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The Economy of the Maldives: An Introduction

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CURRENCY EQUIVALENTS

Free Market Exchange Rate Used in the Report: To convert dollar values into rupees and rupee values into dollars the following average annual rates were used:

1974	US$1.00	=	Maldivian Rupees (MR) 6.65
	MR 1	=	US$0.15
1975	US$1.00	=	MR 5.75
	MR 1	=	US$0.17
1976	US$1.00	=	MR 8.75
	MR 1	=	US$0.11
1977	US$1.00	=	MR 8.80
	MR 1	=	US$0.11
1978	US$1.00	=	MR 8.88
	MR 1	=	US$0.11
1979	US$1.00	=	MR 7.50
	MR 1	=	US$0.13

Administrative Accounting Rate: This rate is used for all Government and STO foreign exchange transactions and the valuation by Customs of exports and imports.

Until December 21, 1971 1/:	US$1.00	=	MR 4.75
	MR 1	=	US$0.21
	MR 1 mn.	=	US$210,526
December 21, 1971, until February 18, 1973:	US$1.00	=	MR 4.37
	MR 1	=	US$0.23
	MR 1 mn.	=	US$228,833
Since February 19, 1973:	US$1.00	=	MR 3.93
	MR 1	=	US$0.25
	MR 1 mn.	=	US$254,453

1/ The Maldivian rupee was linked to the Sri Lankan rupee and indirectly to the Pound Sterling until November 21, 1967, when it was linked to the dollar.

This report was prepared by a mission composed of K. Sarwar Lateef (Chief of Mission), Jane Loos, Gert van Santen, Caroline Doggart (Consultant), and Yukio Tanaka (Consultant). The mission visited the Maldives from July 13 to 31, 1979 and the analysis is based mainly on information provided for the mission at that time.

THE ECONOMY OF THE MALDIVES: AN INTRODUCTION

Table of Contents

Page No.

LIST OF TABLES IN THE TEXT
LIST OF ANNEXES
GLOSSARY
COUNTRY DATA
MAP

SUMMARY AND CONCLUSIONS ..... i-vi

PART A: THE SETTING

I. INTRODUCTION 1

A Nation of Islands 1
An Island People 2
Religion and Culture 3
The Social Background 5
Male's Pre-eminence 5
Political History 6
The Constitutional and Administrative Framework 8
Recent Political Developments 9

II. THE ECONOMY 11

Position Among Island Nations 11
The Maldivian Path 12
Population and Labor Force 12
Level of Social Development 14
The Structure of the Economy 16
The Institutional Framework 18
Money and Banking 19
The Budget 20
Trade and Exchange Rate System 20

III. RECENT ECONOMIC PERFORMANCE AND DEVELOPMENT ISSUES .. 22

ECONOMIC PERFORMANCE, 1974-78 22
Production 22
Monetary Trends 23
Budgetary Developments 24
Wages and Prices 25
Balance of Payments 26
External Assistance 29

DEVELOPMENT ISSUES 30
Price Distortions 30
The Policy Bias in Male's Favor 31
Financial Resources 31
Manpower and Administrative Resources 32
Legislative Framework 33

Page No.

PART B: THE SECTORS

IV. FISHERIES 34

Production and Exports 34
Resource Endowment 36
Fishing Methods 37
The Economics of Fishing 37
Future Development Strategy 40
Short-Term Development Policy 40
Long-Term Development Strategy 42
Future Investment Requirements 44
The Role of Government 44

V. TOURISM 45

STRUCTURE 45
Background 45
Activity Rates 47

ECONOMIC AND SOCIAL IMPACT 48
Foreign Exchange Earnings 48
Intersectoral Linkages 49
Government Revenues 50
Employment 52
Social Consequences 52

GROWTH POTENTIAL 53
Planning for Tourism 53
Transport Constraints 55
Institutional Framework 55

VI. AGRICULTURE AND INDUSTRY 57

AGRICULTURE 57
Cultivation Practices 57
Production of Major Crops 57
Import Dependence 58
Resource Endowment 59
Institutional Infrastructure 61
Production Potential 61
Coconut Rehabilitation 62
Food Requirements of Tourism Industry 63
Integrated Atoll Development 63

INDUSTRY 64
Output and Employment 64
Potential for Industrialization 64

		Page No.
VII.	ECONOMIC INFRASTRUCTURE AND SOCIAL SERVICES	67
	ECONOMIC INFRASTRUCTURE	67
	Shipping	67
	Port Facilities	69
	Inter-Island Transport and Communications	70
	THE MALE CAPITAL REGION	72
	SOCIAL SERVICES	75
	Education	75
	Health	78
PART C:	PROSPECTS AND ISSUES	
VIII.	DEVELOPMENT PRIORITIES IN THE 1980s	81
	The Challenge	81
	Economic Growth - Some Issues	81
	Redistribution	85
	New Growth Centers	85
	Population Policy	86
	Establishing Priorities	87
	The Role of the NPA	87
IX.	ROLE OF EXTERNAL ASSISTANCE	91
	Project Aid	91
	Technical Assistance	92
	Terms of Aid and Aid Coordination	93

LIST OF TABLES IN THE TEXT

Table A:	Labor Participation Rates and Unemployment by Atoll Group in 1977	13
Table B:	Selected Social Indicators, 1977	15
Table C:	Value Added and Employment by Sector, 1978	17
Table D:	Gross National Product, 1974-78	22
Table E:	Trends in Public Finance, 1974-79	24
Table F:	Price Trends for Selected Commodities in Male, 1975-79	26
Table G:	Summary Balance of Payments for Goods and Services ..	27
Table H:	Trends in Principal Exports	28
Table I:	Trends in Principal Imports	29
Table J:	Net Receipts of Official Development Assistance, 1974-78	30
Table K:	Production, Exports and Local Consumption of Fish, 1971-78	35

Page No.

LIST OF TABLES IN THE TEXT (continuation)

Table L: Estimated Annual Gross Sales and Operating Costs of Pole and Line Vessels 38
Table M: Comparative Dependence on Tourism 45
Table N: Airport Passenger Arrivals, 1974-79 47
Table O: The Tourism Sector's Contribution to the Economy in 1978 49
Table P: Capital and Labor Requirements for New Tourist Resorts, 1979-82 54
Table Q: Production of Major Crops 58
Table R: Average Per Capita Daily Calorie Consumption, 1976-78 59
Table S: Size Distribution of Cultivable Land 60
Table T: Physical Volume of Trade 67
Table U: Maldives Shipping Limited: Source and Destination of Traffic, 1978 68
Table V: Male Power: Load Distribution 73
Table W: Population Projections, 1977-2002 86

LIST OF ANNEXES

Annex A: An Organogram of the Government of Maldives 94
Annex B: Maldivian Statistics 95
Annex C: Infrastructure of Gan Island 99
Annex D: Ongoing and Prospective Project Activities 101
Annex E: Bibliography 113

STATISTICAL APPENDIX 116

GLOSSARY

Dhoni - Locally constructed wooden vessel (8-14 meters) used for fishing and transport

Khatib - Government-appointed island chief

Majlis - A council or assembly

Makhtab - Traditional Koranic school

Mudim - Mosque functionary

Shariat - Islamic law based on the Koran

COUNTRY DATA - MALDIVES

AREA
298 sq km

POPULATION
142,832 (December 1977)[a/]

DENSITY
479 per sq km (December 1977)
3,500 per sq km of agricultural land

POPULATION CHARACTERISTICS (1977)
Crude Birth Rate (per '000): 44.0[a/]
Crude Death Rate (per '000): 17.6[a/]
Infant Mortality Rate (per '000: 120.7
Life Expectancy at Birth (years): 46.5[a/]

EDUCATION
Adult literacy rate: 81.9%[a/]
School enrollment:(agees 5-14): 26.9%[a/]

HEALTH (1979)
Population per physician: 15,894
Population per hospital bed:3,576

ACCESS TO SAFE WATER
% of population - urban: 54
- rural: 5

ACCESS TO ELECTRICITY
% of dwellings - urban: 59.3[a/]
- rural: 2.3[a/]

GNP PER CAPITA IN 1978: US$160[b/]

GROSS DOMESTIC PRODUCT IN 1978[b/]

ANNUAL RATE OF GROWTH

	US$ Mn	% of total	1974-1978
GDP at Market Prices	22.5	100.0	12.5%
Exports of Goods, NFS	15.6	69.1	18.4%
Imports of Goods, NFS	13.1	58.4	15.6%

OUTPUT[b/] AND EMPLOYMENT in 1978

	Value Added		Employment[a/]	
	US$ Mn	%	'000	%
Primary Production	8.9	39.7	33.5	55.6
Secondary Production	1.4	6.0	15.9	26.4
Services	12.2	54.3	10.4	17.2
Total	22.5	100.0	60.3	100.0

GOVERNMENT FINANCE, 1978 (Provisional)

	MR Mn	% of GDP
Revenue	11.8	5.9
Expenditure	41.2	20.7
Budgetary deficit	-29.4	14.8
External assistance(grants)	16.7	8.4

a/ 1977 Census b/ Bank staff estimates

BALANCE OF PAYMENTS

	1977[a/]	1978[a/]
	(US$ Million)	
Exports of Goods, NFS	9.0	15.6
Imports of Goods, NFS	9.2	13.1
Resource Gap	-0.2	2.5
Current Account Balance	+1.7	+3.3

MERCHANDISE EXPORTS (1978)

	US$'000	% of total
Fresh Skipjack	2,540	62.1
Dry Salted fish	670	16.4
Dry Skipjack	210	5.1
Dry Sharkfins	340	8.3
All other commodities	333	8.1
Total	4,093	100.0

RATE OF EXCHANGE

1974
US$1.00 = MR 6.65
MR 1 = US$0.15

1975
US$1.00 = MR 5.75
MR 1 = US$0.17

1976
US$1.00 = MR 8.75
MR 1 = US$0.11

1977
US$1.00 = MR 8.80
MR 1 = US$0.11

1978
US$1.00 = MR 8.88
MR 1 = US$0.11

1979
US$1.00 = MR 7.50
MR 1 = US$0.13

EXTERNAL DEBT (US$ Million)

	December 1978	December 1979
Total Outstanding	19.5	23.4
Total Outstanding and disbursed	3.9	6.2
Debt Service Ratio for 1978	0.3%	

IDA LENDING, December 31, 1979 (US$ Million)

Outstanding	3.2
Outstanding and Disbursed	0.0

Administrative Accounting Rate

Until December 21, 1971	US$1.00=MR4.75
Dec.21,1971-Feb.18,1973	US$1.00=MR4.37
Since February 19, 1979	US$1.00=MR3.93

a/ Bank staff estimates

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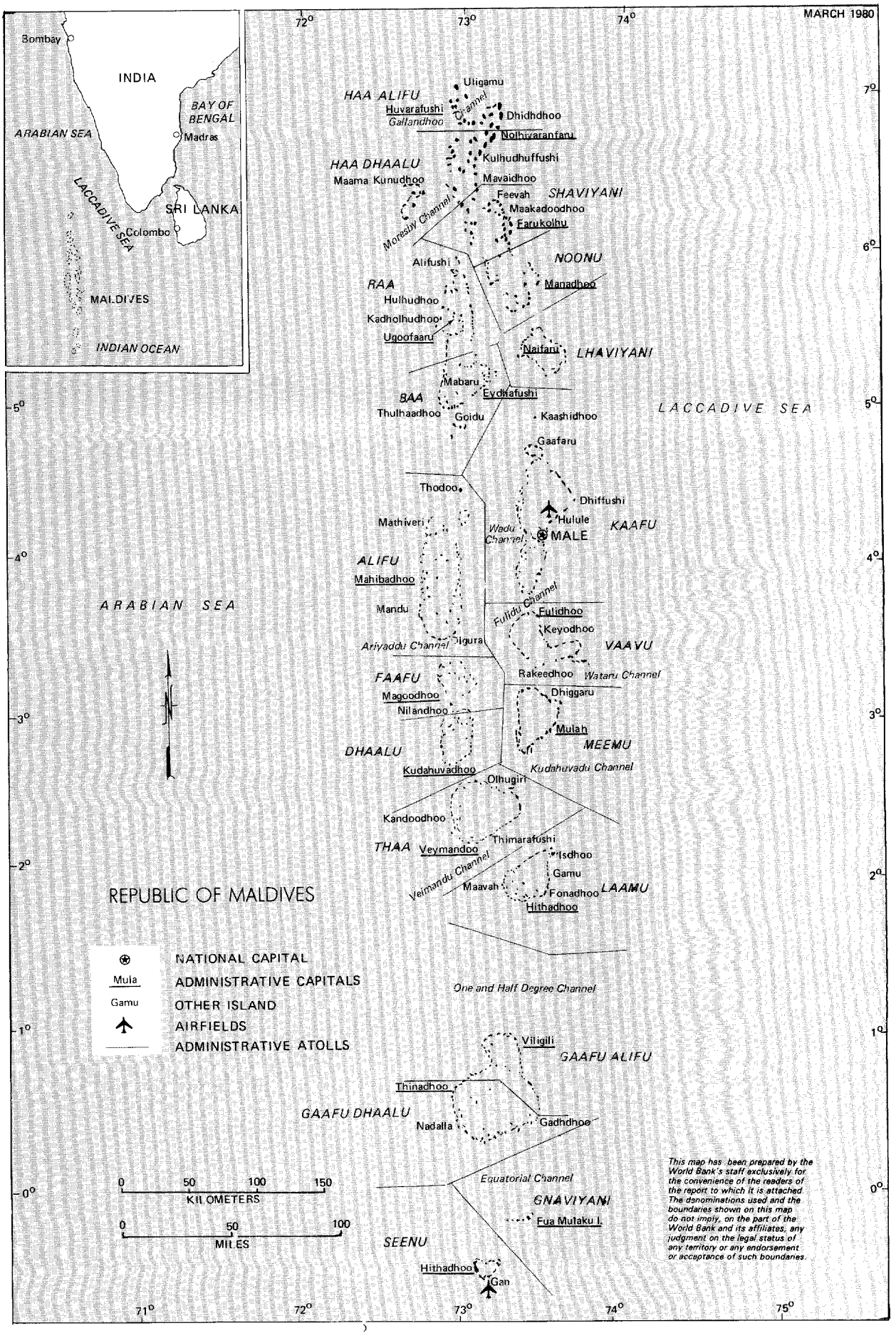

This map has been prepared by the World Bank's staff exclusively for the convenience of the readers of the report to which it is attached. The denominations used and the boundaries shown on this map do not imply, on the part of the World Bank and its affiliates, any judgment on the legal status of any territory or any endorsement or acceptance of such boundaries.

SUMMARY AND CONCLUSIONS

(i) The Setting: The Republic of Maldives became a member of the International Monetary Fund and the World Bank in January 1978. The first World Bank economic mission visited the Maldives in July 1979. This report, based on the mission's findings, is an attempt to set the Bank's initial diagnosis of the problems and prospects of the economy in the context of the country's historical background and of its society, polity and economy. The poor quality of the data combined with the comprehensive nature of the coverage has prevented exploration in greater depth of some of the more interesting issues identified by the mission. These must, therefore, be relegated to future economic studies.

(ii) The Republic of Maldives is an archipelago of nearly 1,200 tiny coral islands in the Indian Ocean, grouped together in clusters or "atolls", forming a long, narrow chain strung over an area of 41,500 square miles. The nearest land mass lies 300 miles northeast, the distance to Cape Comorin, India's southern extremity. The Maldives' physical remoteness explains how the islands have managed to remain relatively untouched by the great social and political changes that have swept across southern Asia. The population of 143,000 (1977) is scattered thinly over 202 islands; only 19 islands have more than 1,000 inhabitants. Male, the capital, has 29,000 crowded on its one square mile. The society has traditionally been small, closely knit, rigidly structured and disciplined, and unified by the common bonds of religion (Islam) and language (Dhivehi, based on Sinhalese, Arabic, and Hindustani). Each island community is a self-contained economic unit, dependent on the sea around it, as fishing is the main activity.

(iii) Throughout its recorded history, the Maldives has managed to remain self-governing, except for one brief spell under Portuguese rule in the 16th century. In 1887, the Maldives became a British protectorate, but there was no British presence in Male. Independence was attained in 1965, and, after a period of experimentation with institutional reforms, the Sultanate was replaced by a Republican Constitution in which a President is nominated by the Citizens' Majlis (House of Representatives) and confirmed in a subsequent nationwide referendum. There is universal adult franchise; the executive branch has considerable leverage over the legislature. The President, Mr. Maumoon Abdul Gayoom, took office on November 11, 1978, and has committed his new Government to a number of political and economic reforms. These involve a liberalization of the political system, a more decentralized decision-making process, and a major new development program to redress the past neglect of economic and social infrastructure, particularly in the atolls.

(iv) The Maldives is among the 20 poorest countries in the world. Like most island developing countries (IDCs), its resource base is narrow in relation to population, and it lacks known mineral resources. The country is heavily specialized in fishing and tourism and increasingly dependent on food imports. But in some respects the Maldives is unlike most IDCs: it is free of any colonial or neo-colonial dependent relationship, it is not dominated by a foreign company, and its own successful shipping line, Maldives Shipping Limited (MSL), has mitigated some of the disadvantages of remoteness.

(v) Population growth was a high 2.8% between 1972 and 1977, with Male's population rising from 11% to 21% of the total population between 1967 and 1977. Labor force participation rates are high and unemployment low; though unemployment is becoming a serious problem in Male, because of the flood of immigrants to the capital, and in Seenu atoll, which was adversely affected by the withdrawal in 1976 of the British air base at Gan. The problem of poverty in the Maldives is one of low money incomes, few assets, and in the atolls, lack of access to non-religious formal education, health services, and water supply. Most social indicators reflect a situation much worse than the average for 37 low-income developing countries; however, these are an inadequate measure of the quality of life in the islands, which is greatly enriched by a strong sense of cultural identity and a social security system based on bonds of family and kinship.

(vi) There are no official national income accounts. Highly tentative Bank staff estimates show a 1978 GNP of $23 million, and an implied per capita income of $160. About 40% of value added is attributed to the primary sector (mainly fishing), 6% to the secondary sector, and a high 54% to services, reflecting the dominance of Male-based Government services and tourism. About 55% of total employment is in the primary sectors, 26% in the secondary sectors, and the balance in services. The structure of trade reflects that of a fisheries-based economy. Fish exports account for almost all merchandise exports; consumer goods, particularly food, dominate imports. Import dependence for the economy as a whole was 32% of 1978 GDP.

(vii) Management of the Economy: Until recently, the Government had no commitment to planned economic development. Interventions by the State have been confined to a few key, *ad hoc* initiatives: the establishment of a shipping line, canalization of trade through the State Trading Organization (STO), the invitation to foreign fish-purchasing companies to operate in Maldivian waters, and the related mechanization of fishing vessels, and more recently, direct participation in the tourist industry and the construction of an international airport.

(viii) The major economic institutions are a product of this policy environment. Their organizational structure is simple and designed to handle the routine functions performed by government in what, till recently, was a rather uncomplicated economy. STO plays a key role as the Government's bookkeeper and the major vehicle for external trade. STO's profits are an important source of budgetary revenues; they arise from its application of an administrative accounting rate of MR 3.93 = US$1.00 to establish the domestic prices of exports, imports, and invisible transactions handled by it. Since the free market exchange rate was MR 7.50 = US$1.00 in July 1979, this implied an effective tax on fish exports, for example, of 47.6%. The proceeds from this are used partially to subsidize essential imports.

(ix) Banking and monetary policies, such as they are, have been left to the Department of Finance. A new Maldives Monetary Authority (MMA) will take over these functions and will monitor the operations of the two foreign commercial bank branches in Male. The budget has been treated more as an accounting exercise than as a policy instrument, and the overall tax effort in 1978 was a low 7.4% of GDP. There is no exchange control legislation and no administrative restrictions on current and capital exchange transactions. The US dollar circulates freely along with the Maldivian rupee.

(x) Economic Growth: GDP grew by an average of 12.5% a year between 1974 and 1978, due largely to a recovery in fishing and the emergence of tourism as a major economic growth sector. Money supply has been expanding rapidly, reflecting both the monetization of the atoll economy, the growth of tourism, and large government budget deficits as budgetary revenues, heavily reliant on uncertain receipts from public enterprises, failed to cover expenditure requirements. In 1979, the Government took a number of measures to reduce these deficits. These include two new tourism taxes and a wider base for import duties, the latter effective from January 1, 1980. Data on prices are poor; inflation is currently estimated at 15-20% per annum. Bank staff estimates on the balance of payments for 1974-78 suggest a chronic current account surplus. Although merchandise exports, including re-exports, covered only between 60-80% of imports, the earnings from tourism and remittances from MSL have more than offset the trade deficit. There are no data on capital flows, but OECD's Development Assistance Committee (DAC) reported average annual commitments of $5.2 million between 1974 and 1978. Commitments rose sharply in 1978 to finance the Hulule airport expansion.

(xi) The combination of pragmatic policies and ad hoc yet strategic interventions by the State has led to investments in those sectors of the economy where the country's comparative advantage is strong: fishing, shipping, and tourism. These investments provide a potentially sound foundation for sustained growth in the medium term. However, there are some areas of concern. The use of an administrative accounting rate to determine prices of fish exports and food imports creates important price distortions that could attract resources away from fishing and agriculture in the medium term. In the process, it accentuates income disparities between Male and the atolls, which are further worsened by the concentration of public expenditures and private investment in the Male region. The Government's budgetary performance in recent years has been rather unimpressive. Its implementation capabilities are hampered by inadequate manpower and an antiquated system of administration. Another major lacuna is the absence of an explicit legal framework within which private domestic and foreign investment can operate.

(xii) The fisheries sector accounts for one-third of GDP, 44% of employment and nearly all visible export earnings. Growth of fish landings has averaged a slow 1.8% per annum over the last decade; but this conceals a major structural transformation of the sector. With the decline in dry, salted, and smoked "Maldive fish" exports to Sri Lanka from 1972 onwards, foreign companies began to collect fresh fish for export. These have gained tremendously in importance. The change has been accompanied by a major mechanization program with just under one-third of all pole and line vessels already mechanized. A major issue in the sector is the adequacy of incentives due to pricing policies, (para xi), rising fuel costs, and the relatively slow increase in export unit value realizations. Short-term development priorities are a lower tax burden, an improved fuel distribution system, and the creation of a stable policy environment in which foreign fish companies can continue to operate with reasonable confidence. In the medium term, the Government needs to consider product diversification, improved fishing techniques, and greater investments in research and development. The Government may also wish to reconsider the present administrative arrangements vis-a-vis fishing to ensure smoother coordination both in planning and implementation.

(xiii) Four years of 40% annual growth rates culminated in 23,000 tourists coming to the Maldives in 1978, when tourism overtook fishing as the most important foreign exchange earner. The sector accounted for 11.6% of estimated GDP in 1978. Capacity utilization averaged 55%, with seasonal fluctuations; 1979 performance will have been better. Tourist resorts currently employ about 1,100 mostly unskilled male workers, almost one-tenth of the Male region's labor force. Linkages with the local economy are growing, but imports still account for over 40% of the sector's consumption and investment spending. Because of the resorts' physical isolation, tourism's social and cultural impact has been small. Early in 1979, the Government assumed control over five resorts, bringing the Government's share in total capacity to 65%. The takeover caused problems with the local banks which stopped lending to resorts at a time of peak construction activity. Although this matter is likely to be resolved in the short term, the Department of Tourism and Foreign Investment (DTFI) needs strengthening, and a sectoral planning effort is required in which the Government would define its own role in the sector's development and lay down guidelines for capacity growth and the supply of resources in terms of island space, manpower, and finance. Steep new tourism taxes were introduced in 1979. These may need to be revised in the light of experience gathered from the first year's operations as similar tax yields could be achieved by widening the tax base, lowering the tax rate, and thus reducing fiscal disincentives. If institutional and infrastructural problems can be solved, there appear to be good opportunities for further tourism growth, both by expansion of present capacity and by breaking new ground in the location and type of facilities offered. The promotion of two new regional development poles, potentially a key element in the Government's economic policies (para xxii), could be based on opening up outlying atolls to tourism.

(xiv) Agriculture is primarily a means by which islanders supplement their meagre earnings from fishing. Agriculture and related activities account for 10-12% of GDP and about one-tenth of employment. Production of most major field and tree crops has been declining and import dependence is high. The total cultivable area is 6,900 acres, of which about half is located on 23 islands. A 1974 FAO survey established that (a) with proper crop management, yields could be doubled or trebled; (b) diversification into pulses, oilseeds, and tobacco was feasible; and (c) rice could be grown in swamps and low-lying areas. To realize this potential, the FAO recommended a number of measures including improved cultivation practices, provision of inputs and adequate incentives. The FAO program is ambitious, but still relevant. The Government should focus on three priority areas: coconut rehabilitation, the supply of food to the tourism industry and the development of integrated programs in a few agriculturally important atolls. These programs will require a strengthening of the Ministry of Agriculture and an effort to improve incentives through pricing policies and improved transport and marketing.

(xv) Cottage industries, handicrafts, and small-scale fabrication and repair dominate the industrial sector, which accounts for 6% of GDP and 26% of employment. The potential for industrialization is limited by the size of the market, the level of development, and the lack of physical,

institutional, and legal infrastructure. Nevertheless, there is potential for establishing on a modest scale a small industries sector with backward and forward linkages with agriculture, fishing, and tourism. The Government is also considering foreign investment prospects relating to the development of the former air base on Gan island for tourism and an export-processing zone. These proposals will require careful evaluation. The weaknesses in infrastructure suggest a gradual approach in this area, focusing first on further detailed sector work and the establishment of a legislative framework.

(xvi) Economic Infrastructure: Lack of adequate inter-island transport is a major constraint to development which may be remedied by an Asian Development Bank (ADB) assisted project. Connections with the outside world are better due to the timely establishment of a national shipping line, Maldives Shipping Ltd (MSL), which now ferries almost all the country's imports. MSL's fleet by end 1978, had risen to 29 vessels totaling 84,000 GRT, but most ships are very small and very old, necessitating a costly replacement program. MSL's contributions to foreign exchange earnings and the budget have been declining because of the world shipping slump and increased operating costs. MSL's financial and operational strategy needs a careful review to ensure the much-needed recovery in profit transfers to Government. Port facilities at Male are inadequate, and a feasibility study proposed investments totaling $3.5 million. Inter-island transport and telecommunications are an essential means of ending the isolation of the atolls, and proposed sector activities are rightly geared to this objective.

(xvii) The largest infrastructure requirements pertain to Male as an attempt is made to meet the growing gap between the demand of the capital's rapidly expanding population and the inadequate supply of essential services. These separate programs are not being adequately coordinated and reconciled, which could prove both costly and wasteful in the medium term. Major investment needs have been identified in the following areas: water and sanitation, power, roads, and telecommunications. Land reclamation is also absorbing sizable resources.

(xviii) Social Services: There are three streams of formal education, each responding to a different set of circumstances and needs: the traditional Koranic schools, the Dhivehi-medium schools, and English-medium schools. School enrollment ratios are low, and the output of the system is inadequate in relation to needs. Primary schools are to be expanded in the atolls and secondary and vocational schools in Male. Teacher training and curriculum development are a third priority. There will be a very large expansion in the number of children of school-going age in the next 25 years which calls for much ingenuity and innovation in this crucial area.

(xix) Health conditions are poor due mainly to waterborne diseases resulting from an inadequate water supply system. Communicable diseases are also a problem. Ongoing UN programs to improve health conditions have focused mainly on improving water supply and setting up health centers in the atolls. However, important gaps remain in the supply of maternity and child health care programs and family planning.

(xx) Establishing Development Priorities: The preceding analysis suggests the following development objectives: (a) a rate of economic growth sufficient to ensure an adequate increase in real per capita incomes and consumption; (b) a more equitable distribution of the benefits of development as between Male and the atolls; (c) a determined effort to reduce migration into Male through the creation of alternative poles of development; and (d) a program to slow down the current rapid population growth without which the long run economic development gains would be eroded. A careful evaluation of sectoral growth possibilities suggests that the economy is poised for rapid growth provided that the Government continues to maintain an open economic system; it examines ways of removing serious price distortions arising out of STO's pricing policies; it ensures the adequacy of incentives in key sectors adversely affected by recent policy developments; and it provides the infrastructure--physical, financial, social, and legal--which is essential to growth of productive sectors whilst at the same time supporting birth control programs.

(xxi) Reversing past neglect of the atolls will require a multipronged approach, by boosting incomes of fishermen and farmers, by increasing Government expenditures in the atolls and by developing programs geared to the special needs of selected agriculturally important atolls.

(xxii) Male's population could expand to 50,000 by 1985, if the rate of immigration goes unchecked. This suggests the need for creating alternative growth centers cum urban settlements to attract potential migrants away from Male. The Government is already considering one such development in Seenu atoll (Gan); there may be room for a second in the north.

