupiah /e	1,387.3	1,844.6	2,422.2	2,810.8
In foreign exchange	187.0	907.5	1,151.7	1,144.0

/a Credits outstanding end of period. Includes unpaid interest. Excludes interest and credits, credits to Government and to nonresidents, special liquidity credits, special credit and foreign exchange component of project aid.

/b Excludes Bank Indonesia credits to banks.

/c Includes credits to state oil company for repayment of foreign borrowing.

/d Includes BAPINDO.

/e Includes investment credits, small investment credits (KIK) and permanent working capital credits (KMKP).

INDONESIA

Small-Scale Investment Credits and Permanent Working-Capital Credits
(Rp million)

End of quarter	Small-scale investment credits /a			Permanent working-capital credits /a		
	Number of applications approved	Approved value --- (Rp million) --	Out-standing	Number of applications approved	Approved value --- (Rp million) ---	Out-standing
<u>1974</u>						
Qtr I	4,611	5,667	3,966	3,303	4,488	2,913
Qtr II	7,759	11,573	9,756	8,811	11,069	9,021
Qtr III	8,750	13,368	11,421	10,550	13,072	11,006
Qtr IV	9,554	15,253	13,039	14,524	15,502	12,513
<u>1975</u>						
Qtr I	11,324	18,768	15,533	15,769	17,914	13,578
Qtr II	12,836	21,657	17,294	17,626	20,693	14,681
Qtr III	14,734	24,186	18,716	21,355	24,702	17,001
Qtr IV	16,646	28,091	21,644	24,141	28,689	19,233
<u>1976</u>						
Qtr I	19,804	34,090	25,553	83,281	40,756	26,671
Qtr II	22,697	39,025	29,310	102,193	49,210	31,786
Qtr III	25,026	43,889	32,564	148,896	57,993	37,277
Qtr IV	27,827	49,602	36,086	166,149	67,080	41,446
<u>1977</u>						
Qtr I	30,741	55,269	39,605	183,877	74,786	46,342
Qtr II	33,573	61,453	43,425	217,927	88,935	52,624
Qtr III	36,347	67,797	46,600	282,775	101,771	59,047
Qtr IV	39,737	74,186	50,462	322,391	114,990	61,839
<u>1978</u>						
Qtr I	42,163	79,249	52,704	335,366	124,496	65,415
Qtr II	47,180	86,375	56,435	365,776	135,547	70,703

/a Cumulative as of end of period.

Source: Bank Indonesia.

INDONESIAMedium-Term Investment Credits by Economic Sector /a
(Rp million)

	1973	1974	1975	1976	1977
<u>Credit Approved /b</u>	<u>162,329</u>	<u>196,617</u>	<u>255,066</u>	<u>320,002</u>	<u>352,324</u>
Agriculture	16,291	19,739	34,354	44,434	61,824
Manufacturing industry	80,952	96,637	108,658	130,264	143,782
Mining	495	221	154	5,296	5,296
Communication and Tourism	56,812	67,312	96,763	125,465	125,920
Others	7,779	12,708	15,137	14,543	15,502
<u>Credit Outstanding</u>	<u>111,083</u>	<u>136,997</u>	<u>177,788</u>	<u>246,156</u>	<u>278,180</u>
Agriculture	8,044	12,644	26,857	38,922	52,072
Manufacturing industry	59,640	69,331	78,306	94,066	105,754
Mining	161	147	143	4,278	3,277
Communication and Tourism	38,501	45,758	62,222	99,985	106,556
Others	4,737	9,117	10,260	8,905	10,521

/a Excludes small scale investment credits and permanent working capital credits.

/b Cumulative as of end of period. Excludes repayments.

Source: Bank Indonesia.

INDONESIA

Time Deposits with State Banks
(Rp million)

End of	24 months	18 months	12 months	6 months	3 months	Less than 3 months	Total /a	Of which	
								Interbank time deposits	Nonresident time deposits
<u>1971</u>	-	-	75,514	15,552	12,598	993	104,627	14,843	9,308
<u>1972</u>	-	-	107,576	28,699	8,819	731	145,825	23,898	20,050
<u>1973</u>	-	-	129,382	14,162	4,000	1,371	149,915	8,998	7,385
<u>1974</u>	179,934	8,090	37,226	8,298	3,708	1,385	238,641	6,983	82
<u>1975</u>	335,476	10,281	27,372	9,212	3,630	341	386,312	5,065	-
<u>1976</u>	517,568	3,987	48,500	25,082	14,031	2,544	611,712	..	-
<u>1977</u>									
Qtr I	543,283	3,596	48,540	24,433	9,144	1,534	630,530	..	-
Qtr II	554,612	2,645	42,123	31,588	11,785	1,002	643,755	..	-
Qtr III	577,807	2,349	33,933	43,486	8,490	592	666,657	..	-
Qtr IV	604,770	1,951	33,559	40,967	10,041	828	691,846	..	-
<u>1978</u>									
Qtr I	615,913	599	34,621	34,308	1,425	52	686,918	..	-
Qtr II	622,049	45	39,000	44,632	1,849	16	707,591	..	-

.. = Not available.

/a Includes interbank time deposits and nonresident time deposits.

Source: Bank Indonesia

INDONESIA

Principal Agriculture Products by Subsectors, 1969-77
('000 tons)

<u>Product</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976 /a</u>	<u>1977 /a</u>
<u>Food crops</u>										
1. Rice	11,667	12,249	13,140	13,724	13,183	14,607	15,276	15,185	15,845	15,935
2. Corn	3,166	2,292	2,825	2,606	2,254	3,690	3,011	2,909	2,572	3,030
3. Cassava	11,356	10,917	10,478	10,690	10,385	11,186	13,031	12,546	12,191	12,169
4. Sweet potato	2,364	2,260	2,260	2,211	2,066	2,387	2,469	2,433	2,381	2,453
5. Soya beans (shelled)	420	389	389	516	518	541	589	590	522	527
6. Ground nuts (shelled)	298	267	267	284	282	290	307	380	341	403
<u>Fishery</u>										
1. Saltwater fish		785	808	820	836	889	949	997	1,043	1,099
2. Freshwater fish		429	421	424	433	389	388	393	405	427
<u>Meat & Dairy</u>										
9. Meat		309	314	332	366	379	403	435	449	469
10. Eggs		58	59	68	78	81	98	112	116	123
11. Milk (in million liters)		29	29	36	38	35	57	51	57	61
<u>Cash crops</u>										
12. Rubber		778	802	804	808	845	818	782	785	818
13. Palm oil		189	217	249	270	289	348	397	439	496
14. Coconut/copra		1,221	1,200	1,149	1,311	1,237	1,341	1,375	1,527	1,440
15. Coffee		175	185	196	214	150	149	160	179	183
16. Tea		62	64	71	51	67	65	70	73	80
17. Cloves		12	15	14	13	22	15	15	16	26
18. Pepper		17	17	24	18	29	27	23	25	39
19. Tobacco		84	78	76	79	80	77	82	88	103
20. Cane sugar		922	873	1,041	1,133	1,009	1,237	1,227	1,392	1,353
21. Cotton		3	3	2	2	3	7	5	5	2
<u>Forestry</u>										
22. Teakwood ('000 M ³)		520	568	770	597	676	620	595	480	
23. Other timber ('000 M ³)		7,587	11,856	12,968	17,120	25,124	22,660	15,701	20,842	22,360

.. = Not available.

/a Preliminary estimates.

Sources: Ministry of Finance.

INDONESIA
Agricultural Production of Major Crops by Type of Product
('000 tons)

Product	1969	1970	1971	1972	1973	1974	1975	1976 /a
<u>Smallholders</u>								
Rubber	558	571	572	559	599	571	536	539
Coconut/copra	1,220	1,198	1,147	1,308	1,233	1,335	1,370	1,521
Coffee	126	170	178	196	130	132	144	162
Cloves	11	15	14	13	22	15	15	16
Tea	22	21	24	7	14	15	14	16
Sugar	220	196	221	247	199	250	223	250
Tobacco	75	69	69	74	69	69	74	76
Pepper	17	17	24	18	29	27	23	25
Cotton	2	3	2	2	3	7	5	5
Palm oil	-	-	-	-	-	-	-	-
Palm kernel	-	-	-	-	-	-	-	-
<u>Private Estates</u>								
Rubber	110	113	114	128	109	108	109	111
Coconut/copra	1	2	2	3	4	6	5	6
Coffee	5	6	7	6	4	7	6	6
Cloves	1	..	..	..	..	..	..	..
Tea	9	9	10	7	10	11	10	10
Sugar	72	74	122	130	118	127	126	130
Tobacco	-	-	-	-	-	-	-	-
Pepper	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-
Palm oil	60	70	79	81	82	104	126	145
Palm kernel	13	15	18	17	18	21	24	31
<u>Government Estates</u>								
Rubber	110	118	118	121	137	138	137	135
Coconut/copra	-	-	-	-	-	-	-	-
Coffee	8	9	11	12	6	10	10	11
Cloves	-	-	-	-	-	-	-	-
Tea	31	34	37	37	43	40	46	47
Sugar	630	603	708	756	693	860	878	1,012
Tobacco	9	9	7	5	11	8	8	12
Pepper	-	-	-	-	-	-	-	-
Cotton	-	-	-	-	-	-	-	-
Palm oil	129	147	170	189	207	271	271	294
Palm kernel	28	33	39	42	46	52	57	64
<u>TOTAL</u>								
Rubber	778	802	804	808	845	818	782	785
Coconut/copra	1,221	1,200	1,149	1,311	1,237	1,341	1,375	1,527
Coffee	175	185	196	214	150	149	160	179
Cloves	12	15	14	13	22	15	15	16
Tea	62	64	71	51	67	65	70	73
Sugar	922	873	1,051	1,133	1,009	1,237	1,227	1,392
Tobacco	84	78	76	79	80	77	82	88
Pepper	17	17	24	18	29	27	23	25
Cotton	2	3	2	2	3	7	5	5
Palm oil	189	217	249	270	289	348	397	439
Palm kernel	41	48	57	59	64	73	81	95

.. = Not available.

/a Preliminary estimates.

Source: Department of Agriculture

INDONESIA

Rice, Area Harvested, Production and Yield 1968-77

Year	Area Harvested (000 Ha)	Average Yield (Tons/Ha)	Paddy Output (000 tons)	Rice Output (000 tons)
1968	..	..	22,435	11,667
1969	8,014	2.94	23,553	12,249
1970	8,135	3.11	25,267	13,140
1971	8,324	3.17	26,387	13,724
1972	7,898	3.21	25,353	13,183
1973	8,403	3.34	28,091	14,607
1974	8,509	3.45	29,382	15,276
1975	8,495	3.44	29,197	15,185
1976	8,368	3.64	30,470	15,845
1977	8,388	3.65	30,645	15,935

.. = Not available.

Source: Department of Agriculture.

INDONESIA

Rice Production, Imports, Procurement and Consumption, 1960-77

	Production	Less seed /a feed & losses	Imports (Million tons)	Procure- ment	BULOG stocks	Total available	Population (Millions)	Per capita availability (kg)
1960	10.17	0.92	0.89	0.28	-	10.14	94.79	107
1961	9.58	0.86	1.01	0.26	-0.03	9.70	97.02	100
1962	10.28	0.93	1.01	0.52	0.02	10.34	99.05	104
1963	9.16	0.82	1.07	0.44	-0.12	9.29	101.04	92
1964	9.61	0.86	1.02	0.34	0.00	9.77	103.16	95
1965	10.24	0.92	0.14	0.32	0.10	9.56	105.33	91
1966	10.75	0.97	0.24	0.64	-0.10	9.92	107.54	92
1967	10.40	0.94	0.35	0.52	0.03	9.84	109.80	90
1968	11.67	1.05	0.63	0.60	-0.35	10.90	112.10	97
1969	12.25	1.10	0.60	0.20	0.30	12.05	114.46	105
1970	13.14	1.18	0.96	0.49	-0.28	12.64	116.86	108
1971	13.72	1.23	0.49	0.62	0.00	12.99	119.23	109
1972	13.18	1.19	0.74	0.16	0.36	13.09	121.61	108
1973	14.61	1.32	1.66	0.26	-0.42	14.53	124.05	117
1974	15.28	1.38	1.07	0.53	-0.29	14.68	126.53	116
1975	15.18	1.37	0.68	0.54	0.10	14.59	129.06	113
1976	15.84	1.42	1.28	0.39	0.20	15.90	131.33	121
1977	15.93	1.43	2.30	0.41	0.08	16.88	133.96	126

/a Assumes seed (1.5%), losses (6.0%) and feed (1.5%).

Sources: Production: Department of Agriculture and BPS
Imports, Stocks and Procurement: BULOG
Population: BPS

INDONESIA

Area Covered under Rice Intensification Programs, 1967-77
('000 ha)

<u>Year</u>	<u>Bimas</u>	<u>Inmas</u>	<u>Total</u>
1969	1,309	821	2,130
1970	1,248	905	2,153
1971	1,396	1,392	2,788
1972	1,243	2,020	3,263
1973	1,889	2,222	4,111
1974	2,996	1,094	4,090
1975	3,087	1,161	4,248
1976	2,974	1,500	4,474
1977	2,508	2,775	5,283

Source: Department of Agriculture.

INDONESIA

Volume and Value of Log Exports by Species, 1968-76

	1968		1969		1970		1971		1972		1973		1974		1975		1976	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
	(Volume = 1,000 cu m - Value = \$1,000)																	
Meranti	-	-	-	-	5,018	-	6,749	113,460	8,716	150,072	11,272	388,577	10,641	491,030	9,941	359,603	11,956	-
Ramin	-	-	-	-	681	-	1,120	12,326	1,657	23,614	1,903	61,589	922	49,239	800	38,175	1,273	-
Kapur	-	-	-	-	85	-	92	1,107	150	1,883	1,352	30,804	1,513	59,327	1,426	42,304	1,889	-
Teak	29	-	38	-	118	-	35	2,609	49	3,162	72	5,452	72	8,956	40	6,504	51	-
Pulai	-	-	-	-	118	-	26	185	56	458	334	4,387	323	5,179	165	2,033	532	-
Agathis	-	-	-	-	425	-	310	5,640	349	5,480	760	30,119	340	20,377	353	15,509	410	-
Ebony	-	-	-	-	-	-	7	1,155	16	3,153	26	6,791	12	2,846	16	4,401	18	-
Kayu Kuku	-	-	-	-	-	-	5	641	5	600	6	811	2	283	-	-	-	-
Kayu Cendana	-	-	-	-	-	1	627	1	1,031	1	722	-	-	-	-	-	-	-
Sonokeling	-	-	-	-	1,396	-	2	175	3	385	8	1,009	2	285	2	200	-	-
Bakau (Mangroves)	-	-	-	-	-	-	15	77	64	207	54	-	101	605	89	-	174	-
Camparan	1,210	-	3,558	-	440	-	2,399	30,633	2,825	40,304	3,699	53,084	4,154	87,427	1,628	31,094	1,948	-
Total	1,239	11,100	3,596	25,300	7,401	91,676	10,761	168,635	13,891	230,347	19,433	583,345	18,082	723,380	13,921	499,976	18,521	-

Source: Directorate General of Forestry, Statistik Kehutanan Indonesia.

INDONESIA

Volume and Value of Log Exports by Destination, 1969-76

	1969		1970		1971		1972		1973		1974		1975		1976	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Volume	Value
(Volume = 1,000 cu m - Value = \$1,000)																
<u>Asia</u>	<u>3,268</u>	<u>23,655</u>	<u>7,331</u>	<u>83,059</u>	<u>10,321</u>	<u>156,503</u>	<u>13,353</u>	<u>213,146</u>	<u>18,064</u>	<u>548,335</u>	<u>17,650</u>	<u>697,495</u>	<u>13,473</u>	<u>471,322</u>	<u>17,266</u>	<u>-</u>
Japan	2,669	18,998	6,135	71,202	8,301	127,913	9,687	155,185	12,345	362,703	12,187	475,752	7,587	268,493	9,932	-
Korea, Rep. of	186	1,997	450	4,977	485	7,997	1,520	25,770	1,900	69,502	2,136	93,481	2,741	96,799	3,501	-
Taiwan	205	939	349	3,940	560	7,813	1,240	18,178	1,783	62,709	2,227	80,107	2,163	69,750	2,581	-
Singapore	118	703	279	1,553	382	3,815	498	7,441	1,903	45,301	819	33,852	755	27,735	1,026	-
Hong Kong	-	-	-	-	142	2,051	178	3,264	61	2,250	99	4,770	130	4,250	-	-
Others	90	1,018	118	1,387	935	6,914	230	3,308	72	5,870	182	9,533	97	4,795	225	-
<u>Europe</u>	<u>273</u>	<u>2,850</u>	<u>283</u>	<u>3,393</u>	<u>331</u>	<u>5,165</u>	<u>382</u>	<u>6,724</u>	<u>701</u>	<u>28,782</u>	<u>373</u>	<u>22,968</u>	<u>433</u>	<u>26,192</u>	<u>1,232</u>	<u>-</u>
Italy	209	1,097	182	1,475	287	3,335	333	4,972	323	14,753	233	13,278	221	13,620	490	-
United Kingdom	16	167	5	57	4	81	6	132	21	1,323	2	421	31	2,008	-	-
Germany, W.	14	611	11	417	5	152	5	349	101	4,498	25	2,186	33	2,135	-	-
Netherlands	10	446	64	910	9	200	7	407	35	2,017	11	1,339	49	2,278	-	-
Others	20	529	21	534	26	2,019	31	864	211	6,191	102	2,176	99	6,151	743	-
<u>America</u>	<u>-</u>	<u>-</u>	<u>1</u>	<u>32</u>	<u>3</u>	<u>61</u>	<u>31</u>	<u>546</u>	<u>22</u>	<u>698</u>	<u>24</u>	<u>1,117</u>	<u>3</u>	<u>261</u>	<u>11</u>	<u>-</u>
<u>Australia</u>	<u>3</u>	<u>26</u>	<u>16</u>	<u>175</u>	<u>23</u>	<u>252</u>	<u>25</u>	<u>378</u>	<u>80</u>	<u>2,890</u>	<u>35</u>	<u>1,798</u>	<u>10</u>	<u>632</u>	<u>12</u>	<u>-</u>
<u>Others</u>	<u>-</u>	<u>5</u>	<u>1</u>	<u>1</u>	<u>84</u>	<u>1,579</u>	<u>100</u>	<u>1,518</u>	<u>566</u>	<u>2,640</u>	<u>-</u>	<u>-</u>	<u>2</u>	<u>1,569</u>	<u>-</u>	<u>-</u>
<u>Total</u>	<u>3,596</u>	<u>26,536</u>	<u>7,632</u>	<u>86,658</u>	<u>10,761</u>	<u>168,635</u>	<u>13,891</u>	<u>230,349</u>	<u>19,434</u>	<u>583,345</u>	<u>18,083</u>	<u>723,380</u>	<u>13,921</u>	<u>499,976</u>	<u>18,521</u>	<u>-</u>

Source: Directorate General of Forestry, Statistik Kehutanan Indonesia.