(xxiii) These programs are likely to prove costly in relation to available resources. The Government will need to resist the temptation to do all things at once by establishing a clear set of priorities and attempting to match its efforts to implementation capabilities. This will require defining the relative roles of public and private sectors. On a priori grounds, the most natural course would appear to be to concentrate the bulk of public investments on essential infrastructure needs. The National Planning Agency (NPA) will need to play a key role in this process. Particular attention should be paid to increasing public savings, to alleviating shortages of trained personnel and manpower, and to addressing administrative constraints. External donors can help in picking up the costs of large indivisible investments that the Maldives could not on its own afford and by providing technical assistance. Given the limited rupee resources, aid should finance a high proportion of total costs and be on highly concessional terms.

(xxiv) While the problems of the Maldives' economy appear large, they are by no means insurmountable. The country's good development potential and its small size permit many of its problems to be addressed quickly and relatively easily, given adequate resources. With the right policies and programs and appropriate external assistance, the Government should not have much difficulty in meeting the growing aspirations of this quite unique nation of islands.

PART A: THE SETTING

I. INTRODUCTION

A Nation of Islands

1.01 Geography. The Republic of Maldives is an archipelago of nearly 1,200 1/ tiny coral islands in the Indian Ocean, grouped together in clusters or "atolls." 2/ These atolls form a long, narrow chain 3/ that is strung over an area of about 41,500 square miles (106,000 sq km). The northern and southernmost tips are 512 miles (820 km) apart; at its widest, it measures 81 miles (130 km). Geologically, the atoll-bearing plateau line continues southwards with the British Chagos archipelago, and northwards with India's Minicoy and Lakshadweep Islands. The nearest land mass lies 300 miles away--the distance to Cape Comorin, India's southern extremity--and it is 400 miles eastwards across the Indian Ocean to Colombo, the capital of Sri Lanka. The Maldives' physical remoteness explains how the islands have remained relatively untouched by the great social and political changes that have swept across Southern Asia.

1.02 The northern and central atolls, from Haa Alifu to Laamu, form a narrow ellipse surrounding a strip of sea 10 to 25 miles broad. They rise from a common plateau and are separated from each other by deep channels, most of which are easy to navigate. The southern atolls, Gaaf Alif, Gaafu Dhaalu, Gnaviyani, and Seenu, are separated from the main body of islands by two broad channels: the 50-mile-wide One and Half Degree Channel between Laamu and Kaafu, and the equally broad Equatorial Channel between Gaafu and Seenu. Strong currents in both these channels, and in the Veimandu (or Kolumadulu) Channel between Laamu and Thaa, make them a hazard to navigation, to which many wrecks bear silent witness. Uncharted and unmarked reefs have also taken their toll of ships through the centuries. The enclosure reefs to each atoll contain openings which provide passageways for boats traveling between atolls. Only a few are deep and wide enough to accommodate even the smallest modern cargo boats or collector vessels for the fishing fleet.

1.03 Most islands are situated close to the atoll enclosure reef. They vary in size from patches of coral or small sandbanks to real islands, the longest of which, Gamu in Laamu atoll, is 4.5 miles long. Male, the capital, occupies an island barely one mile long on the east side of the central atoll, Kaafu. Most other islands are less than a mile long. The total land area is thought to be about 115 sq miles (298 sq km), although a proper land survey remains to be done. Because they are based on coral, the islands are flat, the highest point being rarely more than 6 ft above sea level. The water table is naturally high in all the islands. Often, the highest water points are along the shoreline and in the center. Several islands have fresh water

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1/ The Coral Atoll Program of the National Academy of Science of the United States identified 1,009 islands, islets, reef patches, and reef rings. Government data indicate 202 inhabited and 985 uninhabited islands, a total of 1,187.

2/ The word "atoll" is derived from the Maldivian word "atolu."

3/ The chain stretches from $7^{\circ}0'$ North to $0^{\circ}45'$ South latitude, and from $72^{\circ}31'$ East to $73^{\circ}48'$ East longitude.

lakes. All the older islands, where a layer of soil has been formed on top of the coral base from accumulated animal and vegetable matter through the millennia, are covered with tropical vegetation, typically coconut trees towering above dense scrub. Breadfruit trees and pandanus (screwpine) are also widespread. Vegetation is more abundant in the southern atolls where rainfall is heaviest, but agricultural potential generally is limited by the high alkaline content of the soil, its poor water-retention capacity, and lack of nitrogen.

1.04 The Maldives' greatest wildlife riches are to be found underwater. In sun-sparkling, crystal-clear lagoons, among multicolored coral reefs, tropical ocean fish of every shape and color, crustaceans, turtles, seaweed, and shells provide a spellbinding, ever-changing spectacle. This is the major tourist attraction and one which is being effectively safeguarded with marine life protection measures. The islands also provide a haven for seabirds, although some of their breeding grounds are threatened by egg-hunting islanders. There are very few other birds apart from crows, whose numbers have been noticeably reduced by eradication efforts. Rabbits, flying foxes, and rats are the only indigenous mammals.

1.05 Climate. The climate is determined by monsoons; it is hot and humid. The southwest monsoon comes at the end of April with a steady westerly surface wind that continues until mid-August, though it can be irregular. The northeast monsoon, from December to March, is the driest season of the year. The unsystematic meteorological records available for Male 1/ and Gan do not show a particular rainfall pattern except that it is lower between January and March. The annual rainfall recorded at Male during 1974-78 averaged 84 inches. The mean daily temperature in Male varies little through the year, averaging 86°F (30°C). 2/ Diurnal variations seldom exceeded 10°F. Humidity is high throughout the year; during the southwest monsoon, it seldom drops below 80%.

An Island People

1.06 Population dispersion. Only 202 of the 1,200 islands are permanently inhabited; of these, 28 have fewer than 200 inhabitants and 107 support a population of between 200 and 500. Nineteen islands have more than 1,000 people, of which the most populated by far are Hithadhoo in the southernmost Seenu Atoll (6,320 people at end-1977), and the capital, Male, with 29,520 people crowded onto just over one square mile of land. 3/ Some of the officially uninhabited islands are seasonally occupied by families engaged in the gathering and processing of coconuts and in planting coconut trees, or occupied full-time by tourist resorts.

1.07 The population of 142,800 is fairly regularly dispersed over the island chain: 1977 census data (paras 2.05-2.08) show that 35% lived in the atolls north of Male, 24% lived in Male and Kaafu atoll, and 41% lived south of the central atoll. The northernmost atolls, Haa Alifu and Haa Dhaalu,

1/ Statistical Appendix Table 10.1
2/ Op. cit.
3/ Statistical Appendix Table 1.4.

accounted for 13% of the population, while the southernmost atolls Seenu, Gnaviyani, Gaafu Dhaalu, and Gaaf Alif, had 22%. Apart from Male, there are no urban settlements. The Maldivian language has no adequate word even to cover the concept of a village or town.

1.08 Population density. Accurate population density figures are not available because of the lack of land survey data. The estimated land area of 115 sq miles (298 sq km) suggests that there were 1,242 persons per sq mile (479 per sq km) in 1977. If Male is excluded from the figures, population density falls to 994 per sq mile (380 sq km). Excluding Male, the average population per inhabited island is 564, ranging from 220 in Vaavu atoll to 4,200 in the one island atoll of Gnaviyani. The 19 atolls on average have about 11 inhabited and 51 uninhabited islands each. Excluding Gnaviyani, the number of occupied islands per atoll ranges between 4 and 18. The number of unoccupied islands in each atoll varies from 14 to 148.

1.09 Migration. There is little inter-atoll migration, except to Male. Census data for 1977 show that between 86% and 97% of the inhabitants of individual atolls outside of Male had never resided anywhere except on their own islands. 1/ However, there has been a sizable migration to Male where only 60% of the population is permanently resident. 2/ Migration to Male is partly attributable to the concentration of social infrastructure (education and health) in the capital, as well as the lure of job opportunities in the construction and services sectors.

1.10 Emigration is rare except on a temporary basis for educational purposes, political reasons, or to work as crew members on Maldivian ships. The 1977 census reported 1,359 Maldivians temporarily overseas, of which 1,280 were males. There are a small number of mainly non-permanent immigrants, concentrated in Male. They include staff of international agencies, Sri Lankan and other foreign teachers, Indian and Sri Lankan traders, banking, insurance, and airline personnel and their families: numbering 1,000 people at most.

Religion and Culture

1.11 The early history of the Maldives is shrouded in mystery. The islands were probably settled in the 4th or 5th century B.C. by Aryan immigrants from Ceylon or from those parts of India, whence came the Sinhalese, or from both. 3/ There is an undoubted affinity between the Sinhalese and the Maldivians both in physical appearance and in the Maldivian language, which is based on Elu, or ancient Sinhala. Legend has it that the Aryan settlers found an aboriginal people on the islands who welcomed the newcomers. Over the centuries, trading contacts with the Arab world, East Africa and Madagascar, Malaysia, and Indonesia have left their imprint on the Maldivian people. Of these, Persian and Arab influences have been the most important.

1/ Statistical Appendix Table 1.5.
2/ Statistical Appendix Table 1.6.
3/ The Tarikh State Chronicles of the Sultans, as quoted by H.C.P. Bell, The Maldives Islands: Monograph on the History, Archaeology and Epigraphy.

1.12 Animism and Buddhism preceded Islam in the religious beliefs of the islanders. Archaeological research has uncovered vestiges of a Buddhist culture dating back to the second or third centuries AD. 1/ Little remains of the ancient Buddhist structures found in the southern atolls; most were demolished with the advent of Islam, and the ruins were used as stone quarries. By the eighth century AD, Persian and Arab merchants had created a zone of influence in the Indian Ocean. Arab travelers such as Sulaiman, Masudi, and Al Adrisi visited the islands between the ninth and twelfth centuries leaving behind the only written historical accounts of the Maldives for that period. Frequent contacts with Muslim foreigners may have helped to pave the way for the archipelago's conversion to Islam. Sultan Mohamed Ibn Abdullah was converted in 1153 AD by a holy man visiting the islands. Thereafter, all the inhabitants of Male and the atolls adopted the Muslim faith. 2/ Advised by the holy man, the Sultan introduced regulations for the administration of the islands; knowledge of Islam was widely disseminated, religious laws enforced, mosques built everywhere, and all traces of Buddhism effaced. Apart from a brief period of Portuguese occupation in the 16th century, which followed upon the conversion to Catholicism of Sultan Hasan IX, the Maldivians have belonged to the Shafi School of the Sunni Muslim faith. Islam is the religion of the State, and Maldivian citizenship is confined to Muslims, although non-Muslims may be given permits to reside permanently and to do business in the Maldives.

1.13 Maldivian Islam has its own unique character, a delicate blend between tradition and modernity. There is a strong tradition of Koranic scholarship at all levels, with Koranic schools providing the only formal education that most Maldivian children get. The tiny intellectual elite, however, comprises a wide spectrum of scholastic traditions, ranging from products of the traditional Islamic Al Azhar University in Cairo (who include President Maumoon Abdul Gayoom) to graduates from more secular institutions in Europe, Oceania, and the Indian subcontinent. Female enrollment in primary and secondary education is high, and women participate freely in social activities. In the administration of justice, banishment is the worst punishment.

1.14 Language. Increasingly close contact with the Arab world and with India brought about certain important changes in the language and script of the islands. From the original Elu, or old Sinhalese, an intrinsically Maldivian language developed known as Dhivehi. It has important elements of both Arabic and of Hindustani. The language is spoken more or less uniformly in all the far-flung atolls, as well as the Indian island of Minicoy. The script, known as Thaana, developed in the 17th century. It is based on the Arabic and Persian script and written from right to left. It is in general use today, with a high 82% adult literacy level in Dhivehi. Recently, the Government has permitted the use of Roman script along with Thaana for official correspondence and documents. The translation of Dhivehi vowels and

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1/ According to H.C.P. Bell, op. cit.

2/ The peripatetic Arab traveler Ibn Batuta, who visited the Maldives between 1343 and 1345, ascribed the conversion to a fellow North African, the Berber Abu-l-Barakat. The Tarikh State Chronicles of the Sultans ascribe it to Sheikh Yusuf Shamsuddin from Tabriz in Persia.

consonants into Roman letters has proven feasible, thus making it possible to use typewriters for correspondence in Dhivehi. The second-most widely spoken language is English, claimed as a second language by 3% of the population, or about 4,300 people. Among other foreign languages spoken by only a few hundred people are Arabic, Urdu, and Sinhala.

The Social Background

1.15 Historically, Maldivian society has always been small, closely knit, rigidly structured, and disciplined. The unity of religion and language is an important element of this whole. It is an elitist society in which power is concentrated in Male among a few families. In the atolls, central power is exercised through the atoll chiefs and island khatibs, generally with a light hand. From the beginning, Maldivians are brought up to respect their elders and those who have been educated, while conforming to an Islamic code of conduct. The inhabitants of each island form an interrelated group where everyone knows each other, where social services, law and order, and investment decisions are the responsibility of the community, directed by its chief. The atolls, and some individual islands, are almost self-contained economic units, dependent on the sea around them, as fishing is the main economic activity. Boys start early to learn seafaring skills. They will go out with the fishing boats by the time they are 10 or 11 years old. The more sons a father can bring along on a boat, the larger his share of the catch, for it is divided among the crew of each fishing boat. The women and girls are homemakers; they look after some crops and do handicrafts. Unlike women in other Indian Ocean island nations, they do not market fish and produce. The island economy is usually dominated by boat owners. They are in the position of employers, and boat ownership helps them to exercise influence over people's movements and provides them with access to the political and economic power structure of Male. Profits from boat ownership are ploughed back into trade; boat owners are also frequently owners of shops in the atolls.

1.16 The Maldivians have successfully combined the social values of Islam with their own distinctive traditions. Despite the violence and corruption that characterizes the history of the Sultans and their entourage, they are a peaceful and orderly people who practice moderation in most things. Both religious fanaticism and crimes of passion are rare. Family relationships are fluid. Divorce rates are very high: according to the 1977 census, nearly half the women over the age of 30 had been married four times or more. 1/ Yet, strong loyalties tie the individual to the extended family, while women are held in high esteem and enjoy a secure position within each island community, whatever their marital status.

Male's Pre-eminence

1.17 Male dominates the political, economic, and social structure of the country. It is here that a small national elite presides over the archipelago's affairs and takes decisions that are crucial to the well-being of the atolls. Not surprisingly, a disproportionate share of government expenditures directly

1/ Statistical Appendix Table 10.2.

benefits Male and ensures its residents a standard of living that is substantially higher than in the atolls (para 3.24). The other islands now rely upon it as their main trading post and contact point with the rest of the world. In Male itself, society is structured in the same way as in the other islands, except that it is larger, richer, and better educated. Whereas the atolls are economically dependent on the sea, Male is dependent on the atolls. Male differs from other inhabited islands because of its immigrant population, both islanders and foreigners, who do not fit into the traditional social structure. It has more corruption and more deprivation than would be tolerated in the self-regulating and self-reliant atoll communities. But it is also more receptive towards new ideas and techniques--and aware of the fact that established social structures are neither perfect nor immutable. After years of political repression, which hit Male worse than other islands, the capital in 1979 exulted in a newfound freedom of speech and thought. There was open criticism of the existing system and sympathy for the new government's desire to narrow the social and economic gaps between Male and the atolls. The mood was perhaps comparable to the one which preceded the political reforms of the 1930s and more widespread.

Political History

1.18 Unlike most countries of the region, the Maldives has managed to remain self-governing through most of its recorded history. Except for a brief period in the 16th century (1558-73) when the Maldives was occupied by the Portuguese and governed from Goa, Maldivians have been ruled uninterruptedly by their own Sultans, and occasionally Sultanas, until the Sultanate was finally abolished in 1968. From the 15th to 19th centuries, the Maldives was harassed from time to time by the Portuguese and the Rajahs of Kannanur (Malabar, India). Such harrassment caused it to woo a more powerful and less predatory colonial neighbor, Ceylon. The first known reference to an annual embassy from the Sultans to Ceylon's rulers, bearing gifts, dates back to 1645. This alliance continued through Ceylon's Dutch and British colonial periods, but was only formalized in 1887 when an agreement was signed under which the Maldives obtained British protectorate status. However, even after the Maldives accepted British suzerainty, there was little interference by the British in local affairs and no British presence in Male.

1.19 The political history of the Maldives is mainly that of Male. Male is, and was always, ruled by a mere handful of families. Their internecine struggles and rivalries dominate the historical scene. Occasionally, a Sultan stands out for his wisdom. Others have been enmeshed in murderous power struggles, were profligate and venal. The isolation of this elite from the rest of the world was finally broken by the protectorate arrangement with Britain. Exposure to the outside world during the 1920s, particularly to Colombo, made Male's educated elite more aware of the great political changes taking place in South Asia and elsewhere. There was a growing desire for change, which focused particularly on the autocratic structure of government. The Sultan was persuaded to appoint a constitutional committee in 1930. It prepared a draft constitution, providing for an elected citizens' assembly

and for an elected Sultan. The document was accepted as the Maldives' first constitution in 1932, and in 1934, Sultan Hassan Nuruddin became the first elected Sultan. He ruled through the difficult war years when the Maldives was more than usually isolated by the disruption of shipping in the Indian Ocean. He resigned in 1942, and after a two-year interim period of rule by a Council of Regency, was succeeded by Sultan-elect Abdul Majeed--considered by many to have been the "father of the nation."

1.20 In the two decades that followed, the Maldives progressed from a constitutional monarchy to a republic; the Sultanate was restored again and then finally abolished in 1968. These changes were all brought about peacefully, and the people were consulted through elections and referenda. This period of experimentation with constitutional reform 1/ coincided with major changes in relations with the UK. When Ceylon became independent in 1948, the Maldives entered into a mutual defense pact with the UK, under which the latter continued to provide the Maldives with military protection and control over external affairs. In return, the Sultan undertook to provide facilities for UK military forces, as needed, for the defense of either the islands or the Commonwealth. In 1956, the UK closed its military base in Trincomalee (Ceylon) and sought to re-establish its wartime staging post and communications center on Gan, in Addu (now Seenu) atoll. While the negotiation of a leasing agreement encountered strong opposition in Male, UK construction activity in distant Gan proceeded apace.

1.21 The Gan islanders became wholly involved in the new development that brought with it high wages and educational and social services undreamt of elsewhere in the Maldives. The development of the base had a strong multiplier effect on the economies not only of Gan but of the southern atoll group as a whole. Confident that the region had a secure economic future, political leaders from Addu, Fua Mulaku (now Gnaviyani), and Suvadiva (now divided into Gaaf Alif and Gaafu Dhaalu) joined forces in an attempt to secede from the rest of the country. Government forces quashed the rebellion and in 1963, its leader, Affif Didi, was given political asylum by the UK in the Seychelles. Although the UK never recognized the "United Suvadivian Republic," the Male Government was highly suspicious of British involvement in the rebellion, and relations between the two governments reached their nadir. Against this background, new negotiations took place. They led to an agreement under which the Maldives became an independent sovereign state on July 26, 1965. 2/ Later that year, the Maldives became the 114th member country of the United Nations, but opted out of the Commonwealth.

1/ The 1968 Constitution, by which the Maldives is currently governed, is the country's fifth written constitution and the fourth in two decades.

2/ Under this agreement, Gan island was leased to the UK until 1986. The British presence in Gan was, however, terminated abruptly in 1976 following the 1974 decision to reduce defense expenditures east of Suez. The withdrawal has had a severe impact on the economy of Seenu atoll. Gan island itself had been wholly developed as a services-oriented community which could not revert overnight to primary activities of subsistence agriculture and fishing. In addition, the island was stripped of most movable usable assets, which were taken to Male; the hospital and schools were closed. Of the 1,200 Maldivians once fully employed in Gan, only some 60 caretaker personnel remain (Also see Annex C).

The Constitutional and Administrative Framework

1.22 The 1968 Constitution, as amended in 1970 and 1975, proclaims the Maldives to be an Islamic Republic. At the apex of the power structure, which remains as highly centralized as in the days of the Sultan, is the President, and a ministers' majlis or Cabinet appointed by him. The President is nominated for a renewable five-year term by the Citizens' Majlis (House of Representatives) in a secret ballot. He must be confirmed by obtaining a majority vote in a subsequent nationwide referendum. In 1975, when the then Prime Minister, Ahmed Zaki, was banished by President Nasir, the constitutional provision for the appointment of a prime minister was dropped. The President may, however, nominate one or more vice presidents, whose functions are undefined. 1/ Ministers need not be members of the Citizens' Majlis.

1.23 The Citizens' Majlis also has a five-year life span and holds three sessions a year. 2/ It has 48 members, eight appointed by the President, two members elected from Male, and two from each atoll. All Maldivian citizens of age 21 and above, both men and women, have the right to vote. The President must call for the election of a Citizens' Special Majlis if a law is to be passed which either alters the value of the currency or affects the constitutional rights of the people or the State. Effectively, the President controls the legislature and holds executive and judiciary powers. There are no political parties, in or out of the Majlis, only changing factions based on personal alliances. Recently, a more questioning attitude has arisen among the less traditionalist, younger members of the Majlis.

1.24 There are only a few general references to citizens' rights in the constitution (freedom of speech and assembly, equality before the law, and the right to hold property); in all cases, the details are left to be defined by Shariat or by statute law. As there is very little of the latter, it is still the Shariat which must provide a legal framework for most civil and criminal cases, as it did eight centuries ago. Particularly serious lacunae are the lack of established laws dealing with leasehold property rights (most land is vested in the Government but can be leased or alloted) and with contracts, company operations, foreign investment, banking, and insurance. The administration of justice theoretically falls under the overall control of the Ministry of Justice. The minister is a cabinet member, appointed by the President. The President is also advised by an Attorney-General, who is an appointed cabinet minister. The President is, however, the final authority for the propagation of the tenets of Islam; insofar as these include the interpretation of the Shariath, supreme judicial power rests with the President.

1.25 The constitution has no provision for local governments. At present, the islands are grouped into 19 administrative atolls, each one headed by an atoll chief, appointed by the President. Every inhabited island has a

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1/ There is no vice president in President Gayoom's government.

2/ Any number of meetings may be held in each session, depending on the business on hand.

government-appointed island chief (khatib) and one or more mosque functionaries (mudim). The atoll chiefs, most of whom are from Male, together with the khatibs are responsible for the maintenance of public security, the collection of statistics, the implementation of government policies, and the conduct of the educational system in the islands. The atoll chiefs have direct radio communication from their atoll offices to the northern or southern regional offices in the Ministry of Provincial Affairs, to which they report.

1.26 At the time of the mission's visit, the organization structure of government consisted of the Office of the President, ten line ministries, the Maldives Shipping Ltd. (MSL) and the Maldives Fisheries Corporation (MFC). 1/ The line ministries all report to the Office of the President which also has responsibility for certain key departments for which no ministerial appointments have been made. These are the departments of Finance, of Tourism and Foreign Investment, of Information and Broadcasting, of Electricity and of Telecommunications. The line ministries are divided into Agriculture, Fisheries, Transport, Home Affairs, Provincial Affairs, Public Safety, External Affairs, Justice, Education, and Health. Each department and Ministry, in turn, has responsibility for one or more operational units and enterprises, which range in size from the State Trading Organization (STO) with 70 employees, reporting to the Director of Finance, to the two-man Architectural Section, which is part of the Office of the President. The MSL, with its operational headquarters in Singapore and its administrative headquarters in Male, operates with a great deal of autonomy.

Recent Political Developments

1.27 After almost 20 years in power, as Prime Minister under the last Sultanate and as the second President of the Republic, Ibrahim Nasir withdrew from the 1978 presidential race, obstensibly for personal reasons. A referendum confirmed the Majlis' choice of Maumoon Abdul Gayoom, a former Ambassador to the United Nations and Transport Minister, as the new President of the Republic. President Gayoom took office on November 11, 1978. In both style and substance, his administration appears to represent a major shift in political and economic direction. In a policy statement to the Majlis in February 1979, the new President committed himself to a more open Government, to the restoration of fundamental rights, including greater freedom of the press, and to running the Government according to the principles of Islam and modern democracy. The decision-making process is to be decentralized, with greater reliance on consultation within the Cabinet and increased powers for both the Citizen's Majlis, and the judiciary, which is currently an integral part of the executive branch of government. The exact nature and extent of these constitutional changes are to be defined by a Special Majlis that is to be convened later this year. The Special Majlis consists of members of the Citizen's Majlis, members of the Cabinet, eight members nominated by the President and two members elected from each atoll and in Male. Elections for the Special Majlis were held in March 1979 and the quinquennial elections to the Citizens' Majlis in November 1979.

1/ An organogram appears in Annex A.

1.28 On the economic side, the new Government is committed to reversing, as quickly as possible, the past neglect of economic and social infrastructure and to spreading the benefits of development more evenly. A National Planning Agency (NPA) has been established to draw up a public investment program which will emphasize, in particular, the development of the outer atolls. The Government has invited a number of international agencies to provide technical assistance for this planning endeavor. In the meantime, it has embarked on a number of expenditure programs that appear to represent a political response to pent up demands from the atolls. These include an MR 14 million Special Atoll Budget for 1979-81 mostly for establishment and maintenance of new schools, repairs and construction of mosques and government offices, and dredging of inner harbors in some islands; and an MR 20 million land reclamation project for Male. The Government is also encouraging, with some success, new entrepreneurs to establish tourism resorts, thus widening ownership of the resorts, which in the previous regime had been confined to the former President and a small coterie of friends and relations.

1.29 The main characteristics of the economy inherited by the new Government are described in Chapter II. Recent economic trends and policy issues are analyzed in Chapter III. Chapters IV through VII review problems and prospects of the major sectors in the economy. Chapter VIII assesses the policy and strategy options open to the new Government, and Chapter IX examines the potential role of aid donors.

II. THE ECONOMY

Position Among Island Nations

2.01 The Maldives is small and remote, but it has made good use of its few natural resources. The Republic is estimated to be among the 20 poorest countries in the world in terms of GNP per head; it also counts among the poorest of the island developing countries (IDCs) which the General Assembly of the United Nations first identified in 1974 as being in need of special assistance. The Maldivian islands are among the world's most densely populated, comparable with Bahrain, Barbados, and Mauritius, but less than half the densities of Bermuda or Malta, and one-eighth of Singapore's. The population growth rate between 1972 and 1977 of 2.8% a year is above the average for island nations in 1970-76; it is particularly high among the poorest IDCs. 1/ Estimated GNP per head in 1978 was around $160, 2/ the lowest of all IDCs for which comparable IBRD data are available. In comparison, GNP per head in the Comoros in 1978 totalled $180, in Sri Lanka $190, in Madagascar $250, and in the Seychelles $1,060.

2.02 The country faces many constraints similar to those facing other small and remote IDCs. Its resource base is narrow, due to its extremely small land and cultivable area (115 sq miles and 6,900 acres, respectively) in relation to its population, and the lack of known mineral resources. As a result, the country is heavily specialized in the two sectors in which it is relatively well endowed, fishing and tourism. The small size of the domestic market has also ruled out any major import-substitution-based activities. Thus, although the Maldives is among the least import dependent of the world's island nations, there is a large and growing dependence on imports for food and other essential consumption requirements. The openness of the economy as well as its highly specialized nature makes the Maldives vulnerable in the short term to external events.

2.03 A tiny population spread over 202 widely dispersed islands, with tenuous inter-island transport and communications, contributes to the continuing isolation of the atolls vis-a-vis Male and from each other. Dispersion greatly increases the cost of providing the essential social (schools and health care) and economic infrastructure (power and water supply) that is now almost entirely concentrated in Male. There are also significant diseconomies of scale. Most inhabited islands and some atolls have far too small a population to support a full-time school or health center. The country as a whole is much too small to support a wide range of institutions and services that would normally be found in larger countries. The smallness of the population is itself a constraint to the provision of services in that the range of skills available is extremely limited, and the task of matching available skills to the jobs needed is far from easy. Thus, most civil servants in the Maldives are underqualified and undertrained for the tasks they are expected to perform.

1/ UNCTAD V: Specific Action Related to the Particular Needs and Problems of Island Developing Countries: Issues for Consideration, Manila, May 1979, Report No. TD/242.

2/ Bank staff estimates; see para 2.15 below.

The Maldivian Path

2.04 While the Maldives shares many of the constraints imposed by smallness and remoteness with other IDCs, it is, in some important respects, quite unique. First, unlike almost all IDCs, the Maldives is neither a colony nor a former colony. Its economic relations with the rest of the world are sufficiently diversified, and it is not dependent politically or economically on one other nation or trading bloc. Second, although recent developments have greatly strengthened the bargaining power of foreign fishing companies vis-a-vis the Government (para 4.20), the country's resources and the means of exploiting them remain firmly enough in Maldivian hands. Third, the Maldives' remoteness from main trade routes is greatly mitigated by the establishment of an effective national shipping line--Maldives Shipping Ltd. (MSL). This has helped maintain regular services where the Maldives might otherwise have been at the mercy of foreign lines. Transport costs have also risen less than they might have done without MSL. 1/ The Maldives is, therefore, relatively unfettered by three of the most intractable problems facing other small and remote IDCs: a colonial or neo-colonial dependent relationship, economic domination by foreign companies, and weak transport links with the rest of the world. In addition, the Maldives enjoys relative immunity from natural disasters. 2/ Finally, Maldivians have shown great resilience in the face of economic setbacks, like the reduction in Sri Lanka's traditional export market for Maldive fish 3/ by switching to alternative types of fish exports and structural diversification (shipping and tourism).

Population and Labor Force

2.05 The first comprehensive census was conducted at the end of 1977. An analysis of population trends must, therefore, rely on annual figures provided for each island by the island khatibs and on less comprehensive censuses conducted periodically. Past enumeration data, which are unreliable, show a 71% increase in the population between 1957 and 1977 to 143,000. Population growth accelerated in the 1960s, averaging 3.1% per annum in the 1962-72 period, before slowing down in the 1972-77 period to 2.8%. Population growth in the capital outstripped that of the atolls, causing the urban population to rise dramatically from around one-tenth to over one-fifth of the total between 1967 and 1977. 4/

2.06 Through all the population enumerations since 1901, there has been a predominance of males. In the course of the last generation, the gap has narrowed only slightly; in 1977, 47.3% of the population was female. About 45% of the current population is under the age of 15 and 2.3% over age 65. These figures imply an economic dependency ratio of 1.1. 5/ In the atolls, where both the old and the young show high labor participation rates, the

1/ See paras 7.02-7.06 below.
2/ The last major storm was recorded in 1820.
3/ See Chapter IV.
4/ Statistical Appendix Table 1.1. The 1977 population data for Male and for individual atolls, however, is not strictly comparable with the earlier census data due both to the poor quality of earlier data and differences in methodology.
5/ Ratio of population under 15, and 65 and over, to the labor force in age group 15-64 years.

average household still had only 2.4 out of 5.6 who were fully employed, and every employed household member appeared to have to support 1.3 dependents. In Male, each employed person supported 2.2 dependents within the average household size of 9.7 members.

2.07 At the beginning of 1978, the labor force (defined as those aged 15 and over) was estimated at 60,900 people, or almost 43% of the total population. 1/ Compared with other countries in the region, labor force participation rates are above average for both males and females. Age-sex specific data show that between the ages of 20 and 50 more than 90% of male and 60% of female Maldivians participated in the labor force, while for the population as a whole participation rates reached 51% and 33%, respectively. 2/ Employment appears to have kept slightly ahead of population growth. Between 1972 and 1977, the numbers employed rose by 3.2% a year. During the same period, there was a slight increase in the proportion of female workers, from 35% to 38% of the total.

2.08 The 1977 census suggests that open unemployment at 5.8% of the labor force is low for the republic as a whole. However, it is a high 15.3% in Male, and an almost insignificant 3.7% in the atolls. 3/ The only atoll showing relatively high open unemployment is Seenu (11.5%), which was adversely affected by the withdrawal of the British air base at Gan. An analysis of the nature of unemployment suggests that the majority of the unemployed are young (54% of the unemployed are in the 15-24 age group) and male (63% of all unemployed). 4/ The relatively low growth of population in the atolls suggests that the young have been sent to Male in search of jobs, and not all of them have been successful. The capital accounts for 47% of the nation's unemployed; 56% of those unemployed in Male are in the 15-24 age group. Unemployment rates in the capital for this age group are a disturbingly high 24%. 5/

Table A: LABOR PARTICIPATION RATES AND UNEMPLOYMENT BY ATOLL GROUP IN 1977

	Labor Force as % of Population	Unemployment as % of the Labor Force
Northern Atolls /a	46.1	2.7
Central Atolls Excl. Male	45.1	3.9
Male	37.0	15.3
Southern Atolls, /b	39.7	5.5
of which: Seenu	30.6	11.5
Total	42.6	5.8

/a Haa Alifu, Haa Dhaalu, Shaviyani, Noonu, Raa, Baa, Lhaviyani.
/b Gaaf Alif, Gaafu Dhaalu, Gnaviyani, Seenu.

Sources: Census, 1977; Statistical Appendix Table 1.9.

1/ Statistical Appendix Table 1.9.
2/ Statistical Appendix Table 1.10.
3/ Statistical Appendix Table 1.12.
4/ Statistical Appendix Table 1.11.
5/ For the 15-19 age group, they are an even higher 34%.

Level of Social Development

2.09 While employment is clearly a serious problem in Male, the problem of poverty in the Maldives is not yet one of open unemployment. The severest poverty is to be found among those who are classified by the census as "employed." The majority of those who live in the atolls have low incomes, few assets, and virtually no access to non-religious formal education, health services, and safe water supply. No data are available on income distribution or absolute income levels in Male and the atolls. All the evidence, however, points to substantial inequalities in income and very low absolute money incomes in the atolls. The services sector is heavily concentrated in Male, so more than half of the total GDP estimated by the mission (see para 2.15 below) is likely to have benefited the one-fifth of the population living in Male. This implies that average incomes in Male in 1978 were nearly four times the average per capita income in the atolls (around $100). Data on fish landings and the distribution of cultivable land by atoll appear to confirm this assessment.

2.10 The average income from raw fish (excluding higher earnings realized from smoked and salted fish) was MR 184 per head of atoll population in 1978. The earnings varied enormously from atoll to atoll, ranging from MR 38 in Gnaviyani to MR 375 in Baa atoll. 1/ Data on cultivable area suggests that households on average have one-third of an acre of cultivable land between them or 0.06 acres per person. This also varies regionally from almost no cultivable land in Vaavu and Meemu to over one acre per household in Laamu. Even these very low average cash earnings are distributed inequitably because the means of production are unevenly distributed. There are approximately 2,300 pole and line vessels (which account for 90% of fish landings) or 11 per inhabited lands. According to the 1977 census, there were approximately 600 owners of fishing boats, implying an average of four boats per owner and three owners per inhabited island. Concentration of ownership of pole and line vessels is probably even greater than implied by the above numbers; a sizable number of boats, particularly those mechanized, are owned by residents of Male and subleased to islanders. As noted in para 1.15 above, boat ownership provides the means by which a handful of individuals dominate an island economy. A sizable portion of the fish catch is retained by the boat owner. 2/ However, there are a large number of smaller trolling vessels, an average of 17 per inhabited island. They account for an insignificant amount of the fish catch, but their ownership is more diffused.

2.11 Although all land is owned by the State, most of the 985 uninhabited islands are leased out to individuals for indefinite periods, who then sublease it at several times the nominal rents charged by the Government. The leasing of uninhabited islands is another source of inequality, particularly since the evidence points to a strong concentration of such island lease ownership in Male. Of the 280 uninhabited islands leased to non-residents of the atolls, 263 (94%) were leased to absentee leaseholders in Male. 3/ The leaseholders of cultivable land on inhabited islands are usually residents of the same

1/ Statistical Appendix Table 7.9.
2/ See para 4.14 below.
3/ Statistical Appendix Table 7.8.

islands or atoll; the typical tithe is one-eighth of the produce (except in the case of root crops), and tenure is insecure.

2.12 The low money incomes, however, are not an accurate indicator of the standard of living in the atolls, and they contradict the visual impression of a nation that is relatively free of the grinding poverty found in other parts of South Asia. This is partly because cash income from productive activities is supplemented by cultivation of household plots. Islanders wishing to build a house are entitled to lease 5,000 square feet of land (100 x 50 feet) 1/ in perpetuity and free of rent. The lessee cannot sell the land. Succession is determined by Islamic inheritance laws. In addition, each individual is entitled to plant coconut, breadfruit, or arecanut on the common land, if he agrees to share 50% of his produce with the Government. Most islanders take advantage of this facility and the available evidence (para 6.05) suggests that nutrition levels of the average household in the atolls are greatly boosted by produce from homestead gardens (coconuts, fruit, vegetables, tuber crops, etc.). Moreover, average housing standards in the atolls are good in relation to the apparently low money incomes. Over three-fifths of atoll households are reasonably well protected from the elements, with coral or brick walls and reinforced concrete or galvanized sheet roofs. However, access to piped water or electricity is negligible. 2/

2.13 Other indicators confirm past neglect of the social sectors (Table B). Adult literacy is a high 82% due to the all-pervasive Koranic schools. However, the enrollment ratio for children between 5 and 14 years in formal schools is a low 26.9%; access to such schooling is almost entirely confined to Male. All indicators relating to health reflect a situation much worse than the average for 37 low-income developing countries. The national averages also conceal the fact that access to health services, and safe water is almost non-existent in the atolls. No data exist on nutrition levels, but WHO and UNICEF surveys show that nutritional anemia and other dietary deficiencies are common.

Table B: SELECTED SOCIAL INDICATORS, 1977

	Maldives	Average of Low-Income Developing Countries
Adult Literacy (%)	81.9	36.0
School Enrollment (% ages 5-14)	26.9	-
Life Expectancy at Birth (years)	46.5	50.0
Infant Mortality Rate (per '000)	121.0 /a	-
Death Rate (per '000)	17.6	15.0
Birth Rate (per '000)	44.0	40.0
Natural Population Increase (per '000)	26.4	25.0
Population per Physician	15,894.0	10,300.0
Population per Nursing Person	3,400.0	9,720.0
Access to Safe Water (% of population)	15.0	28.0

/a Ministry of Health data.

Sources: Census, 1977; World Development Report, 1979.

1/ Subject to availability of land.
2/ Statistical Appendix Table 10.7.

2.14 These indicators are not a fair measure of the quality of life in the islands. The Maldives distinguishes itself from other IDCs by the strong sense of cultural identity, which reinforces traditional community ties. These bonds provide a social security system that is based on family and kinship and has prevented the very poor from falling too far below subsistence levels during times of hardship.

The Structure of the Economy

2.15 The quality and availability of Maldivian statistics is discussed in Annex B. Although the 1977 Census has greatly improved the data base, there are large gaps. Data on production and public finance is of poor quality and incomplete, and there are no official national accounts or balance of payments. On the basis of statistical data supplied to the mission, an attempt has been made to prepare production and income estimates at constant 1978 prices for the 1974-78 period. These are rough approximations, useful only as indicators of the overall size and structure of the economy and of recent growth trends. As such, they show a 1978 gross domestic product (GDP) at current market prices of $22 million and a gross national product (GNP) of $23 million. The implied per capita GNP is $160.

2.16 The estimates of GDP by categories of expenditure 1/ show that personal consumption expenditure absorbed more than half of total output in 1978. Private investment accounted for a further 18%. The government sector as a whole undertook 21% of total spending, which could not be disaggregated as between consumption and investment. The resource balance was positive in 1978: exports and imports of goods and services amounted to 69% and 58% respectively, of GDP. From the available data, it is not possible to estimate the incremental capital-output ratio. The estimates do show a relatively high rate of private domestic savings and investment, among which non-monetary boat building, mechanization, and tourist resort construction play a key part.

2.17 The shares of different sectors in GDP and employment are set out in Table C. These show some of the unique features of the Maldivian economy: the dominance of the fisheries sector, the extremely small share of agricultural value added, and the importance of the Male region in the economy, as it accounts for the very high proportion of GDP accruing to the services sector.

2.18 Employment data from the 1977 census show that employment in fishing and agriculture accounts for 55% of the total; manufacturing, construction, and utilities for a further 26%, and services for 17%. Fishermen are by far the most important occupational group; they numbered nearly 20,000 in 1977. 2/ Fish processing and exporting occupied a further 6,300, so that the sector as a whole accounted for 44% of employment. The second single most important group of workers were engaged in handicrafts, about 14,000, most of whom were women. These are cottage industries where the women are mainly engaged in manufacturing coir and coir products, mat, textiles, and thatchweaving. Only 10% of workers reported agriculture to be their principal occupation as most farming is done as a secondary occupation on a family basis, during time off

1/ Statistical Appendix Table 2.1.
2/ Statistical Appendix Table 1.8.

from fishing or handicrafts. The government plays a minor role in job creation; in 1977, it accounted for less than 8% of total employment. The sketchy data available for earlier years show no significant shift in the occupational structure of the labor force.

Table C: VALUE ADDED AND EMPLOYMENT BY SECTOR, 1978

	Value Added		Employment	
	MR million	% of total	'000s	% of total
Primary Production	79	39.7	33.5	55.6
of which: Fishing /a	40	20.1	27.2	45.1
Secondary Production	12	6.0	15.9	26.4
Services	108	54.3	10.4	17.2
of which: Tourism	23	11.6	0.4 /b	0.7 /b
Government	25	12.6	2.2 /c	3.7 /c
Total (including not stated)	199 /d	100.0	60.3	100.0

/a Excluding non-monetized fishing.
/b The census data appear to underestimate employment in tourism.
/c Excluding government involvement in tourism, transport, commerce, and banking.
/d Gross domestic product.

Sources: Statistical Appendix Tables 1.2 and 2.2.

2.19 The structure of trade reflects that of a fisheries-based economy and has changed little over the centuries. The main export goods have been fish, tortoise shell, ambergris, and cowries. Coconut products, mainly coir rope and copra, used to be an exception to this fisheries-based list. Foreign sales of these products have all but ceased; supplies of coir rope, today, barely meet the joint requirements of local boats and the tourist resorts (where it is used for roof and ceiling decoration).

2.20 Francois Pyrard de Laval, a Frenchman shipwrecked in the Maldives, who lived there from 1602 to 1607, reported that the islands' main imports at the time consisted of rice, cooking fat, salt, dates, spices, sugar, tobacco leaf, textiles, cooking utensils, and crockery. The list of basic imports was not very different in the 1970s, but for the addition of flour and petroleum products, some electrical and mechanical machinery and equipment, bicycles, and building materials. Changes in the import structure correspond to the gradual modernization of the economy: the use of electric power in a few islands, mechanization of fishing boats, the spread of radio, television and other telecommunications services, and the growing tourist industry demand for equipment and construction materials. However, consumer goods continue to dominate imports, accounting for four-fifths of the total. Food imports account for between one-third and two-fifths of total imports, reflecting the sizable dependence on imported food.

2.21 The atolls south of Male are able to produce a sizable share of their food requirements, with fish and locally grown tuber crops as staples. In general all atolls have come to rely on imported rice, sugar, spices, household utensils, kerosene, diesel fuel, timber for boat building and construction, batteries, and medicines. Except for fish and basic construction materials, the population of Male imports practically everything that it consumes or invests in. Kaafu, Baa, and other atolls supply some of Male's fruit and vegetables, but transport of food produce is always a problem, so that the capital and tourist resorts rely mainly on imports, even for foodstuffs that can be produced locally. Import dependence (net of imports meant for reexport) for the whole economy amounted to a comparatively modest 32% of GDP in 1978; as the bulk of imports is destined for Male, import dependence in the atolls was well below this level.

The Institutional Framework

2.22 Until recently, the Government has had no commitment to planned economic development. Intervention by the State has been confined to a few key initiatives regarded as vital to the interest of the nation. These include the establishment of a shipping line, the canalization of essential imports and the bulk of exports through STO, the invitation to foreign fish-purchasing companies to operate in Maldivian waters, and the related mechanization of fishing vessels, and most recently, participation in the tourist industry and the construction of an international airport. Typically, these interventions have been ad hoc responses to individual crises or the result of personal initiatives by the President or someone close to him. Until the establishment in December 1978 of the National Planning Agency (NPA), no attempt was made to set these initiatives in the context of a larger development strategy. The social and economic neglect of the atolls bears testimony to the lack of a development program.

2.23 The country's major economic institutions are a product of this policy environment. They are simple in nature, designed to handle the routine functions the government performed in what has, till recently, been a rather simple economy. Towering over all other institutions is the STO which evolved from the State-owned Bodu Stores of the 1960s. Bodu Stores used to handle all essential imports and acted as the Government's local bankers while the Maldivian National Trading Corporation (MNTC), based in Colombo, dealt with the Government's foreign financial operations. STO continues today to play a dominant trading role; it is also the Government's bookkeeper. STO's 70 employees are organized into four sections: imports, foreign exchange, business unit, and trade information unit, plus a head office. STO reports to the President through the Department of Finance. In the previous Government, it was closely supervised by the President. Today, it appears to enjoy somewhat greater autonomy. STO is both expected to and has succeeded in making a profit, which is transferred to the budget; it amounted to 14% of all estimated 1979 revenues.

2.24 STO's profits arise from its trading activities. STO enjoys a monopoly over exports of fresh and dry skipjack, other fresh fish, and lobsters. It also handles all imports of essential food products: sugar, rice, wheat flour, baby foods, medicines, and the bulk of the country's petroleum product requirements. While STO no longer has specific monopolies over these imports,

its use of an administrative accounting rate (MR 3.93 = US$1.00) to convert all foreign exchange transactions enables it to sell these products at prices with which private importers could not compete. The application of the accounting rate to determine the prices paid for all STO domestic purchases of fresh fish has meant that fishermen have received half or less of the international market price for their fish, in effect paying a tax or levy to the Government amounting to between 30% and 55% of gross earnings, depending on the prevailing differential between the free and administrative accounting rate. STO has used its "profits" on fish exports to partially subsidize essential imports. Goods imported by STO and valued at the accounting rate are subject to customs duties, 1/ plus 5% commission to the STO business unit, plus 5% STO profit, plus a fixed traders' retail margin of 10% for sales in Male. Sales in the atolls are at prices 5% above those in Male to cover transport and other costs. Allowing for fluctuations in the exchange rate, the effective subsidy on goods imported by STO ranged from 5-25% of the cif import price between 1974 and mid-1979.

Money and Banking

2.25 The Government's banking and monetary policies, such as they are, have been left to the Department of Finance. The Department of Finance issues currency when the government's budget is in overall deficit. There are no banking laws, currency or exchange regulations. The Government has, in consultation with the International Monetary Fund (IMF), begun to draw up legislation to establish a Maldives Monetary Authority (MMA). This new authority will take over the Department of Finance's currency issue functions and Treasury Division, and eventually the STO's foreign exchange accounting section. Initially, the MMA, which should begin functioning in 1980, is expected to issue currency, advise the government on banking and monetary matters, supervise commercial banks, and promote domestic and external monetary stability. The establishment of the MMA, together with interest rate policies that provide positive real interest rates and the enactment of banking, company and mortgage laws (para 3.27) would enable the banks to play a more positive role in the mobilization of domestic savings.

2.26 The currency, the Maldivian rupee (the name may be changed to Rufiyaa), was introduced in 1947, to replace the Ceylonese rupee. It circulated alongside the pound sterling until the British withdrawal from the Gan air base in 1976. The Maldives is still officially part of the Overseas Sterling Area but the US dollar has replaced the pound as a secondary currency, used particularly by the tourism industry in the Male region.

2.27 Despite the lack of banking legislation, two foreign commercial banks have branch operations in Male: the State Bank of India established in 1974, and the Habib Bank Ltd. (Pakistan) established in 1976. They have operated according to banking principles established in their own countries, adapted to the particular conditions of the Maldivian market. The establishment of the MMA, together with interest rate policies that attempt to provide

1/ Import duty rates: rice, sugar, wheat flour, kerosene, baby foods, and medicines 15%; beverages, tobacco, and other food items 20%; textiles 25%; and other items 30%.

positive real interest rates, and the enactment of banking, company and mortgage laws (para 3.27), would enable the banks to play a more positive role in the mobilization of domestic savings.

The Budget

2.28 The Department of Finance has formal responsibility for budgetary policy. However, the budget has been treated more as an accounting exercise than as a policy instrument. Every year, individual government departments present their expenditure estimates for the coming year, based on the current year's outcome. The total of these estimates is presented to the Majlis to vote on as a whole with no opportunity to discuss allocations to individual economic sectors or types of expenditure. Although budget expenditures are classified into non-development and development expenditures, this distinction is wholly artificial as all of the former, and most of the latter are really current expenditures. Current and capital expenditures financed by external loans do not enter the budget. 1/ In addition, during the financial year the Majlis may be asked to approve one or more special votes, or extra-budgetary allocations for particular causes (such as the Male Reclamation and the Special Atoll Budgets introduced in 1979). These do not show up in budgetary expenditure totals.

2.29 In the past, no attempt was made to forecast revenues; expenditures were pegged to the previous year's revenue realization. The 1980 budget expenditure projections will, however, be matched against projected revenues. Non-tax revenue, mainly profits of public sector enterprises, increased from 20% to 48% of total receipts between 1960 and 1978. Until 1979, there were no direct taxes. Indirect taxes, mainly import and export duties, accounted for most fiscal revenues. Import duties in 1978 (MR 1 million) were less than half the 1960 receipts (MR 2.1 million); export duties have shown little growth (at current prices), and a steady decline in real terms. While indirect taxes yielded half of total revenues in 1960, they produced only 17% in 1978. This represented an insufficient fiscal effort, allowing for the implicit tax on fish exports, taxes as a percentage of GDP were a mere 7.4%. Moreover, 80% of tax revenues came from fishing, which accounted for one-third of 1978 GDP.

2.30 Until 1979 the Government made no use of fiscal policy in managing the economy, relying largely on income generated by profits from public enterprises to finance expenditure. Growing budget deficits in the last few years have brought a change in attitude. In 1978, government departments were asked to suggest new ways of raising revenue. As a result, one direct and one indirect tax on tourism have been introduced, and 1980 will bring higher export and import duties and a wider duty base.

Trade and Exchange Rate System

2.31 Foreign trade, until this day, has been a jealously guarded prerogative of Male. Only during the British tenancy of Gan did goods come into an outlying atoll without first passing through the capital. A further exception

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1/ Expenditures financed by external capital grants are entered in the budget, except when such expenditures are incurred directly by Male-based UN agencies (Statistical Appendix Table 3.9).

to Male's trade monopoly concerns fresh fish which is now sold directly to foreign commercial freezing vessels, but all related payments are made through the STO headquartered in Male.

2.32 Foreign traders have traditionally played an important part in Maldivian commerce. In the 1860s, Bohra traders (Muslim merchants from western India) were first allowed to settle and establish godowns in Male. One of them became particularly powerful because he financed the Sultan's extravagances. His special privileges were withdrawn in 1899, but Indians and Ceylonese continued to dominate Maldivian trade. Today they handle most foreign trade not controlled by STO (see para 2.24 above), and local wholesale operations. Domestic retail trade is reserved for Maldivians, as is all inter-atoll trade. Restrictive trade policies in neighboring India and Sri Lanka have helped to create a thriving entrepot business, also run by Indians and Sri Lankans. Goods imported into the Maldives, particularly from Japan and Singapore, are informally re-exported to India and Sri Lanka. 1/ Few of the resulting profits stay in the Maldives.

2.33 Trade and exchange rate policies consist of a number of unrelated systems and regulations that are administered by the Department of Finance. There is no exchange control legislation and no administrative restrictions on current and capital exchange transactions. However, private exporters of goods that originate in the Maldives (those over which STO no longer has a monopoly, but excluding products of export-processing industries) are required to use their export earnings for imports within a period of one year. Trade under this export-import linkage system is subject to both export and import duties, as is all STO trade. Export-processing industries and re-exports are free from export duties. There are no controls or restrictions on foreign exchange earnings. Private imports, outside the export linkage scheme whether for local consumption or for re-export, are exempt from duties. Travelers are free to bring in or take out domestic or foreign currency, subject to declaration. The Government does not require accounts of non-residents to be separately maintained, nor does it require permission to maintain foreign currency accounts at home or abroad. Direct foreign investments in the Maldives require prior approval from DTFI, under a new Foreign Investment Law. Preference is given to investment projects that contribute to development of the outer atolls, provide employment and training to Maldivians and to projects that cannot be implemented by local investors either because of the size of the investment required or because of lack of local technical expertise. The law also provides for free remittances of profits and investments may be granted tax exemption for up to ten years.

2.34 The exchange rate of the Maldivian rupee is determined in a free market by the interplay of the commercial banks and the open market, consisting mainly of private traders and tourist resorts; STO, however, intervenes from time to time in the free market. In the second half of 1979, the market rate averaged MR 7.50 = US$1. The STO applies an administrative accounting rate of MR 3.93 = US$1 for the determination of domestic prices of its exports and imports and for invisible transactions for its own account as well as the Government's.

1/ With import liberalization in Sri Lanka since 1977, re-exports to that country have diminished in importance.

III. RECENT ECONOMIC PERFORMANCE AND DEVELOPMENT ISSUES

ECONOMIC PERFORMANCE, 1974-78

Production

3.01 Tentative Bank staff estimates of the GNP of the Maldives (see para 2.15) for the 1974-78 period show an impressive growth of the economy. This is attributable to the rapid expansion of the monetized economy in general, the recovery in fishing and the emergence of tourism as a major new sector. GDP at market prices grew 12.5% per annum in four years. There were sharp fluctuations in shipping profits transferred by MSL, which account for most of the irregular trend in net factor service receipts. Nevertheless, estimated GNP grew by an average of 9% a year between 1974 and 1978, to US$23 million. GNP per head is estimated to have increased by 6.2% per annum at constant 1978 prices and exchange rates.

Table D: GROSS NATIONAL PRODUCT
(Constant 1978 prices in US$ million)

	1974	1975	1976	1977	1978	Rate of Growth % Per Annum
Gross Domestic Product	14.0	13.7	17.3	20.7	22.5	12.5
Gross National Product	16.5	15.3	18.8	22.6	23.3	9.0
Population ('000)	132	135	139	143	147	2.8
Per Capita GNP (US$)	125	113	135	158	158	6.2

Source: Statistical Appendix Table 2.1.

3.02 Fluctuations in fisheries output have a major influence on trends in the economy as a whole (para 4.02-4.03). The period since 1975 is characterized by a gradual recovery in fish landings after they plummeted from a peak level of 35,400 tons in 1974 to only 25,200 tons in 1975, due to the volatility of skipjack fishing. The fall cut deeply into export earnings, which showed a year-to-year decline of 34%. Fish landings have not yet recovered their 1974 level, and the export volume (liveweight) in 1978 was still 25% below the comparable total for 1974. An increasingly large proportion has been sold in the form of relatively less profitable fresh fish for freezing by foreign purchasing companies. However, some important structural changes took place during the period that will affect future production and export earnings, notably the aid-financed mechanization of traditional fishing vessels and a further diversification, particularly into dry salted fish and dry shark fins. Both of these new export products are comparatively high value non-perishables, neither of them subject to an STO export monopoly and less dependent than fresh fish production on uncertain fuel supplies.

3.03 Agriculture plays a minor part in the economy; production data are poor and an inadequate indicator of the sector's performance. The main food crops are millet, sweet potatoes and various tubers, coconut, breadfruit, and banana. Most crops are consumed by growers or bartered. Commercialization

of crops is inhibited by the lack of cash markets, except Male, and by transport difficulties. In the last ten years, output has shown a generally declining trend with wide year-to-year fluctuations in production of individual crops.

3.04 Tourism has been the major economic growth sector of the mid-1970s, with gross foreign exchange earnings growing at 47% per annum. In 1978, for the first time, fishing was overtaken by tourism as the principal foreign exchange earner (para 5.10). Resort capacity has expanded rapidly and the number of tourist arrivals grew from 5,000 in 1974 to 23,000 in 1978 (para 5.06). Occupancy rates are satisfactory and on a rising trend, particularly in the low season. They would have been even higher but for air transport constraints on the Male-Colombo sector. Completion of the $19 million Hulule airport expansion project and increases both in the size of aircraft flying into the Maldives and in service frequencies will go a long way in overcoming these problems. More resorts are under construction, and capacity is expected to grow at an annual rate of about 8% in 1979-82.

3.05 Shipping also made an important contribution to the diversification of export earnings during the 1970s. MSL profit transfers reached a peak of $2.7 million in 1975. They fell to $0.9 million in 1978 as the profitability of vessel operations declined and as the company undertook a restructuring process, which caused MSL to cease profit transfers to the Government in 1979 (para 7.06). But earnings are expected to stage a recovery in the early 1980s.

Monetary Trends

3.06 The volume of Maldivian currency issued grew from MR 15 million at end-1976 to MR 22 million in June 1979, an average annual growth rate of 15%. The growth is ascribed mainly to monetization of the atoll fishing economy and to government deficit financing needs. There are no data on the volume of dollars in circulation, except for those held with the commercial banks. Since they started operations in Male, the two commercial banks have experienced a rapid growth in deposits. 1/ The absence of a central bank and lender of last resort, the lack of local financial investment opportunities, and the predominance of a few large depositors with unpredictable cash requirements, have compelled the banks to remain fairly liquid, by maintaining non-interest-bearing deposits with STO. Nevertheless, credit to the private sector grew from MR 2 million at end-1976 to MR 21 million at mid-1979. About half of total bank lending finances trade transactions while tourist resorts accounted for about one-third of advances outstanding at the end of 1978. Boat-building and construction loans made up most remaining private borrowing. Most lending is on a short-term basis (three months), after which loan terms are adjustable. Commission rates (interest) are based on the New York prime rate plus 1.5%. Deposits earn 4% a year on rupees, 3% on dollars; five-year rupee deposits earn up to 7.5%. The absence of contract law and legislation covering leasehold property became a serious, but probably temporary, constraint to bank lending operations in 1979. With both short- and long-term solutions possible to this problem, commercial banking is expected to maintain its growth momentum, in line with the expansion of private foreign trade and in particular, tourism.