INDONESIA

Fisheries Production¹
(Tons) 1960-76

Year	Total	Inland fishery							
		Marine fishery	Subtotal	Open water	Culture				Paddy field
					Subtotal	Brackish water pond	Fresh water pond	Cage	
1960	756,765	410,043	346,722	249,674	97,048	43,078	39,801	-	14,169
1961	910,281	525,198	385,083	297,988	87,095	32,807	36,585	-	17,703
1962	908,293	537,983	370,310	281,449	88,861	32,704	39,925	-	16,232
1963	935,094	558,970	376,124	279,165	96,959	39,239	41,580	-	16,140
1964	992,854	590,000	402,854	272,860	129,994	42,421	66,517	7	21,049
1965	1,102,335	665,107	437,228	296,007	141,221	53,413	63,302	279	24,227
1966	1,201,828	720,236	481,592	347,591	134,001	54,067	59,983	101	19,895
1967	1,180,434	677,933	502,501	364,875	137,626	56,750	60,230	106	20,540
1968	1,159,040	722,512	436,528	320,410	116,118	43,528	53,348	160	19,082
1969	1,214,399	785,344	429,055	314,201	114,854	51,876	42,180	574	20,224
1970	1,228,512	807,391	421,121	286,519	134,602	55,908	51,345	3,126	24,223
1971	1,244,555	820,447	424,108	285,745	138,363	60,788	54,647	388	22,540
1972	1,268,909	836,289	432,620	301,412	131,208	51,203	50,100	10,196	19,709
1973	1,277,512	888,518	388,994	249,592	139,402	60,481	51,870	345	26,706
1974	1,336,268	948,566	387,702	240,893	146,809	66,756	54,739	503	24,811
1975	1,390,074	996,856	393,218	228,571	164,647	78,776	55,403	480	29,988
1976	1,448,000	1,043,000	405,000	230,000	175,000	86,000	56,500	500	32,000

Source: Directorate General of Fisheries, 1977.

INDONESIA

Volume and Value of Fish Exports and Imports, 1960-76
(US\$'000)

Year	Volume		Value	
	Export ---- (tons) ----	Import ----	Export -- (US\$'000) --	Import --
1960	8,053	16,071	731	2,590
1961	10,739	10,851	1,311	1,903
1962	8,282	1,669	1,081	340
1963	5,114	626	850	341
1964	2,057	738	361	447
1965	3,473	69	368	69
1966	8,553	487	667	178
1967	7,782	2,198	1,672	624
1968	19,717	2,521	2,822	507
1969	21,426	2,232	2,444	421
1970	22,060	3,801	6,959	965
1971	30,756	6,741	18,994	1,518
1972	41,156	4,883	34,941	1,605
1973	52,178	7,732	68,185	2,463
1974	54,953	6,980	92,344	2,438
1975	40,738	6,696	88,191	2,374
1976	52,933	22,028	131,453	10,049

Source: Directorate General of Fisheries, 1977.

INDONESIA

Export Volume of Fish by Type, 1968-76
(Tons)

	1968	1969	1970	1971	1972	1973	1974	1975	1976/a
Fish, Crustaceans and Molluscs, Fresh, Frozen, Dried, Salted or Smoked	<u>6,955</u>	<u>9,052</u>	<u>9,954</u>	<u>21,160</u>	<u>29,773</u>	<u>39,478</u>	<u>45,684</u>	<u>34,804</u>	<u>43,368</u>
Fish, fresh, chilled or frozen	<u>3,445</u>	<u>2,408</u>	<u>1,466</u>	<u>4,381</u>	<u>4,214</u>	<u>6,296</u>	<u>7,622</u>	<u>5,032</u>	<u>7,392</u>
Of which:									
Ornamental fish	23	42	104	103	190	286	305	321	350
Tuna	-	-	-	-	-	-	-	424	621
Fish, dried, salted or smoked	<u>219</u>	<u>233</u>	<u>241</u>	<u>232</u>	<u>415</u>	<u>812</u>	<u>1,101</u>	<u>1,148</u>	<u>1,240</u>
Crustaceans and molluscs, fresh, frozen, dried, salted, etc.	<u>3,291</u>	<u>6,411</u>	<u>8,247</u>	<u>16,547</u>	<u>25,144</u>	<u>32,370</u>	<u>36,961</u>	<u>28,624</u>	<u>35,236</u>
Of which:									
Crabs	-	-	-	-	-	-	-	1,017	1,344
Lobster	-	-	-	-	-	-	-	76	177
Shrimps and prawns, headless, etc.	2,461	5,129	6,874	14,986	22,620	28,146	32,110	22,338	29,089
Shrimps and prawns, others	-	-	-	-	-	-	-	1,238	998
Shrimps and prawns, dried, salted, etc.	441	509	459	333	791	641	611	969	1,192
Jelly fish, dried, salted, etc.	-	-	601	389	782	1,935	2,411	2,028	1,671
Miscellaneous Fish Products	<u>10,098</u>	<u>9,315</u>	<u>8,836</u>	<u>5,503</u>	<u>7,455</u>	<u>9,227</u>	<u>5,769</u>	<u>3,888</u>	<u>6,835</u>
Of which:									
Blachan	3,482	2,410	1,686	910	1,615	464	107	22	69
Frog legs, fresh, chilled, frozen	-	28	652	568	867	2,867	1,182	1,553	3,160
Shrimp krupuk	315	305	547	504	643	1,018	1,085	583	1,148
Crocodile skins	68	66	42	43	78	111	83	44	37
Tortoise shell and waste	10	9	10	34	49	107	92	20	71
Mother of pearl	431	267	179	120	240	84	157	300	505
Troca and lola	1,408	1,927	1,895	1,701	2,136	1,959	1,636	910	1,380
Powder and waste of shells	3,596	4,000	3,570	1,366	1,324	1,835	680	2	66
Products of Aquatic Plant Origin	<u>2,469</u>	<u>2,252</u>	<u>3,071</u>	<u>3,888</u>	<u>3,721</u>	<u>3,309</u>	<u>3,344</u>	<u>1,921</u>	<u>2,079</u>
Of which:									
Sea weed	2,469	2,252	3,071	3,888	3,721	3,309	3,344	1,602	1,988
Total	<u>19,717</u>	<u>21,426</u>	<u>22,060</u>	<u>30,756</u>	<u>41,156</u>	<u>52,178</u>	<u>54,953</u>	<u>40,738</u>	<u>52,933</u>

/a Provisional.

Source: Directorate General of Fisheries, 1977.

INDONESIA

Export Value of Fish by Type, 1968-76
(US\$'000)

	1968	1969	1970	1971	1972	1973	1974	1975	1976/a
Fish, Crustaceans and Molluscs, Fresh, Frozen, Dried, Salted or Smoked	<u>1,497</u>	<u>1,405</u>	<u>5,116</u>	<u>17,303</u>	<u>31,924</u>	<u>61,502</u>	<u>88,198</u>	<u>83,300</u>	<u>124,020</u>
Fish, fresh, chilled or frozen	<u>547</u>	<u>353</u>	<u>452</u>	<u>1,477</u>	<u>1,098</u>	<u>1,695</u>	<u>2,225</u>	<u>1,756</u>	<u>2,439</u>
Of which:									
Ornamental fish	33	20	38	29	37	56	54	92	61
Tuna	-	-	-	-	-	-	-	258	409
Other salt water fish	512	326	169	892	471	678	1,145	1,243	1,934
Roes	2	7	245	556	590	961	1,026	159	-
Fish, dried, salted or smoked	<u>83</u>	<u>34</u>	<u>98</u>	<u>128</u>	<u>242</u>	<u>263</u>	<u>211</u>	<u>652</u>	<u>1,484</u>
Crustaceans and molluscs, fresh, frozen, dried, salted, etc.	<u>867</u>	<u>1,018</u>	<u>4,566</u>	<u>15,698</u>	<u>30,584</u>	<u>59,544</u>	<u>85,762</u>	<u>80,893</u>	<u>120,097</u>
Of which:									
Crabs	-	-	-	-	-	-	-	40	39
Lobster	-	-	-	-	-	-	-	277	751
Shrimps and prawns, headless, etc.	718	877	4,216	14,658	29,710	57,476	84,426	75,249	114,814
Shrimps and prawns, others	-	-	-	-	-	-	-	2,714	1,049
Shrimps and prawns, dried, salted, etc.	106	101	62	39	99	86	144	191	372
Jelly fish, dried, salted, etc.	-	-	198	351	548	1,617	877	1,924	2,209
Miscellaneous Fish Products	<u>855</u>	<u>723</u>	<u>1,411</u>	<u>1,331</u>	<u>2,418</u>	<u>6,039</u>	<u>3,516</u>	<u>4,294</u>	<u>7,159</u>
Of which:									
Blachan	75	44	33	16	31	8	3	2	100
Frog legs, fresh, chilled, frozen	-	9	286	384	749	3,774	1,258	2,768	3,924
Shrimp krupuk	86	62	312	277	396	770	1,013	592	1,442
Crocodile skins	402	340	264	267	577	895	575	329	469
Tortoise shell and waste	2	2	21	48	34	111	54	40	216
Mother of pearl	60	27	39	18	72	12	22	45	175
Troca and lola	130	161	287	240	244	160	156	107	319
Powder and waste of shells	44	39	50	14	38	18	8	1	-
Pearls, unmounted, set, strung	-	-	2	2	193	195	327	338	356
Products of Aquatic Plant Origin	<u>82</u>	<u>58</u>	<u>85</u>	<u>100</u>	<u>115</u>	<u>109</u>	<u>94</u>	<u>58</u>	<u>75</u>
Of which:									
Sea weed	82	58	85	100	115	109	94	49	58
Total	<u>2,822</u>	<u>2,444</u>	<u>6,959</u>	<u>18,994</u>	<u>34,941</u>	<u>68,185</u>	<u>92,344</u>	<u>88,191</u>	<u>131,453</u>

/a Provisional.

Source: Directorate General of Fisheries, 1977.

INDONESIA

Output, Trade and Domestic Consumption Data for Cassava, 1968-76
([']000 tons)

Year	Output	% exported	Actual exports	Domestic supply	% to animal feed	Actual to animal feed	% to industry	Actual to industry	% wasted	Actual wastage	For human consumption
1968	11,356	4.6	521	10,835	2	217	21.3	2,300	10	1,083	7,175
1969	10,918	8.5	930	9,987	2	200	23.2	2,313	10	999	6,416
1970	10,478	9	945	9,533	2	191	24.4	2,328	10	953	5,948
1971	10,690	14	1,494	9,196	2	184	24.8	2,274	10	920	5,693
1972	10,385	9.7	1,007	9,378	2	188	24.3	2,274	10	938	5,853
1973	11,186	1.9	210	10,976	2	220	21.8	2,387	10	1,098	7,050
1974	13,031	8.5	1,104	11,927	2	239	23.0	2,736	10	1,193	7,538
1975	12,546	2.4	303	12,243	2	245	22.0	2,693	10	1,224	7,931
1976	12,468	-	-	12,468	2	249	22.0	2,742	10	1,247	8,229

Source: National Input Output tables, Monthly Statistical Bulletin, BPS.

INDONESIA

Output, Trade and Domestic Consumption Data for Maize, 1968-77
('000 tons)

Year	Output	% exported	Actual exports	Domestic supply	% to animal feed	Actual animal feed	% to seed	Actual to seed	For domestic consumption
1968	3,166	2	66	3,100	2	62	2.1	66	2,910
1969	2,293	6.8	156	2,137	2	43	3.3	70	1,981
1970	2,825	9	253	2,572	2	51	1.9	50	2,420
1971	2,606	8.4	219	2,387	2	48	2.8	66	2,225
1972	2,254	3.5	76	2,176	2	44	2.6	56	2,032
1973	3,690	5	181	3,509	2	70	2.0	72	3,297
1974	3,011	6.6	197	2,814	2	56	2.1	60	2,640
1975	2,903	1.8	51	2,852	2	57	1.6	46	2,692
1976	2,572	-	-	2,572	2	51	2.0	57	2,470
1977	3,030	-	-	3,030	2	61	2.0	51	2,908

Source: National Input Output tables, Monthly Statistical Bulletin, BPS.

INDONESIA

Trade and Domestic Consumption Data for Wheat and Wheat Flour, 1968-77
('000 tons)

Year	Wheat				Wheat flour			
	Import	Changes in stocks	Total supply	% lost in milling	Total amt flour	Changes in stock	Gross imports	Total available for consumption
1968	nil	nil	nil	nil	nil	-	367	367
1969	nil	nil	nil	nil	nil	-	294	294
1970	nil	nil	nil	nil	nil	-	401	401
1971	88	45	43	28	31	-	383	414
1972	407	29	378	28	372	-16	17	305
1973	663	0	663	33	447	+46	21	452
1974	672	0	672	28	484	-60	81	625
1975	717	0	717	28	516	+10	10	516
1976	990	0	990	28	713	..	11	724
1977	1,000	0	1,000	28	720	..	41	761

.. = Not available.

Source: National Input Output tables, Monthly Statistical Bulletin, BPS.

INDONESIAAggregate Output, Trade, and Domestic Consumption Data For Vegetables
and Sweet Potatoes, 1968-76
('000 tons)

	<u>Vegetables</u>				<u>Sweet Potatoes</u>			
	Output	Net trade	Total domestic utilization	Waste	Output	Net trade	Total domestic utilization	Waste
1968	3,738	+11	3,727	373	2,364	-	2,364	237
1969	3,831	+11	3,820	382	2,260	-	2,260	226
1970	4,079	+13	4,066	407	2,175	-	2,175	218
1971	4,180	+13	4,167	417	2,211	-	2,211	221
1972	4,329	+11	4,318	432	2,066	-	2,066	207
1973	2,295	+28	2,267	218	2,387	-	2,387	239
1974	2,579	+45	2,534	245	2,470	-	2,470	247
1975	1,889	+30	1,859	180	2,433	-	2,433	243
1976	..	..	..	..	2,418	-	2,418	242

.. = Not available.

Source: National Input/Output Tables, Monthly Statistical Bulletin, BPS.

INDONESIA

Per Capita Consumption of Selected Food Items, 1968-75

	<u>Wheat and wheat flour</u>		<u>Maize (including fresh maize)</u>		<u>Cassava (incl. cassava tapioca)</u>		<u>Coconut and copra</u>		<u>Vegetables</u>		<u>All sugar</u>		<u>Sweet potatoes</u>	
	<u>Kg/yr.</u>	<u>Cal/day</u>	<u>Kg/yr.</u>	<u>Cal/day</u>	<u>Kg/yr.</u>	<u>Cal/day</u>	<u>Kg/yr.</u>	<u>Cal/day</u>	<u>Kg/yr.</u>	<u>Cal/day</u>	<u>Kg/yr.</u>	<u>Cal/day</u>	<u>Kg/yr.</u>	<u>Cal/day</u>
1968	3.30	32	31.18	307	64.70	194	11.92	36	30.17	19	10.71	109	19.13	50
1969	2.59	25	32.43	221	56.62	163	11.91	36	30.26	19	11.42	116	17.90	48
1970	3.45	33	25.83	252	51.35	154	14.73	44	31.50	20	11.24	114	16.85	45
1971	3.50	33	23.70	231	48.20	146	13.00	39	31.50	20	12.60	129	16.70	44
1972	2.51	24	21.71	214	48.38	146	12.45	38	31.95	20	12.26	115	15.28	41
1973	3.63	35	31.46	307	57.07	174	23.46	71	16.31	10	11.24	115	17.24	46
1974	4.90	47	25.69	251	59.50	180	17.78	54	17.83	11	12.72	130	17.42	46
1975	3.95	38	25.61	250	61.07	184	16.03	48	12.76	8	10.14	106	16.77	45

Source: National Input/Output Tables, Monthly Statistical Bulletin, BPS.

INDONESIA

Production of Selected Industrial Goods, 1969/70-1977/78

Product	Unit	1969/70	1970/71	1971/72	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78 /a
Vegetable Oil	000 tons	290	284	287	293	293	294	299	309	308
Cigarettes	Bill. pieces	30	34	36	41	51	52	57	61	64
Textile Yarn	000 bales	182	217	239	262	316	364	445	623	678
Fabrics	Mill. meters	450	598	732	852	927	974	1,017	1,240	1,333
Paper	000 tons	17	22	30	40	47	43	47	54	84
Urea	000 tons	85	103	108	120	116	209	387	412	990
Salt	000 tons	153	58	41	183	86	70	147	563/b	786/b
Caustic Soda	000 tons	1	1	2	3	3	4	9	8	7
Al-Sulphate	000 tons	-	3	7	12	17	14	14	15	19
Sulphuric Acid	000 tons	-	4	9	11	18	9	15	24	20
Oxygen	Million m ³	2	3	4	4	5	5	5	6	6
Acetylene	000 m ³	-	-	-	12	99	124	242	289	192
Matches	Mill. boxes	269	322	349	475	556	707	780	772	506
Soap	000 tons	133	132	132	132	131	149	165	176	195
Toothpaste	Mill. tubes	15	25	26	30	32	46	108	104	104
Car Tires	000 pieces	366	401	507	858	1,361	1,704	1,796	1,883	2,339
Bicycle Tires	000 pieces	2,205	2,164	1,850	2,632	5,880	6,279	7,129	7,297	7,382
Glass Sheet	Sq. Ft.	-	-	-	-	50	60	62	69	74
Glass Bottles	000 tons	12	11	7	17	37	35	32	57	54
Reinforcing Iron	000 tons	5	10	74	75	120	110	202	296	240
Zinc Plate	000 tons	9	34	67	70	70	70	145	156	185
Steel Pipes	000 tons	2	3	6	34	80	94	97	107	120
Steel Cables	000 tons	-	-	-	15	30	30	43	85	98
Car Batteries	000 pieces	32	56	262	130	140	180	220	480	575
Dry-cell Batteries	Mill. pieces	54	55	72	72	132	144	240	420	443
Radio Sets	000 pieces	364	393	416	700	900	1,000	1,100	1,100	1,000
Television Sets	000 pieces	5	5	65	60	60	135	166	213	482
Sewing Machines	000 pieces	14	14	262	340	500	400	520	400	484
Automobiles	000 units	5	3	16	23	37	66	79	75	84
Motorcycles	000 units	21	31	50	100	150	251	300	267	272

/a Preliminary estimates

/b Includes domestic production

Sources: Ministry of Industry

INDONESIAProduction, Imports and Estimated Consumption
of Cement, 1967-77

Year	Production ---- (1,000 tons)	Imports ---- (1,000 tons)	Consumption /a	
			Total (1,000 tons)	Per capita (kg)
1967	317.5	197.1	515.5	4.7
1968	411.9	249.8	616.7	6.0
1969	529.7	478.0	1,006.8	8.9
1970	562.3	639.1	1,201.4	10.3
1971	536.2	898.6	1,343.9	12.3
1972	628.4	1,069.4	1,697.7	14.0
1973	740.4	1,496.8	2,237.2	18.0
1974	830.9	1,737.8	2,568.7	20.1
1975	881.0	1,609.2	2,490.2	19.1
1976	1,760.7	1,360.0	3,120.7	23.4
1977	2,440.0	987.2	3,427.2	25.1

/a Consumption = Production + Imports.

Source: BPS

INDONESIA

Estimated Cement Production and Capacity through 1980

Plant	Design capacity ('000 tons)	Mechanical completion	Commercial production	1976	1977	1978	1979	1980
				('000 tons)				
<u>PT Semen Padang</u>								
Rehabilitasi	330	6/76	8/76	297	330	330	330	330
Indarung II	600	1/79	3/79	-	-	-	375	600
Indarung III	600	4/82	6/82	-	-	-	-	-
	<u>1,530</u>			<u>297</u>	<u>330</u>	<u>330</u>	<u>705</u>	<u>930</u>
<u>PT Semen Baturaja</u>	500	9/79	10/79	-	-	-	200	500
<u>PT Semen Cibinong</u>								
Phase I	500	7/75	10/75	414	450	500	500	500
Phase II	500	10/77	12/77	-	-	375	450	500
Phase III	-	-	-	-	-	-	-	-
	<u>1,000</u>			<u>414</u>	<u>450</u>	<u>875</u>	<u>950</u>	<u>1,000</u>
<u>DICE</u>								
Phase I	500	-	8/75	} 527	450	475	500	500
Phase II	500	-	8/76		400	425	450	500
Phase III	1,000	12/78	2/79		-	-	400	700
	<u>2,000</u>			<u>527</u>	<u>850</u>	<u>900</u>	<u>1,350</u>	<u>1,700</u>
<u>PT Semen Nusantara</u>	600	3/77	6/77	-	240	550	600	600
<u>PT Semen Gresik</u>								
Pros Basah	500	-	-	406	460	475	475	500
Pros Kering	1,000	5/78	7/78	-	-	250	750	950
	<u>1,500</u>			<u>406</u>	<u>460</u>	<u>725</u>	<u>1,225</u>	<u>1,450</u>
<u>PT Semen Tonasa</u>								
Tonasa I	120	-	-	117	110	110	110	110
Tonasa II	510	6/79	9/79	-	-	-	60	375
Tonasa III	510	6/82	9/82	-	-	-	-	-
	<u>1,140</u>			<u>117</u>	<u>110</u>	<u>110</u>	<u>170</u>	<u>485</u>
<u>Total Production</u>	<u>8,270</u>			<u>1,761</u>	<u>2,440</u>	<u>3,490</u>	<u>5,200</u>	<u>6,665</u>

Source: LPEM, 1978.

INDONESIA
Forest-Based Industries in Indonesia

	<u>Sawmills</u>		<u>Veneer & Plywood</u>		<u>Pulp and Paper</u>		<u>Board Mills</u>	
	Units	Capacity (cu m)	Units	Capacity (cu m)	Units	Capacity (cu m)	Units	Capacity (cu m)
<u>Western Indonesia</u>	769	2,334,540	8	446,300	1	100,000	1	
Public	8	82,940	2	900	-	-	1	
Private	761	2,251,600	6	445,400	1	100,000	-	
<u>Central Indonesia</u>	245	4,751,000	7	635,000	2	75,000	1	12,000
Public	2	33,000	-	-	2	75,000	1	12,000
Private	243	4,718,000	7	635,000	-	-	-	-
<u>Eastern Indonesia</u>	20	94,104	-	-	-	-	-	-
Public	5	14,160	-	-	-	-	-	-
Private	15	79,944	-	-	-	-	-	-
<u>Total</u>	1,043/a	7,179,644	15	1,081,300	3	175,000	2	12,000
Public	15	130,100	2	900	3	175,000	2	12,000
Private	1,019	7,049,544	13	1,080,400	-	-	-	-

/a Capacity: 157 mills with capacity greater than 1,000 cu m/month.
226 mills with capacity of 200-1,000 cu m/month.
657 mills with capacity less than 200 cu m/month.

Source: National Progress Report on Forestry, DGF, May 1977.

INDONESIA
Crude Oil Production, 1973-78
(In '000 bbl)

	1973	1974	1975	1976	1977				Total	1978		
					Qtr I	Qtr II	Qtr III	Qtr IV		Qtr I	Qtr II	First half
Onshore												
Pertamina	37,687	40,143	32,590	31,332	7,340	7,561	7,893	7,927	30,721	7,668	8,104	15,772
Lemigas	431	362	306	269	73	75	68	69	285	63	51	114
Caltex /a	351,528	329,907	300,879	307,616	73,855	74,586	73,670	70,839	292,950	70,763	69,838	140,601
C & T /a	1,035	1,959	1,944	1,804	448	685	642	684	2,460	654	610	1,264
Stanvac /a	22,768	16,626	1,3888	12,786	2,740	2,825	3,205	3,203	11,973	3,050	2,962	6,012
PT S.I. (Corr. Block) /b	594	412	306	244	38	37	72	38	185	32	34	66
Asamera	6,470	7,047	6,115	4,771	968	868	735	678	3,249	639	667	1,306
Tesoro	554	2,572	3,091	4,857	1,119	1,072	1,008	943	4,142	907	873	1,780
A.A.R.	468	518	428	426	98	92	92	84	360	81	93	174
Petromer Trend	3,425	11,089	23,017	27,710	8,264	7,405	6,600	6,387	28,656	6,401	6,584	12,985
C & T	-	-	464	796	1,457	2,088	2,558	2,693	8,796	2,594	2,611	5,205
Phillips	-	-	27	-	-	-	-	2,278	2,278	4,383	4,103	8,486
Koy Huffco	-	916	3,874	4,799	1,074	1,228	1,671	1,752	5,725	2,041	2,061	4,102
A.R.C.O. (E. Kalimantan)	-	-	-	-	-	57	885	894	1,836	788	713	1,501
Mobil Oil	-	-	-	-	-	-	484	1,282	1,766	1,606	2,101	3,707
Total Onshore	424,961	411,551	386,929	394,410	97,474	98,579	99,584	99,751	395,388	101,672	101,405	203,075
Offshore												
PT I.A.P.C.O.	13,649	19,785	15,254	34,402	10,958	10,933	9,855	9,725	41,471	8,688	7,295	15,983
A.R.C.O. (Java Sea)	23,357	32,661	28,582	44,432	11,445	11,161	10,633	10,610	43,849	9,436	9,659	19,095
Union Oil	13,292	18,508	20,942	27,989	7,222	7,209	7,340	7,658	29,429	7,306	7,152	14,458
Japex /c	13,292	18,508	18,128	19,425	4,869	8,538	15,836	16,104	45,347	15,426	15,318	30,744
Total Indonesia	-	825	6,909	28,784	19,485	18,017	10,702	10,675	58,879	10,311	10,274	20,585
Cities Service	-	-	111	914	214	201	195	179	789	164	154	318
Total Offshore	63,590	90,287	89,926	155,946	54,193	56,059	54,561	54,951	219,764	51,331	49,852	101,183
Crude Oil Production	488,551	501,838	476,855	550,356	151,667	154,638	154,145	154,702	615,152	153,003	151,257	304,258
Percentage												
Pertamina/Lemigas	7.8	8.1	6.9	5.7					5.0			5.2
Contracts of work	76.8	69.4	66.4	58.5					50.0			48.6
Production sharing	23.2	22.5	26.7	35.8					45.0			46.2
Average daily production	1,338	1,375	1,306	1,508	1,685	1,699	1,675	1,682	1,685	1,700	1,662	1,681

/a Contracts of work.

/b Since January 1977: Redco; since May 1978: Asamera (S. Sumatera).

/c Since June 1977: Inpex (includes 50% of Total Indonesia production).

Source: Ministry of Mines.

INDONESIA

Petroleum Products - Supply and Demand, 1969-76
(bbl million)

	1969	1970	1971	1972	1973	1974	1975	1976
Production of crude	270.9	311.6	325.6	395.6	488.5	501.8	476.9	550.3
Crude imports	0.2	0.8	2.8	2.7	1.9	2.7	2.6	7.7
Subtotal	<u>271.1</u>	<u>312.4</u>	<u>328.4</u>	<u>398.3</u>	<u>490.4</u>	<u>504.5</u>	<u>479.5</u>	<u>558.0</u>
Crude exports	195.7	228.1	239.6	299.1	369.5	378.9	363.1	449.1
Crude available for refineries	75.4	84.3	88.8	96.2	120.9	125.6	116.4	108.9
Changes in crude stocks (decrease = -)	- 0.7	0.6	- 1.2	- 4.3	1.6	0.7	2.9	- 4.8
<u>Refinery inputs</u>	<u>76.1</u>	<u>83.7</u>	<u>90.0</u>	<u>100.5</u>	<u>119.3</u>	<u>124.9</u>	<u>113.4</u>	<u>113.7</u>
Refinery consumption	3.7	4.9	7.6	7.7	8.1	5.8	4.3	3.9
<u>Refinery output</u>	<u>72.4</u>	<u>78.8</u>	<u>82.4</u>	<u>92.8</u>	<u>111.2</u>	<u>119.1</u>	<u>109.1</u>	<u>109.8</u>
<u>Export of refined products</u>	<u>19.0</u>	<u>25.3</u>	<u>34.0</u>	<u>41.2</u>	<u>58.3</u>	<u>67.4</u>	<u>62.2</u>	<u>60.6</u>
Processing deals	-	-	-	-	3.4	26.4	29.7	28.9
Waxy residues	17.0	23.8	32.5	39.7	53.4	39.3	30.7	29.7
Bunker fuel, avtur, etc.	1.5	1.5	1.5	1.5	1.5	1.7	1.8	2.0
<u>Available for domestic consumption</u>	<u>53.4</u>	<u>53.5</u>	<u>48.4</u>	<u>51.6</u>	<u>52.9</u>	<u>51.7</u>	<u>46.9</u>	<u>49.2</u>
<u>Imports of products</u>	<u>3.0</u>	<u>2.1</u>	<u>4.2</u>	<u>8.6</u>	<u>12.8</u>	<u>12.6</u>	<u>15.0</u>	<u>26.4</u>
<u>Total supply</u>	<u>56.4</u>	<u>55.6</u>	<u>52.6</u>	<u>60.2</u>	<u>65.7</u>	<u>64.3</u>	<u>61.9</u>	<u>75.6</u>
<u>Domestic consumption</u>	<u>36.9</u>	<u>39.3</u>	<u>43.9</u>	<u>50.1</u>	<u>60.3</u>	<u>69.6</u>	<u>78.8</u>	<u>88.9</u>
Changes in refined stocks	19.5	16.3	8.7	10.1	5.4	- 5.3	-16.9	-13.3

Source: Migas.

INDONESIADomestic Sales of Petroleum Products, 1971-76
('000 barrels)

	1971	1972	1973	1974	1975	1976	Yearly growth rate, 1971-76 (%)
Aviation gas	144	118	123	139	139	143	0
Aviation turbo	961	1,200	1,658	2,150	2,579	2,758	23.5
Premium gasoline	100	201	359	496	661	706	47.8
Regular gasoline	10,409	10,779	11,757	12,787	14,284	15,606	8.5
Kerosene	18,927	20,697	23,146	26,769	30,623	33,259	12.0
Motor diesel	6,895	9,027	11,838	14,524	18,023	22,749	26.9
Industrial diesel	2,364	2,676	3,488	4,022	4,673	5,429	18.1
Fuel oil	4,095	5,370	7,924	8,755	7,844	8,222	14.9
<u>Total</u>	<u>43,895</u>	<u>50,077</u>	<u>60,293</u>	<u>69,642</u>	<u>78,826</u>	<u>88,872</u>	<u>15.1</u>

Source: Migas, (Directorate of Mining and Gas).

INDONESIAImports and Consumption of Petroleum Products, 1971-76

	1971	1972	1973	1974	1975	1976
<u>Kerosene</u>						
Imports (million bbl)	4.2	5.0	2.9	5.8	7.1	11.6
Consumption (million bbl)	18.9	20.7	23.1	26.8	30.6	33.3
Imports/consumption (%)	22.2	24.2	12.5	21.6	23.2	34.8
<u>All Products</u>						
Imports (million bbl)	4.2	8.6	12.8	12.6	15.0	26.4
Consumption (million bbl)	43.9	50.1	60.3	69.6	78.8	88.9
Imports/consumption (%)	9.6	17.2	21.2	18.1	19.0	29.7

Source: Migas.

INDONESIA

Kerosene Consumption, 1970 and 1976

	1 9 7 0			1 9 7 6			Avg annual growth rate (%) per capita consumption
	Total (mln l)	(%)	Per capita (l/month)	Total (mln l)	(%)	Per capita (l/month)	
<u>Java</u>							
Rural	1,291	44.1	1.74	2,190	45.0	2.64	7.2
Urban	791	27.0	4.86	1,276	26.2	6.98	6.3
<u>Total</u>	<u>2,082</u>	<u>71.1</u>	<u>2.26</u>	<u>3,466</u>	<u>71.2</u>	<u>3.42</u>	<u>7.1</u>
<u>Other Islands</u>							
Rural	605	20.6	1.43	956	19.6	1.96	5.4
Urban	242	8.3	2.99	447	9.2	4.12	5.5
<u>Total</u>	<u>847</u>	<u>28.9</u>	<u>1.63</u>	<u>1,403</u>	<u>28.8</u>	<u>2.35</u>	<u>6.3</u>
<u>Indonesia</u>							
Rural	1,896	64.7	1.63	3,146	64.6	2.39	6.6
Urban	1,033	35.3	4.31	1,723	35.4	5.94	5.5
<u>Total</u>	<u>2,929</u>	<u>100.0</u>	<u>2.04</u>	<u>4,869</u>	<u>100.0</u>	<u>3.03</u>	<u>6.9</u>

Source: Migas, (Directorate of Mining and Gas).