1/ Statistical Appendix Table 6.2.

Budgetary Developments

3.07 Government budgeting practices have been very conservative. Nevertheless, the budget moved into deficit in 1974. Since then, the revenue shortfall has increased rapidly mainly because of declining profit transfers by MSL and STO. The only fiscal receipts of any importance until 1977 were customs duties on imports and exports. A temporary suspension of duties in 1977/78 caused a sharp fall in receipts. These were expected to recover in 1979 and will show a big increase in 1980 as proposed new duty rates go into effect. In November 1977, a dollar-denominated airport departure tax was introduced, and two new tourism taxes, also dollar-denominated, came into effect in 1979. The major non-fiscal revenue source, profit transfers by public enterprises, has fluctuated widely, in line with changes in MSL performance. Since 1977, Maldives International Airlines has made increasing contributions to the total, but not enough to offset the irregularity of MSL transfers, and their complete stoppage since mid-1978. Estimated revenue for 1979, in current terms was expected to be 19% less than in 1974--still an improvement on 1978 when they were 37% below the 1974 level.

3.08 Budget spending rose at an average annual rate of 12% in 1974-79. The biggest increase took place in expenditures on the social sectors, transport, and communications, where proposed outlays for 1979 were double the 1974 total. Less than 40% of 1979 estimated spending could be met from ordinary revenue. The deficit was expected to be covered by the issue of currency and the use of counterpart funds. The actual size of the budgetary deficit is distorted by the use of the administrative accounting rate. Dollar-denominated receipts, such as MSL and other public enterprises' profits transfers, and revenue from airport and tourism taxes are incorporated in the budget at the low accounting rate of MR 3.93 = US$1. At the end 1979 market rate of exchange of MR 7.50 = US$1, dollar-denominated revenues yielded twice the amount officially recorded in the budget (about one third of total revenues). Similarly, the direct import component of government expenditures is converted at the MR 3.93 rate.

Table E: TRENDS IN PUBLIC FINANCE, 1974-79
(MR million)

	1974	1975	1976	1977	1978	1979 /a
Total Revenue	18.7	23.0	17.2	20.7	11.7	16.5
of which:						
Taxes	5.4	5.0	0.5	0.1	3.1	7.8
Net Receipts from Public Enterprises	11.8	17.3	15.9	19.8	5.7	8.2
Total Expenditure	22.1	27.4	35.7	38.3	41.1	39.5
Balance	-3.4	-4.4	-18.5	-17.6	-29.4	-23.0
financed from:						
Own Resources /b	3.4	4.4	18.5	9.2	7.4	1.1
External Assistance (grants) /c	-	-	-	8.4	16.7	12.4
Deficit Financing	-	-	-	-	5.3	9.5

/a Revised Estimates.
/b Accumulated surpluses and other cash balances.
/c Disbursements from counterpart funds.

Source: Statistical Appendix Table 5.1.

Wages and Prices

3.09 Data on wages are fragmentary. There is no minimum wage legislation, no social security system, and only one trade union, the Maldivian Seafarer's Union, started in March 1979, for crew members working on ships belonging to MSL and foreign companies. Wages paid by the Government in Male's monetized economy operate as informal minima for the private sector. Almost 77% of the 5,600 government employees in 1979 earned less than MR 200 per month 1/ ($26 at the market rate of exchange); among them, the 900 lowest paid earned less than MR 100 per month. The top 1% of government salaried staff earned monthly salaries of MR 800 and over, showing a comparatively high 8:1 differential between highest and lowest paid. The government is the only sector to have formal pension arrangements. Government wages are rigidly structured and remained unchanged for years until the 10-15% increases announced in July 1979. Wage levels in other services sectors are generally higher than in government. In tourist resorts, roomboys are paid MR 5 per day for a six-day week, plus board and lodging, equivalent to monthly earnings of MR 200. Chefs and managerial staff earn up to MR 1,500 per month. In banking, the minimum wage for a clerk was MR 400 per month. Sales workers in 1979 started with MR 120 per month, plus food allowances, often paid in kind. The resort construction boom has caused shortages of skilled building workers in the Male region, and wages rose as much as 50% between mid-1978 and mid-1979. By then, a skilled mason or carpenter was being paid up to MR 600 a month, plus food allowances.

3.10 Wages in the primary sectors follow their own particular patterns. Fishing boat crews operate on a share basis. Share systems vary between atolls, and between mechanized and sailing vessels (see para 4.14). Indicative earnings levels are MR 790 a year per crew member on new mechanized vessels compared with MR 560 a year for a sailing craft fisherman. A skipper earns about double if he does not own the vessel. Vessel owners' earnings range from MR 2,500 a year on sailing vessels to MR 8,000 on the most efficient mechanized boats. Apart from subcontracted coconut picking, there are practically no agricultural wage earners; production is mainly for home consumption or barter.

3.11 Since the major proportion of earnings are spent on food, the sizable imports by STO of essential foods, like rice, sugar, wheat flour, and baby foods which are sold in the local market at subsidized prices have made an important contribution to keeping down the cost of living. However, prices of other essential consumer goods and rents have generally gone up so fixed government wage earners in Male have seen their already minimal standards of living rapidly eroded during the last few years. The price of fresh fish, which accounts for 30% of consumer expenditure, has risen by 70% since 1976. Inflation is estimated at about 15-20% per annum. 2/ There are no data on price trends in the atolls. Price controls also apply there, although fixed prices of individual products would be at least 5% (the allowed transport cost margin) higher than in Male.

1/ Statistical Appendix Table 9.1.
2/ IMF staff estimate.

Table F: PRICE TRENDS FOR SELECTED COMMODITIES IN MALE, 1975-79
(1978 = 100)

	1975	1976	1977	1978	December 1979
Rice, Ordinary	68	107	95	100	152
Sugar	90	123	109	100	95
Wheat Flour	50	94	92	100	129
Shirting Material	94	94	94	100	119
Coconuts	59	117	176	100	103
Fresh Fish	57	71	57	100	121

Source: Statistical Appendix Table 9.2.

Balance of Payments

3.12 Available data on merchandise trade, on tourism, shipping, and insurance costs, as well as various factor and non-factor services, made it possible to estimate the balance of payments for goods and services. But information on current transfers and capital movements in both public and private sectors is unsatisfactory. These transactions are not subject to any controls and have not been monitored systematically, except in the public sector, where some records are kept by individual departments and public enterprises. External borrowings are excluded from existing records of official transactions (mainly the budget and STO accounts). Changes in foreign assets, as reported by STO and the banks for the period 1976-78 show wide fluctuations in relatively small totals. Net foreign assets of $2.5 million held by STO and the banks at end-June 1979 were barely enough to cover a further month and a half of imports at the rate maintained in the first six months of the year. In reality, with dollars circulating freely alongside the national currency, the considerable foreign funds held by traders and tourist resort operators, if recorded, would have shown a much less strained foreign exchange position.

3.13 Information from various private and government sources enabled the mission to make tentative estimates of external payments for goods and services. The results, for the period 1974-78 1/, show a surplus on current account every year except in 1975, when fish exports fell sharply. Tourism earnings were the major growth factor. They increased almost five-fold, from $1.22 million in 1974 to $5.78 million in 1978, when they were large enough to cover the whole merchandise deficit, and to bring the resource balance into surplus. Net income from factor services until 1978 consisted mainly of profit transfers by MSL. In 1978, these transfers were only half what they were in 1977 and barely one-third of the 1974 total. Remittances by MSL crews, who are paid in foreign exchange, grew from $42,000 in 1976 to $220,000 in 1978.

1/ Statistical Appendix Table 3.1.

Table G: SUMMARY BALANCE OF PAYMENTS FOR GOODS AND SERVICES
(US$ million)

	1974	1975	1976	1977	1978
Exports of Goods and NFS	6.71	5.33	6.69	8.96	15.65
Imports of Goods and NFS	6.85	6.81	5.53	9.17	13.13
Resource Balance	-0.14	-1.48	1.16	-0.21	2.52
Factor Service Income (net)	2.56	1.58	1.48	1.90	0.77
Current Account Balance	2.42	-0.10	2.64	1.69	3.29

Source: Statistical Appendix Table 3.1.

3.14 Merchandise export earnings, including re-exports 1/, rose from $5.5 million to $9.6 million between 1974 and 1978, an average annual growth rate of 15%. But merchandise imports increased by 18% a year, from $6.8 million to $13.1 million, resulting in a fluctuating but persistent trade deficit throughout the four-year period. The deficit reached record proportions in 1979 due to a sharp rise in imports. The coverage ratio of imports to exports including re-exports ranged between 60 and 80% in 1974-78, but probably fell below 50% in 1979.

3.15 STO handled between 70-96% of all export earnings during the period from 1974 to mid-1979. Because of the growing importance of dry, salted fish exports, which are not handled by STO, the latter's share of export trade has been somewhat reduced since 1977. STO's share of imports declined as the value of private sector imports, including those destined for re-export, rose from 33% of the total in 1976 to 53% in 1977. Because of low rice imports, STO's share of imports fell further in 1978.

3.16 The current value of recorded exports rose by less than 1% a year between 1974 and 1978, from US$3.96 million to US$4.1 million (Table H). This four-year period must be considered essentially as one of recovery in fish catches after a dramatic drop in 1975, and of structural readjustment to changed market conditions in Sri Lanka, previously the main export market. Preliminary 1979 data show a 12% increase in recorded export earnings to $4.6 million.

1/ The value of re-exports is a Bank staff estimate. See Statistical Appendix Table 3.1.

Table H: TRENDS IN PRINCIPAL EXPORTS /a
(Current US$ million)

	1974		1978		Annual Rate of Change
	$ million	As %	$ million	As %	(%)
Total Exports of which:	3.96	100.0	4.09	100.0	+ 0.8
Dry Skipjack	3.03	76.5	0.21	5.1	-48.7
Fresh Skipjack	0.70	17.7	2.54	62.1	+38.0
Dry Salted Fish	0.10	2.5	0.67	16.4	+61.0
Dry Shark Fins	0.03	0.8	0.34	8.3	+84.0
Tortoise Shell	0.08	2.0	0.05	1.2	-11.1

/a Excluding re-exports.

Source: Statistical Appendix Table 3.2.

3.17 Export prices performed irregularly between 1974 and mid-1979. While the price of fresh skipjack rose from $150 to $260 per metric ton, the price of Maldive fish declined from $850 to $780 at current prices. It is mainly because of the growing share of fresh skipjack in total exports that the export price index 1/ showed a rapid improvement during this period.

3.18 Basic foodstuffs and other consumer goods dominate the structure of Maldivian imports. Food imports reached a peak in 1975 when they accounted for almost 60% of the total value of imports. 2/ Sugar was the biggest single food item in 1978; in earlier years, except for 1975, rice was more important. The value of other consumer goods in total imports rose from 47% to 63% between 1974 and 1978 so that consumer goods as a whole accounted for 95% of imports in 1974 and for 83% of the total in 1978. The share of petroleum products is still small, but has risen twelve-fold between 1975 and 1979, reflecting the gradual mechanization of the fishing fleet, the tourist industry's requirements for energy and transport, and higher prices. Intermediate and capital goods accounted for less than 10% of imports in 1978. 3/ Preliminary 1979 data show a massive 68% increase in imports to a record $22 million, due largely to sizable increases in food and petroleum imports.

3.19 Average import prices paid by STO for rice, wheat flour, and sugar have come down sharply since 1974. Nevertheless, a gradual change in the structure of imports with the emphasis shifting from relatively low value high bulk foodstuffs towards high unit value, low-bulk consumer goods and intermediate and capital goods, and an overall increase in import volumes have caused the total import bill almost to double between 1974 and 1978.

1/ Statistical Appendix Table 3.6.

2/ Statistical Appendix Table 3.4.

3/ This probably excludes aid-financed intermediate and capital goods imports for the Hulule airport project.

Table I: TRENDS IN PRINCIPAL IMPORTS
(Current US$ million)

	1974		1978		Annual Rate of Change
	$ million	As %	$ million	As %	(%)
Total Imports	6.79	100.0	13.07	100.0	+17.8
of which:					
Rice	1.33	19.6	0.09	0.7	.. /a
Wheat Flour	0.76	11.2	0.56	4.3	-7.3
Sugar	1.12	16.5	0.85	6.5	-6.6
Petroleum Products /b	0.12	1.8	1.20	9.2	+80.0

/a Growth trend is meaningless because of unusually low 1978 rice imports.
/b Excluding lubricants.

Source: Statistical Appendix Table 3.4.

3.20 Between one and two-fifths of annual Maldivian imports since 1974 have been destined for re-export. This entrepot trade covers high value, low-volume consumer goods such as cigarettes, textiles, clothing, watches, radios, and other portable consumer durables imported mainly from Japan and Singapore to be smuggled into India and Sri Lanka. The trade reached a peak ($5.5 million, or 57% of total exports) in 1978 from which it is expected to decline, mainly because, from 1980, it will no longer be able to take advantage of the Maldives' virtually duty-free private import market. New duty rates currently under consideration will wipe out the entrepot traders' margins since they are unlikely to be granted rebates or exemptions. The net loss to the balance of payments is likely to be negligible.

External Assistance

3.21 ODA commitments to the Maldives from all sources averaged $5.2 million between 1974 and 1978. Net receipts of aid, excluding grants from private voluntary agencies and centrally planned economies between 1974 and 1978 averaged $3.5 million. DAC member countries accounted for 44% of recorded net receipts, multilateral agencies for 17%, and bilateral aid from OPEC member countries for the remainder. This total includes technical assistance and food aid. The Maldives does not maintain systematic data on aid inflows. It has, however, begun to provide data to the IBRD Debt Reporting System 1/. According to these submissions, commitments in 1978 rose to $12.2 million, including $9.2 million from Saudi Arabia for the Hulule airport expansion. Prior to 1976, the bulk of assistance was in the form of grants. New debt contracted since then has continued to be on predominantly soft terms: an average interest rate of 1.9% and average maturity of 19 years (five years' grace), implying a grant element of 52.5%. Nevertheless, projected debt service payments are estimated to rise from less than $10,000 in 1976, and $44,000 in 1978 to $1.8 million in 1985.

1/ Statistical Appendix Tables 4.1 and 4.2.

Table J: NET RECEIPTS OF OFFICIAL DEVELOPMENT ASSISTANCE 1974-78
(US$ million)

	1974	1975	1976	1977	1978
Total Net Receipts	0.61	3.25	4.30	2.39	6.88
of which from:					
DAC Member Countries /a	0.20	2.03	0.57	1.21	3.74
Multilateral Agencies /b	0.41	1.02	0.89	1.04	1.04
Others /c	-	0.20	2.84	0.14	2.10

/a OECD Development Assistance Committee member countries.
/b Including Arab and OPEC-financed agencies.
/c Bilateral aid from OPEC countries.

Source: Statistical Appendix Table 3.8.

DEVELOPMENT ISSUES

3.22 The maintenance of an open economic system, combined with ad hoc yet strategic interventions by the State are, in part, responsible for the impressive economic growth performance of recent years. The Maldives has been remarkably successful in directing investments into areas where its comparative advantage is strong: fishing, shipping, and tourism. While all three sectors are currently experiencing the pains associated with rapid growth, the investments already made are potentially a sound foundation for future growth, and capable of generating some of the resources needed to reverse the severe policy neglect of the atolls. This is provided, of course, that the government continues to operate an open economic system and begins to establish the necessary institutional and policy framework conducive to growth. While the prospects for growth and the development strategy to be pursued are discussed further in Part C, it is appropriate at this stage to identify a few areas where there are significant policy or institutional weaknesses, particularly since these have a bearing on the sectoral discussions that follow in Part B.

Price Distortions

3.23 The first major area of concern is the explicit and sizable price distortion that arises from the use by STO of an artificially low administrative accounting rate to determine the domestic prices of exports and imports handled by it (see para 2.24 above). This practice amounts to a hefty tax on fresh fish exports, the proceeds of which are partially used to subsidize food imports, which are mainly consumed in Male and to boost government revenues, which are mainly spent in Male. Thus, while the atolls, where most of the fishermen reside, bear the economic cost of the system, they do not reap proportionate benefits. The system results in an undesirable transfer of resources from the relatively poor fishermen to the relatively well-off in Male. Moreover, the atoll fishing industry, for an equal amount of exports,

receives a considerably lower net income in local currency terms than Male-based tourism or speculative luxury house-building for rental to foreigners. In the medium term, this will attract resources away from fishing to more profitable sectors. To the extent that this system also results in subsidized imported food prices, it acts as a depressant on incentives for domestic agriculture. As noted in Chapter VI below, this is one explanation for the decline in domestic cereal production and the increased dependence on imported cereals. 1/ By directing demand towards imports, the food subsidy accentuates an already strong consumer preference for "superior" imported rice and flour at the expense of domestically produced "coarse" grains.

The Policy Bias In Male's Favor

3.24 By discriminating against the two most important activities in the atolls, fishing and agriculture, STO's pricing policies serve to perpetuate regional income disparities. Thus, they reinforce all the other factors working in favor of Male and against the atolls. The incomes derived from the Government sector, and from shipping and tourism are all centered on Male. This is also true of most recent public investments, such as the $19 million Hulule airport project, the Male land reclamation project, and the majority of new investments under consideration. The heavy concentration of resources in Male accounts for the sizable immigration to the capital. This immigration is not without costs. In economic terms, it is forcing the Government to plough resources into Male not only to upgrade essential services, but also to keep up with a population expanding at 13% per annum. In social terms, it could eventually lead to tensions. Unemployment among the young is high, the first warning signal that jobs in the capital are not keeping pace with the inflow from the atolls and that immigrants lack the skills needed by such growth sectors as government and tourism. The lack of population and regional development policies is particularly serious in this respect.

Financial Resources

3.25 Reversing the past neglect of the atolls and coping with the sizable needs of Male will require a considerable development effort which will undoubtedly strain the country's limited financial, administrative, and manpower resources. As noted in para 3.08, the basic budgetary position is weak. The tax burden remains relatively low (7.4% of 1978 GDP if the implicit fish tax is included) and uneven in its impact, with the burden on Male relatively light, and the atolls accounting for 70-80% of tax revenues. The size of the fiscal effort will be increased and its distribution widened by the new tourism taxes; but this might result in discouraging further tourism investment (see para 5.13). The use of the administrative accounting rate for foreign exchange conversions and for determining the duty base for customs levies deprives the Government of sizable additional revenues. Further, the government makes no effort to mobilize private savings through local borrowings, post office savings schemes, etc. All this results in an excessive dependence on uncertain receipts from public enterprises that are managed with varying degrees of efficiency. The sizable uncovered deficits

1/ Statistical Appendix Table 10.3 shows that per capita distribution by STO of imported cereals rose from 50 kg in the mid-1970s to 80 kg in 1978.

experienced in recent years are a recipe for inflation. Until the Government is able to generate a surplus to finance at least a modest portion of local costs, a viable development program based on external assistance cannot be mounted.

Manpower and Administrative Resources

3.26 Manpower and administrative resources are also a serious constraint. The country boasts only 1,400 people who have completed secondary school, and only 56 university graduates. Moreover, it deploys these limited resources in an unproductive manner. Maldivian administrative arrangements were studied in detail in 1974 by a UN adviser on public administration. 1/ The adviser's report recommended a gradual reorganization of the structure of ministries, government departments and agencies, upgrading of the quality of government personnel, streamlining of work procedures, and the setting up of a supportive system such as a Public Administration Unit. Since then some improvements have been made, but major weaknesses persist; these concern:

(a) The continuing fragmentation of departments (at least 60) within an uncoordinated system: this not only puts an unnecessary strain on limited manpower resources, it prevents the setting up of larger units within which staff can give and receive training as part of a clearly perceived career structure; individuals are moved from one department to another with little regard for making use of specific skills or for developing expertise in particular fields; the excessive compartmentalization has also led to duplication, overlapping of functions, and lack of coordination.

(b) The few skilled and/or experienced senior government officials find themselves burdened with both executive and administrative responsibilities, as there are practically no experienced middle-level administrators. These officials are also poorly rewarded. The civil service pay structure, with fixed salary scales, is out of date and wholly out of line with private sector opportunities. The government has been able partly to circumvent the personnel problem with its indenture system, whereby beneficiaries of a state secondary education and of further education courses abroad are required to work for the Government for up to five years after completing their studies. Many of the able young people now occupying senior government positions are doing so to fulfill their national service obligations. Very few Maldivians remain abroad after study courses specifically to avoid being indentured, a reflection of the strong ties that bind them to their home country. Equally few, however, are tempted to stay with the Government beyond the required period, precisely because of the pay and uncertain prospects. Some also build up secondary careers or businesses during

1/ Report of an Advisory Mission on Administrative Improvement in the Republic of Maldives, June 1974, UN Economic and Social Commission for Asia and the Pacific by H.S. Wanasinghe.

their period of government service, thus opening the way for conflicts of interest. The whole area of government manpower management is a key issue in the development planning effort.

(c) Work procedures, including filing systems and the coordination of statistical data collection, are still in need of organization; interdepartmental communication in Dhivehi has been simplified through the adoption of Roman script and, therefore, the use of typewriters; but the annual reports produced by individual departments are still not circulated so that on the whole, departments know little about each other's activities, thus aggravating the problems outlined under (a) above.

Legislative Framework

3.27 Finally, a major constraint to the further growth of tourism capacity and to greater foreign capital participation in the development of the economy is the lack of an explicit legal framework. Both local and foreign investors are hampered by the absence of a real property law which would enable leaseholders to acquire clearly defined rights over leasehold property for contractually agreed periods of time which are at least long enough to justify fixed investments in the property concerned. From the point of view of joint ventures with foreign investors, it is also necessary to introduce a company and banking law in line with those operating elsewhere. The foreign investment law is far too open-ended, and, therefore, unattractive to serious long-term investors.

PART B: THE SECTORS

IV. FISHERIES

Production and Exports

4.01 Despite the Government's successful efforts at diversification, the fisheries sector continues to dominate the economy of the Maldives. In 1978, it accounted for close to one-third of GDP, 44% of the employed labor force, 1/ and nearly all visible export earnings. Fishing provides the main livelihood for the vast majority of the island population outside of the capital Male. Fish are caught for home consumption or for sale or barter in domestic markets or for export.

4.02 The total marine fish catch, which is meticulously recorded, shows substantial annual fluctuations. 2/ Annual landings over the 1967-78 period averaged 27,900 metric tons; the actual catch fluctuated between 22,600 metric tons in 1968 and 35,400 metric tons in 1974. In 1978, the catch totaled 25,800 tons. Growth of fish landings has been relatively slow, averaging 1.8% per annum over the last decade, or well below the rate of population growth.

4.03 This apparently dismal performance conceals a major structural transformation of the sector which began in the early 1970s. Until 1971, fish exports from the Maldives consisted almost entirely of dried, salted, and smoked skipjack (tuna) called "Maldive fish", of which Sri Lanka was the sole buyer (Table K). The severe foreign exchange crisis in Sri Lanka in the early 1970s prompted that country to limit its imports of Maldive fish. Maldivian exports declined sharply from 1972 onwards and had nearly ceased by 1978. 3/ The Government responded promptly to this development by inviting foreign companies to start collection of fresh fish for freezing and export. Three companies (two Japanese and a Bangkok-based company) responded, and, after a slow start, frozen fish exports gained in importance. In 1978, they accounted for two-thirds of fish exports and 44% of fish landings. More recently, the Maldives has begun to export dry salted fish; the Government anticipates exports of this product to grow rapidly. Small quantities of shark and other fish products are also exported. Despite these developments, total fish exports in 1978 were below the peak level attained in 1971, an exceptionally good skipjack year. The share of exports in total production has been constant at about 66% in four out of the last five years, against 78% in 1971 and 1972.

1/ As many as 55% of employed males and 29% of employed females in the 1977 census reported fishing as the primary occupation.

2/ Statistical Appendix Table 7.1.

3/ The Maldives resumed exports of Maldive fish to Sri Lanka in May 1979.

Table K: PRODUCTION, EXPORTS AND LOCAL CONSUMPTION OF FISH, 1971-78
('000 metric tons)

	1971	1972	1973	1974	1975	1976	1977	1978
Fish Landings	35.4	25.5	34.0	35.4	25.2	31.0	26.4	25.8
Fish Exports /a	27.7	21.3	20.3	23.0	15.6	16.1	18.1	17.3
of which:								
Maldive Fish	27.7	19.3	15.9	17.7	9.8	7.2	4.9	1.2
Foreign Companies	-	2.0	4.4	4.5	5.7	8.7	10.9	11.4
Dry Salted Fish	-	-	-	0.8	1.1	0.2	2.3	4.7
Available for Local Consumption and Stock Changes	7.7	4.2	13.7	12.4	9.6	14.2	8.3	8.5

/a Fresh fish equivalent.

Source: Statistical Appendix Table 7.1.

4.04 The increased reliance on fresh fish exports has been accompanied in the mid-1970s by an effort to mechanize the country's fishing fleet. Under a government-sponsored credit scheme, assisted by bilateral and multilateral assistance, 1/ some 700 of the country's 2,300 sailing pole and line vessels had been motorized by mid-1979. 2/ A further 500 engines are to be installed by 1981 under a $3.9 million IDA-assisted fisheries project. In the mid-1970s, mechanization was largely confined to vessels operating from Male and the atolls immediately north of the capital, where fresh fish collection was taking place. More recently, mechanization has spread to the south, coinciding with improvements in the collection of fresh fish in that area. However, only 18% of all pole and line vessels in the four southern atolls have been mechanized, as against a national average of 30%, and 55% for Male island. Mechanized vessels have proved much more versatile and productive; they are capable of catching at least 30 tons of fish per annum as against 10 tons for non-mechanized vessels. Mechanized vessels are also better suited than sailing vessels to supply fresh fish to the highly mobile collector vessels. Mechanization was thus an important factor in facilitating exports of frozen fresh fish. In 1978, the mechanized fleet is estimated to have contributed well over half of fish landings and nearly all exports.

4.05 Fish is the most important source of protein in the average Maldivian's diet, and per capita consumption of fish in the Maldives is one of the highest in the world (58 kg in 1978). Consumption levels show substantial yearly fluctuations and vary widely from atoll to atoll. This is explained by fluctuations in local production, export potential and fluctuations in stocks of "Maldive fish." Per capita consumption in the two southernmost atolls, Gnaviyani and Seenu, is well below the national average because of the shortage of bait fish in these atolls which limits pole and line fishery.

1/ Abu Dhabi, Iran, Japan, and the UK.
2/ Statistical Appendix Table 7.3.

Resource Endowment

4.06 The Maldives has substantial fish resources, but unfortunately there is little detailed information available on them. Tuna species are predominant in Maldivian waters; deep-swimming tuna, of which commercial concentrations occur during two to six months of the year in the Maldives' 200-mile economic zone; and surface tuna, which occur year round outside the country's atoll reefs. In addition, the country has limited quantities of bottom-fish and other species inside the atolls.

4.07 Deep-swimming tuna are caught by tuna longliners, which follow commercial densities of these highly migratory species through the Indian Ocean. The Maldives does not have its own commercial tuna longlining fishery, but there are indications that foreign tuna longliners do fish in the Maldives' economic zone during two to six months of the year. The catch taken from these waters are unknown. Deep-swimming tuna and surface tuna constitute separate stocks, with little overlap in species composition, and the impact of long-lining operations on Maldivian catches of surface tuna is negligible. Deep-swimming tuna resources in the Indian Ocean have been heavily fished for some years, and some species are exploited close to their maximum sustainable yields.

4.08 Of total fish landings, approximately 75% are surface tuna: skipjack tuna (Katsuwonus pelamis) and juvenile yellowfin tuna (Thunnus Albacares). These occur year-round, although fish densities near individual atolls vary considerably through the year. The size of skipjack resources and the density of schools close to the reefs is influenced by natural factors, many of which are not well understood. Water temperature, oxygen content of the water, predators, and the tuna's cannibalistic inclinations play an important role. There are no resource studies on Maldivian tuna. FAO has begun a study of Indian Ocean skipjack, the results of which will not be known for several years. Even when the study is completed, it would still be difficult to predict potential yields for the Maldives areas, because this species appears highly migratory.

4.09 Other commercially interesting fish resources include bottom-fish, like snapper, grouper, perch, and limited quantities of other species, predominantly bait fish, shark, lobster, and small amounts of shrimp. Bottom-fish resources were briefly surveyed in 1977, 1/ and were considered capable of supporting a limited commercial fishery. The present catch may be about half of the estimated sustainable yields of these stocks (about 10,000 metric tons). Although bait fish resources are substantial, many islands are seasonally deficient in bait. However, except in the southernmost atolls, lack of bait rarely prevents fishing as other islands nearby usually carry bait. Shark and lobster have considerable export potential. The size of stocks is unknown, but likely to be limited, particularly for lobster.