INDONESIA

Public Highway Network 1977

Location	<u>% of total:</u>		Total length (km)	National (%)	National highways (%)	Provincial roads (%)	District roads (%)			
	Area	Population								
Java & Madura	7	63	35,340	36	2,007	18	7,925	29	25,408	42
Sumatera	25	18	32,470	33	3,548	31	10,791	39	18,131	30
Kalimantan	28	4	6,026	6	1,484	13	2,047	8	2,495	4
Sulawesi	10	7	15,310	15	2,070	18	3,659	13	9,581	16
Irian Jaya	22	1	1,029	1	-	-	115	-	914	1
Other Islands	8	7	9,488	9	2,081	18	3,022	11	4,385	7
<u>Total</u>	<u>100</u>	<u>100</u>	<u>99,781</u>	<u>100</u>	<u>11,308</u>	<u>100</u>	<u>27,559</u>	<u>100</u>	<u>60,914</u>	<u>100</u>
<u>Type of Surface</u>										
Paved			32,288	32	7,646	68	14,861	54	9,781	16
Gravel			21,846	22	2,234	20	6,093	22	13,519	22
Earth			19,652	20	1,428	12	6,605	24	11,619	19
Unspecified			25,995	26	-	-	-	-	25,995	43
<u>Total</u>			<u>99,781</u>	<u>100</u>	<u>11,308</u>	<u>100</u>	<u>27,559</u>	<u>100</u>	<u>60,914</u>	<u>100</u>

Source: Directorate General of Highways.

INDONESIA
Railway Traffic Data, 1971-77

	1971	1972	1973	1974	1975	1976	1977
<u>Passengers</u>							
Passengers (million)	50.9	40.1	27.0	25.9	21.8	19.9	20.6
Passengers (million pass-km)	3.623	3.352	3.059	3.467	3.409	3.300	3.836
Average trip (km)	71.2	83.6	113.3	133.9	156.4	165.8	186.2
<u>Freight</u>							
Freight (million tons)	4.0	4.6	4.9	4.6	3.9	3.3	3.6
Freight (million ton/km)	949	1.038	1.129	1.118	865	706	879
Average haul (km)	237.2	225.6	230.4	243.9	222	216	240.5

Source: PJKA.

INDONESIA

Motor Vehicle Registration, 1967-76

Year	Cars /a	Trucks	Buses /b	Motorcycles	Total
1967	186,109	92,298	18,654	284,578	581,639
1968	201,743	93,417	19,610	308,404	623,174
1969	218,866	94,065	19,367	368,724	701,022
1970	238,924	102,265	23,541	440,005	804,735
1971	259,282	115,082	22,797	528,079	925,240
1972	277,210	131,175	26,488	615,220	1,050,093
1973	306,713	143,252	30,026	714,333	1,194,334
1974	339,181	167,246	31,510	948,778	1,485,715
1975	383,061	196,416	35,100	1,191,771	1,806,351
1976	420,488	222,310	39,840	1,417,228	2,099,866
<u>% Average Annual Growth</u>					
1967-76	9.4	10.3	8.8	19.5	15.4
1967-73	8.4	7.6	8.4	16.6	12.8
1973-76	11.1	15.8	9.9	25.6	20.7

/a Includes taxis and jeeps (four-wheel drive).

/b Includes minibuses.

Source: Central Bureau of Statistics.

INDONESIA

Cost of Living Index in Jakarta
Index: September 1966 = 100

End of period	Food stuffs	Change (%)	Housing	Clothing	Other	General	Change (%)
1970	612	+1.3	871	426	750	626	+8.9
1971	626	+2.2	879	437	777	642	+2.6
1972	905	+44.6	892	435	805	807	+25.7
1973	1,162	+28.4	1,025	574	1,021	1,028	+27.4
1974		+32.2					+33.3
Qtr I	1,356	+16.7	1,194	632	1,166	1,188	+15.6
Qtr II	1,380	+1.8	1,225	678	1,370	1,251	+5.3
Qtr III	1,407	+2.0	1,236	730	1,406	1,282	+2.5
Qtr IV	1,536	+9.2	1,258	765	1,442	1,370	+6.9
1975		+23.4					+19.7
Qtr I	1,615	+5.1	1,323	772	1,472	1,427	+4.2
Qtr II	1,632	+1.0	1,546	780	1,529	1,465	+2.7
Qtr III	1,760	+7.8	1,591	808	1,524	1,545	+5.5
Qtr IV	1,896	+7.7	1,665	836	1,561	1,640	+6.1
1976		+13.2					+14.2
Qtr I	1,986	+4.7	1,695	846	1,635	1,709	+4.2
Qtr II	2,052	+3.3	1,857	885	1,708	1,779	+4.1
Qtr III	2,150	+4.8	1,997	930	1,800	1,870	+5.1
Qtr IV	2,146	-0.2	2,057	934	1,800	1,873	+0.2
1977		+12.4					+11.8
Qtr I	2,199	+2.5	2,144	944	1,826	1,916	+2.3
Qtr II	2,251	+2.3	2,181	959	1,890	1,963	+2.4
Qtr III	2,342	+4.0	2,245	997	1,959	2,039	+3.9
Qtr IV	2,412	+3.0	2,326	1,002	2,001	2,094	+2.7
1978							
Qtr I	2,432	+0.8	2,356	1,005	2,008	2,110	+0.7
Qtr II	2,419	-0.6	2,381	1,017	2,028	2,109	-
January	2,413	-	2,331	1,002	2,007	2,096	+0.1
February	2,413	-	2,352	1,002	2,008	2,098	+0.1
March	2,432	+0.8	2,356	1,005	2,008	2,110	+0.6
April	2,493	+2.5	2,356	1,015	2,015	2,147	+1.8
May	2,470	-0.9	2,372	1,017	2,020	2,137	-0.5
June	2,419	-2.1	2,381	1,017	2,028	2,109	-1.3
July	2,448	+1.2	2,381	1,017	2,116	2,143	+1.6
August	2,482	+1.4	2,381	1,035	2,137	2,170	+1.3

N.B.: Indices in this table referred to end-quarter or end-year position, therefore they differed from average year indices used in the text.

Source: Central Bureau of Statistics.

INDONESIA

Price Index of Nine Essential Commodities /a in Selected Cities
(Index: Jakarta, October 1976 = 100)

End of period	Jakarta	Surabaya	Jogjakarta	Medan	Padang	Palembang	Banjarmasin	Ujung Pandang
1970	562	596	581	686	635	619	591	635
1971	535	592	585	641	648	580	563	546
1972	948	1,013	939	851	782	1,080	951	939
1973	1,050	1,129	1,044	1,515	1,459	1,453	1,404	1,072
1974	1,184	1,291	1,199	1,448	1,359	1,315	1,321	1,334
1975	1,482	1,517	1,712	1,736	1,674	1,549	1,390	1,469
1976	1,505	1,809	1,775	1,734	1,700	1,749	1,590	1,547
<u>1977</u>								
1st qtr	1,520	1,661	1,447	1,627	1,821	1,797	1,692	1,580
2nd qtr	1,525	1,627	1,458	1,729	1,724	1,799	1,732	1,473
3rd qtr	1,523	1,875	1,611	1,769	1,704	1,804	1,610	1,476
4th qtr	1,570	1,926	1,719	1,873	1,965	1,880	1,709	1,557
<u>1978</u>								
1st qtr	1,587	1,861	1,580	1,713	2,005	2,004	1,730	1,607
2nd qtr	1,575	1,794	1,592	1,820	1,773	1,928	1,736	1,584

/a Rice, fish, cooking oil, sugar, kerosene, soap, textile, batik.

Source: BPS.

INDONESIA

Wholesale Price Indices in Indonesia
(1971 = 100)

	1971	1972	1973	1974	1975	1976	1977
Agriculture	100	118	159	218	256	321	392
Food crops	100	126	162	194	230	296	343
Commercial crops	100	91	148	225	182	265	411
Livestock	100	118	156	218	255	293	349
Mining & quarrying	100	113	125	164	195	210	237
Manufacturing	100	110	154	189	202	238	265
Imports	100	110	140	184	200	215	225
Exports	100	119	179	377	368	393	447
Nonoil exports	100	105	166	219	182	226	290
General index excluding exports	100	112	151	196	217	256	292
General index	100	114	157	232	247	283	323

Source: Indikator Ekonomi (BPS).

INDONESIA

Annual Retail Prices of Six Basic Foodcrops, 1952-76

	Jakarta markets		Rural markets			
	Rice Cheap Quality	Wheat Flour	Corn Mixed & Shelled (Rp per kg)	Cassava Roots	Sweet Potatoes	Soybeans
1952	2.23	3.17	1.42	0.51	0.49	2.35
1953	2.25	2.92	0.93	0.35	0.37	2.15
1954	2.24	3.29	0.79	0.29	0.34	2.62
1955	2.64	4.30	1.48	0.38	0.43	3.05
1956	3.57	3.99	1.95	0.53	0.51	3.94
1957	4.43	5.01	1.82	0.50	0.53	4.12
1958	7.42	8.90	2.60	0.75	0.79	5.06
1958	6.63	14.55	2.86	0.67	0.75	5.92
1960	7.62	11.08	3.70	0.88	1.03	10.47
1961	12.63	11.37	6.05	1.90	2.18	12.38
1962	38.10	36.72	17.92	6.98	6.97	32.01
1963	76.28	116.94	39.80	11.20	11.66	70.05
1964	202.08	430.61	79.20	24.50	24.26	136.29
1965	726.04	1,661.84	267.45	58.95	71.62	509.18
1966	5.96	18.08	2.66	1.22	1.34	5.79
1967	16.64	24.78	7.26	2.84	2.96	16.82
1968	48.13	45.58	19.11	7.26	7.40	38.09
1969	38.26	44.72	20.17	6.28	6.81	53.18
1970	43.47	45.21	19.60	8.08	8.52	52.72
1971	39.80	55.35	20.44	7.58	8.61	58.80
1972	45.90	65.80	27.32	9.80	10.69	65.68
1973	71.34	83.53	35.62	16.85	18.85	101.83
1974	75.45	81.94	46.73	13.46	15.58	128.07
1975	93.49	100.23	59.91	17.55	20.33	164.79
1976	116.18	128.30	76.87	28.02	30.02	176.36

Source: BPS.

INDONESIA

Price of Rice /a in Selected Cities
(Rp/kg)

	Jakarta	Bandung	Semarang	Surabaya	Medan	Palembang	Pontianek	Ujung Padang	Menado	Matoram
1970 Dec.	46	46	47	41	50	44	51	41	50	32
1971 Dec.	46	43	45	44	49	37	48	41	49	37
1972 Dec.	82	80	85	79	61	58	93	56	76	59
1973 Dec.	84	85	81	75	116	120	127	75	119	74
1974 Dec.	91	88	88	90	108	101	116	100	120	75
1975 Dec.	126	128	122	125	133	122	135	108	127	98
1976 June	115	118	119	112	128	133	138	115	128	107
Dec.	123	125	124	129	135	139	140	123	140	126
1977 June	126	126	120	123	135	142	140	113	139	110
Dec.	134	134	132	133	145	147	143	127	145	126
1978 June	128	124	125	128	134	152	145	125	150	118

/a Medium quality.

Source: BULOG.

INDONESIADomestic Price of Petroleum Products, 1972-78
(Rp/liter)

	1972	1973	1974	1975	1976	1977	1978
Aviation gas	35	40	50	62	70	70	70
Aviation turbo	30	40	50	62	70	70	70
Premium gasoline	40	45	55	67	90	90	90
Regular gasoline	35	41	46	57	70	70	70
Kerosene	10	11.50	13	16	18	18	18
Motor diesel	14	16	19	22	25	25	25
Industrial diesel	8.50	9	13	19	22	22	22
Fuel oil	6.50	7.50	12	19	22	22	22

Source: Migas.

Approved Foreign Investment /a by Sector, 1967-77
(US\$ million)

Sector	1967-73	1974	1975	1976	1977	Total 1974-77	Total 1967-77
Agriculture	101.4	2.6	1.0	8.2	41.1	52.9	154.3
Forestry	430.4	62.3	17.2	36.9	30.3	146.7	577.1
Fisheries	25.4	19.3	13.7	5.8	4.9	43.7	69.1
Mining & quarrying	652.3	69.0	507.2	3.6	200.0	779.8	1,432.1
Manufacturing	<u>1,166.1</u>	<u>927.7</u>	<u>1,159.5</u>	<u>348.2</u>	<u>380.2</u>	<u>2,815.6</u>	<u>3,981.7</u>
Food	98.1	33.9	23.5	67.6	7.7	132.7	230.8
Textiles & leather	542.7	358.8	31.2	24.2	92.0	506.2	1,048.9
Wood & wood products	8.1	10.0	21.9	5.5	-	37.4	45.5
Paper & paper products	9.2	1.0	18.5	66.2	9.7	95.4	104.6
Chemical & rubber	183.9	76.1	60.4	35.7	78.2	250.4	434.3
Nonmetallic minerals	101.1	133.5	99.6	72.0	99.0	404.1	525.2
Ferrous metals	55.7	246.0	875.6	11.9	18.3	1,151.8	1,207.5
Metal products	143.3	64.9	28.8	65.0	75.3	234.0	377.3
Others	4.3	3.4	-	-	-	3.4	7.7
Construction	49.0	11.8	10.4	1.3	3.4	26.9	75.9
Trade & hotels	<u>121.5</u>	<u>43.0</u>	<u>21.3</u>	<u>14.2</u>	<u>0.6</u>	<u>79.1</u>	<u>200.6</u>
Wholesale trade	11.6	-	-	0.7	-	0.7	12.3
Hotels	109.9	43.0	21.3	13.5	0.6	78.4	188.3
Transport & communication	<u>29.5</u>	<u>3.0</u>	<u>20.3</u>	<u>4.0</u>	<u>5.0</u>	<u>32.3</u>	<u>61.8</u>
Transport	23.4	3.0	16.9	4.0	-	23.9	47.3
Communication	6.1	-	3.4	-	5.0	8.4	14.5
Real estate & business services	101.4	122.2	7.5	27.3	6.0	163.0	264.4
Other services	17.0	-	-	-	-	-	17.0
<u>Total</u>	<u>2,698.3</u>	<u>1,260.9</u>	<u>1,757.9</u>	<u>449.4</u>	<u>671.5</u>	<u>4,139.7</u>	<u>6,838.0</u>

/a Intended capital investment. Amounts represent original approval plus approved expansion minus cancellations.

Source: Investment Board.

INDONESIA

Approved Domestic Investment /a by sector, 1967-77
(Rp billion)

Sector	1967-73	1974	1975	1976	1977	Total 1974-77	Total 1967-77
Agriculture, fisheries & livestock	61.7	8.6	19.2	41.7	8.4	78.0	139.7
Forestry	139.4	32.1	7.3	5.1	60.4	104.9	244.3
Mining	47.6	2.4	-	-	-	2.4	50.0
Manufacturing	<u>755.4</u>	<u>170.4</u>	<u>194.4</u>	<u>179.3</u>	<u>351.4</u>	<u>895.5</u>	<u>1,650.9</u>
Textile	301.4	65.3	33.8	32.4	71.1	202.6	504.0
Chemicals	106.4	21.0	51.4	71.0	85.9	229.3	335.7
Electric manufacturing	19.9	2.1	2.2	-	10.3	14.6	34.5
Other manufacturing	327.7	82.0	107.0	75.9	184.1	449.0	776.7
Construction	14.2	-	-	-	-	-	14.2
Hotel	71.1	2.3	1.4	-	9.6	13.2	84.3
Real estate	77.6	-	15.3	17.5	36.1	68.9	146.5
Others	89.0	14.5	8.3	35.5	23.3	81.6	170.6
<u>Total</u>	<u>1,256.0</u>	<u>230.3</u>	<u>245.9</u>	<u>279.1</u>	<u>489.2</u>	<u>1,244.5</u>	<u>2,500.5</u>

/a Intended capital investment. Figures represent original approvals plus approved expansions minus cancellations.

Source: Investment Board.

QUANTITATIVE PROJECTIONS APPENDIX

Table No.