4.10 Boat-building wood is an essential resource in a country where fishing vessels play such an important role. In the past, Maldivian vessels

1/ Gesellschaft fur Organization, Plannung und Ausbildung (GOPA), Feasibility Study and Project Preparation for the Fishing Sector in the Republic of Maldives, Final Report, 1978.

were exclusively built of coconut palm wood. Palm wood has become scarce in recent years, largely because of the absence of a systematic coconut felling and replanting program, and boat-building timber has had to be imported. With a fleet of about 2,300 large and 3,400 smaller vessels, and an average vessel life of roughly 20-35 years, annual replacement demand is estimated at 60-80 large and 90-100 smaller vessels. Demand for wood needed to construct these vessels already exceeds nationwide supply. With neighboring countries experiencing increasing shortages of timber and with domestic wood prices rising, the Maldives will, in the short term, need to explore the use of alternative sources of wood or less traditional boat-building material until domestic timber supplies can be boosted by a coconut rehabilitation program.

Fishing Methods

4.11 Fishing methods in the Maldives are remarkably efficient, and fishing vessel designs are well adapted to local conditions. As skipjack and yellowfin tuna rarely enter the lagoons, fishing of these species takes place from the outer reef to a maximum distance of 25 km seaward. Over 90% of the tuna catch is caught by pole and line method, employed by the 2,300 pole and line sailing and motorized vessels, each with a crew of between 8 and 13. The remaining production comes from line fisheries either by trolling with small boats (up to 8 meters), longlining, or by handlining at night for reef fish.

4.12 Prior to the development of frozen fish exports, fishermen returned with their catch to their own islands where the fish was processed into Maldive fish for export to Sri Lanka or for local consumption. Mechanized boats now have the alternative of selling their fish directly to the 12 collector vessels, which transport the fish on ice to mother vessels where the fish is cleaned, frozen, and stored for export. Such collection is confined to the more promising fishing areas. Since many atolls record good catches for only two to four months in a year, local fishermen are forced in lean months to either process their catch of tuna into Maldive or dried fish or move with the collector vessels to more promising areas. The latter option is currently limited by inadequate fuel supplies and high fuel costs. The offshore marketing infrastructure presently consists of five mother vessels with a daily freezing capacity of about 150 tons and a storage capacity of 2,500 cubic meters and 12 collector vessels. The small capacity and limited number of collector vessels are a serious constraint to collection of fresh fish. Land-based storage facilities are small with only two cold-storage facilities, mainly for tuna, lobster, and whitefish.

The Economics of Fishing

4.13 Fishing dominates the local economy of most populated islands. Almost all capital formation takes the form of house construction or boat building. Wages for fishermen are determined by a well established share system which varies from atoll to atoll. Regardless of how the shares are determined, the cake to be divided is relatively small, and declining.

4.14 The share of the fishing crew is usually a percentage of gross earnings (less fuel costs for mechanized vessels). For a typical mechanized vessel, wages, in 1978, amounted to MR 7,900 for a crew of 10 or an average

of MR 790 a year, 1/ which represents a bare subsistence wage. The average wage on a non-mechanized craft was MR 560 a year 2/ (Table L). The net income accruing to the boat owner of a motorized vessel was about MR 3,700 a year, and for a non-mechanized vessel, MR 2,500. Thus, under optimal circumstances, mechanization enabled a 40% increase in incomes of fishermen and a 50% increase in the net incomes of boat owners. This does not allow for depreciation, which is substantially higher for mechanized boat owners (MR 2,700 per annum) than for non-mechanized boat owners (MR 700 per annum).

Table L: ESTIMATED ANNUAL GROSS SALES AND OPERATING COSTS OF POLE AND LINE VESSELS (MR '000 at 1978 Prices)

		Mechanized	Non-mechanized
A.	Gross Sales	28.5	9.4
B.	Operating Costs	21.1	6.9
	Fuel	8.7	-
	Wages	7.9	5.6
	Maintenance	2.8	0.8
	Other	1.7	0.5
C.	Debt Service on Engines	3.7	-
D.	Net Sales Proceeds A-(B+C)	3.7	2.5
E.	Depreciation	2.7	0.7

Source: International Development Association, Maldives Fisheries Project, Staff Appraisal Report (No. 2369-MAL), May 1, 1979.

4.15 Since 1978, the situation has taken a dramatic turn for the worse, threatening the economic viability of mechanized fishing. Three factors appear to be at work: (a) fuel costs have risen markedly; (b) the prices paid by foreign companies for fish have not risen correspondingly; (c) the Government has failed to sufficiently adjust downwards its implicit taxation of this sector through its use of the administrative accounting rate to convert foreign exchange earnings from fish exports for purposes of payment to fishermen.

(a) Fuel costs. In May 1979, fishermen received fuel at MR 1.64 per liter in Male and MR 1.40 per liter in the rest of the country. By December, these prices had tripled to MR 4.56 per liter in Male and MR 3.07 per liter outside. Fuel costs which in 1978 accounted for 30% of gross earnings, now account for over 65% of gross earnings. Thus, incentives for mechanized fishing have been dealt a severe blow.

(b) Export prices: Although the average price for fresh tuna has risen from $167 per metric ton in 1972 to $253 per ton

1/ 40% of gross earnings minus fuel costs. In addition, each fishing day crew members are usually allowed to keep one or two fish for their own consumption.

2/ 60% of gross earnings.

in 1979, or at a modest 6.1% per annum, it has not kept pace with world market prices for skipjack, which have increased over the same period from $446 to $816 or at 9.0% per annum. The slower rate of increase in Maldivian prices and the large differential (3:1) between world and Maldivian prices is explained by a complex set of factors, including the relatively high proportion of small fish in the Maldivian catch and the high cost of collection, storage, and transport. Most important, however, is the strong bargaining position of the collecting companies.

(c) Pricing policy: The Maldives' share in world skipjack trade is quite small, and the Government's ability to influence export unit values is limited. However, the Government does directly influence fishermen's income by specifying the price which the companies may pay fishermen for their fish. Till early 1979, this price was set by using the administrative accounting rate to convert foreign exchange earnings from fish exports (see para 2.24 above). Since this accounting rate is set at MR 3.93, as against the 1978 free market average exchange rate of MR 8.88, the implicit tax burden on fishermen supplying fresh fish for export in 1978 was 55.7%. 1/ In early 1979, however, when the price negotiated with the foreign companies declined over 1978 levels, no change was made in the purchase price of local fish. This, together with an appreciation of the free market exchange rate reduced the effective tax burden to a still hefty 47.6%. The impact of such implicit taxation is already evident from the rapid expansion in the recent past of dry, salted fish exports, which, till August 1979, were free of this tax burden. In order to prevent a major diversion away from fresh fish exports, the Government now requires exporters of dry salted fish to convert half their foreign exchange earnings at the administrative accounting rate, thus effectively introducing a tax on these exports as well, albeit at a lower rate. The recent sharp deterioration in the profitability of mechanized fishing noted above calls for an urgent policy response based on a re-evaluation of the budgetary revenue generating role of fish production. Fishing operations in the Maldives are still among the most fuel efficient in the world and operating costs per ton of fish caught are still the lowest of any mechanized skipjack fishery. The present difficulties are, therefore, not due to any intrinsic inefficiency in the industry but to an overestimation of the sector's revenue generating capacity in a situation in which operating costs have risen sharply while export unit value realizations have failed to keep pace. As the fishing sector is vital to the health of the economy, the Government needs to choose between a healthy and profitable fishing industry initially generating somewhat lower revenues

1/ See Statistical Appendix Table 7.4

and one that is on the verge of collapse and generating hardly any revenues at all. A financially viable fishing industry could result, over time, in sizable production and export gains. The adverse impact of a lower tax on Government revenues would soon be offset by the larger revenue base.

Future Development Strategy

4.16 Sector policy is still in the early stages of formulation. The long-term objective is the gradual reduction of Maldivian dependence upon foreign companies for fish collection and marketing and the development of local capabilities in this field. Consistent with the recommendations of the only fisheries sector study, 1/ the Government accords high priority to improvement of its knowledge of fish stocks, stepping up production of fish through further mechanization of existing vessels, development of more efficient fishing vessels, and the development of a tuna longlining capability. The Government has begun implementing the study's recommendations by inviting IDA and the Kuwait Fund for Arab Economic Development to finance mechanization of fishing vessels and marketing infrastructure. In addition, the country is exploring the possibility of establishing an indigenous tuna longlining operation.

4.17 These initiatives must be seen in the context of the underlying structural transformation of the fisheries sector that is now taking place. These changes have been accomplished in a remarkably short period, and, not surprisingly, have created considerable stress on the delicate Maldivian social fabric. The replacement of Maldive fish by frozen fish exports has meant a reduction in the demand for female labor, longer trips away from home for fishermen in pursuit of scarce collector vessels, the exasperation caused by precarious fuel supplies, long waiting lists for engine installation and, most recently, the sharp rise in fuel costs. These structural changes have occurred with minimal planning. The Government now recognizes the need to plan activities in greater detail and with a longer time horizon in order to fully realize the potential effects of changes in fishing technology and marketing on the structure of local island communities. The productivity of the existing fleet of mechanized vessels could be doubled if a number of constraints are removed. Planning would provide the framework to assess the impact of short-term policies designed to remove these constraints. Apart from the pricing policy issue discussed above, there are two other issues of vital and immediate importance to production and export performance: the supply and distribution of fuel and stability in the commercial collection of fresh fish.

Short-Term Development Policy

4.18 Mechanization necessitated the establishment of a fuel distribution system. Initially, the foreign companies assumed responsibility for fuel supply, and occasionally, fishing vessels visited Male to buy additional fuel. However, the rapid mechanization program has resulted in a substantial increase in fuel requirements, which are currently estimated at an annual one million imperial gallons. The foreign companies have found these quantities difficult to handle and would not be able to meet the growing demand from newly

1/ GOPA, op. cit.

mechanized vessels. Moreover, the companies claimed that as they were required to supply fuel at fixed concessionary prices, the increase in world fuel prices has entailed sizable financial losses on their fuel operations. Not surprisingly, fuel shortages became a serious constraint to fishing operations.

4.19 The new government has been quick to recognize the disruptive effect of fuel shortages on fishing operations and is trying to improve supply and distribution. Two fuel distribution schemes have been announced which will eventually reduce the pressure on collecting companies to supply fuel by establishing, on a modest scale, an indigenous fuel distribution and supply system. In the long run, the fuel supply system needs to be separated from fish collection and operated as an independent service to fishermen.

4.20 The problem of stability in fish collection is directly linked to the Government's long-term sector strategy. The withdrawal in early 1979 of the Bangkok-based company has greatly increased the country's dependence on one foreign company (which now handles about three-fourths of all frozen fish exports), a development that is a cause for much concern. Two issues are at stake: the first relates to the Government's long-term objective of increasing the Maldives' share in the collection of fresh fish. The second involves the short- and medium-term need to maintain fresh fish collection systems. To tackle the first issue, the Government has asked the Kuwait Fund to finance a fish collection, marketing, and processing project, which will meet fish collection requirements in about one third of the country. In a related development, it has established a public sector Maldives Fisheries Corporation (MFC), "a commercial organization that will do everything regarding fisheries catching fish, marketing, providing shore facilities." 1/ These initiatives appear to have reduced confidence on the part of the companies in the investment climate in the Maldives, and it is reported that one of the two remaining companies has made proposals to reduce its presence in the country. The Government has, partly in response, invited several other foreign companies, so far without success, to collect fish in Maldivian waters and reduce the country's dependence on one foreign company.

4.21 To avoid further disruption of fresh fish collection, the Maldives needs to ensure that these short- and long-term initiatives are handled in such a manner as not to disrupt present collection efforts, which, despite difficulties, have proved to be the only viable option in the medium term. Until such time as the country has developed its own capabilities in this field, it appears advisable that the Government continue to provide an investment climate in which foreign companies can operate with reasonable confidence, so that frozen fish exports can continue to expand. This will require the adoption of an explicit policy towards foreign investors which ensures a policy environment that enables adequate returns on investments over a period that is clearly defined. If such a policy is seen to be reasonable, the Maldives should have little difficulty in persuading foreign companies to enter into contracts of specified duration that ensure stability in this vital area.

1/ President Gayoom, in an interview given to Elizabeth Colton, "Maldives Looks to the Future", Far Eastern Economic Review, pp. 42-43, October 5, 1979.

Long-Term Development Strategy

4.22 The Maldives' long-term strategy of developing its own capabilities is currently confined to the collection and storage of fish. Sector planning should embrace other aspects, such as fishing technology, new processing methods, new products, and the creation of adequate infrastructure to serve the industry, including fishery research.

4.23 Planning. The country is entering a period in which decisions have to be made which will affect the sector for many years to come, decisions with respect to future product development, fishery technology, investment needs, and human resources. It will become increasingly difficult to arrive at these decisions without some form of long-term planning. Such planning should specify key short-term targets, but its main aim should be to provide estimates of future input requirements and provide the data and analytical tools needed to assess the impact of government policies. Areas which would particularly benefit from planning are fuel supply, spacing and design of fish collection, processing and other infrastructure, assessment of future financial requirements for the fishing sector, assessment of future requirements of technical personnel, training needs, and foreign technical assistance requirements.. The following specific opportunities and needs should be pursued.

4.24 Product Diversification. There appear to be many opportunities to expand the existing product line. Some products such as shark (meat, leather, and oil), lobster, shrimp and whitefish fillets, show immediate, albeit limited, potential. Shark and lobster, currently being exported to Singapore, are extremely prone to overfishing, and it takes years to rebuild depleted stocks. Exploitation should, therefore, be expanded carefully. Shrimp are found in inland lagoons and currently used for bait. Whitefish fillets have good markets in South East Asia and the Middle East and can be expanded. Dried fish exports, which have recovered sharply after the recent reopening of the Sri Lanka market, have further potential. Sri Lanka has a steady demand for dried fish, particularly after the reduction of its imports of dried fish from Pakistan. However, efforts should be made to diversify markets to ensure greater stability of exports. The potential for increasing domestic value added is also fairly significant. With the high cost of shipping frozen round tuna, it may be increasingly economical to fillet tuna in the country of production and export fillets (loins) for canning purposes. The technology for preventing oxidation of the product was deficient in the past, but this has been satisfactorily improved recently, and it appears that local filleting has become an attractive alternative.

4.25 Fishing Technology. Present fishing methods adequately serve existing fisheries, but the following areas offer scope for further development:

(a) Present pole fisheries operate on a single day-basis, but trips could be stretched to three to five days. This would require larger vessels, with an insulated hold, ice supply, improved bait catching capabilities, and hardier bait. Longer trips would enable relatively less time to be spent catching bait, and vessels would be able to fish in larger areas around collector boats, and spend relatively less time

traveling. In addition, these vessels would reduce the need for a densely spaced system of collection points, thereby reducing collection costs. Such vessels would particularly suit areas with short peak seasons located well outside the range of present collections system. A UNDP/IDA technical assistance project is planning to build one such prototype vessel, to test its economic and technical feasibility.

(b) The Government is contemplating developing its own longlining operation. Increased fuel prices are forcing existing foreign tuna longlining operations to concentrate on the high-value Japanese shashimi (raw fish) market instead of the canned tuna market. Prices paid by the canning industry have declined in relation to prices in the shashimi market. A Maldive tuna longlining operation would have the advantage of relatively cheap labor; it would also help build up expertise for this type of fishery. Nevertheless, longlining operations are highly capital-intensive and will have few forward or backward linkages. Since tuna longlining for the shashimi market is a technically demanding fishery requiring considerable experience, substantial technical assistance will be needed. A careful evaluation of alternative uses of scarce investment funds is needed before embarking upon this type of operation.

(c) The small vessels now used for trolling and line fishing are potentially mechanizable, but financial viability should be carefully studied in a pilot operation. Mechanization of small vessels in contrast to pole and line vessels would further increase the demand for fuel, which may not be desirable in view of the relatively high fuel costs.

4.26 Development and Research. The Maldives lacks both research facilities and the research data needed for policy information. Applied research is needed in the following areas:

(a) An assessment of stocks: This is essential to diversification into shark, lobster, shrimp, and whitefish fisheries. For tuna, the Maldives will have to coordinate its efforts with other Indian Ocean countries. FAO has been asked to provide technical assistance in this area.

(b) Fish processing technology and fish marketing: This could proceed simultaneously with development of processing infrastructure. Technical assistance in these areas can be easily incorporated into planned investment.

(c) Fishing technology research including improvement of present fishing methods should receive immediate priority.

(d) Systematic collection of data on the economics of fishing operations is also urgently needed to monitor the adequacy

of price incentives and evaluate the costs and benefits of the present share system.

Future Investment Requirements

4.27 Investment is needed in the following areas:

Infrastructure:	Collection systems both on and offshore, marketing, processing, fuel distribution and supply, maintenance and repair, and navigational aids.
Production:	Mechanization, new long-range vessels, and longlining vessels.
Research:	Stock assessment, fish processing, fishery technology, and marketing.

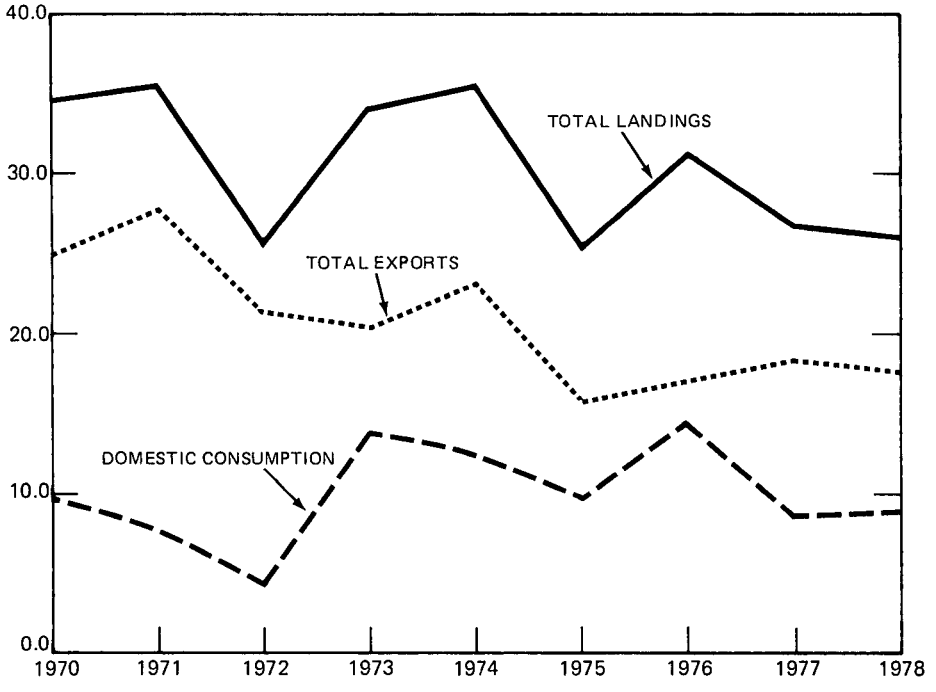
It is not possible at this stage to put a price tag on these investments. However, it is quite clear that this will be substantial in relation to available domestic and external resources. Investment requirements for infrastructure alone may be of the order of $15-25 million. Mechanization of 1,000 boats through 1985 will cost a further $6 million. Given the magnitude of these investments, the Government needs to develop a sectoral investment program that phases expenditures, over a number of years, in a manner consistent with available financial and manpower resources and implementation capability. In the interim, it will need to continue to rely on foreign investment to meet its ongoing collection requirements.

The Role of Government

4.28 A successful planning effort will require a unified decision-making and implementation machinery. The present arrangement, where fishery policy is vested in at least four entities, is a potential threat to such coordination. While fishery policy and planning is the formal responsibility of the Ministry of Fisheries, relations with foreign companies are currently handled by DTFI, and the STO is in charge of fish exports and performs numerous administrative and accounting functions. The newly established MFC could overlap in its functions with all these organizations. Apart from the difficulties of coordination, this arrangement runs the risk of spreading scarce administrative resources very thinly, accentuating present shortages of trained personnel. The recently constituted Fisheries Advisory Board is meant to provide coordination in the assessment of foreign investment proposals. The Government, however, will need to consider how the coordination of all aspects of fishery policy can be improved.

4.29 In a small country like the Maldives where the private sector has limited financial and entrepreneurial resources, it is not surprising that the State plays a key role in such an important sector. The Government has so far displayed admirable self-restraint in ensuring that it is supportive rather than interventionist. It is encouraging to note that the primary aim of the Government is to provide the basic infrastructure and an appropriate policy framework through which the several thousand fishermen in the Maldives can thrive and prosper.

MALDIVES FISH LANDINGS, EXPORTS AND DOMESTIC CONSUMPTION 1970–1978
(THOUSAND METRIC TONS)



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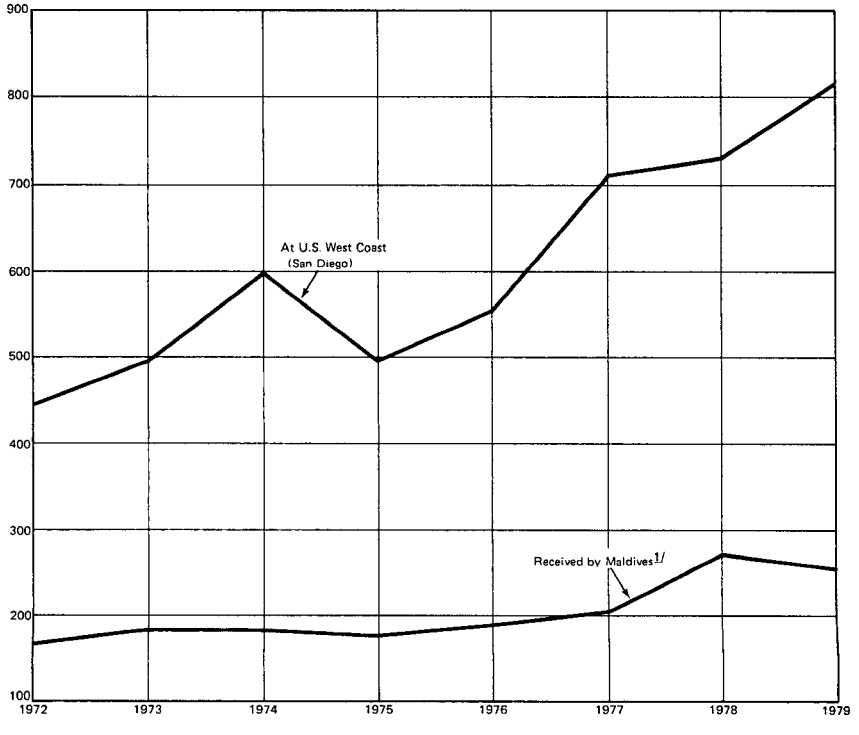
MALDIVES
AVERAGE PRICES OF SKIPJACK
(US$ Per Metric Ton)



1/ Based on catches which consist of 40% tuna smaller than 4 lbs.

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V. TOURISM

STRUCTURE

Background

5.01 Like many other IDCs endowed with limited industrial development potential, the Maldives has found tourism to be a valuable new source of foreign exchange earnings. Starting virtually from scratch some seven years ago, the Maldives now ranks among the world's most tourism-oriented economies 1/ (Table M), with tourism revenues accounting for three-fifths of visible export receipts and over one-tenth of GNP. That this has been achieved with hardly any investment in promotion is a tribute to the unspoiled beauty of these Indian Ocean islands. To the tourist in search of exotic winter holiday destinations, the Maldives offers a desert island atmosphere, unpolluted beaches and the opportunity to dive and snorkel among the spectacular coral and marine life, in clear, warm (80^{o}F) lagoon waters.

Table M: COMPARATIVE DEPENDENCE ON TOURISM
(Percentages)

	Tourism Earnings as % of Visible Exports	Tourism Value-Added as % of National Income
Maldives	60 /a /b	12 /a
Bahamas	16	64
Barbados	87	24
Bermuda	456	61
Fiji	60	11
Puerto Rico	13	6

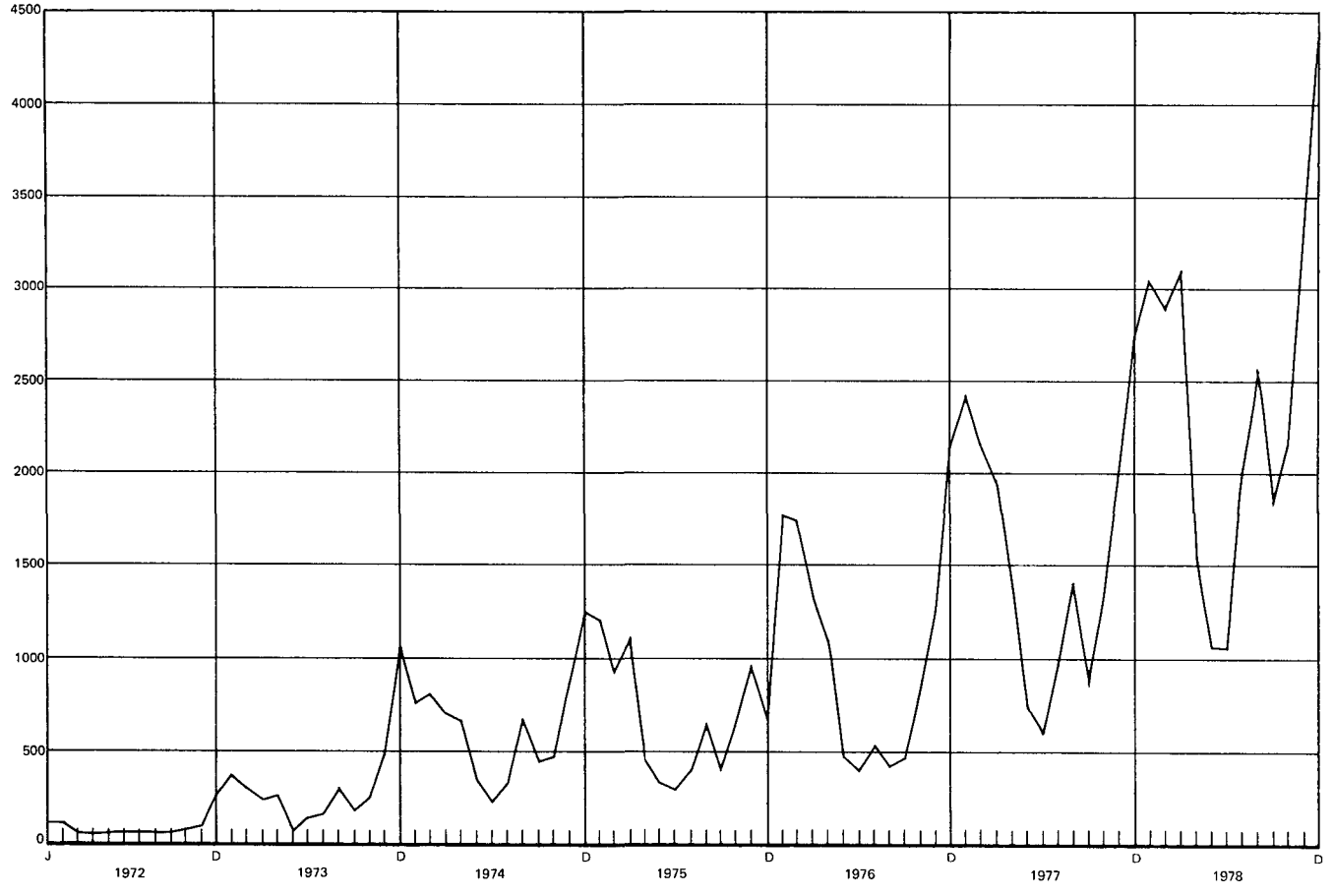
/a Bank staff estimates.
/b Exports, including re-exports.

Sources: The Economist Intelligence Unit: The Economic and Social Impact of Tourism on Developing Countries; Mission estimates.

5.02 The first deliberate effort to develop tourism dates back to 1972 when the quasi-government Crescent Tourist Agency (CTA) was created to set up tourist resorts. The former President had a dominant interest in the company which benefited from official support in the acquisition of islands and

1/ Among those with tourism receipts in excess of 10% of visible exports and equivalent to more than 5% of national income. See J.M. Bryden: Tourism and Development: A Case Study of the Commonwealth Carribean, Cambridge University Press, 1973.