Table Headings

Population

- 1.1 Population Projections 1976-2001
- 1.2 Population Projections 1976-2001 (Attachment)
- 1.3 Labor Force Projections 1976-2001

National Accounts

- 2.1 Basic Economic Indicators I
- 2.2 Basic Economic Indicators II

International Trade and Balance of Payments

- 3.1 Exports 1973/74-1990/91
- 3.2 Imports, 1973/74-1990/91
- 3.3 Projected Import Capacity 1978/79-1990/91
- 3.4 Projected Import Capacity 1978/79-1990/91 (Attachment)
- 3.5 Exports and Imports Volume Growth Rates 1973/74-1990/91
- 3.6 Balance of Payments, 1973/74-1990/91
- 3.7 Projected Foreign Exchange Availability and Requirement, 1978/79-1990/91
- 3.8 Summary Alternative Foreign Exchange Availability and Requirement Projections

External Debt

- 4.1 Borrowing Program and Attachment
- 4.2 Service Payments, Commitments, Disbursements and Outstanding Amounts of External Public Debt
- 4.3 Projected Disbursements, Net Resource Transfers and Debt Service
- 4.4 Summary: Commitments, Disbursements, Net Resource Transfers, Debt Service
- 4.5 Projected External Debt Outstanding 1973-90

Public Finance

- 5.1 Public Sector Resources, 1976/77-1990/91
- 5.2 Financing of Public Sector
- 5.3 Alternative Oil Revenue Projections, Repelita III, 1979/80-1983/84
- 5.4 Non-Oil Current Revenues, Current Expenditures and Public Savings, 1974/75-1990/91, Current Prices
- 5.5 Non-Oil Current Revenues, Current Expenditures and Public Savings, 1974/75-1990/91, As Percentage of GNP

INDONESIA
Population Projections /a 1976-2001
(*000)

Age group	1976			1981			1986			1991			1996			2001		
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
Java																		
0-4	5,955	5,824	11,779	6,185	6,025	12,210	6,437	6,258	12,695	6,562	6,372	12,934	6,465	6,267	12,732	6,208	6,010	12,218
5-9	5,699	5,723	11,422	5,627	5,506	11,133	5,893	5,747	11,640	6,176	6,016	12,192	6,337	6,169	12,506	6,282	6,106	12,388
10-14	5,260	5,196	10,456	5,597	5,614	11,211	5,539	5,416	10,955	5,812	5,667	11,479	6,101	5,945	12,046	6,272	6,109	12,381
15-19	4,500	4,460	8,960	5,163	5,094	10,257	5,505	5,518	11,023	5,458	5,336	10,794	5,737	5,595	11,332	6,033	5,883	11,916
20-24	3,637	3,733	7,370	4,381	4,346	8,727	5,040	4,976	10,016	5,388	5,407	10,795	5,354	5,245	10,599	5,641	5,514	11,155
25-44	9,688	10,412	20,100	10,584	11,384	21,968	12,138	12,693	24,831	14,520	14,833	29,353	17,217	17,315	34,532	18,923	18,848	37,771
45-54	3,338	3,497	6,835	3,854	4,016	7,870	4,234	4,571	8,805	4,161	4,652	8,813	4,025	4,566	8,591	4,987	5,449	10,436
55-64	1,896	2,235	4,131	2,269	2,565	4,834	2,663	2,947	5,610	3,119	3,424	6,543	3,465	3,940	7,405	3,444	4,045	7,489
65+	1,068	1,480	2,548	1,276	1,753	3,029	1,359	2,097	3,656	1,902	2,469	4,371	2,296	2,921	5,217	2,774	3,474	6,248
Total	41,041	42,560	83,601	44,936	46,303	91,239	49,008	50,224	99,231	53,098	54,176	107,274	56,997	57,963	114,960	60,564	61,438	122,002
Other Islands																		
0-4	3,934	3,852	7,786	4,436	4,330	8,766	5,006	4,872	9,878	5,582	5,421	11,003	6,092	5,905	11,997	6,555	6,346	12,902
5-9	3,438	3,438	6,876	3,699	3,626	7,325	4,210	4,112	8,322	4,795	4,674	9,469	5,390	5,249	10,639	5,919	5,754	11,673
10-14	3,056	3,051	6,107	3,373	3,368	6,741	3,637	3,562	7,199	4,150	4,052	8,202	4,737	4,619	9,356	5,334	5,197	10,531
15-19	2,608	2,521	5,129	2,996	2,987	5,983	3,314	3,306	6,620	3,582	3,507	7,089	4,096	4,001	8,097	4,684	4,570	9,254
20-24	2,205	2,261	4,466	2,535	2,452	4,987	2,921	2,914	5,835	3,241	3,238	6,479	3,515	3,447	6,962	4,028	3,943	7,971
25-44	5,409	5,197	10,607	6,317	6,192	12,509	7,240	7,157	14,397	8,612	8,650	17,260	10,158	10,174	20,332	11,471	11,385	22,856
45-54	1,539	1,646	3,185	1,728	1,797	3,525	2,128	2,084	4,212	2,353	2,217	4,570	2,449	2,447	4,896	3,080	3,247	6,326
55-64	1,005	1,107	2,112	1,105	1,244	2,349	1,218	1,378	2,596	1,390	1,525	2,914	1,745	1,796	3,541	1,949	1,929	3,878
65+	652	785	1,437	725	889	1,614	837	1,033	1,870	944	1,196	2,140	1,084	1,378	2,462	1,260	1,580	2,840
Total	23,846	23,858	47,704	26,914	26,885	53,799	30,511	30,418	60,929	34,649	34,480	69,128	39,266	39,016	78,282	44,280	43,951	88,231
Indonesia																		
0-4	9,889	9,676	19,565	10,621	10,355	20,976	11,443	11,130	22,573	12,144	11,793	23,937	12,557	12,172	24,729	12,763	12,356	25,119
5-9	9,137	9,161	18,298	9,326	9,131	18,457	10,103	9,859	19,962	10,971	10,690	21,661	11,727	11,418	23,145	12,201	11,860	24,061
10-14	8,316	8,247	16,563	8,970	8,982	17,952	9,176	8,978	18,154	9,962	9,719	19,681	10,838	10,564	21,402	11,606	11,306	22,912
15-19	7,108	6,981	14,089	8,159	8,081	16,240	8,819	8,824	17,643	9,040	8,843	17,883	9,833	9,596	19,429	10,716	10,453	21,170
20-24	5,642	5,994	11,636	6,916	6,798	13,714	7,961	7,890	15,851	8,629	8,645	17,274	8,869	8,692	17,561	9,669	9,457	19,126
25-44	15,098	15,609	30,707	16,901	17,577	34,478	19,378	19,850	39,228	23,132	23,483	46,613	27,375	27,489	54,864	30,394	30,233	60,627
45-54	4,877	5,143	10,020	5,582	5,813	11,395	6,362	6,655	13,017	6,514	6,869	13,383	6,474	7,013	13,487	8,067	8,696	16,763
55-64	2,901	3,342	6,243	3,374	3,809	7,183	3,881	4,325	8,206	4,509	4,949	9,457	5,210	5,736	10,946	5,393	5,974	11,367
65+	1,720	2,265	3,985	2,001	2,642	4,643	2,396	3,130	5,526	2,846	3,665	6,511	3,380	4,299	7,680	4,033	5,054	9,087
Total	64,887	66,418	131,305	71,850	73,188	145,038	79,519	80,641	160,160	87,747	88,656	176,402	96,263	96,979	193,242	104,844	105,389	210,233
Alternative Projections /b																		
Java	41,041	42,560	83,601	45,265	46,618	91,884	49,957	51,169	101,126	54,696	55,771	110,467	59,279	60,234	119,513	63,571	64,421	127,992
Outer Islds	23,846	23,858	47,704	27,140	27,090	54,229	31,173	31,050	62,223	35,844	35,635	71,480	41,007	40,699	81,706	46,674	46,258	92,932
Indonesia	64,887	66,418	131,305	72,406	73,708	146,113	81,130	82,219	163,349	90,540	91,406	181,947	100,286	100,933	201,219	110,245	110,679	220,924

/a The above population projections are based on the assumption of a moderate decline in mortality.

/b The alternative population projections are based on the assumption of a rapid decline in mortality.

Note: In both population projections fertility rates in Java are projected to decline linearly by 30% between 1971 and 1986 and by 50% between 1987 and 2001, and in Other Islands by 30% between 1971 and 2001. The projections further assume no migration between Java and Outer Islands and sex ratio at birth as 105 male births to 100 female births.

INDONESIA

Population Projections, 1976-2001 - Attachment

Basic Assumptions and Population Indicators

	<u>Java</u>						<u>Other Islands</u>					
	1971-76	1976-81	1981-86	1986-91	1991-96	1996-2001	1971-76	1976-81	1981-86	1986-91	1991-96	1996-2001
Total fertility rate	4.750	4.253	3.780	3.360	2.987	2.655	6.045	5.662	5.341	5.021	4.720	4.436
Gross reproduction rate	2.317	2.075	1.844	1.639	1.457	1.295	2.949	2.772	2.605	2.449	2.302	2.164
Net reproduction rate <u>/a</u>	1.622	1.516	1.402	1.294	1.191	1.093	2.007	1.971	1.931	1.905	1.873	1.819
Net reproduction rate <u>/b</u>	1.622	1.578	1.507	1.383	1.267	1.158	2.007	2.054	2.082	2.059	1.995	1.929
Life expectancy at birth (years) <u>/a</u>												
Females	47.50	50.00	52.50	55.00	57.50	60.00	46.25	48.75	51.25	54.38	57.50	60.00
Males	44.52	47.11	49.56	51.83	54.14	56.47	43.32	45.82	48.34	51.26	54.14	56.47
Life expectancy at birth (years) <u>/b</u>												
Females	47.50	52.50	57.50	60.00	62.50	65.00	46.25	51.25	56.25	60.00	62.50	65.00
Males	44.52	49.56	54.14	56.47	58.84	61.23	43.32	48.34	52.98	56.47	58.84	61.23
Infant mortality (per 1,000) <u>/a</u>												
Females	131.71	118.31	105.48	93.39	81.77	70.66	138.92	125.01	111.90	96.41	81.77	70.66
Males	155.37	139.42	124.53	111.36	98.57	86.21	163.51	147.40	131.98	114.65	98.57	86.21
Infant mortality (per 1,000) <u>/b</u>												
Females	131.71	105.48	81.77	70.66	60.04	49.94	138.92	111.90	87.58	70.66	60.04	49.94
Males	155.37	124.53	98.57	86.21	74.30	62.87	163.51	131.98	104.97	86.21	74.30	62.87
Birth rate (per 1,000) <u>/a</u>	35.6	33.0	30.9	28.5	25.6	22.7	42.2	41.3	40.3	38.7	36.4	34.1
Birth rate (per 1,000) <u>/b</u>	35.6	33.0	30.7	28.2	25.3	22.4	42.2	41.2	40.0	38.2	35.8	33.7
Death rate (per 1,000) <u>/a</u>	17.5	15.5	14.1	12.9	11.8	10.8	19.4	17.3	15.4	13.4	11.6	10.2
Death rate (per 1,000) <u>/b</u>	17.5	14.0	11.5	10.5	9.5	8.7	19.4	15.6	12.5	10.4	9.1	7.9
Population increase (per 1,000) <u>/a</u>	18.1	17.5	16.8	15.6	13.8	11.9	22.8	24.1	24.9	25.3	24.9	23.9
Population increase (per 1,000) <u>/b</u>	18.1	18.9	19.2	17.7	15.7	13.7	22.8	25.7	27.5	27.8	26.8	25.8

/a Assumption of moderate decline in mortality.

/b Assumption of rapid decline in mortality.

INDONESIA

Labor Force Projections, 1976-2001

Year	Total Labor Force (million)			Proportion of Labor Force to Population (%)			Average Annual Growth Rate (%)		
	Java	Other Islands	Indonesia	Java	Other Islands	Indonesia	Java	Other Islands	Indonesia
<u>M A L E S</u>									
1976	22.8	12.6	35.5	55.5	53.0	54.7	-	-	-
1981	25.4	14.2	39.6	56.5	52.9	55.1	2.1	2.4	2.2
1986	28.1	16.0	44.1	57.4	52.5	55.5	2.1	2.4	2.2
1991	30.9	18.0	48.9	58.2	51.4	55.7	1.9	2.4	2.1
1996	33.6	20.2	53.8	58.9	51.5	55.9	1.7	2.4	2.0
2001	36.4	22.8	59.2	60.0	51.5	56.4	1.6	2.4	1.9
<u>F E M A L E S</u>									
1976	14.4	7.6	22.0	33.9	31.7	33.1	-	-	-
1981	15.8	8.5	24.3	34.1	31.4	33.1	1.8	2.2	2.0
1986	17.2	9.4	26.6	34.3	30.9	33.0	1.7	2.2	1.9
1991	18.5	10.5	29.0	34.2	30.3	32.7	1.5	2.1	1.7
1996	19.8	11.6	31.4	34.1	29.8	32.4	1.3	2.2	1.6
2001	21.1	13.0	34.1	34.3	29.6	32.3	1.3	2.3	1.6
<u>T O T A L</u>									
1976	37.2	20.2	57.5	44.6	42.4	43.8	-	-	-
1981	41.2	22.7	63.9	45.1	42.2	44.0	2.0	2.3	2.1
1986	45.3	25.4	70.7	45.7	41.7	44.2	1.9	2.3	2.1
1991	49.4	28.4	77.8	46.0	41.1	44.1	1.7	2.3	1.9
1996	53.4	31.8	85.2	46.4	40.7	44.1	1.6	2.3	1.8
2001	57.5	35.8	93.3	47.1	40.6	44.4	1.5	2.4	1.8

Assumptions:

- (a) Population projections based on assumption of a moderate decline in mortality (see Table 1.1).
- (b) Labor force participation rates by age group are assumed to be identical for Java and Outer Islands (see attachment to this table).
- (c) Participation rates in the age group 20-64 are projected to remain unchanged between 1976 and 2001.
- (d) Participation rates in the age group 10-14 are projected to decline at a linear rate to zero by 2001.
- (e) Participation rates in the age group 15-19 and 65+ are projected to decline by 0.5% per year.

INDONESIA

Basic Economic Indicators I
(Rp billion)
Constant 1976 prices

	A C T U A L					P R O J E C T E D							
	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1985	1990
GDP	12,837	13,736	14,387	15,494	16,622	17,702	18,853	20,079	21,384	22,774	24,254	27,509	37,690
Factor payments (net) /a	-406	-611	-596	-432	-459	-488	-521	-555	-591	-629	-670	-759	-1,041
Terms of trade effect /b	-1,016	364	11	0	-63	-213	-174	-162	-135	-113	-88	-21	159
GNP	12,431	13,125	13,791	15,062	16,163	17,214	18,332	19,524	20,793	22,145	23,584	26,750	36,649
GNY	11,415	13,489	13,802	15,062	16,100	17,001	18,158	19,362	20,658	22,032	23,496	26,729	36,808
Exports /c	3,258	3,377	3,048	3,430	3,801	3,123	3,136	3,135	3,225	3,424	3,571	3,847	4,627
Imports /d	2,177	2,762	2,980	3,222	3,252	2,857	2,959	3,067	3,235	3,357	3,489	3,913	4,994
Private consumption /e	8,273	9,108	9,813	10,491	10,860	13,860	14,924	16,055	17,204	18,334	19,564	22,348	30,896
Government consumption /f	1,270	1,375	1,482	1,591	1,845								
GDI	2,213	2,638	3,023	3,205	3,368	3,576	3,752	3,956	4,170	4,373	4,608	5,227	7,161
GNS	1,871	3,006	2,506	2,980	3,395	3,141	3,234	3,307	3,454	3,698	3,932	4,381	5,912
GDI:GDP (%)	17.2	19.2	21.0	20.7	20.3	20.2	19.9	19.7	19.5	19.2	19.0	19.0	19.0
GNS:GNY (%)	16.4	22.3	18.2	19.8	21.1	18.5	17.8	17.1	16.7	16.8	15.7	16.4	16.1
Net foreign inflows:GNY (%)	-3.0	-2.7	-3.7	-1.5	0.2	-2.6	-2.9	-3.4	-3.6	-3.1	-2.9	-3.2	-3.4
N.B.													
Import price index /f (1976=100)	60	83	93	100	110	117	126	135	143	152	162	182	233
Export price index /g (1976=100)	42	92	94	100	108	109	119	128	137	147	158	181	241

/a Projected factor payments 1978-90 are equal to difference between GDP and GNP, which have been projected to grow at 6.5% p.a.

/b Projected terms of trade effect 1978-90 based on exports, including oil on LNG and a net basis.

/c Projected exports 1978-90 include oil and LNG on a net basis.

/d Projected imports 1978-90 represent nonoil imports (including net NFS) only.

/e Projected consumption 1978-90 residual.

/f See footnote (d).

/g See footnote (c).

INDONESIA

Basic Economic Indicators II
(Rp billion, constant 1976 prices)

	Growth rate (% p.a.)		1973		1977		1983	
	1973-77	1977-83	Total	As % of GDP	Total	As % of GDP	Total	As % of GDP
GDP	6.7	6.5	12,837	100.0	16,622	100.0	24,254	100.0
Factor payments (net)	3.1	6.5	-406	-3.2	- 459	-2.8	- 670	-2.8
Terms of trade effect			-1,016	-7.9	-63	-0.4	-88	-0.4
GNP	6.8	6.5	12,431	96.8	16,163	97.2	23,584	97.2
GNY	9.0	6.5	11,415	88.9	16,100	96.9	23,496	96.9
Exports	3.9	3.0/a	3,258	25.4	3,801	22.9	-	-
Imports	10.6	3.2/b	2,177	17.0	3,252	19.6	-	-
Resource gap	-	-	1,081	8.4	549	3.3	82/c	0.3
Consumption	7.4	7.5	9,543	74.3	12,705	76.4	19,564	80.7
GDI	11.1	5.4	2,213	17.2	3,368	20.3	4,608	19.0
GNS	16.1	2.5	1,871	14.6	3,395	20.4	3,932	16.2

/a Growth rate of exports (alternative A) including oil and LNG on a net basis.

/b Growth rate of non-oil imports.

/c Exports minus nonoil imports (including net NFS).

INDONESIA

Exports, 1973/74-1990/91
(US\$ million)

	Actual					Projected							
	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1985/86	1990/91
I. Current Prices (US\$ million)													
1. Timber	720	615	527	885	854	941	1,149	1,339	1,574	1,797	2,127	2,959	5,357
2. Rubber	483	425	381	577	560	619	683	771	825	898	961	1,108	1,700
3. Palm oil	89	184	142	147	214	207	275	272	290	368	371	383	576
4. Coffee	79	92	112	330	630	435	369	339	345	352	398	512	825
5. Tea	31	50	50	64	131	87	86	86	91	97	104	118	170
6. Tobacco	46	36	40	41	82	72	79	87	94	104	116	141	194
7. Pepper	31	22	25	55	85	60	62	64	73	78	86	109	172
8. Other agriculture	174	199	195	248	270	290	297	308	340	265	402	495	741
9. Subtotal agriculture (1-8)	1,653	1,623	1,472	2,347	2,826	2,711	3,000	3,266	3,632	4,059	4,565	5,825	9,735
10. Tin	98	166	158	181	241	250	273	284	307	332	357	413	614
11. Copper	56	102	74	95	84	98	107	134	157	197	214	252	339
12. Bauxite, alumina, aluminum)	21	28	25	7	10	10	10	11	60	147	245	282	538
13. Nickel)				37	35	103	179	268	324	352	378	679	995
14. Subtotal minerals (10-13)	175	296	257	320	370	461	569	697	848	1,028	1,194	1,626	2,486
15. Miscellaneous	77	114	144	196	283	369	473	598	762	973	1,234	1,997	6,346
16. Total non-oil exports(9+14+15)	1,905	2,033	1,873	2,863	3,489	3,551	4,042	4,561	5,242	6,060	6,993	9,448	18,567
17. Oil (net)	641	2,638	3,138	3,710	4,416	4,373	4,555	4,498	4,770	5,268	5,581	6,236	6,927
18. LNG (net)	-	-	-	-	78	268	400	600	638	800	1,000	1,118	1,428
19. Subtotal Oil & LNG (17+18)	641	2,638	3,138	3,710	4,494	4,641	4,955	5,098	5,408	6,068	6,581	7,354	8,355
20. Total exports (16+19)	2,546	4,671	5,011	6,573	7,983	8,192	8,997	9,659	10,650	12,128	13,574	16,802	26,922
II. Price Indices (1976/77 = 100)													
1. Timber	82	88	82	100	106	110	128	142	159	173	195	246	384
2. Rubber	83	78	70	100	102	109	119	133	141	152	161	182	253
3. Palm oil	90	170	96	100	148	128	162	153	155	187	180	168	208
4. Coffee	36	38	34	100	145	113	93	83	82	81	89	108	150
5. Tea	67	98	82	100	218	136	132	128	134	140	146	160	210
6. Tobacco	69	72	91	100	104	129	141	152	165	129	196	235	308
7. Pepper	74	96	89	100	133	113	112	113	121	126	135	156	202
8. Other agriculture	69	65	66	100	112	113	112	113	121	126	135	156	202
9. Subtotal agriculture	75	82	72	100	119	113	121	127	137	148	161	192	279
10. Tin	67	104	107	100	145	145	154	166	177	189	214	276	339
11. Copper	108	111	95	100	97	98	107	134	157	197	214	252	339
12. Bauxite, alumina, aluminum)	46	58	71	100	112	128	141	156	165	175	185	208	265
13. Nickel)				100	102	98	106	115	128	144	159	193	242
14. Subtotal minerals	71	99	99	100	125	120	123	133	148	167	181	208	248
15. Miscellaneous	46	80	71	100	110	117	125	132	140	149	158	177	226
16. Total non-oil exports	73	84	75	100	119	115	122	129	139	151	164	191	254
17. Oil (net)	29	71	93	100	105	105	117	127	135	143	152	170	217
18. LNG (net)	-	-	-	100	105	105	117	127	135	143	152	170	217
19. Subtotal Oil & LNG	29	71	93	100	105	105	117	127	135	143	152	170	217
20. Total exports	53	76	85	100	111	109	119	128	137	147	158	181	241
III. Constant 1976/77 Prices													
1. Timber	881	698	639	885	803	855	898	943	990	1,039	1,091	1,203	1,395
2. Rubber	503	544	547	577	547	568	574	580	585	591	597	609	672
3. Palm oil	99	108	148	147	145	162	170	178	187	197	206	228	277
4. Coffee	221	241	327	330	433	385	397	409	421	434	447	474	550
5. Tea	46	51	61	64	60	64	65	67	68	69	71	74	81
6. Tobacco	67	50	44	41	79	56	56	57	57	58	59	60	63
7. Pepper	42	23	28	55	64	53	55	57	60	62	64	70	85
8. Other agriculture	251	254	239	248	241	257	265	273	281	290	298	317	367
9. Subtotal agriculture	2,190	1,969	2,033	2,347	2,372	2,400	2,480	2,564	2,649	2,740	2,833	3,035	3,490
10. Tin	147	160	147	181	166	172	188	184	185	188	189	193	287
11. Copper	52	92	78	95	87	100	100	100	100	100	100	100	100
12. Bauxite, alumina, aluminum)	46	48	35	7	9	8	7	7	36	84	132	136	203
13. Nickel)				37	34	105	169	233	253	244	239	352	411
14. Subtotal minerals	245	300	260	320	296	385	464	524	574	616	660	781	1,001
15. Miscellaneous	168	142	203	196	257	315	378	453	544	653	784	1,128	2,808
16. Total non-oil exports	2,603	2,411	2,496	2,863	2,925	3,100	3,322	3,541	3,767	4,009	4,274	4,944	7,299
17. Oil (net)	2,210	3,715	3,374	3,710	4,206	4,165	3,893	3,542	3,533	3,684	3,672	3,668	3,192
18. LNG (net)	-	-	-	-	74	255	342	472	472	559	658	658	658
19. Subtotal Oil & LNG	2,210	3,715	3,374	3,710	4,280	4,420	4,235	4,014	4,005	4,243	4,330	4,326	3,850
20. Total exports	4,813	6,126	5,870	6,573	7,205	7,520	7,557	7,555	7,772	8,252	8,604	9,270	11,149

N.B.: Price indices reflect current World Bank Commodity Division Price Expectations. Volume projections reflect current trends and expectations of the authors of this report.

INDONESIA

Imports, 1973/74 - 1990/91
(US\$ millions)

	Actual					Projected /a							
	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1985/86	1990/91
A. Current Prices													
Rice	389	493	275	333	682	610	706	801	1,082	1,201	1,359	1,840	2,827
Other consumption goods	610	457	631	1,024	1,175	1,151	1,279	1,415	1,550	1,715	1,891	2,248	3,327
Intermediate goods	1,163	2,162	1,771	1,603	1,786	2,301	2,661	3,066	3,493	4,024	4,620	5,999	10,389
Capital goods	776	1,229	2,413	3,207	3,500	3,489	3,754	4,022	4,263	4,567	4,877	6,000	9,677
Total non-oil imports	2,938	4,341	5,090	6,167	7,144	7,551	8,400	9,304	10,388	11,507	12,747	16,087	26,220
Nonfactor services (net)	202	297	350	423	493	524	588	657	725	810	902	1,115	1,817
Imports + N.F.S.	3,140	4,638	5,440	6,590	7,637	8,075	8,988	9,961	11,113	12,317	13,649	17,202	28,037
B. Price Indices (1976 = 100)													
Rice	138	213	143	100	105	121	140	159	172	191	216	244	322
Other goods	69	86	99	100	110	117	125	133	140	149	158	177	226
Total non-oil imports	74	92	101	100	110	117	126	135	143	152	163	183	234
N.F.S.	69	86	99	100	110	117	125	133	140	149	158	177	226
Imports + N.F.S.	74	92	101	100	110	117	126	135	143	152	162	182	233
C. Constant 1976 Prices													
Rice	282	231	192	333	650	504	504	504	629	629	629	754	878
Other consumption goods	884	531	637	1,024	1,068	984	1,023	1,064	1,107	1,151	1,197	1,270	1,472
Intermediate goods	1,686	2,514	1,789	1,603	1,624	1,967	2,129	2,305	2,495	2,701	2,924	3,339	4,597
Capital goods	1,125	1,429	2,437	3,207	3,182	2,982	3,003	3,024	3,045	3,065	3,087	3,333	4,282
Total non-oil imports	3,977	4,705	5,055	6,167	6,524	6,437	6,659	6,897	7,276	7,546	7,837	8,833	11,229
Nonfactor services (net)	273	323	347	423	448	448	470	494	518	544	571	630	804
Imports + N.F.S.	4,250	5,028	5,402	6,590	6,972	6,885	7,129	7,391	7,794	8,090	8,408	9,463	12,033
N.B.													
Imports + N.F.S. as % of GNP (current prices)	20.0	18.9	18.7	18.2	17.2	18.7	20.4	18.6	17.4	16.4	15.8	15.7	14.6

/a Basic Assumptions:

- Rice.** Rice imports are projected at 2 million tons annually during 1978/79-1980/81, at 2.5 million tons during 1981/82-1983/84, at 3 million tons by 1985/86 and at 3.5 million tons by 1990/91.
- Other Consumption Goods.** Imports of other consumption goods are projected to grow in real terms by 4% p.a. between 1976/77 (1975/76-1977/78 average) and 1983/84 and by 3% p.a. thereafter.
- Intermediate Goods.** The projection of intermediate goods imports assumes an elasticity of these imports to value added manufacturing of 0.55 between 1976/77 (1975/76-1977/78 average) and 1983/84, gradually declining thereafter to 0.35 by 1990/91. Value added manufacturing is projected to grow by 15% p.a.
- Capital Goods.** The projection of capital goods imports assumes that the share of capital goods imports to GDI will gradually decline from an average of 40% during 1975-77 (compared to 28% during 1973/74) to 30% by 1983/84 and to 25% by 1990/91. The share of GDI to GDP is projected to decline gradually from an average of 20.6% during 1975-77 to 19% by 1983/84 and to remain unchanged thereafter. GDP is projected to grow at 6.5% p.a.
- NFS (net).** NFS (net) are projected to grow by 5% p.a. in real terms between 1976/77 (1975/76-1977/78 average) and 1990/91.

INDONESIA

Projected Import Capacity, 1978/79-1990/91
(US\$ million)

	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
1. Import capacity A /a	8,644	9,364	10,203	11,270	12,693	14,141	15,809	17,503	19,175	21,248	23,284	25,458	27,808
2. Import capacity B /a	8,644	8,968	9,716	10,740	12,102	13,496	15,121	16,777	18,427	20,479	22,495	24,649	26,976
3. Required imports (incl. NFS)	8,075	8,988	9,961	11,113	12,317	13,649	15,322	17,202	18,967	20,915	23,060	25,427	28,037
4. Surplus/shortage capacity C (1-3)	569	376	242	157	376	492	487	301	208	333	224	21	-229
5. Surplus/shortage capacity D (2-3)	569	-20	-245	-373	-215	-153	-201	-425	-540	-436	-565	-778	-1,061

/a Line 1 shows import capacity in case of exports as projected in Table 3.1. Line 2 shows import capacity in case of a 10% shortfall in net oil and LNG export earnings from 1979/80 onwards. In each case import capacity is equal to foreign exchange availability (see Table 3.7) minus increase in reserves required to maintain reserves at a level of three month's worth of imports + NFS at capacity level. As of end 1977/78, reserves stood at \$2.2 billion.

INDONESIA

Projected Import Capacity 1978/79-1990/91 - Attachment
(US\$ million)

	<u>Actual</u>		<u>Projected</u>		<u>Growth rates</u>			
	<u>1973/74</u>	<u>1976/77/a</u>	<u>1985/86</u>	<u>1990/91</u>	<u>73/74- 76/77/a</u>	<u>76/77- 85/86</u>	<u>85/86- 90/91</u>	<u>76/77/a 90/91</u>
<u>Current Prices</u>								
Actual/Required imports	3,140	6,556	17,202	28,037	27.8	11.3	10.3	10.9
Import Capacity A			17,503	27,808		11.5	9.7	10.9
Import Capacity B			16,777	26,976		11.0	10.0	10.6
<u>Price index (1976/77=100)</u>			182/b	233/b				
<u>Constant 1976 Prices</u>								
Actual/Required imports	4,250	6,321	9,430	12,033	14.2	4.5	5.0	4.7
Import Capacity A			9,617	11,934		4.8	4.4	4.6
Import Capacity B			9,218	11,578		4.3	4.7	4.4

/a 1975/76 - 1977/78 average.

/b Price index of imports at any capacity level assumed equal to price index of imports (Table 3.2).

Note: Imports include N.F.S (net).

INDONESIA

Exports and Imports - Volume Growth Rates, /a 1973/74-1990/91

	<u>Actual</u>	<u>Projected</u>		
	<u>1973/74- 1976/77/b</u>	<u>1976/77-/b 1985/86</u>	<u>1985/86- 1990/91</u>	<u>1976/77-/b 1990/91</u>
<u>Exports</u>				
Timber	-4.2	5.0	3.0	4.3
Rubber	3.5	1.0	2.0	1.4
Palm oil	14.0	5.0	4.0	4.6
Coffee	18.0	3.0	3.0	3.0
Tea	10.3	2.0	2.0	2.0
Tobacco	-6.6	1.0	1.0	1.0
Pepper	5.3	4.0	4.0	4.0
Other agriculture	-1.1	3.0	3.0	3.0
Total agriculture	0.9	3.4	2.8	3.2
Total minerals	6.0	11.6	5.1	9.2
Miscellaneous	9.2	20.0	20.0	20.0
Total non-oil exports	2.0	6.7	8.1	7.2
Total oil & LNG (net)	19.7	1.1	-2.3	0.1
Total exports	10.8	3.9	3.8	3.9
<u>Imports</u>				
Consumption goods /c	3.7	5.0	3.0	4.3
Intermediate goods	-0.3	8.2	6.3	7.5
Capital goods	37.8	1.6	4.8	2.7
Total non-oil imports	14.2	4.5	5.0	4.7
NFS (net)	14.1	5.0	5.0	5.0
<u>Total Imports + NFS</u>	<u>14.2</u>	<u>4.5</u>	<u>5.0</u>	<u>4.7</u>

/a Compound average.

/b 1975/76-1977/78 average.

/c Including rice.

INDONESIA

Balance of Payments, 1973/74-1990/91
(US\$ million)

	<u>Actuals</u>					<u>Projected</u>							
	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1985/86	1990/91
<u>Exports A</u>	<u>2,546</u>	<u>4,671</u>	<u>5,011</u>	<u>6,573</u>	<u>7,983</u>	<u>8,192</u>	<u>8,997</u>	<u>9,659</u>	<u>10,650</u>	<u>12,128</u>	<u>13,574</u>	<u>16,802</u>	<u>26,922</u>
Oil and LNG (net)	641	2,638	3,138	3,710	4,494	4,641	4,955	5,098	5,408	6,068	6,581	7,354	8,355
Non-oil	1,905	2,033	1,873	2,863	3,489	3,551	4,042	4,561	5,242	6,060	6,993	9,448	18,567
<u>Imports + N.F.S.</u>	<u>3,140</u>	<u>4,638</u>	<u>5,440</u>	<u>6,590</u>	<u>7,637</u>	<u>8,075</u>	<u>8,988</u>	<u>9,961</u>	<u>11,113</u>	<u>12,317</u>	<u>13,649</u>	<u>17,202</u>	<u>28,037</u>
Imports (non-oil)	2,938	4,341	5,090	6,167	7,144	7,551	8,400	9,304	10,388	11,507	12,747	16,087	26,220
N.F.S.	202	297	350	423	493	524	588	657	725	810	902	1,115	1,817
Resource gap (-)	-594	33	-429	-17	346	117	9	-302	-463	-189	-75	-400	-1,115
Net resource transfers /a	875	1,308	1,789	1,278	689	413	547	754	887	921	929	1,124	1,474
Other /b	79	-1,350	-1,724	-260	-384	-	-	-	-	-	-	-	-
Change in reserves (- = increase)	-350	9	364	-1,001	-651	-530	-556	-452	-424	-732	-854	-724	-359
						<u>Alternative Projections /c</u>							
Exports B						8,192	8,502	9,149	10,109	11,521	12,916	16,067	26,087
Resource gap (-)						117	-486	-812	-1,004	-796	-733	-1,135	-1,950
Change in reserves (- = increase)						-530	-60	58	117	-125	-196	11	477

/a On account of public sector medium- and long-term borrowing and grants, figures for 1973/74-1977/78 have been derived from IBRD external debt statistics and include estimated grant disbursements of \$100 million during each year.

/b Includes: factor services (net) other than interest on public sector MT & LT debt, private and short-term capital (net) and errors and omissions.

/c Assuming 10% shortfall in net oil and LNG export earnings from 1979/80 onwards but same level of imports and net resource transfers.

Note: Projections assume that resource transfers resulting from private investments (gross investment minus capital repatriation and profit remittances), private borrowing and short-term borrowing will, on a net basis, amount to zero.

INDONESIA

Projected Foreign Exchange Availability and Requirement, 1978/79-1990/91
(US\$ million)

	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
1. Exports A <u>/a</u>	8,192	8,997	9,659	10,650	12,128	13,574	15,202	16,802	18,463	20,289	22,295	24,500	26,922
2. Exports B <u>/b</u>	8,192	8,502	9,149	10,109	11,521	12,916	14,503	16,067	17,709	19,515	21,501	23,686	26,807
3. Net resource transfers <u>/c</u>	413	547	754	887	921	929	1,024	1,124	1,130	1,477	1,498	1,502	1,474
4. Foreign exchange availability A (1+3)	8,605	9,544	10,413	11,537	13,049	14,503	16,226	17,926	19,593	21,766	23,793	26,002	28,396
5. Foreign exchange availability B (2+3)	8,605	9,049	9,903	10,996	12,442	13,845	15,527	17,191	18,839	20,992	22,999	25,189	27,560
6. Minimum import (incl. net NFS) requirement <u>/d</u>	8,075	8,988	9,961	11,113	12,317	13,649	15,322	17,202	18,967	20,915	23,060	25,427	28,037
7. Increase in reserves A (4-6)	530	556	452	424	732	854	904	724	626	851	733	575	359
8. Increase in reserves B (5-6)	530	60	-58	-117	125	196	205	-1	-128	77	-61	-239	-477
9. Level of reserves A	2,730	3,286	3,738	4,162	4,894	5,748	6,652	7,376	8,002	8,853	9,586	10,161	10,520
10. Level of reserves B	2,730	2,790	2,732	615	740	36	3,141	3,130	3,002	3,079	3,018	2,779	2,302
11. Reserves A - months of imports <u>/e</u>	4.1	4.4	4.5	4.5	4.8	5.1	5.2	5.2	5.1	5.1	5.0	4.8	4.5
12. Reserves B - months of imports <u>/e</u>	4.1	3.7	3.3	2.8	2.7	2.6	2.5	2.2	1.9	1.8	2.6	1.3	1.0
13. Debt service ratio A	18.1	17.2	17.1	17.5	17.4	17.2	17.0	17.1	17.5	16.1	16.4	16.7	17.1
14. Debt service ratio B	18.1	18.1	18.1	18.4	18.3	18.1	17.8	17.9	18.2	16.7	17.1	17.3	17.6

/a For details see Tables 3.1.