MALDIVES
AIRPORT PASSENGER ARRIVALS, 1972–1978



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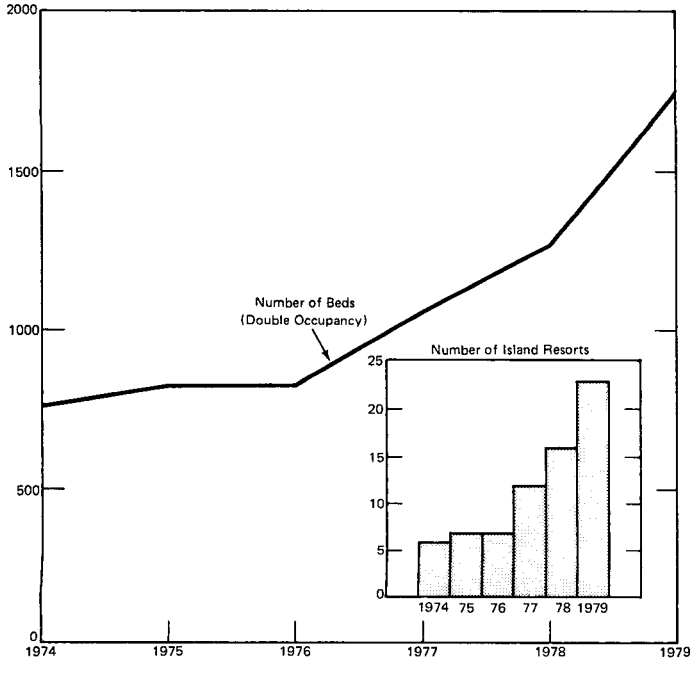
MALDIVES RESORT/BED CAPACITY 1974 – 1979



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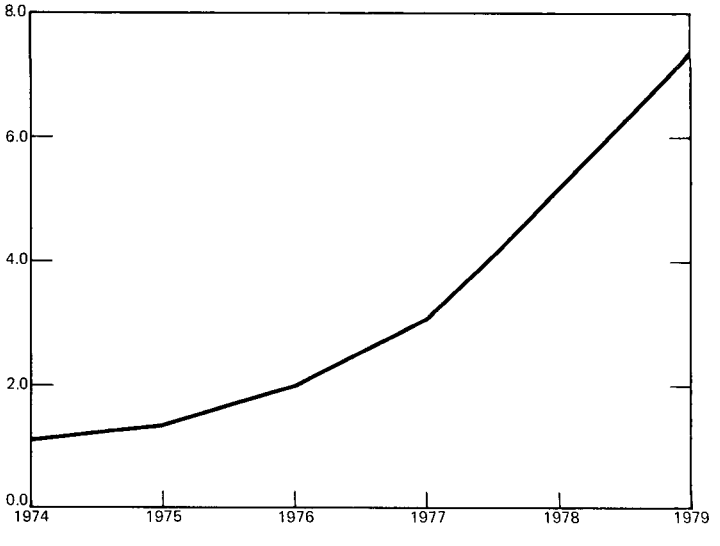
MALDIVES TOURISM EARNINGS 1974-1979
(US$ MILLION)



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of finance. 1/ By end-1979, there were 25 resorts in operation and two hotels in Male classified as suitable for tourists. Each resort occupies its own island and forms a self-contained tourist community. There are no Maldivian settlements on tourist islands other than to accommodate staff. Most resorts are within 20 miles of Male and of Hulule airport. All the resorts are Maldivian-owned. The islands themselves are leased to resort owners by the Government (all land in the Maldives is government-owned and may not be alienated).

5.03 Early in 1979, the Majlis passed a Special Law under which tourist resorts for the development of which public funds had been used illegally would be acquired by the Government. As a result DTFI is currently the registered owner of the two Male hotels and six resorts 2/ representing 80% of total capacity. Except for Villingili, Velassaru, and the two Male hotels, all government-controlled resorts are leased to private operators. After the change of government in November 1978, there began a scramble for leases on islands within a reasonable distance of Male. Many young Male entrepreneurs jumped on the tourism bandwagon. In the space of only two months, 30 new resort projects were registered with the nine-month old DTFI.

5.04 The necessary capital to finance resort construction in the first five years of the industry's development, came mainly from owners' resources, some of which are currently under investigation by a parliamentary committee. From 1975 onwards, the newly established commercial banks began to play a part in financial operations, particularly to provide working capital. During the first half of 1979, at the height of an unparalleled resort-building boom, bank lending dried up pending clarification of the status of outstanding loans to resorts that had been put under direct government control after the departure of the former president. Tour operators have filled the financing gap for some resort owners by block-booking individual resorts and paying in advance. In other cases, bridging finance has been raised from friends and relatives. More recently, the Government has begun to provide short-term loans (12 months) to meet working capital requirements. But construction activities on a few new resorts have had to be suspended, while others have had to rephase their development programs.

5.05 Most resorts rely for their clientele on two or three operators. Inclusive charges (accommodation and three meals per day for two persons in a double room) range from $24.00 per day in small camping resorts to between $36.00 and $42.00 in better endowed resorts (all mid-1979 rates). Accommodation is paid for in foreign exchange direct to resort operators by the agencies which organize and market the package tours with which most visitors arrive. The accommodation offered at end December 1979 consisted of 832 rooms (1,664 beds). 3/ Only two resorts had 100 rooms; six had 40-70 rooms each, while the remainder had fewer than 30 rooms each. Typically, rooms are at ground level, clustered in twos or threes, each with its own bathroom under a common roof, in structures made to look like local houses, built of coral and

1/ The former President's financial dealings are currently being investigated by a special committee of the Citizens' Majlis (see para 5.03).
2/ Of the six resorts, one (Villingili) was always government-owned, and the others were taken over under the new law.
3/ Excluding the two Male hotels.

roofed with palm leaves (cadjan) often with some longer-lasting roofing material underneath. Common facilities are housed in a central complex, again designed in keeping with local buildings. Every resort has its own generator, water supply, radio, telephone, and more or less sophisticated mooring facilities. Sewerage disposal is usually by means of septic tanks for each cabin. Resorts have their own motorboats to transport guests, staff, and goods to and from Male and Hulule, usually open Boston whalers. There are no beach facilities on Male, hence the brevity of the average tourist's visit to the capital island, if a visit is made at all. Although tourism has grown without government guidance or interference, the sector now offers a range of accommodation from the very simple to an international standard of comfort, all at moderate prices. Much thought and care have been given to preserving the desert island atmosphere that tourists come in search of. There are no glaring architectural eyesores; marine life is carefully protected and trees and gardens flourish around resort buildings.

Activity Rates

5.06 The pattern of arrivals between 1974 and 1979 has shown a sharp and consistent upward trend which peaks between November and March. Starting in 1977, there have been secondary peaks in August, the traditional European summer holiday month. Available data on passenger arrivals at the airport show a dramatic increase in four years, from 7,500 disembarking travelers in 1974 to 29,265 in 1978, a growth rate of 40% a year. Tourists probably accounted for about 70% of this traffic, with arrivals estimated to have risen from around 5,000 in 1974 to nearly 23,000 in 1978. Arrivals in 1979 totalled 36,000 of which about 25,000, were tourists. 1/

Table N: AIRPORT PASSENGER ARRIVALS, 1974-79

	1974	1975	1976	1977	1978	1979
Total Airport Arrivals	7,513	9,004	12,477	18,668	29,265	36,054

Source: DTFI.

5.07 Seasonal fluctuations are becoming less pronounced. The high season still runs from November to April when many resorts have achieved 100% occupancy rates, and the low season from May to October when some resorts have closed or operated at 5-10% of capacity. But activity rates in July and August have shown an upward trend, with 80 to 100% occupancies in some resorts in 1979. Average capacity utilization in 1978 was 55% (break-even levels are mostly around 40%). Individual resorts expected 1979 activity rates ranging from 60 to 90%, based on actual results and firm bookings by end-July. The islands already appear to be doing better than most winter tourism destinations. Occupancy rates in the low season could be further improved if air transport

1/ The slow down experienced in 1979 was due to uncertainties relating to availability of flishts from Colombo following the temporary suspension of services by Sri Lankan airlines at the beginning of the 1979/80 tourist season (see para 5.21).

capacity from Colombo, where most international flight connections are made, could be boosted (para 5.21). In 1979, it appeared that the seasonal decline in tourist arrivals was due more to the seasonal reduction in flights to the Maldives than to a fall-off in demand, particularly between June and September.

5.08 Demand for tourism in the Maldives has originated mainly in Western Europe. About 85% of 1979 tourist arrivals were from Western Europe, with West German, French, Italian and Swedish tourists accounting for 68% of all tourist arrivals. Such large agencies as Kuoni, Adac, Neckermann, TUI, and Hotelplan have been bringing in groups from West Germany, Scandinavia, Austria, Switzerland and the Netherlands. Italian and French tourists have come with special interest groups: Italians for scuba diving (Subaqua, Penthouse, Eurosub) and the majority of French tourists with Club Mediterranee, for its Club Nature of Farukolhufushi. Australians have come particularly to Australian-operated Furanafushi. Relatively few tourists arrive independently of tour operators because of transport difficulties.

5.09 Resort operators estimate that most visitors come for either one or two weeks, an average of ten days. During their stay in the Maldives, tourists' average daily expenditures are on the low side by international standards. This is due in part to the typical tourist profile: young (25-35), middle-income professional, technical and business background, the high cost of long-haul inclusive tours (ITs), and the large proportion of IT costs attributable to air fares. It is also due to the low cost of local accommodation and the lack of opportunities for spending money on incidentals in a typical, isolated Maldivian resort. Spending on basic accommodation (room plus three meals per day, per person) in 1978 averaged $13 in the 11 Maldivian-operated resorts (before deduction of a 15% typical tour operator's discount). In addition, tourists were estimated to spend an average of $7 per day per person in the resorts, of which $2 went on drinks and $5 on scuba diving, water sports, fishing expeditions, etc. Scuba-diving operations are usually conducted by fully equipped foreign instructors who pay a royalty to the resorts (typically 20%). Spending outside the resort is limited to one or two expeditions to Male or to other resorts; it is estimated to average $5 per day per person and covers transportation (up to $40 for a return trip to Male by motorboat) and purchases of souvenirs. In all, therefore, a typical tourist may spend some $25 a day on staying in the Maldives, or a total of $250 for an average of 10 days' stay. Not all of this accrues to the Maldives, as there are leakages in the form of imports of goods and services, examined in more detail in paragraph 5.10 below.

ECONOMIC AND SOCIAL IMPACT

Foreign Exchange Earnings

5.10 A growing tourism industry in any country brings with it particular benefits and costs in terms of societal impact, the balance of payments, structure of the economy, public finance, and employment. With the help of data provided by resort operators and the DTFI, an attempt is made here to estimate the impact of tourism on the economy in 1978. Table 0 shows that after deducting import leakages from gross receipts in the major tourist

expenditure categories and from investment spending, net balance of payments earnings in 1978 may have amounted to nearly $4 million. Gross earnings (before deducting imports) at $5.8 million were well above the $4.1 million of foreign exchange earnings from fish, traditionally the main export. Meanwhile value added by the sector is estimated to have contributed nearly 12% of GDP in 1978 compared with less than 1% six years earlier.

Table 0: THE TOURISM SECTOR'S CONTRIBUTION TO THE ECONOMY IN 1978
(US$'000)

	Imports /a	Net Local Expenditure	Total
Tourists' Expenditures			
Food and Accommodation /b	910	2,080	2,990 /a
Other In-resort Spending	940	620	1,560
Expenditures Elsewhere	280	840	1,120
Airport Tax	-	110	110
Subtotal	2,130	3,650	5,780
Tourism Investment			
Resort Construction /c	170	90	260
Subtotal	170	90	260
Total Expenditure	2,300	3,740	6,040

/a Estimated import content of expenditures on resort accommodation and other goods and services.
/b Gross revenues of 11 Maldivian-operated resorts, plus revenue to cover wage, food and other operating costs of the two foreign-operated resorts.
/c About 100 rooms were under construction in 1978 at an estimated cost of $2,600 per room, of which $1,900 is attributable to imports of raw materials and equipment.

Source: Bank staff estimates.

Intersectoral Linkages

5.11 The construction and operation of tourist resorts has created intersectoral linkages between tourism and other production and service sectors. Goods purchased locally include coral, lime, timber, matting, and coir products for the building and furnishing of resorts. The resorts also rely on local fish supplies, and, when available, buy local fruit, vegetables, eggs, and chicken. The resorts have created a highly lucrative market for inter-island tourist transport services. Male has experienced a rapid growth in tourist shops. They sell local products: lacquerware, mats, tortoise shells, and "localized" imports: T-shirts, antiques, picture postcards, and collector's

series of postage stamps. 1/ Because of the absence of import duties on most private sector imports, there is a modest trade in duty-free goods (overshadowed in importance by the entrepot trade for India and Sri Lanka) that covers electrical goods and cameras from Japan and Singapore and gems and jewelry from Sri Lanka, for example. The rest of Male's services sector is, as yet, not tourist-oriented. Tourists' expenditures on souvenirs and other local goods and services could be boosted if there were more opportunities for spending. Currently, demand exceeds supply of handicrafts and the resulting increase in prices is benefiting Male middlemen, not the island producers. There is also scope both for building up more tourist attractions, e.g., by restoring and opening public monuments, by creating nature reserves and by setting up an island arts and crafts center; and in diversification, by promoting boat chartering for sailing holidays and diving for ancient wrecks, for example.

Government Revenues

5.12 Until 1979, the Government's only revenue from tourism came from the airport tax, levied at the rate of $4 from each departing passenger. The yield in 1979 from this source was $142,000, 25% more than in 1978. With effect from June 16, 1979, a surcharge of MR 10 was imposed on departing passengers. This yielded $40,000 in 1979 and is expected to yield $72,000 in 1980. Two further taxes were introduced in 1979: a bed-night tax of $1 per occupied bed per night, and a tourism tax of $3 per registered bed per night. 2/ Government-managed hotels and resorts are exempt. The tourism tax yielded $200,000 in 1979. This could rise to $450,000 in 1980 and $490,000 in 1981.

1/ Stamps are produced and sold for philatelic purposes. A US company handles foreign sales, for which it charges 25% commission. Revenues accrue to the Ministry of Home Affairs ($870,000 estimated for 1979). They make a sizable contribution both to foreign exchange earnings and to the budget. The profit element is very high--the running costs of the whole Maldivian Post Office were expected to be only $50,000 in 1979--the stamps are bought mainly for collecting; not to buy postal services. Local value added will be further enhanced by the commissioning of a Maldivian artist to design the 1980 series. Early in 1979, a philatelic officer was appointed in the Male Post Office in competition with private traders who had been selling Maldivian stamp series at markups of 500% and more. This new service could bring in foreign exchange revenues if it were properly organized and marketed among the tourists. Certain aspects of the operation such as overordering and subsequent destruction of stocks, lack of first-day covers, stock keeping, and accounting need a tighter control system.

2/ The tourism tax base varies according to the season, and applied to: 80% of registered beds from November to January 31; 60% of registered beds from February 1 to April 30; and 20% of registered beds from May 1 to July 31, and from August 1 to October 31. Taxes are payable when a resort has been operating for two years. They must be settled quarterly in foreign exchange.

The expected increase is due to more resorts becoming liable for tax after the initial two-year exemption period. Revenue from the bed-night tax in 1979 is estimated at $41,000; implying an occupancy rate of 80% in taxable resorts. Because most imports for the tourism sector were private and hence, till recently free of customs duty 1/, there have been practically no government revenues on this account. In all, the tourism sector in 1979 is expected to contribute some $550,000 to the budget (MR 2,164,000 at the administrative accounting rate) or 13% of estimated total revenues. Except for the US$19 million Hulule airport project (para 5.21), which is aid financed, no government expenditures are directly tourism-related.

5.13 The effect of tourism tax payments on resort earnings will need to be carefully watched. As none of the resorts publish accounts, it is difficult to estimate the likely tax burden in relation to profits, but resort operators were privately expecting a reduction in profits after tax of between 50 and 75% compared with last year, notwithstanding higher activity levels. The tax would absorb 9% of gross income of existing resorts operating at 100% capacity, at 1979 published room rates; operating at 55% capacity the tax burden would rise to 16% of gross income. 2/ Depending on the size of investment, the tax alone requires returns on capital ranging from 20-40% per annum for existing resorts. These rates appear to be on the high side even if resorts are currently operating with a 33% return on capital, as they are reputed to do. The tax, if it is wholly passed on, will increase current average daily resort charges by some 20% per person, which may affect tourist arrivals by eroding the Maldives' comparative price advantage. It may also have a disincentive effect on investment in the short term, while in the longer run, the government may find inflation steadily reducing the real value of its tax receipts, unless rates are continually readjusted, which would further discourage investment.

5.14 In the light of experience gathered from the first year of operation, the Government might consider possible improvements to the system. On the tourism tax, two changes are suggested. Firstly, this tax should be levied equally on private and on government-owned resorts, since the two should be kept as much as possible on an equal competitive footing; secondly, a reduction of the taxable base is suggested, say to 25% of year-round registered capacity. A more equitable application of the bed-night tax, which can be passed on directly to the tourists, would require that all tourists, at whatever resort they stay, should be liable for the tax; hence neither government-owned resorts, nor resorts operating less than two years should be exempted. This change alone could have increased government revenues by $110,000 in 1979. The budget implications of suggested tax changes are set out in Statistical Appendix Table 8.4.

1/ Only private sector imports under the export-import linkage system are subject to customs duty. A proposal to introduce ad valorem import duties of 20-30% on most items in 1980 has been approved by the Majlis. Since these duties are to be levied on the rupee value of imports converted at the administrative accounting rate of MR 3.93, the effective duty burden will be substantially lower.

2/ Actual capacity utilization in some resorts is lower, and the implied tax burden, therefore, even higher.

Employment

5.15 An estimated 1,090 workers were directly employed in tourism in 1978, less than 2% of the employed labor force. 1/ The number rose to 1,118 in July 1979--or 1.7 staff per resort room. This figure lies in the medium range of employment densities in tourist countries elsewhere. Almost all resort staff, except for receptionists and secretaries, are male. Pay rates are low by international standards, but better than in Maldivian government service jobs, both for unskilled and administrative personnel. Managerial staff and cooks earn an average of MR 1,200 (US$160). Other, mostly unskilled, workers, earn about MR 200 per month (US$28), including food and accommodation, but excluding tips. The resorts have to recruit mainly unskilled workers and train them on the job. Some trained cooks and waiters have come north from the former British air base at Gan. Other resorts have imported cooks on a temporary basis from Sri Lanka and Europe. The old-established resorts like Villingili have become a favorite poaching ground for recruitment to new establishments and have thus contributed an informal training program. According to resort managers, Maldivians are generally eager and quick to adapt to otherwise unfamiliar hotel work disciplines. However inexperienced, the Maldivians' innate sense of duty combined with natural friendliness has made service in the resorts pleasant and willing. There appears to be no social stigma attached to hotel work and a new recruit can expect to maintain as much upward job mobility as he is prepared to work for.

5.16 Seasonal unemployment among resort workers affects the least skilled in the resorts which reduce their labor force in the low season. Skilled staff are kept on even when there are no guests. In absolute numbers, the layoffs are small, probably no more than 200 workers, or some 20% of the resort labor force. This practice has not been perceived as a problem in an economy where irregular labor patterns dominate. It is also likely that seasonal staff reductions will diminish as activity rates rise in the low season, particularly in July and August. Employment in resort construction, meanwhile, has risen sharply since 1977. There are acute shortages of skilled labor for individual projects, particularly masons, plumbers, and electricians. Pay rates in 1979 were estimated to have climbed 30-40% above 1978 levels.

Social Consequences

5.17 Rubbing shoulders daily, with what by Maldivian standards are free-spending and free-living foreigners, may have had some of the recognized social consequences of tourism when it is superimposed on a small, traditional society. In the Maldives, as elsewhere, the exposure to tourists has gone hand in hand with a growing desire for change, or at least for independence, from the established religious family and social environment. It is likely that this opening up would have occurred even without tourism, but the presence of tourists in and around Male may have accelerated the process. In general, however, isolation of the resorts has reduced social contacts

1/ Census, 1977 data gave total tourism employment of only 411.

between "institutionalized" tourists and Maldivians to essentially functional encounters, as with waiters, boatmen, shopkeepers, etc. In addition, local people rarely visit the resorts, except on business. Nor has the disruption of family patterns experienced in other tourism-oriented developing countries, and arising from the large-scale employment of women, occurred in the Maldives. There is also no evidence to show that the availability of tourism jobs in the Male region has encouraged immigration from other atolls (apart from the drift of skilled workers from Gan to Male, para 1.21). The capital is neither fishing nor agriculture oriented, and has the highest official rate of unemployment. The resorts, therefore, have access to a readily available pool of labor and do not need to recruit further afield. The cultural impact of tourism has been as moderate as the social one. So far, there is little evidence of the development of a pseudo-culture for tourist consumption only, such as the "airport art" frequently encountered in other tourism countries.

GROWTH POTENTIAL

Planning for Tourism

5.18 The Maldives is far from having realized its full tourism potential in both regional diversification and further expansion of existing capacity. All the new resorts currently under consideration are situated in broadly the same area as established resorts. The opportunities for developing tourism elsewhere are still wide open and could be an important vehicle for realizing the Government's avowed aim to promote regional development and reduce income disparities. Apart from a DTFI directive which would limit tourist resorts to a maximum of one-third of the uninhabited islands of any one atoll, the major limiting factor is transport. Given the distance between atolls, and the unpredictable and time-consuming nature of sea transport, the regional diversification of tourism must depend on the development of inter-island air transport. This will require investment in infrastructure which could be relatively modest if the wartime Royal Air Force landing facilities in the North and on Gan, in the South, were rehabilitated. A detailed investigation of the potential for using sea planes or hydrofoil should also be undertaken. Initially, air services might need to be run on an ad hoc basis, to correspond with tour group arrivals and departures. But in the longer term, regular internal air services could be introduced without necessarily involving large subsidies. The various experiences of Caribbean islands and the Seychelles in setting up such services should be reviewed in detail as resource constraints in these countries are similar in many respects to circumstances in the Maldives. Gan is already equipped with the necessary air and sea transport infrastructure to service a new tourism development region (see Annex C). The island could be at the heart of one of the most important new economic and social development projects in the Maldives. So far, about a dozen potential investors have inspected the island. Only two groups 1/ expressed any real interest subsequently. A Gan Island Improvement Committee has been set up under the aegis of the Ministry of Provincial Affairs, but decisions on the future of Gan will be the final responsibility of the President, advised by

1/ Orient Express with Singapore connections, and Aeroteam, Inc. of California, USA.

the DTFI. However, the lack of comprehensive foreign investment legislation, in particular, and the general weakness of the institutional framework outlined below, may attract the wrong kind of developer, while acting as a disincentive to serious investors.

5.19 At mid-1979, tourist resort capacity was being expanded by 218 rooms, and a further 225 rooms were expected to be completed by end-1980. In 1981-82, construction levels of about 275 rooms a year could be achieved. It is likely that standards of accommodation in future resorts will not differ much from the present range. The formula has proved to be successful and the Maldives has established a reputation which, with careful maintenance, should assure the islands a steady growth in tourist arrivals. Although one or two resorts might be successfully tempted into catering for the high-income, luxury market in competition with other long-haul destinations, this is probably not where the Maldives' comparative advantage lies because of the high cost of construction and import-intensive operations. Resort construction costs in 1979 were estimated to have risen about 40% above 1978 levels, from an average of $2,600 to nearly $3,500 per room. The capital, import, and labor requirements of this 1979 capacity expansion program are outlined in Table P below. Provided that the commercial banks are prepared to start lending again and that existing resort operators can absorb the tourism tax, it should be possible to finance the estimated level of new investment from bank loans and the industry's retained earnings. Subject to a continuing shortage of skilled construction workers, the supply of other resources, resort workers, islands, and local building materials, are estimated to be adequate to sustain the projected capacity expansion.

Table P: CAPITAL AND LABOR REQUIREMENTS FOR NEW TOURIST RESORTS, 1979-1982
(1979 Prices)

	1979	1980	1981	1982
Rooms under Construction (numbers)	218	225	275	275
Capital Requirements ($'000)	760	790	960	960
of which for Imports	(560)	(580)	(700)	(700)
Additional Employment in Resorts /a (Numbers)	370	380	470	470

/a Based on the 1978 average employment density of 1.7 staff per room.

Source: Bank staff estimates; Statistical Appendix Table 8.4.

If the 4,400 1/ beds which are expected to be developed by 1985 are all situated in Kaafu and Alifu atolls, and the 1985 average resort capacity stays the same as in 1979 (76 beds), there is a risk of exceeding the DTFI recommended ratio that only one-third of an atoll's uninhabited islands be developed for tourism. This problem could be partially resolved by encouraging expansion through capacity increases on those existing resort islands which

1/ DTFI expected rate of growth.

are large enough to permit expansion without overcrowding beaches and sacrificing the privacy tourists seek. The capital requirements for expansion have the advantage of being much lower, probably by about one-third, than for building new resorts.

Transport Constraints

5.20 Future growth is partly dependent on an early resolution of transport constraints at both domestic and international levels. Transport costs for tourists, resort staff, provisions, and building materials moving short distances between the present resort islands, Hulule and Male, are rising in line with fuel prices. Yet each resort continues to run its own transport services, resulting in wasteful duplication. There appears to be scope here for pooling resources among the resorts or at least among those currently controlled by the Government. In the near future, boats with bigger capacities than those now in use will be required. When airport extension work is completed by end-1980, between 300 and 700 travelers with their luggage will want to move in and out of the airport and the resorts within hours. This is not possible with the present fleet of small boats operated by resorts and private boatmen. The feasibility of using water buses should be considered. The lack of fast long-range inter-island transport facilities is one major reason for the concentration of tourist resorts in the Male-Kaafu Atoll region. This is a particularly important issue in the context of regional development policies.

5.21 At the international level, the two airlines operating to and from Colombo--Maldives International Airlines 1/ and Air Lanka 2/--have a joint maximum capacity for bringing in tourists (assuming that there is no non-tourist traffic) of 1,356 per week in the high season (November 1 to April 30). In addition, Indian Airlines can carry 160 passengers per week from Trivandrum to Male. Compared with current bed capacity of 1,640, airline capacity is inadequate. This is particularly so at weekends when most changeovers occur. Independent charter flights from Colombo into Male are not allowed under the existing air transport agreement with Sri Lanka. Moreover, until late 1979, services from Colombo by Sri Lankan airlines were erratic. This transport bottleneck will become less problematic with the higher capacity and greater reliability of Sri Lanka services, when the Hulule airport extension is completed late this year enabling larger planes to land in the Maldives (Boeing 707s and, eventually, Boeing 747s), and when direct flights from Madras begin to operate, as currently planned.

Institutional Framework

5.22 Although tourism has managed to grow so far without government intervention, recent events have created the need for a stronger institutional framework. A particular effort is needed to remedy the lack of definitive legislation on the property rights of island leaseholders, on the rights and responsibilities of corporate bodies and on banking and other financial

1/ In collaboration with Indian Airlines, on a wet-lease arrangement.
2/ Air Lanka replaced Air Ceylon services from November 1, 1979, after a temporary two-month suspension of services by Sri Lankan airlines.

sectors. A central planning exercise, however indicative, will also be needed, given the tourism sector's rapidly growing importance to the economy, and government control over the eight largest resorts. This would have to be the responsibility of DTFI, currently part of the Office of the President, and administered, by a Director and two Deputy Directors. To date, DTFI has been concerned with the collection of passenger disembarkation data, collection of the bed-night and tourism taxes, administration of government-controlled resorts, and since January 1979, with the compulsory registration of hotels and resorts, and of new tourism projects. DTFI is in charge of future capacity planning in terms of both quantity and quality; it can block proposed new projects by refusing to register them. But, its manpower resources need to be strengthened and its responsibilities more clearly defined before it can undertake an effective planning function. This would include assessing the nation's tourism potential, policy formulation as to zoning, capacity, design, ownership, and operational standards and project evaluation. The DTFI would also need to be concerned with the determination of manpower and training requirements, the mobilization of funds for studies abroad, etc. Technical assistance for these various functions may be available through UNDP 1/ and the World Tourism Organization (WTO), of which DTFI, as the national tourism agency, should become a member at the earliest opportunity.

5.23 A decision will also have to be made soon concerning the resorts taken over from the former president and his associates, and whether these should remain government property or be transferred back to the private sector. In addition, the Government needs to consider the role that it will play in the medium term in financing tourism. It could exercise considerable influence over the volume and direction of new investment if it were to set up a separate tourism development finance facility to facilitate identification, preparation and financing of specific tourism projects, and to forge mutually advantageous relationships with foreign hoteliers or charter groups. Such an entity could be financed from tourism tax revenues or through the issue of bonds to existing tourist resort owners. These resources could be supplemented through foreign borrowings.

1/ UNDP will finance 15 hotel traineeships in Sri Lanka in 1979/80.

VI. AGRICULTURE AND INDUSTRY

AGRICULTURE

Cultivation Practices

6.01 Agriculture is primarily a means by which islanders supplement their meagre earnings from fishing. Agriculture and related activities are estimated to account for 10-12% of GDP and about one-tenth of employment. The total cultivable area has been estimated at 6,900 acres, or a miniscule 0.05 acres per capita, spread over 162 islands. The primary agricultural activity, much of which goes unrecorded, is small gardening around homesteads, where much of the fruit, tubers, condiments and coconuts are grown. Toddy tapping is also important. Cultivation of field crops, mainly minor millets, is typically confined to the southwest monsoon, and dependent partly on how good the fishing has been in the previous season. There are, however, some islands where agriculture takes precedence over fishing and where crop cultivation takes place throughout the year. There is no dairy farming, and with the exception of two recent commercial ventures, poultry is raised around households in some islands.