/b Total exports under the assumption of a 10% shortfall in net oil and LNG export earnings from 1979/80 onwards.

/c For details of borrowing program see Table 4.1.

/d For details see Table 3.2.

/e Months of imports (incl. net NFS) at minimum required level (line 6).

INDONESIA

Summary Alternative Foreign Exchange Availability and Requirement Projections
(US\$ million)

	<u>Avg 1975/76-1977/78</u>		<u>1983/84</u>		<u>1985/86</u>		<u>1990/91</u>		<u>Growth Rates (Constant '76 Prices)</u>			
	<u>Current prices</u>	<u>'76 prices</u>	<u>Current prices</u>	<u>'76 prices</u>	<u>Current prices</u>	<u>'76 prices</u>	<u>Current prices</u>	<u>'76 prices</u>	<u>73/74-76/77/a</u>	<u>76/77-85/86/a</u>	<u>85/86-90/91</u>	<u>76/77-90/91/a</u>
1. Agricultural exports	2,215	2,215	4,565	2,833	5,825	3,035	9,735	3,490	0.9	3.4	2.8	3.2
2. Mineral exports	316	292	1,194	660	1,626	781	2,486	1,001	6.0	11.6	5.1	9.2
3. Miscellaneous exports	208	219	1,234	784	1,997	1,128	6,346	2,808	9.2	20.0	20.0	20.0
4. Non-oil exports - (1+2+3)	2,739	2,762	6,993	4,274	9,448	4,944	18,567	7,299	2.0	6.7	8.1	7.2
5. Oil & LNG exports - A <u>/b</u>	3,781	3,788	6,581	4,330	7,354	4,326	8,355	3,850	19.7	1.5	-2.3	0.1
6. Oil & LNG exports - B <u>/c</u>	3,781	3,788	5,923	-	6,619	-	7,512	-	-	-	-	-
7. Total exports (4+5)	6,520	6,549	13,574	8,604	16,802	9,270	26,922	11,149	10.8	3.9	3.8	3.9
8. Total exports (4+6)	6,520	6,549	12,916	-	16,607	-	26,087	-	-	-	-	-
9. Net resource transfers <u>/d</u>			929		1,124		1,474					
10. F.E. availability (7+9)			14,503		17,926		28,396					
11. F.E. availability (8+9)			13,845		17,191		27,560					
12. Minimum import (incl. net NFS) requirement <u>/e</u>	6,556	6,321	13,649	8,408	17,202	9,430	28,037	12,033	14.2	4.5	5.0	4.7
13. Debt service			2,339		2,871		4,590					
14. Ratio (13:7)			17.2		17.1		17.1					
15. Ratio (13:8)			18.1		17.9		17.6					

/a 1975/76-1977/78 average.

/b Assuming oil and LNG exports as projected in Table 3.1.

/c Assuming a 10% shortfall in net oil and LNG export earnings from 1979/80 onwards.

/d Transfers (fiscal year) resulting from grants and borrowing program.

/e See Table 3.2.

INDONESIA

Borrowing Program
(US\$ millions)

Year	IGGI Mult. (1)	Other ODA (2)	Subtotal concessional and semi-concessional (3)	Commercial (4)	Total loans (5)	Grants (6)	Total loans plus grants (7)
1978	775	875	1,650	750	2,400	100	2,500
1979	875	950	1,825	850	2,675	100	2,775
1980	950	1,025	1,975	950	2,925	100	3,025
1981	1,050	1,100	2,150	1,075	3,225	125	3,350
1982	1,150	1,200	2,350	1,200	3,550	125	3,675
1983	1,250	1,300	2,550	1,350	3,900	125	4,025
1984	1,325	1,400	2,725	1,525	4,250	150	4,400
1985	1,400	1,525	2,925	1,700	4,625	150	4,775
1986	1,475	1,625	3,100	1,900	5,000	150	5,150
1987	1,550	1,750	3,300	2,100	5,400	175	5,575
1988	1,650	1,875	3,525	2,350	5,875	175	6,050
1989	1,750	2,000	3,750	2,625	6,375	175	6,550
1990	1,850	2,150	4,000	2,900	6,900	200	7,100

/a 1978 borrowing program as recommended in 1978 Economic Report No. 2026-IND.

/b Projected to increase by 2% p.a. in real terms beyond 1978. For 1978 it has been assumed that IGGI bilateral ODA loans and non-IGGI ODA loans will amount to \$750 million and \$125 million respectively.

/c Projected to increase by 6% p.a. in real terms beyond 1978. It has been assumed that half of total commercial commitments would be at typical suppliers credit terms and half at typical private bank loan terms.

/d Projected to remain constant in real terms.

Notes: (a) All figures rounded to nearest \$25 million.

(b) The above borrowing program represents estimates of plausible concessional and semiconcessional commitments (columns 1-2 and 6), and commercial borrowing at a level consistent with prudent external debt management, on the assumption that the debt service ratio should not be allowed to exceed a level of around 20%.

(c) For details, see attachment to this table.

INDONESIA

Borrowing Program - Attachment

Assumptions regarding new loan commitments:

A. Terms

<u>Creditor</u>	<u>Interest</u> (%)	<u>Maturity</u> (incl. grace)
IDA	0.75	50 (10)
IBRD/ADB	8.5	20 (5)
Other ODA	4	30 (10)
Suppliers	9	12 (3)
Private banks	9	8 (1)

B. Disbursement Pattern (% of commitment)

<u>Year/a</u>	<u>IDA</u>	<u>IBRD/ADB</u>	<u>Other ODA</u>	<u>Suppliers</u>	<u>Private banks</u>	<u>Grants</u>
1	2	4	6	10	28	25
2	10	13	18	23	40	25
3	21	20	27	25	17	25
4	21	19	26	22	11	25
5	16	15	14	15	4	
6	11	10	5	5		
7	7	5	2			
8	6	6	2			
9	4	6				
10	2	2				

/a Year 1 is year of commitment.

Note: The assumptions regarding level and terms of new commitments imply the following weighted averages:

	<u>Maturity</u>	<u>Grace period</u>	<u>Interest rate</u>	<u>Grant element</u>
Concessional & semi-concessional loans	26.7	(7.8)	5.8	34.0
Commercial loans	10.0	(2.0)	9.0	3.7
Total loans 1977	21.5	(6.0)	6.8	24.5
1990	19.7	(5.4)	7.1	21.3

INDONESIA

Service Payments, Commitments, Disbursements and Outstanding Amounts of External Public Debt
(US\$'000)

Year	Debt Outstanding at		Transactions During Period					Other Changes	
	Beginning of Period		Commitments (3)	Disbursements (4)	Service Payments			Cancellations (8)	Adjustment /a (9)
	Disbursed only (1)	Including undisbursed (2)			Principal (5)	Interest (6)	Total (7)		
1974	4,980,732	6,666,466	2,503,825	1,297,997	202,061	87,353	289,414	786	202,443
1975	6,277,351	9,169,887	3,264,924	2,371,722	393,783	173,321	567,104	2,132	-223,943
1976	8,112,485	11,814,953	3,133,258	2,327,035	625,164	362,080	987,244	9,797	141,523
1977	9,917,358	14,454,773	1,771,360	1,988,695	826,401	472,977	1,299,378	56,866	561,021
1978 /b	11,408,659	15,903,887	-	-	-	-	-	-	435,140

THE FOLLOWING FIGURES ARE PROJECTED /c

1978	11,690,442	16,339,027	-	1,525,240	976,420	488,137	1,464,577	-	-
1979	12,239,262	15,362,607	-	1,170,484	922,567	546,395	1,468,962	-	11
1980	12,487,178	14,440,051	-	838,922	899,844	556,135	1,455,979	-	-
1981	12,426,234	13,540,207	-	545,088	966,235	514,906	1,481,141	-	2
1982	12,005,089	12,573,974	-	303,869	1,033,586	486,915	1,520,501	-	-
1983	11,275,371	11,540,388	-	112,701	987,087	472,690	1,459,777	-	-3
1984	10,400,983	10,553,298	-	82,564	978,807	416,264	1,395,071	-	12
1985	9,504,754	9,574,503	-	60,147	875,088	371,411	1,246,499	-	13
1986	8,689,825	8,699,428	-	8,406	980,850	349,951	1,330,801	-	-10
1987	7,717,372	7,718,568	-	891	595,881	271,655	867,536	-	15
1988	7,122,397	7,122,702	-	252	569,292	245,282	814,574	-	-8
1989	6,553,349	6,553,402	-	53	509,616	221,544	731,160	-	9
1990	6,043,795	6,043,795	-	-	486,736	201,750	688,486	-	25
1991	5,557,084	5,557,084	-	-	465,156	183,531	648,687	-	17
1992	5,091,945	5,091,945	-	-	473,366	177,636	651,002	-	9
1993	4,618,588	4,618,588	-	-	464,420	161,356	625,776	-	16
1994	4,154,184	4,154,184	-	-	459,640	145,467	605,107	-	8
1995	3,694,552	3,694,542	-	-	443,634	130,080	573,714	-	24
1996	3,250,942	3,250,942	-	-	431,308	115,602	546,910	-	15
1997	2,819,649	2,819,649	-	-	392,817	101,978	494,795	-	-4
1998	2,426,828	2,426,828	-	-	362,734	90,811	453,545	-	2

/a This column shows the amount of arithmetic imbalance in the amount outstanding including undisbursed from one year to the next. The most common causes of imbalances are changes in exchange rates and transfer of debts from one category to another in the table.

/b At December 1977 exchange rates.

/c On account of existing debt (as of December 31, 1977); at June 1978 exchange rates. Projections include adjustment for January 1978 replacement loans.

INDONESIA

Projected Disbursements, Net Resource Transfers and Debt Service
(US\$ million)

	<u>Gross disbursements</u>					<u>Net disbursements</u>				<u>Net resource transfers</u>				<u>Debt service</u>		
	<u>Existing loans</u>	<u>New loans</u>	<u>Total loans</u>	<u>Grants</u>	<u>Total</u>	<u>Existing loans</u>	<u>New loans</u>	<u>Total loans</u>	<u>Total (incl. grants)</u>	<u>Existing loans</u>	<u>New loans</u>	<u>Total loans</u>	<u>Total (incl. grants)</u>	<u>Existing loans</u>	<u>New loans</u>	<u>Total loans</u>
1978	1,525	225	1,750	100	1,850	549	225	774	874	61	225	286	386	1,464	-	1,464
1979	1,170	744	1,914	100	2,014	248	710	958	1,058	-299	691	392	492	1,469	54	1,523
1980	839	1,378	2,217	100	2,317	-61	1,303	1,242	1,342	-617	1,230	613	713	1,456	148	1,604
1981	545	2,025	2,570	100	2,670	-421	1,876	1,455	1,555	-936	1,711	775	875	1,481	314	1,795
1982	304	2,547	2,851	125	2,976	-730	2,308	1,578	1,703	-1,217	2,016	799	924	1,521	531	2,052
1983	113	2,948	3,061	125	3,186	-874	2,581	1,707	1,832	-1,347	2,134	787	912	1,460	814	2,274
1984	83	3,306	3,389	125	3,514	-896	2,784	1,888	2,013	-1,313	2,167	854	979	1,395	1,138	2,533
1985	60	3,699	3,759	150	3,909	-815	2,994	2,179	2,329	-1,186	2,196	1,010	1,160	1,246	1,502	2,748
1986	8	4,098	4,106	150	4,256	-973	3,179	2,206	2,358	-1,322	2,188	866	1,016	1,331	1,910	3,241
1987	1	4,486	4,487	150	4,637	-595	3,384	2,789	2,939	-867	2,189	1,322	1,472	868	2,297	3,165
1988		4,882	4,882	175	5,057	-569	3,544	2,975	3,150	-814	2,133	1,319	1,494	815	2,748	3,562
1989		5,309	5,309	175	5,484	-510	3,701	3,191	3,366	-731	2,067	1,336	1,511	731	3,242	3,973
1990		5,766	5,766	175	5,941	-487	3,853	3,366	3,541	-688	1,986	1,298	1,473	689	3,780	4,469

INDONESIA

Summary: Commitments, Disbursements, Net Resource Transfers, Debt Service
(In US\$ billion)

Calendar year	Commitments /a	Gross disbursements /a	Net disbursements /a	Net resource transfers /a	Debt service	Principal as % of tl debt serv.	Debt service as % of gross disbursements	Principal as % of tl gross disb.	Debt service ratio /b
1973	1.630	1.01	0.86	0.80	0.21	70	21	15	9.1
1974	2.604	1.39	1.20	1.11	0.29	70	21	14	7.7
1975	3.365	2.47	2.08	1.90	0.57	69	23	16	13.4
1976	3.233	2.43	1.80	1.44	0.99	63	41	26	16.2
1977	1.871	2.09	1.26	0.79	1.30	64	62	40	16.8
Projected:									
1978	2.500	1.85	0.87	0.39	1.46	67	79	53	18.1
1979	2.775	2.01	1.06	0.49	1.52	63	76	48	17.2/18.1
1980	3.025	2.32	1.34	0.71	1.60	61	69	42	17.1/18.1
1981	3.350	2.67	1.56	0.88	1.80	62	67	42	17.5/18.4
1982	3.675	2.98	1.70	0.92	2.05	62	69	43	17.4/18.3
1983	4.025	3.19	1.83	0.91	2.27	60	71	43	17.2/18.1
1984	4.400	3.51	2.01	0.98	2.53	59	72	43	17.0/17.8
1985	4.775	3.91	2.33	1.16	2.75	57	70	40	17.1/17.9
1986	5.150	4.26	2.34	1.02	3.24	59	76	45	17.5/18.2
1987	5.575	4.64	2.94	1.47	3.17	54	68	37	16.1/16.7
1988	6.050	5.06	3.15	1.49	3.56	54	70	38	16.4/17.1
1989	6.550	5.48	3.37	1.51	3.97	53	72	39	16.7/17.3
1990	7.100	5.94	3.54	1.47	4.47	54	75	40	17.1/17.6

/a Figures include grants; grant commitments and disbursements during 1973-77 estimated at \$100 million per annum. For 1978-90 see Table 4.3.

/b During fiscal year. Projected ratios (1978-90) show lowest and highest under different assumptions regarding exports (see Table 3.7).

INDONESIA

Projected External Debt Outstanding, /a 1973-90
(US\$ billion)

End of Period	Disbursed	Undisbursed	Total	Ratio: /b	
				Debt outstanding: exports Disbursed	Total
1973	5.0	1.7	6.7	2.0	2.6
1974	6.3	2.9	9.2	1.4	2.0
1975	8.1	3.7	11.8	1.6	2.4
1976	9.9	4.6	14.5	1.5	2.2
1977	11.4	4.6	16.0	1.5	2.0
<u>Projected:</u>					
1978	12.5	5.3	17.8	1.5	2.2
1979	13.4	6.1	19.5	1.5/1.6	2.2/2.3
1980	14.7	6.7	21.4	1.5/1.6	2.2/2.3
1981	16.1	7.4	23.5	1.5/1.6	2.2/2.3
1982	17.7	8.1	25.8	1.5/1.5	2.1/2.2
1983	19.4	9.0	28.4	1.4/1.5	2.1/2.2
1984	21.3	9.8	31.1	1.4/1.5	2.0/2.1
1985	23.5	10.7	34.2	1.4/1.5	2.0/2.1
1986	25.7	11.6	37.3	1.4/1.5	2.0/2.1
1987	28.5	12.5	41.0	1.4/1.5	2.0/2.1
1988	31.4	13.5	44.9	1.4/1.5	2.0/2.1
1989	34.6	14.6	49.2	1.4/1.5	2.0/2.1
1990	38.0	15.7	53.7	1.4/1.5	2.0/2.1

/a Based on actual transactions through 1977 and projected transactions during 1978-90. For details see Tables 4.2 and 4.3.

/b Projected ratios (1978-90) under different assumptions regarding exports (see Table 3.7).

N.B. Projected debt outstanding from end-1978 is at June 1978 exchange rate.

INDONESIA

Public Sector Resources, 1976/77 - 1990/91

	Actual				Est.	Repel.	Projected					Repelita III
	1974/75	1975/76	1976/77	1977/78	1978/79	II	1979/80	1980/81	1981/82	1982/83	1983/84	
A. Current Prices (Rp billion)												
1. Oil and LNG revenues	973	1,205	1,593	1,949	2,400	8,120	3,325	3,450	3,725	4,125	4,375	19,000
Oil (exports)	973	1,205	1,593	1,949	-	-	3,075	3,075	3,325	3,625	3,750	16,850
LNG /a	-	-	-	-	-	-	250	375	400	500	625	2,150
2. Other current revenues /b	416	813	1,141	1,491	1,700	5,561	1,900	2,775	3,700	4,750	5,700	18,825
3. Total current revenues (1+2)	1,389	2,018	2,734	3,440	4,100	13,681	5,225	6,225	7,425	8,875	10,075	37,825
4. Current expenditures /c	792	1,132	1,402	1,776	2,100	7,202	2,550	3,150	3,800	4,475	5,125	19,100
5. Non-oil public savings /d (2-4)	(376)	(319)	(261)	(285)	(400)	(1,641)	(650)	(375)	(100)	275	575	(275)
6. Public savings /d (3-4)	597	886	1,332	1,664	2,000	6,479	2,675	3,075	3,625	4,400	4,950	18,725
7. Net resource transfers /e	543	742	530	286	200	2,301	350	475	550	575	575	2,525
8. Total (6+7)	1,140	1,628	1,862	1,950	2,200	8,780	3,025	3,550	4,175	4,975	5,525	21,250
9. Public sector monetary financing	164	673	62	(186)	-	713	-	-	-	-	-	-
10. Total (8+9) /f	1,304	2,301	1,924	1,764	2,200	9,493	-	-	-	-	-	-
11. Development expenditures /g	741	1,291	1,939	2,125	2,600	8,696	-	-	-	-	-	-
B. Share of GNP (%)												
1. Oil and LNG revenues	9.5	9.5	10.6	10.6	11.1	10.5	12.0	10.3	9.3	8.8	8.1	9.4
Oil (exports)	9.5	9.5	10.6	10.6	-	-	11.1	9.2	8.3	7.7	7.0	8.3
LNG /a	-	-	-	-	-	-	0.9	1.1	1.0	1.1	1.2	1.1
2. Other current revenues /b	4.0	6.4	7.6	8.1	7.9	7.2	6.9	8.3	9.3	10.1	10.6	9.3
3. Total current revenues (1+2)	13.5	15.9	18.2	18.7	19.0	17.7	18.9	18.6	18.6	18.9	18.7	18.7
4. Current expenditures /c	7.7	8.9	9.3	9.6	9.7	9.3	9.2	9.4	9.5	9.5	9.5	9.4
5. Non-oil public savings /d (2-4)	(3.7)	(2.5)	(1.7)	(1.5)	(1.8)	(2.1)	(2.3)	(1.1)	(0.2)	0.6	1.1	(0.1)
6. Public savings /d (3-4)	5.7	7.0	8.8	9.0	9.3	8.4	9.7	9.2	9.1	9.4	9.2	9.3
7. Net resource transfers /e	5.3	5.9	3.5	1.6	0.9	3.0	1.3	1.4	1.4	1.2	1.1	1.2
8. Total (6+7)	11.0	12.9	12.4	10.6	10.2	11.3	11.0	10.6	10.5	10.6	10.3	10.5
9. Public sector monetary financing	1.6	5.3	0.4	(1.0)	-	0.9	-	-	-	-	-	-
10. Total (8+9) /f	12.6	18.2	12.8	9.6	10.2	12.2	-	-	-	-	-	-
11. Development expenditures /g	7.2	10.2	12.9	11.5	12.1	11.2	-	-	-	-	-	-
C. Constant 1976 Prices (Rp billion)												
1. Oil and LNG revenues (exports)	1,216	1,324	1,593	1,756	1,860	7,749	2,100	1,950	1,900	1,950	1,925	9,825
2. Other current revenues /b	520	893	1,141	1,343	1,318	5,215	1,200	1,575	1,900	2,250	2,500	9,425
3. Total current revenues (1+2)	1,176	2,217	2,734	3,099	3,178	12,964	3,300	3,525	3,800	4,200	4,425	19,250
4. Current expenditures /c	990	1,244	1,402	1,600	1,628	6,864	1,625	1,800	1,950	2,125	2,250	9,750
5. Non-oil public savings /d (2-4)	(470)	(351)	(261)	(257)	(310)	(1,649)	(425)	(225)	(50)	125	250	(325)
6. Public savings /d (3-4)	746	973	1,332	1,499	1,550	6,100	1,675	1,725	1,850	2,075	2,175	9,500
7. Net resource transfers /e	631	749	530	261	143	2,314	200	225	250	250	250	1,175
8. Total (6+7)	1,377	1,722	1,862	1,760	1,693	8,414	1,875	1,950	2,100	2,325	2,425	10,675
9. Public sector monetary financing	210	765	62	(166)	-	817	-	-	-	-	-	-
10. Total (8+9) /f	1,587	2,487	1,924	1,594	1,693	9,285	-	-	-	-	-	-
11. Development expenditures /g	913	1,382	1,939	1,919	1,979	8,132	-	-	-	-	-	-
N.B.												
Deflator (domestic)	78	88	100	112.0	125.0	-	148.0	168.7	189.0	207.0	224.5	-
Deflator (international) - US dollar	86	99	100	109.7	117.4	-	125.0	132.5	140.5	148.9	157.8	-
Deflator (international) - Rupiah	86	99	100	109.7	140.0	-	188.3	199.5	211.5	224.2	237.7	-
Composite deflator	80	91	100	111.0	129.0	-	158.0	176.0	195.0	212.0	228.0	-

/a Before public sector debt service payments.

/b Equal to gross non-oil revenues minus subsidies on food, fertilizer and oil. For details see Table 5.4. Projections include difference between oil revenue projections A II and A I (see Table 5.3).

/c Excluding external debt service payments and subsidies. For details see Table 5.4.

/d Before debt service.

/e On account of public sector MT & LT borrowing and grants. Figures have been derived from IBRD external debt statistics. GDI budget data imply Central Government net resource transfers in current prices of Rp 170 billion in 1974/75, Rp 427 billion in 1975/76, Rp 615 billion in 1976/77, Rp 466 billion in 1977/78, Rp 616 billion in 1978/79 (est.), and Rp 2,294 billion during Repelita II.

/f Excluding savings or dissavings by public sector enterprises.

/g Excluding fertilizer subsidies.

Notes: Line 1 (oil exports) (projected) equal to oil revenue projection A I (see Table 5.3).

Line 2 (projected) includes difference between oil revenue projections A II and A I (see Table 5.3).

Line 3 (projected) includes oil revenue projection A II (see Table 5.3).

Numbers within brackets are negative.

INDONESIA

Financing of Public Sector
(Rp billion, current prices)

	Actual				Est. 1978/79	Total Repelita II	Projected					Total Repelita III
	1974/75	1975/76	1976/77	1977/78			1979/80	1980/81	1981/82	1982/83	1983/84	
Central Government												
1. Current expenditures /a	792	1,132	1,402	1,776	2,100	7,202	2,550	3,150	3,800	4,475	5,125	19,100
2. Subsidies /b	385	185	144	97	300	1,111	550	400	225	25	-	1,200
3. Development expenditures /c	741	1,291	1,939	2,125	2,600	8,696	3,025	3,550	4,175	4,975	5,525	21,250
4. <u>Total Expenditures</u>	<u>1,918</u>	<u>2,608</u>	<u>3,485</u>	<u>3,998</u>	<u>5,000</u>	<u>17,009</u>	<u>6,125</u>	<u>7,100</u>	<u>8,200</u>	<u>9,475</u>	<u>10,650</u>	<u>41,550</u>
Financing:												
5. Revenues from oil and LNG exports	973	1,205	1,593	1,949	2,400	8,120	3,325	3,450	3,725	4,125	4,375	19,000
6. Net resource transfers /d	170	427	615	466	616	2,294	350	475	550	575	575	2,525
7. Nonoil current revenues (gross)	801	998	1,285	1,588	2,000	6,672	2,450	3,175	3,925	4,775	5,700	20,025
8. Budget surplus (-)	-26	-21	-7	-3	-16	-73	-	-	-	-	-	-
9. (5+6) as % of total expenditures (4)	60	63	63	60	60	61	60	55	52	50	46	52
10. (5+6) as % of development expenditures (3)	154	126	114	114	116	117	121	111	102	94	90	101
Other Public Sector												
11. Oil revenues withheld by Pertamina	340	-	-	-	-	340						
12. Other public sector net resource transfers /e	373	315	(85)	(180)	(416)	7						
13. Public sector monetary financing	164	673	62	(186)	-	713						
14. <u>Total Public Sector Investment Resources /f</u> (5+11+6+12+13+7-1-2)	<u>1,644</u>	<u>2,301</u>	<u>1,924</u>	<u>1,764</u>	<u>2,200</u>	<u>9,833</u>						
15. (5+6+11+12) as % of total public sector investment resources (14)	113	85	110	127	111	109						

/a Excluding external debt service and subsidies.

/b On food, oil and fertilizer.

/c Excluding fertilizer; projections (1979/80-1983/84) are residual (5+6+7+8 minus 1+2) assuming balanced budget, no Central Government monetary financing and other public sector net resource transfers of zero.

/d For 1974/75-1978/79 equal to budget items program aid and project aid minus external debt service (including Morgan loan); for 1979/80-1983/84 equal to total projected public sector net resource transfers.

/e For 1974/75-1978/79 equal to total public sector net resource transfers (as derived from IBRD statistics including estimated grants) minus line 6 above. For 1979/80-1983/84, see footnote /d.

/f Excluding savings or dissavings by public sector enterprises.

INDONESIA

Alternative Oil Revenue Projections, REPELITA III, 1979/80 - 1983/84

	1979/80	1980/81	1981/82	1982/83	1983/84	Total Repelita III
A. Base Estimate						
Oil export price index (1976=100)	117	127	135	143	152	
Oil revenues I (Rp billion) / <u>b</u>	3,075	3,075	3,325	3,625	3,750	16,850
Oil revenues II (Rp billion) / <u>c</u>	3,300	3,400	3,750	4,100	4,350	18,900
Oil revenues III (Rp billion) / <u>d</u>	3,975	4,150	4,525	5,000	5,375	23,025
LNG revenues (Rp billion) / <u>d</u>	250	375	400	500	625	2,150
Additional revenues (II-I) (Rp billion, current prices)	225	325	425	475	600	2,050
Additional revenues (II-I) (As % of GNP)	0.9	1.0	1.0	1.0	1.1	1.0
Additional revenues (III-I) (Rp billion, current prices)	900	1,075	1,200	1,375	1,625	6,175
Additional revenues (III-I) (As % of GNP)	3.3	3.2	3.0	2.9	3.0	3.0
B. Low Estimate /<u>e</u>						
Oil revenues I (Rp billion) / <u>b</u>	2,750	2,775	3,000	3,250	3,375	15,150
Oil revenues II (Rp billion) / <u>c</u>	3,000	3,075	3,375	3,700	3,900	17,050
Oil revenues III (Rp billion) / <u>d</u>	3,575	3,725	4,075	4,500	4,825	20,700
LNG revenues (Rp billion) / <u>d</u>	225	350	350	450	550	1,925
Additional revenues (II-I) (Rp billion, current prices)	250	300	375	450	475	1,900
Additional revenues (II-I) (As % of GNP)	0.9	0.9	0.9	0.9	0.9	0.9
Additional revenues (III-I) (Rp billion, current prices)	825	950	1,075	1,250	1,450	5,550
Additional revenues (III-I) (As % of GNP)	3.0	2.8	2.7	2.8	2.7	2.8
N.B.						
Oil revenues AI minus BI (Rp billion, current prices)	350	325	375	425	450	1,925
Oil revenues AII minus BII (Rp billion, current prices)	350	350	425	450	525	2,100
Oil revenues AIII minus BIII (Rp billion, current prices)	425	450	500	550	625	2,550
Oil revenues AI minus BI (As % of GNP)	1.3	1.0	0.9	0.9	0.8	1.0
Oil revenues AII minus BII (As % of GNP)	1.3	1.0	1.1	1.0	1.0	1.0
Oil revenues AIII minus BIII (As % of GNP)	1.5	1.3	1.3	1.2	1.2	1.3

/a Estimate of revenues if only exported oil is based.

/b Estimate of revenues resulting from present contractual arrangements.

/c Estimate of revenues if all explicit and implicit subsidies on domestically consumed oil are removed.

/d Before public sector debt service payments.

/e Assuming revenues remain 10% below base estimates.

INDONESIA

Non-Oil Current Revenues, Current Expenditures and Public Savings, 1974/75-1990/91
(Rp billion; current prices)

	Actual				Est. 1978/79	Projected					Average Elasticity Tax/GNP	
	1974/75	1975/76	1976/77	1977/78		1979/80	1980/81	1981/82	1982/83	1983/84	1974-77	1977-83
<u>Current Revenues (Non-oil)</u>												
<u>Taxes on income</u>	261	353	436	563	750	900	1,250	1,600	2,025	2,500	1.4	1.4
Income tax	43	65	87	105								
Corporate tax	100	131	132	170								
Withholding tax	78	97	147	202								
IPEDA	29	36	42	53								
Other	10	24	27	34								
<u>Taxes on domestic consumption (gross) /a</u>	177	236	323	398	550	675	900	1,125	1,400	1,700	1.4	1.4
<u>Taxes on domestic consumption (net)/b</u>	(208)	51	179	301	250	125	500	900	1,375	1,700	..	1.7
Sales tax	86	122	165	203								
Excise tax	76	90	132	182								
Miscellaneous levies	15	15	9	13								
Oil revenues/subsidies	16	(1)	17	(65)								
Food subsidies	(144)	(50)	(39)	-								
Fertilizer subsidies	(225)	(134)	(105)	(32)								
<u>Taxes on international trade</u>	301	310	422	483	575	675	800	925	1,025	1,125	0.8	0.8
Import duties	161	175	256	287								
Imports sales tax	69	73	102	115								
Export tax	71	61	64	81								
<u>Non-tax revenues</u>	62	99	104	144	125	200	225	275	325	375	1.5	0.9
<u>Total non-oil revenues - net</u>	416	813	1,141	1,491	1,700	1,900	2,275	3,700	4,750	5,700	2.5	1.3
<u>Total non-oil revenues - gross</u>	801	998	1,285	1,588	2,000	2,450	3,175	3,925	4,775	5,700	1.2	1.2
<u>Subsidies /c</u>	(385)	(185)	(144)	(97)	(300)	(550)	(400)	(225)	(25)	-		
<u>Current expenditures /d</u>	792	1,132	1,402	1,776	2,100	2,550	3,150	3,800	4,475	5,125		
Personal	408	565	639	839								
Material	167	292	390	377								
Subsidies to regions	207	257	311	478								
Other /e	10	18	62	28								
<u>Non-oil public savings /d</u>	(376)	(319)	(261)	(285)	(400)	(650)	(375)	(100)	275	575		

/a Projections include difference between oil revenue projections A II and A I (see Table 5.4).

/b Equals gross minus subsidies (3-9).

/c Projected subsidies also include that part of difference between oil revenues A II and A I which is not passed on to consumer.

/d Excluding external debt service payments and subsidies.

/e Including internal debt service payments.

/f Before external debt service.

Notes: - Projections assume GNP growth rate of 6.5% p.a. and the following GNP deflator (1977 = 100) for 1978 through 1983:

110 132.1 150.6 168.8 185.6 200.4 225.2 287.4

- Numbers within brackets are negative.

INDONESIA

Non-Oil Current Revenues, Current Expenditures and Public Savings, 1974/75-1990/91
(As % of GNP)

	<u>Actual</u>				<u>Est.</u>	<u>Projected</u>				
	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84
1. <u>Current Revenues (Non-oil)</u>										
2. <u>Taxes on income</u>	2.5	2.9	2.9	3.1	3.5	3.3	3.7	4.0	4.3	4.6
3. <u>Taxes on domestic consumption (gross) /a</u>	1.7	1.9	2.1	2.1	2.6	2.4	2.7	2.8	3.0	3.2
4. <u>Taxes on domestic consumption (net) /b</u>	(2.0)	0.4	1.2	1.6	1.2	0.4	1.5	2.3	2.9	3.2
5. <u>Taxes on international trade</u>	2.9	2.6	2.8	2.6	2.7	2.5	2.4	2.3	2.2	2.1
6. <u>Non-tax revenues</u>	0.6	0.8	0.7	0.8	0.6	0.7	0.7	0.7	0.7	0.7
7. <u>Total non-oil revenues - net</u>	4.0	6.7	7.6	8.1	7.9	6.9	8.3	9.3	10.1	10.6
8. <u>Total non-oil revenues - gross</u>	7.8	8.2	8.5	8.6	9.3	8.9	9.5	9.8	10.2	10.6
9. <u>Subsidies /c</u>	(3.8)	(1.5)	(0.9)	(0.5)	(1.4)	(2.0)	(1.2)	(0.5)	(0.1)	-
10. <u>Current expenditures /d</u>	7.7	9.4	9.3	9.6	9.7	9.2	9.4	9.5	9.5	9.5
11. <u>Non-oil public savings /e</u>	(3.7)	(2.7)	(1.7)	(1.5)	(1.8)	(2.3)	(1.1)	(0.2)	(0.6)	1.1
GNP current prices (Rp trillion)	10.3	12.1	15.1	18.4	21.6	27.6	33.5	40.0	46.8	53.9

/a Projections include difference between oil revenue projections A II and A I (see Table 5.4).

/b Equals gross minus subsidies (3-9).

/c Projected subsidies also include that part of difference between oil revenues A II and A I which is not passed on to consumer.

/d Excluding external debt service payments and subsidies.

/e Before external debt service.

Note: Numbers within brackets are negative.