6.02 Cultivation practices are primitive. The only input other than land and seeds is human labor. Land is prepared manually by clearing and then burning the dried vegetation. The ashes are spread with a wooden rake, but no attempt is made to dig the soil. There is little or no use of any other tools and implements, inorganic or organic fertilizer, or pesticides. Returns are low and crop failures due to poor weather, pests and disease are frequent. Continuous cropping without replenishment of nutrients has resulted in poor exhausted soils; the practice of leaving land fallow for two to three years is quite common.

Production of Major Crops

6.03 Finger millet and Italian millet are grown widely throughout the Maldives during the southwest monsoon. Sweet potato, cassava, and yams are grown in the south and in some parts of the north. Maize used to be grown fairly regularly in the south, but due to lack of demand for this cereal, with the easy availability of subsidized imported rice, production in recent years has fallen off. Green chillies, green peppers, and red onions are grown as cash crops. Fruit crops and arecanuts are grown mainly in residential compounds. The 1977 census figures indicate that about 57% of households have breadfruit trees and 76% have coconut trees. Of those households having trees, the average number was about six breadfruit trees and six coconut trees per household. Coconuts either grow wild, multiplying naturally from dropped nuts, or are planted systematically by leaseholders. A few vegetables are grown, mainly for tourists. Most of the millets and tubers are consumed at home, with only a small part bartered within the island or atoll, and only occassionally in another atoll. Some fruit crops, chillies, onions, and coconut are sold for cash in Male.

6.04 Production data are based on reports from island khatibs and atoll chiefs to the Ministry of Agriculture. The data are not thought to be reliable; in all probability, they exclude much of the output of homestead gardens. No data are available on cultivated acreage; hence it is not possible to estimate crop yields or to verify the quality of the production data. The data, for what they are worth, suggest a decline in production of most crops in 1976-78 over both the 1973-75 and the 1969-71 levels.

Table Q: PRODUCTION OF MAJOR CROPS
(metric tons)

	1969-71	1973-75	1976-78
Grain Crops:			
Finger Millet	73.9	1,016.3	40.3
Italian Millet	43.2	182.0	32.3
Maize	9.5	26.6	11.4
Tuber Crops			
Sweet Potatoes	6.1	92.0	19.6
Cassava	8.7	13.0	4.9
Colocasia	487.4	686.6	811.4
Alocasia	51.4	61.4	38.5
Tree Crops			
Coconuts (million nuts)	13.1	7.5	9.6

Sources: United Nations Food and Agricultural Organization; Statistical Appendix Table 7.7.

Import Dependence

6.05 If the production data are to be believed, daily per capita availability of domestically produced cereals amounted to an average of 1.5 grams in 1976-78 as against 170 grams of imported rice and 48 grams of imported flour. This would result in a total average daily cereal availability of 219 grams per capita in 1976-78. This implies an import dependence for cereals of over 99%. Table R attempts to obtain a measure of average per capita calorie consumption by type of food consumed. This not only implies that the Maldives imports 75% of its food consumption as calculated from production data and measured in calories, but also that measurable food consumption is 64% of a minimum daily requirement of 2,000 calories. These calculations, however, ignore the fairly sizable consumption of coconuts, arecanuts, breadfruit, and other fruit grown on homestead gardens which might bring the national average calorie consumption close to the 2,000 mark. At the same time, since a disproportionately large share of food imports stays in Male, per capita calorie consumption in the atolls is probably below the national average and short of minimum daily requirements.

Table R: AVERAGE PER CAPITA DAILY CALORIE CONSUMPTION, 1976-78

	Calories/Day Per Capita
Consumption of:	
Domestically Produced Food	318.7
Fish	136.2
Cereal Crops	4.7
Tuber Crops	11.8
Coconuts	166.0
Imported Food	967.0
Rice	586.8
Flour	165.8
Sugar	214.4
Total	1,285.7

Source: Bank staff estimates.

6.06 The United Nations Food and Agriculture Organization (UN/FAO) conducted a thorough study of the potential for agricultural development in the Maldives based on crop trials conducted in five atolls over a five-year period (1968-72) and a survey of 162 agriculturally important islands. The analysis in this chapter is largely based on that comprehensive report. 1/ The main conclusion of that report was that the Maldives could achieve self-sufficiency in foodgrains even from its limited arable land. The FAO study was conducted on the eve of a fairly substantial increase in agricultural output (in the 1973-75 period). As seen above, the performance of that sector since that peak period has been disappointing. There is, however, little doubt that the potential for expansion is fairly significant given a well-designed development strategy.

Resource Endowment

6.07 Cultivable Area. The 1974 FAO report estimated a total cultivable 2/ area of about 6,900 acres, of which nearly two-thirds is located in inhabited islands, about 500 acres consist of lowland swamp; the rest is upland. 3/ The survey also identified another 1,100 acres of non-swamp land potentially suitable for cultivation. The fertility of the soil varies with location, being usually richer in the center of the island, and getting poorer as one moves outwards.

6.08 Since most of the islands are relatively small, the average amount of cultivable land on the 162 islands surveyed is a modest 42 acres. However,

1/ Report to the Government of Maldives, Agricultural Survey and Crop Production, W.T. Butany, FAO, Rome, 1974.
2/ Land that is either under cultivation or left as fallow to improve fertility, a widespread practice.
3/ Statistical Appendix Table 7.5.

the size distribution of cultivable land is very uneven, with half the islands surveyed accounting for a mere 13% of cultivable area and 23 islands accounting for 50% of the cultivable land (Table S). The cultivable area is also largely concentrated at the two poles of the Maldivian archipelago, with the three northernmost and four southernmost atolls 1/ accounting for 60% of the cultivable area. Of the remaining 12 atolls only two, Raa and Laamu, have a sizable agricultural base; in the case of Laamu, this is concentrated in two large inhabited islands, Gamu and Isdoo-Kelaidoo, which boast the largest cultivable area in the Maldives.

Table S: SIZE DISTRIBUTION OF CULTIVABLE LAND

	No. of Islands		Cultivable Area	
	No.	% of total	Acres	% of total
Under 25 acres	79	48.8	919	13.4
25-74 acres	60	37.1	2,531	36.8
Over 75 acres	23	14.1	3,419	49.8
Total	162	100.0	6,869	100.0

Source: Statistical Appendix Table 7.6.

6.09 Soil. Dr. Butany 2/ describes the soils as young, vigorous, and shallow, with the upper layers retaining broken pieces of the parental coral rock. The soils are sandy-sandy-loam, extremely poor in water-retention capacity and highly alkaline, due to the excess of calcium found in the basic coral rock. Soil tests have also revealed serious deficiencies in nitrogen, potash, manganese, aluminium, and iron; however, the soils were rich in phosphorus and magnesium. Water is available from the underground lens or above ground ponds and lakes. The underground water is also alkaline, but generally non-saline. Most cultivation, however, is generally rainfed, but the FAO report concluded that irrigated crops were possible during the north-east monsoon.

6.10 Manpower. The 1977 census revealed that 6,347 persons were employed in the agricultural sector, or 10.5% of all employed persons. The three most important subsector activities were roots and tubers cultivation (37% of those employed in agriculture), cereal crops (27%), and toddy tapping (20%). Toddy tapping is primarily an activity for men, while women outnumber men 65:35 in all other subsectors. 3/ Given the low levels of open unemployment and the secondary status of agriculture as an occupation, a concentrated attempt to increase agricultural production might be constrained initially by labor shortages. With improved productivity of fishing operations, more labor could be released for crop cultivation. But the sector would require a substantial improvement in returns and improved productivity in agricultural operations to be an attractive economic activity.

1/ Haa Alifu, Haa Dhaalu, and Shaviyani account for 34% of the available area; Gaaf Alif, Gaafu Dhaalu, Gnaviyani, and Seenu account for 26% of the area.

2/ FAO, op. cit.

3/ Statistical Appendix Table 1.7.

Institutional Infrastructure

6.11 The Maldives lacks the most basic institutional infrastructure needed to mount an agricultural development program. The Ministry of Agriculture has formal responsibility for the sector. Its primary function continues to be leasing of government lands and the issue of permits for the felling of timber for boat building and firewood. The Ministry has initiated a few relatively modest development programs; it lacks the staff, financial resources and transport facilities to undertake anything larger. The staff of the Ministry numbers 28 of which there are only two professionally trained agriculturalists. Seven outstations staffed by field officers provide limited extension services, working mainly with small amounts of donated materials such as fertilizers, insecticides, and seeds. There is virtually no institutional credit; the two commercial banks do not undertake any credit operations in the atolls. There is no regular transport between agricultural surplus and deficit islands, and no assistance to farmers to market their produce outside their islands/atolls.

Production Potential

6.12 The crop trials conducted by Dr. Butany established that: (a) with proper crop management, yields could be doubled or trebled; (b) diversification away from the present range of crops to a number of warm weather crops was possible, including pulses, oilseeds and tobacco; and (c) rice could be grown in swamps and low-lying areas.

6.13 The following approximate use of the 8,000 acres of non-swamp land was suggested by FAO:

new coconut plantations	-	2,700 acres
timber tree plantations	-	1,300 acres
maize (northern atolls)	-	2,000 acres
sweet potatoes (southern atolls)	-	2,000 acres

Together with double cropping in the south, intercropping of foodgrains on the coconut land, and of rice crop in the low-lying areas, food self-sufficiency was thought possible. To achieve this objective, the FAO recommended a number of measures: (a) improved cultivation practices including crop rotation, use of organic manure, foliar spraying for nutritional deficiencies, use of insecticides and pesticides, and windbreaks; (b) provision of the necessary infrastructure (seed multiplication farms, transport, storage, extension services, etc.); and (c) improved incentives, through lower rental payments by sublessees, and longer and more stable leasing arrangements. (For a description of land tenure, see para 2.11.)

6.14 The FAO's development plan for the agricultural sector still remains relevant and deserves greater attention from the Government than it has so far received. It is, however, an ambitious program and cannot be implemented all at once. Also, it may not be either necessary or even economically desirable, to aim at total food self-sufficiency, although the very high transport costs suggest some comparative advantage in a strategy that aims at increased domestic food production. The Government should, however, set more realistic

goals that take into account the limitations imposed on implementation capabilities by small and scattered cropping areas and markets and inadequate transport facilities. A set of priorities will need to be defined, and the machinery for planning and implementation will need to be strengthened in tandem. In our view, the following tasks deserve priority in the medium term:

(a) coconut rehabilitation;

(b) import substitution in agricultural produce needed to meet the growing needs of tourism; and

(c) integrated atoll development programs for a few carefully selected agriculturally important atolls with the explicit aim of increasing living standards and per capita availability of locally grown food on those atolls.

Coconut Rehabilitation

6.15 Coconut rehabilitation is an obvious priority. The coconut is an important element in the average Maldivian's diet; it is consumed both directly and as a cooking medium. The coconut palm provides thatching and basket from palm leaves, broom brushes, mats and handicrafts from coir, coconut oil and copra from nut, palm sugar from the spadix. Many of these items are in considerable demand from the tourist industry, particularly for construction and furnishing of tourists resorts and handicraft purchases by tourists. Coconut trees are the primary source of wood for boat-building. Prior to 1971, the Maldives also used to export copra, and this appears a feasible option.

6.16 Coconut production appears to have been declining in the 1970s. Yields are low (about 11 nuts per tree) and declining. Due to overcrowding, the country's one million palms compete for sunlight, moisture, and nutrients. An FAO survey 1/ estimated an average of 190 coconut trees per acre (compared to the more desirable 70 per acre found on plantations) with 68% unproductive and the rest tapering in production. The overcrowding, however, offers one advantage: it provides the curvature convenient to boat-building. It has been estimated that rodent control alone could result in a 40% increase in production. Together with thinning of coconut stands and improved cultural practices, coconut yields could double. A modest rodent control program has been initiated by the Ministry of Agriculture with the help of FAO. Since the canopies of the trees touch, the success of such a program is contingent on thinning out the coconut stands. Moreover, since the rodents can be inadvertently transferred from island to island by regular boat traffic, a massive overall eradication effort, and diligent surveillance are required if the benefits of the program are to be sustained. The clearing of undergrowth is likely to be resisted since it deprives islanders of their only source of much-needed fuel. This suggests the need for an integrated strategy linked to provision of alternative fuels through the local production of charcoal and a reforestation program for fuelwood and timber needed for boat-building. The possibility of intercropping on cleared coconut land may provide some incentive to both thinning of stands and the clearing of the undergrowth.

1/ UNDP-Terminal Report MDV/71/001 Coconut Rehabilitation Pilot Project executed by FAO.

6.17 The first-round increase in yields from a rodent control program could be absorbed by domestic demand. Further increases in yields would be dependent upon delivery and implementation of a more complete package--fertilizer, thinning, improved varieties, and extension services. This second-round increase could be directed towards export markets, in the form of copra. A rough calculation, based upon current market trends for copra and the relatively low cost of production in Maldives, shows that copra exports are likely to be competitive, despite the relatively high transport costs. The margins between export price and cost of production appear to be large enough to support an extension service and input costs as well as internal transport costs.

Food Requirements of Tourism Industry

6.18 The rapid growth in tourism has resulted in a sizable demand for imported meat, eggs, vegetables, and poultry. A selective import-substitution program in perishable items would appear to be potentially highly profitable. This is already being established by a successful pilot project on Thoddoe island in Alifu atoll, where yams, beans, cabbages, onions, chillies, and lemons are being grown for export to Male and the two recently established poultry farms. DTFI data on food imports by government hotels 1/ suggest that demand for such imports from the industry as a whole offers an opportunity to increase the proportion of local food sales to the tourism sector. If this is to be achieved, it will require the establishment of machinery to provide a comprehensive package of services including extension, transport, cold storage, and marketing. The experience with the newly started poultry farms suggests that veterinary services will also be needed. Since imports are costly and shipping services erratic, eventual returns should more than justify these initial investments in infrastructure.

Integrated Atoll Development

6.19 Our analysis of the size distribution of cultivable land suggests that 22 agriculturally important islands, with 75 acres or more account for nearly half the country's cultivable area. Moreover, most of these islands are clustered around the two extremities of the Maldivian archipelago. This geographical concentration eases the task of initiating a well designed integrated agricultural development program for these areas without greatly straining the available administrative, managerial, and transport resources. The Government would do well to initiate the preparation of projects designed to tap the potential identified by FAO in a few of the larger islands in the three northernmost and four southernmost atolls. Such an approach would have the added attraction of reinforcing the Government's larger objective of securing more balanced regional development. The pilot project for integrated atoll development currently being prepared with assistance from the UN Economic and Social Commission for Asia and the Pacific (ESCAP) 2/ is likely to focus on the social sectors. However, the approach could be adapted to the needs of the agricultural sector and extended to the northern and southern atolls. The emphasis in these programs should be centered on field crops, but as part of an integrated strategy including reforestation and coconut rehabilitation.

1/ Statistical Appendix Table 8.5.
2/ See also para 8.05.

All necessary inputs and services will need to be provided in packages appropriate to the local conditions prevailing in each island. This will eventually require regional soil research and seed multiplication programs.

6.20 The three priority programs recommended above, while modest initiatives in relation to the size of the task, will nevertheless severely strain the present limited capabilities of the Ministry of Agriculture. The Government will need to seek technical assistance both in the form of experts and training programs in order to undertake these programs and the required planning and project preparation work. The success of these programs is also contingent on measures designed to improve producer incentives. Past experience suggests that Maldivian farmers are quick to respond to price incentives. In the area of foodgrains, the availability of subsidized rice and wheat flour has had a strong disincentive effect on domestic production, particularly since rice is preferred as a cereal to maize and other coarse grains. A gradual removal of the subsidy should have a positive impact on domestic production. The inadequacy of transport and marketing facilities also has an adverse impact on producer incentives. A third factor is the absence of any security of tenure for both leaseholders and sub-leaseholders, which together with the one-eighth tithe to the primary leaseholder on inhabited islands, is a further disincentive to any improvement in cultural practices. A review of producer incentives will need to be an integral part of a sector strategy for agriculture.

INDUSTRY

Output and Employment

6.21 The industrial sector 1/ accounts for 6% of GDP and 26% of employment. It consists largely of cottage industries, handicrafts, small-scale fabrication, and repair. Four-fifths of total employment consists of the manufacture of coir and coir products and other handicrafts, an activity largely dominated by women. Structural timbers, furniture, and fixtures are the second largest source of employment in manufacturing, reflecting a strong boat-building tradition. Other sub-sectors include manufacture of construction materials (coral derivatives), boat maintenance and repair services, and a sizable informal sector in such varied fields as bicycle and radio repairs, tailoring, smithery, etc. The sector primarily produces for the home market. The only notable exceptions are the tuna-canning factory established in Lhaviyani atoll in 1977 and a mica fabrication plant in Male which manufactures mica plates for electronic components for export.

Potential for Industrialization

6.22 The potential for industrialization is limited by the size of the market, the level of development and the lack of the physical, institutional, and legal infrastructure. Nevertheless, there is potential for establishing on a modest scale a small industrial sector that establishes backward and forward linkages with the three key sectors: agriculture, fishing, and tourism. Primary production in the islands is still predominantly subsistence in nature involving inefficient practices and low productivity. The transformation of

1/ Quarrying, manufacturing, construction, and electricity.

the traditional sectors requires, inter alia, better farm implements, efficient fishing gear, and organic fertilizers. There is, therefore, a potential for small-scale industries to manufacture and repair implements and tools and to process fish to produce fertilizers and poultry feed as by-products. With an increased variety and volume of agricultural and fisheries production, grain milling, ice-making, food processing, and preservation are also possible.

6.23 A number of consumer products, currently imported, could be produced locally. These include salt, frozen poultry products, preserved fruit and vegetables, fruit beverages and soft drinks, confectionery, and pastry. Such products would meet the needs of the local population and the tourist sector, which is presently highly import dependent. Several small-scale and cottage-level manufacturing activities are also possible based on agricultural, industrial, and consumption wastes. For example, plant straws, grass, and weeds can be used to manufacture particle board for construction; paper waste can be handmade with simple machinery into packaging paper and egg-trays that would be needed to deliver eggs from poultry farms; wood dust and shaving from lumbering, boat-building and furniture enterprises could be compressed into fuel briquettes.

6.24 There is also good potential for expanding or diversifying existing industries. As noted in Chapter IV, processing will add considerable value to fish exports. There is also a substantial demand for traditional handicrafts based largely on coir and other coconut by-products. Coconut fiber and timber can also be used to make rope, packing boxes, floor boards, etc. Import substitution and the upgrading of construction material offers numerous possibilities in the present boom conditions for the construction sector in Male and other islands in Kaafu atoll. Cement blocks, plaster boards, plywood, and timber can be manufactured from local materials such as sand, lime, and coconut trees. With the highly developed traditional skill of carpentry, 1/ furniture making also offers considerable scope. Service-related industries are also relatively undeveloped and can be expanded profitably. There is good potential, for instance, for laundry and dry cleaning, printing and rentals, repair and maintenance shops for electronic goods.

6.25 The Government is considering the establishment of an export processing zone in Gan to attract foreign investment. Realization of the project depends on the establishment of air and sea communications with the rest of the world and the capacity of individual industries to bear air or sea freight costs. Unless the industry is based on local resources, such as fish or coconuts, the local linkages and domestic value added are likely to be small. Since the capital costs are also typically low, such investments can be highly mobile, and an operation may be closed down, regardless of the consequences for the local economy. The proposed Gan redevelopment schemes will, therefore, need to rely on a more secure base, such as tourism.

6.26 The realization of the country's industrial potential will require strong initiatives by the Government in the following areas: (a) the preparation of an overall industrial policy and the establishment over time of

1/ The 1977 census recorded 1,294 carpenters and woodworkers, the largest single skilled category.

institutions that will be responsible for its implementation; (b) the enactment of company law legislation, mortgage and banking laws, and a foreign investment law that provides security to foreign investors; (c) the creation of extension services such as the provision of market information, basic technical knowledge and management skills; (d) the establishment of a medium and long-term financing facility; and (e) the improvement of basic infrastructure, such as electricity, water supply, and inter-island transport.

6.27 Given the severe manpower and administrative constraints, we would not recommend that these initiatives be pursued all at once. The first two objectives deserve to be taken up immediately with outside technical assistance. The third and fourth objectives could be related to the establishment of the MMA. This Authority could in due course diversify its functions to undertake with external assistance some medium and long-term development banking. Alternatively, the tourism development finance facility proposed above could diversify into small industry (see para 5.23). The fifth objective is discussed in detail in the next Chapter.

VII. ECONOMIC INFRASTRUCTURE AND SOCIAL SERVICES

ECONOMIC INFRASTRUCTURE

Shipping

7.01 Transport links with the outside world are, quite literally, the lifeline of the Maldives, bringing in essential imports without which survival would be next to impossible. Remoteness and a high level of dependence on external trade make the country highly vulnerable to disruptions in shipping services. Moreover, since the Maldives is too small to be able to influence the price of its major export, fish, it finds itself absorbing the transport costs of exports, while its remoteness imposes an additional premium on the transport costs of imports. This situation is further aggravated by the imbalance in the freight tonnage of exports and imports. Imports, as expressed in physical volume, outstrip exports by about 2:1. If fresh fish exports are excluded from this calculation (as they should be, since they are exported via collector vessels belonging to foreign companies), the ratio has averaged 10:1 in favor of imports over the last five years. In other words, vessels bringing cargo to Male invariably return empty. As a consequence, regular liner operations to Male have become uneconomic and ceased altogether.

Table T: PHYSICAL VOLUME OF TRADE
('000 metric tons)

	1974	1975	1976	1977	1978
Imports	19.8	18.7	27.9	32.8	19.3
Exports	8.7	8.1	10.4	12.7	13.1
of which:					
Fresh Fish	4.7	5.9	8.6	10.9	11.2
Dry Fish	3.8	2.0	1.7	1.7	1.8
Other	0.2	0.2	0.1	0.1	0.1

Source: Customs, Shipping Department.

7.02 This would have been a disaster for the Maldives but for the foresight which led to the establishment of a national shipping line, MSL, which now provides the country its only effective sealink with the rest of the world and ferries almost all of the country's international trade other than fresh fish exports and a small but rapidly growing volume of perishable and high value imports which are brought in by air freight from Colombo and Trivandrum. The existence of MSL has also greatly reduced the freight costs that Maldivian importers may have had to bear had they been dependent on foreign shipping. Although MSL does not directly subsidize freight, its rate structure does not attempt to shift the full burden of higher unit costs arising from the low-capacity utilization of outward-bound journeys to the freight rates imposed on the relatively fully utilized capacity of inward-bound journeys.

7.03 MSL's origin lies in the Maldives National Trading Corporation (Ceylon) Ltd. which was established in 1948 and operated ships between India, Burma, Ceylon, and the Maldives. Restrictions imposed by the then Government of Ceylon on the acquisition of additional tonnage caused the Government of Maldives to establish in 1966 a separate shipping company, under Maldivian law; MSL began operations with two 2,500 tons vessels. Operational headquarters were originally located in Colombo and later shifted to Singapore; administrative offices were located in Bombay and have been shifted to Male. MSL is a member of two conferences, 1/ but the majority of its fleet operates on a tramp basis. While initially established to ensure transport service for the Maldives, the Maldivian trade now represents a negligible portion of MSL operations (Table U).

Table U: MALDIVES SHIPPING LIMITED: SOURCE AND DESTINATION OF TRAFFIC, 1978
(% of freight tons carried)

	Source	Destination
Maldives	-	2
Sri Lanka	12	7
Indian Subcontinent	22	7
The Gulf/West Asia	30	66
Japan/Korea/China	2	5
Southeast Asia	19	10
Europe/USSR	15	3
	100	100

Source: Maldives Shipping Ltd.

7.04 MSL's turnover, excluding the related companies in which MSL owns shares, is now of the same magnitude as the entire gross domestic product of the Maldives. Until the slump in worldwide shipping in 1977, MSL operations had been highly profitable. These profits were retained in large measure by MSL to finance its own expansion. The fleet at end-1978 stood at 29 vessels totalling about 84,000 GRT and employing about 700 Maldivian seamen. Nearly all vessels are registered in the Maldives. The average size of vessel is small (2,800 GRT), and the average age is about 24 years. As part of a modernization program, MSL is planning to replace about twelve of these smaller, older diesel-powered vessels with three 15,000 GRT heavy oil-powered vessels. This will entail commercial borrowing on a scale never before attempted by MSL.

7.05 MSL also acts as managing agent for about ten smaller shipping companies, in which it is a large shareholder (averaging about 30%) and to which MSL has granted loans. MSL-managed companies appear to be run as an integral part of MSL operations, with about one-third of central offices' expenses charged as management fees. These companies generated revenues of about

1/ Sri Lanka-Arabian Gulf-Middle East and India-Bangladesh-Burma.

$14.5 million in 1976, compared to $19.8 million from regular MSL operations. They collectively owned a fleet of 16 vessels in mid-December 1978, totaling 72,000 GRT; the average size of vessel is about 4,500 GRT and average age is about 22 years. The share of MSL-managed companies in total freight tons carried by the joint operation rose from about 28% in 1974 to 45% in 1978. 1/ For an equity investment of about $385,000, these companies have returned about $900,000 to MSL as dividends over the 1973-76 period.

7.06 Although MSL has ploughed back most of its profits into fleet expansion, it has nevertheless managed to transfer sizable profits to the Government which have been an important contribution to revenues and foreign exchange earnings. In the 1975-78 period, these profits accounted for 22% of Government revenues 2/ and 14% of gross foreign exchange earnings. The recent decline in MSL profits is a source of considerable concern. An analysis of MSL accounts 3/ suggests that this is due more to increased operating costs than to the decline in revenues. Handling, stevedorage, and crew costs increased significantly over 1975 levels. Insurance costs, as related to book value of the fleet, more than doubled, although the 1977 rate is not out of line with that experienced by other similar companies. Given the age and composition of the fleet, the operating expenses associated with fuel and repairs surprisingly do not appear to be the cause of increases in operating costs. Although MSL's revenue decline reflected a reduction in freight tons carried, MSL-managed operations showed an increase in freight tons carried enabling the group as a whole to record a healthy 6% annual increase over the period. 4/ World shipping recovered from its slump in 1978 and 1979, but this is yet to be fully reflected in MSL profit transfers to the Government. In view of the importance of these transfers to both the balance of payments and Government revenues, a careful evaluation of MSL's medium-term operational and investment strategy is needed. This will also assist the Government in its planning exercise by providing a firmer estimate of what might be expected from MSL in terms of transfers over the next few years.

Port Facilities

7.07 Male port offers limited facilities for oceangoing traffic. There is no deep-water berth and, because of congestion, 5/ even small, foreign trade vessels are not allowed within the inner harbor. Depths within the harbor are shallow (0.6 to 3 meters) while immediately outside the break-

1/ Statistical Appendix Table 8.6.
2/ Statistical Appendix Table 5.1.
3/ Based on its audited accounts for 1975-77; these accounts do not always appear to be internally consistent and require a much more careful analysis than was possible to undertake within the time available for the preparation of this report. Moreover, the mission did not have access to the the audited accounts of MSL-managed companies. (See Statistical Appendix Tables 8.7 and 8.8).
4/ Statistical Appendix Table 8.6.
5/ Fishing boats, inter-island traffic, tourist boats, coral extraction vessels, and maintenance/repair/refueling operations all use a harbor of approximately 1,350 meters by 50-60 meters.

water, the sea bed drops very steeply to 60 meters. Imports are off-loaded by lighters, which are hauled by tugs to the commercial section of the harbor and off-loaded there by mobile crane. The system is slow and laborious, necessitating multiple handling of goods. About 60 ships visit Male each year with an average turnaround time of about a week. 1/ It is estimated that current facilities could handle about 40,000 MT per year, compared with a high of 32,800 MT of actual trade in 1977.

7.08 The UK Overseas Development Administration sponsored the preparation of a feasibility study for improvements of Male harbor. The consultants recommended a realignment of service areas within the inner harbor, construction of a deep berth outside the inner harbor for foreign trade vessels up to 12,000 GRT, improvement of breakwaters, and construction of a slipway and workshop for steel-hulled vessels up to 100 tons. As the present jetty at Hulule airport is inadequate even at present levels of tourist activity, the consultants also recommended dredging a channel and providing landing jetties for launches to carry visitors and light cargo. These development proposals would cost roughly $3,500,000. The Government is reviewing these proposals and considering undertaking a less ambitious program.

Inter-Island Transport and Communications

7.09 All inter-island traffic goes by sea. Traditionally, the carriage of people and goods between islands was organized within each island community on a family, friendship, or barter basis. Surpluses of Maldive fish were routinely carried for sale in Male from all parts of the Maldives and thus islanders were permitted access to imported goods. The mechanization of boats has brought some improvement to inter-island transport services. The first period of growth started with the construction of the British base on Gan in the late 1960s, which had a strong traffic creation effect in all four southern atolls. The second growth period began with the build-up of tourism facilities and mechanized fishing in the mid-1970s and was centered on Male. Moreover, some of the mechanized fishing boats are as often as not used for carrying goods and people.

7.10 There are no data available on the volume of inter-island traffic, nor on the number of boats exclusively engaged in transport. 2/ The 1977 census gave a total of 2,000 people working as boatsmen or crew members, other than in fishing and tourism. Excluding MSL seamen, this gives roughly one boatman for every 40 people employed. In broad outline, the system which they now operate consists mainly of sailing boats (or dhonies) for intra-atoll traffic, and of mechanized boats for inter-atoll transport, particularly to and from Male. Most traffic is between Male and individual atolls; there is little traffic between atolls. There are no regular schedules; journeys to the southern atolls may take as long as a week because of the frequent stops necessitated by the hazards of night travel due to dangerous reefs. Before leaving Male for the atolls, every dhoni skipper must report to the Ministry

1/ Statistical Appendix Table 8.9.

2/ However, ADB financed consultants have undertaken a survey of boat traffic in and out of Male, the results of which will soon be available (see para 7.12).

of Home Affairs, where he may be instructed to transport to his stated destination certain persons or goods, including mail, on behalf of the government. These services are usually provided free. There is little information on inter-island transport costs, except that they vary widely. Transport is estimated to add less than 5% to the cost of rice, sugar, and flour moving from Male to the atolls; but fare-paying passengers, for example, from Male to Hithadhoo in the south, may be charged from MR 50 on a trawler to MR 300 on a large mechanized dhoni. The sector is certainly profitable, judging by the considerable amount of new investment in boats taking place in 1978/79. Boats to transport tourists in the Male region are considered a particularly good investment. They can show returns on capital of as much as 75% a year.

7.11 The present system is inadequate to meet the country's social and economic development needs. On the social side, lack of inter-island transport is the most serious constraint to the spread of education and health facilities to the atolls. Import substitution in relation to Male and the tourist sector's consumption of fresh fruit and vegetables could also become a reality if regular and faster inter-island transport services were available. In the tourism sector, domestic transport presents two particular problem areas. Firstly, within the present tourism region--a 70-mile radius centered on Hulule airport--there is much duplication of transport services among the resorts, and the likelihood of serious congestion of Hulule jetty facilities when the airport expansion project is completed (para 5.21). Secondly, the benefits of tourism development have been limited to the Male region because there is no adequate transport from the airport to other atolls.

7.12 The Asian Development Bank (ADB) financed consultants are currently preparing a feasibility study for an inter-island transport and communications project. Such a project may include provision of motorized passenger/cargo vessels, suitably fitted with navigation and communication equipment, improvement of shore and maintenance facilities at scheduled ports of call, provision of navigational aids and facilities for weather forecasting, and improvement of the existing telecommunications system. As part of the special atoll vote for basic infrastructure improvement in the islands, the Government is also undertaking a small program to develop the inner harbors of several islands. In its preliminary report, the ADB acknowledged that the viability of an inter-island transport project was difficult to assess at this stage. The experience of other IDCs suggests that the purely technical problems of inter-island transport are not too difficult to overcome; the major problems are financial, managerial, and social. 1/ In all probability, transport links with outer islands are unlikely to be financially viable due to the small and infrequent volume of commercial traffic; their provision has, therefore, to be seen as a matter of national social policy.

7.13 Inter-atoll communication between Male and the atoll capitals is through a network of HF transceivers (25 w output). Within each atoll, communication between islands and also with boats is by walkie-talkie; there are approximately 1,000 licensed walkie-talkies in the Maldives. A VHF radio telephone system links most of the tourist resort islands near Male to the capital. The HF transceivers have not worked efficiently, mainly because of

1/ United Nations Conference on Trade and Development, op. cit.

problems with power supplies. Each atoll is supposed to have access to wind-driven generators, but most are in disrepair and batteries must be carried to Male for recharging. When HF transceivers cannot be used, messages are relayed by walkie-talkie.

7.14 The Telecommunications Department (TCD) is responsible for both the inter-atoll circuits and external communications. TCD has prepared a program for upgrading the services to the atolls. This would establish a multi-channel microwave transmitter in Male, with repeaters and solar panels for power supply in selected islands in each atoll, and a VHF distribution system to reach all islands within each atoll. The microwave transmitter may also carry radio and TV broadcasting. The cost of the microwave link, excluding the VHF distribution, is estimated at about $3.0 million. Funding for such a major undertaking has not yet been arranged. As part of the ADB inter-island transport study (para 7.12 above), the feasibility of replacing obsolete HF and VHF sets in the islands, as well as a coastal radio station for marine service, is being investigated.

7.15 External communications are provided via a satellite earth station, which was installed in 1977 with assistance from Abu Dhabi. It is equipped with four channels and is capable of transmitting and receiving telex, telegraph, facsimile, and data traffic as well as voice channels. The Government of Maldives granted sole rights to operate the international point-to-point telecommunications facility to a private company, Cable and Wireless, which pays a rental of $47,000 per year for the use of the facilities as well as 20% royalty on the income from international telephone and telex services. In 1978, this royalty amounted to about US$11,000, up from about US$5,000 in 1977. External communications are now more than adequate for the country's needs.

THE MALE CAPITAL REGION

7.16 Male has experienced very rapid growth over the past decade. Its population has increased more than two-fold to 30,000, and the level of economic activity has increased more than commensurately. Until the late 1960s, there had been strict regulations limiting emigration to Male; but now the only restriction is available space. The area of the island in 1940 was about 108 hectares; land reclamation within the surrounding reef has increased this to about 139 hectares. Plans are underway for reclaiming a further seven hectares at a cost of about $5.1 million. These extraordinary measures have been taken to accommodate not only the people forced to be relocated from the nearby islands taken over for the airport and fuel storage, but also those emigrating from outer islands in search of a better life in Male. The demand for water and sanitation, electricity, roads, and housing has outstripped the capacity of the agencies assigned to provide those services. The Government appears to be responding to needs in each area on an ad hoc basis. These separate programs are not being coordinated and reconciled, which could prove both costly and wasteful in the medium term. Moreover, there is one important issue that cuts across the sub-sectors, and needs to be addressed. Most of the more capital-intensive projects will involve fairly high operational and maintenance costs. Cost recovery may prove difficult, however, particularly in sub-sectors like electricity, where tariffs are already very high. There is a strong case for preparing a separate urban renewal plan for the Male capital region, which integrates these various

initiatives and issues and relates over the next two decades the supply of essential services to the demand generated by the rapidly growing population of Male and the surrounding islands of Kaafu atoll where much of the projected expansion of tourism is expected to take place. Some of the major components of such an urban renewal plan are discussed below:

7.17 Water and Sanitation. About 86% of the population of Male depends on groundwater, while 14% use rainwater for drinking purposes. There is no piped water supply system. Due to the geological configuration of the island, the method of human excreta disposal pollutes the drinking water supply (see para 7.37). The Water and Sanitation Authority (WSA) operates a chlorination program for all public and some private wells in Male and a sewer line which drains the area adjacent to the harbor. This, however, is an insufficient response to the lack of safe drinking water. The Government has, after reviewing various alternatives, opted for a program of multiple rainwater collection tanks (with feeder mains), and an aqua-privy system for excreta disposal. These works are urgently needed in the recently reclaimed areas, which have been opened for settlements without access to water or to non-polluting sanitation. German assistance is being sought for financing of these works.

7.18 Power. Male is the only island with government-sponsored electrification. The tourist islands and several other inhabited islands have installed their own oil-based generators. The 1977 census indicated that about 60% of the households in Male are electrified. Based on a sample survey, consultants 1/ have estimated that over half of these households have at least five lighting points, about 70% have radio connections, and about 40% have electric fans. As shown in the table below, there has been an extremely fast growth in demand for power in all sectors, with demand for manufacturing outpacing all others. Demand for residential use, manufacturing, and utilities is projected to double by 1980 over the 1975 level (Table V).

Table V: MALE POWER: LOAD DISTRIBUTION
(KW)

	1965	1970	1975	Average Annual % Increase 1965-1975	Forecast 1980
Residential	65	120	250	14.4	450
Manufacturing	-	50	210	33.0 /a	480
Other Commercial	45	92	205	16.4	380
Government	42	95	130	12.0	180
Utilities	33	70	130	14.7	270
Others	15	25	30	7.2	50
	200	452	955	16.9	1,810

/a Growth rate pertains to 1970-75.

Source: J.G. Engineering (Pte) Ltd., op. cit.

1/ Feasibility Study for Electricity Department in Male, Republic of Maldives, J.G. Engineering (Pte) Ltd., Singapore, June 1978.

7.19 The current installed capacity of the Electricity Department is 3,114 KVA or 2,493 KW, from nine diesel generators. This is sufficient to meet current demand. However, three of the generators are over 17 years old and badly in need of replacement. The effective capacity will need to be expanded to meet both current and anticipated increases in demand and to match the planned upgrading and expansion of the power distribution system in Male. The present distribution system is considered both dangerous and uneconomical in some areas and is extremely susceptible to protracted breakdowns. The power factor at certain sites averages between 0.45-0.6 lagging and voltage varies between 125-160. These extremely low voltage conditions are primarily due to imbalanced load distribution, inappropriate distribution line components, and lack of power factor correcting devices and apparatus to restrict high starting current on electric motors. The Electricity Department engaged a firm of consultants to prepare a feasibility study to upgrade the power distribution network in Male. 1/ The study has proposed a relatively simple program of work costing over $2 million in 1978 prices.

7.20 The Electricity Department has a total staff of four engineers, six assistant engineers, six technicians, and about 60 semi-skilled and unskilled laborers. Due to lack of sufficient numbers of trained staff and financial resources, the Department is unable to supervise the system and maintain equipment. Electricity tariffs were maintained at artificially low levels for the 1974-76 period with losses covered by the Government budget. In mid-1977, the rate was increased from MR 1.0 per KWH to MR 1.75 in order to build up a capital fund to purchase two additional generating sets. After the new sets were purchased and installed in mid-1978, the rate was reduced to MR 1.50 per KWH in October 1978 a level at which they merely covered the then prevailing operating costs. With the subsequent oil price increases, it has been calculated that the rates would need to be raised to at least MR 2.0 per KWH just to cover current operating costs. Further rate increases appear unavoidable despite the fact that these power rates are high by international standards and in relation to what consumers can afford to pay.

7.21 Roads. Male's road network is highly developed. Vehicle traffic is modest; most people travel by bicycle or on foot. The number of vehicles registered in Male is as follows: 29 lorries, 12 vans, 108 cars, 312 motor cycles, and 15 tractors. 2/ A major problem is storm water drainage; during the monsoons, water collects on streets. As the Government intends to pave some of the major streets, it will be necessary to incorporate a drainage system to prevent moisture penetration of the subgrade and of the foundations of roadside buildings and boundary walls. A consultant 3/ has recommended providing storm water grating and catchments every 80 to 100 feet on either side of the carriageway. The cost of paving about six miles of road, including appropriate subgrade and drainage, has been estimated at about $1.2 million in 1977 dollars. The expenditure involved is high compared to other countries

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1/ Op. cit.
2/ Report of Mr. M. K. K. Sabar, Consultant, February 1977.
3/ Op. cit.

because the ground levels are so close to sea level and the underground lens is so shallow. As this system will have a significant impact on the natural drainage and percolation of rainwater, coordination with the WSA programs will be necessary.

7.22 Telecommunications. The Male Telephone Exchange has a 300-line manual and 550-line automatic telephone exchange. The existing number of telephones and telex lines in Male has already reached 844, considered to be close to the maximum capacity of the present system. Over 100 customers are waiting for additional lines. The breakdown of the existing telephone and telex lines between public and private sectors is as follows:

	Public Sector	Private Sector	Total
Telephones			
Manual	63	236	299
Automatic	202	291	493
Public Telephone Booths	-	4	4
Telex	8	40	48
Total	273	571	844

TCD is discussing with the Government of Singapore the possibility of acquiring on a grant basis a 3,000-line automatic exchange, which would be sufficient for projected demand over the next decade.

SOCIAL SERVICES

Education

7.23 Three Streams. There are three quite separate streams of education in the Maldives, each responding to a different set of circumstances and needs: the traditional Koranic schools (makthabs), the Dhivehi-medium schools, and English-medium schools. There are no higher education facilities, and Maldivians have traditionally been sent abroad on scholarships to pursue university education or other specialized training. Ministry of Education statistics 1/ show enrollment in the three streams in 1977 at about 36% of the population in the 5-24 age group:

	Number	% of Total
Students Enrolled	24,203	100.0
of which Makthabs:	10,309	42.6
Dhivehi-medium	8,770	36.2
English-medium	5,124	21.2

1/ Census data (Statistical Appendix Table 10.6) suggest a much lower overall enrollment ratios. Ministry of Education data may include dropouts and those registered but not attending.

7.24 The makthabs still constitute the backbone of the Maldivian education system. Spread in a thin layer across the entire chain of atolls, they are designed to impart to the young of both sexes the teachings of the Koran. Most of these schools also take the opportunity to teach the young to read and write Dhivehi and to do simple arithmetic. The makthabs must be given due credit for the very high level of adult literacy in the Maldives (82%) which is remarkable for its uniformity across age groups and sex. 1/

7.25 The 53 Dhivehi-medium primary schools provide the only formal schooling in the atolls to a wide age range (between 5 and 24). These schools receive no assistance or supervision from the state, and are financed from voluntary contributions and fee payments. The teachers are usually part-time and poorly trained. The curriculum is typically a continuation of the Koranic schooling: reading, writing, arithmetic, and religion.

7.26 The English-medium stream is relatively new, having been introduced only in 1961. It is designed primarily to prepare students for the GCE O-level examinations of the University of London. 2/ It comprises one State pre-school, two full-cycle (Grades 1-10) State schools, one each for boys and girls (about 1,100 students each), the Science Education Centre and one private school which receives some Government aid, all located in Male. English education is highly sought after, with children sent from the atolls to Male to avail of the facility. The system has produced 453 O-level graduates who already constitute a strong peer group. The English-medium schools, which are largely staffed by expatriates, have been successful in reducing the number of Maldivians who go abroad (to Sri Lanka or India) for schooling. The recent introduction of A-level courses will further reduce reliance on overseas education.

7.27 Objectives. While the educational system has been successful in ensuring high levels of literacy, the low level of educational attainment of the population as a whole 3/ testifies to its inadequacy. A mere 20% of the population above age five has completed primary school. Only 1.2% have completed secondary school. The entire country boasts only 56 university graduates. Moreover, while females appear to face no discrimination in terms of access to primary education, their share in middle and secondary school completions falls to 32% and 26%, respectively. Not surprisingly, the educated elite is heavily concentrated in Male; 83% of those with secondary school education or above are residents of the capital.

7.28 In recent years, the Government has come to recognize that the system is not geared to meeting the manpower needs of the country, both in a quantitative and qualitative sense. As a consequence, Government expenditures on education have nearly doubled from 3.4% of total expenditures to nearly 8% between 1974-76 and 1977-79. These are supplemented by fairly sizable multilateral assistance programs that are substantially larger than the government's own expenditures on education. These increased outlays are being directed at three objectives: (a) attaining the goal of universal primary education; (b) increasing the output of secondary and vocational schools to meet the

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1/ Statistical Appendix Table 10.4.

2/ Some students also sit for the London Chamber of Commerce and Industry elementary and intermediate level examinations.

3/ Statistical Appendix Table 10.5.

country's trained manpower needs; and (c) upgrading teacher training, curriculum development, and educational material production in local facilities to help meet the needs of the first two objectives.

7.29 Primary Schools in the Atolls. Under the umbrella of the Education Development Centre (EDC) and with support from external agencies, the Ministry of Education has initiated the first central Government-sponsored education development program for the atolls. This involves the establishment of community primary schools, the upgrading of makthabs, the establishment of youth and adult education programs, and the development of curriculum, teacher-training, and radio education programs that are relevant to the environment and society of the atolls. Under three parallel programs, some 57 primary schools are to be established in the atolls by 1982, of which 19 government sponsored primary schools and two community schools are already in existence. This appears somewhat overambitious and wasteful. 1/ According to the 1977 census, there are 18 inhabited islands with populations large enough (over 1,000) to each absorb one community school of standard size. Given the fairly sizable construction and recurrent costs, the Government should consider: (a) phasing the programs so as to serve first the more populous islands/atolls; and (b) designing the primary schools so as to reduce the number of teachers needed either through larger classes (merging grades) or through use of education aids such as radio programs and other materials.

7.30 Secondary and Vocational Schools. The Government has taken a few initiatives to increase the output of a limited range of essential skills needed in the country. The English-medium secondary schools are being expanded both to permit a larger output of O-level graduates and extend education to the A-level. The two English-medium secondary schools are to be expanded by about 1,200 students, thus tripling the middle and secondary school population. A Science Education Center has been established to provide science A-levels; a similar expansion for the arts is also intended. The Vocational Training Center (VTC) established in 1975, with assistance from UNDP and ILO, provides training in electricity, diesel, and petrol engine repair and maintenance, machinery, and welding. A fifth course on refrigeration is to be added in 1980. Candidates selected have usually completed fourth or fifth grade schooling; this is sufficient for practical training but limits theoretical instruction. The VTC has all the makings of a successful experiment. It is proposed to expand its present practice of charging for repair work undertaken for the Government and private sector and make it self-financing.

7.31 The sizable proposed expansion of secondary and vocational education should be accompanied by a comprehensive manpower planning exercise. This is essential if there is not to be a serious mismatch between available skills and requirements. Moreover, the Government needs to ensure that the current expansion in Male-based English-medium post-primary education and training facilities is not once again mainly for the benefit of Male residents and at the expense of children from the atolls. Language may become a serious barrier to access to the facilities in Male, perpetrating the privileges of a small English-speaking elite.

1/ A rough estimate suggests that the Government's recurrent expenditure would nearly double if all 57 schools come into being.

7.32 Teacher Training and Curriculum Development. Teachers are desperately needed to: (a) replace the 87 foreign nationals in English-medium schools; (b) meet the expansion needs of Male schools; and (c) staff the new atoll community schools. EDC has initiated a two-year part-time English medium local teacher training program to meet the needs of primary school teachers in Male and a one-year Dhivehi-medium full time training course for training teachers for the atolls; but it has so far failed to attract O-level graduates who seem to prefer other careers in the private sector or more prestigious but less financially rewarding jobs in the civil service. The fact that those receiving local training are, like their foreign-trained counterparts, required to serve the Government for three to five years acts as a further disincentive. The Government is having more success upgrading the skills of island teachers, but their numbers are limited and their quality is low.

7.33 The lack of teaching materials and curriculum in Dhivehi is a serious constraint to the expansion of primary education in the atolls. With assistance from UNESCO, EDC is trying to overcome this constraint, and pilot materials and curriculum are being tested at the first two community schools. Production costs are high, and the local printing industry is ill equipped to handle the volume of work. The Government is extremely anxious to obtain assistance in this area, which it regards as a high priority.

7.34 Need for Planning. The task facing education planners in the Maldives is formidable. The population of normal school-going age (5-14) is expected to increase on rather optimistic (i.e., low) population projections from the present 40,000 to 70,000 by the year 2000. With school enrollment rates for this age group already low, a massive effort would be required to ensure higher enrollment ratios for the much larger population. To ensure universal primary and secondary education would require increasing the number of school and vocational institution places over the next two decades some five-fold over the present level of about 14,000 enrolled in Dhivehi-medium and English-medium schools. Given the additional complexity of a widely dispersed population, there is need for much ingenuity and innovation. This calls for a long-term education plan, covering at least the decade of the 1980s, from which medium-term investment priorities can be determined.

Health

7.35 Incidence of Diseases. The indicators cited in Table B confirm the extremely poor health conditions prevailing in the Maldives. 1/ The widespread prevalence of waterborne and tropical communicable diseases are a primary factor in the low life expectancy and the high infant mortality and child death rates. Epidemics of waterborne diseases have taken a heavy toll in recent years: gastro-enteritis (1965), typhoid (1966), diarrhoea (1968), and cholera (1978). According to data collected by WHO, the incidence of leprosy (approximately 14 cases/1,000) and tuberculosis (4 cases/1,000) is high and widespread. After an eradication program was launched in 1966, the number of malaria cases declined steadily, falling from 1,105 in 1975 to 266 in 1977, the disease being confined to a few northern atolls. However, there was a 47% increase in the number of cases reported in 1978 due to

1/ See also Statistical Appendix Table 10.8.

a delayed seasonal spraying of DDT and the fact that chlorination of wells after the cholera outbreak destroyed fresh water fish that were bred to eat mosquito larvae.

7.36 Government Programs. The major contributory causes of poor health are inadequate access to safe water and sewerage, the inadequacy of public health services in the atolls, and nutritional anaemia arising from dietary deficiencies and low socio-economic status. The Government currently devotes about 5-6% of total budgetary expenditures to health and water supply/sanitation programs, or about $2.0 per capita. Programs mounted by UN agencies, which are excluded from the Government budget, amount to two to three times the size of Government allocations. The bulk of Government expenditures benefits Male where the 40-bed Government hospital and six clinics are located. The hospital alone accounted for over one-half of total Government health expenditures. Moreover, all the country's nine doctors, seven fully trained nurses, and 35 nurse aids serve in Male hospital. UN agencies have, therefore, rightly focused their programs on the provision of health services and safe water supply to the atolls.

7.37 Safe Water and Sanitation. The elimination of waterborne diseases is the highest priority. Due to the coral structure of the islands, fresh water resources are in shallow underground aquifers floating in sea water within the confines of each island's coral bed. This lens is easily contaminated with organic and human waste, as the rainfall recharge percolates down through the excrement deposits in coarse coral sand. The existing water supply, other than a limited number of rainwater collectors, is principally drawn from shallow dugwells, often located in mosque compounds or other restricted places.

7.38 Access to safe water supply cannot be assured without also dealing with the issue of sanitation. As an interim measure, WHO and UNICEF are supporting a program of chlorination of wells, until public water supply and sanitation programs can be mounted. Due to the scarcity of fuelwood, boiling of drinking water is not feasible on many islands. WHO has recommended building rainwater collectors and storage to serve drinking and cooking needs for both Male and the atolls, community latrines in the more populated islands, and a drainage system for Male. UNICEF is proposing to finance the construction costs of 350 sanitary latrines and 40 water collectors, and the chlorination of about 1,500 wells. UNCDF 1/ is also preparing a $1.0 million "crash program" to install water collectors and build public latrines on all remaining islands not served by the UNICEF program; it is also proposing to support a special program to serve those being settled on the reclaimed areas of Male. 2/ WHO is also working with the Maldives Water Supply and Sanitation Department to develop its administrative and executive capacity, through training of engineering staff and the provision of transport facilities and other supplies.

1/ United Nations Capital Development Fund.

2/ Due to the soil structure, reclaimed areas do not have sufficient access to groundwater. Drainage and waste disposal are also related problems.

7.39 Communicable Diseases. Special programs have also been mounted to combat communicable diseases. With assistance from WHO, a program to survey and treat leprosy and tuberculosis and provide BCG and smallpox innoculations was launched in 1975; the eighteen outer atolls have been covered, but continued surveillance, treatment, and vaccination are needed. The malaria foci spraying program has been remarkably successful over the past decade, and despite the recent setback, it may be possible to achieve eradication rather than just control within the next two or three years. These programs represent an effort to make up for past neglect. Once the backlog is taken care of, the special crash programs will be superseded by maintenance and preventive medicine programs.

7.40 Delivery Systems. Given the scarcity of resources, the shortage of trained manpower, and the inadequacy of inter-island transport, the Government has decided to decentralize primary health services and has established, with UNICEF assistance, 23 community atoll health centers. The centers are run by community health workers, the equivalent of barefoot doctors, who are currently receiving training at a newly established Allied Health Training Center. These centers will be eventually supplemented with family health workers on more populated islands (one worker for every 300-400 people). These community and family health workers will dispense medicine, provide first aid and assist with disease prevention programs. Cases requiring more than routine medical attention will be referred to two new 12-bed regional hospitals that will be established over the next few years and staffed by a rotating pool of doctors, nurses, and auxiliary health workers. This approach appears to be sensible and will be an important step in strengthening the presently inadequate facilities for health care in the atolls. However, two major components of a sound health strategy--maternity and childcare and family planning--are inadequately emphasized. The rate of growth of population and the very high infant and child mortality rates should force greater attention to these areas. Close spacing of children and the large number of children are important factors in poor nutrition and susceptibility to disease. Crowding on tiny islands aggravates sanitation and environmental problems. As an initial step, the training of community health workers should be geared to the special health needs of women and children, and family planning services should be provided to those who want them.

PART C: PROSPECTS AND ISSUES

VIII. DEVELOPMENT PRIORITIES IN THE 1980s

The Challenge

8.01 After centuries of stagnation, the Maldivian economy has experienced both rapid growth and diversification in the 1970s, transforming the country's medium-term development potential. Coincidentally, a new Government has come to power that is committed to planned economic development and to reversing Male's traditional neglect of the atolls. Structural changes in the economy and the new rhetoric have aroused enormous expectations among these island peoples. Meeting those expectations will not be easy. While there is a substantial potential for sustained economic growth, the country needs to develop the tools to exploit it. The political, economic, and institutional infrastructure inherited by the new Government has been geared to maintaining the status quo, rather than to initiating and bringing about change. Recent developments, undoubtedly, have shaken the system out of its quiescence and brought a new vitality and a greater awareness of what it is possible to achieve; but the need for new institutions and skills to launch a major development initiative is still in the process of being recognized, and the transition to a government machinery geared to such an initiative is likely to prove both long and painful. The challenge for the country's leadership lies in ensuring that expectations do not run too far ahead of the Government's ability to deliver results.

8.02 The National Planning Agency has been entrusted with the task of preparing the country's first development program. While it has yet to articulate specific development objectives, this is the easiest part of its task. The following medium-term objectives appear to suggest themselves:

(a) a rate of economic growth sufficient to ensure an adequate increase in real per capita incomes and consumption;

(b) a more equitable distribution of the benefits of development as between Male and the atolls;

(c) a determined effort to slow down the migration into Male through the creation of alternative poles of development; and

(d) a program to reduce the current rapid population growth rate which will, in the long run, erode the gains from economic growth.

Economic Growth - Some Issues

8.03 An examination of sectoral growth possibilities suggests that the economy is poised for continued rapid growth provided that policy and

infrastructure constraints are removed. Fish landings could reach 50,000 MT by 1985, or nearly double the 1978 level, with an increase in the number of mechanized pole and line vessels from 700 to 1,700 and a 60% improvement in the average annual catch per mechanized vessel. Tourist arrivals could rise four by 1985 to over 100,000, and gross earnings from tourism could expand by about 21% per annum during this period, rising to $22 million at 1979 prices by 1985. 1/ Shipping income should recover from the recent setback. This is an area of greater uncertainty; but we believe it should be possible by 1985 for MSL to remit at least $3 million a year at 1979 prices. With the expected expansion of these leading sectors, there is a potential for stimulating growth in agriculture, small-scale industry and handicrafts geared to meeting the needs of the leading sectors (paras 6.22-6.27). Coconut production is also likely to be responsive to special programs designed to control rodents and improve yields.

8.04 Taking all these factors into account, a GDP growth rate of 6.0-8.0% in the 1980-85 period appears feasible. This represents a deceleration over the 12.5% annual growth recorded in 1974-78, which reflected a low starting base. The realization of this potential will be somewhat more difficult than it was in the past. As seen in Part B, all three leading sectors are currently experiencing difficulties which arise out of developments that are both within and outside the control of the Government. Some of these difficulties can be resolved through specific policy change; others involve more complex and longer-term solutions. The increasing complexity of the economy will require both sophistication in management and an improved capacity to formulate and implement policies. Adequate economic growth will be contingent on the following:

(a) The continued maintenance of an open economy is an essential precondition. An important explanation for the impressive recent performance of the economy has been the absence of restrictions on trade and payments. The system has worked well, and with a floating exchange rate policy and a potentially healthy medium-term balance of payments outlook (para 8.10), the Government should have no difficulty in maintaining this system.

(b) The Government needs to urgently examine the impact on the economy in general, and on Government budgetary operations, of the price distortions arising from the use of an administrative accounting rate of exchange by the Government to establish prices paid to fishermen for exported fresh fish and the local prices of imported food. The analysis in paras 3.23 and 4.15 above would suggest several advantages from the elimination of the administrative accounting rate of exchange and related upward adjustments in domestic prices of fish exports and food imports. It would eliminate the present severe price disincentives facing the fishing industry. It would improve incentives and boost living standards in the atolls. This would also ease the pressures on Male

1/ This assumes that the cost of air travel from Western Europe to the Maldives does not increase dramatically.

from immigrants in search of better economic opportunities. By eliminating the implicit subsidy on imported foodgrains, it would, albeit modestly, enhance food security by encouraging import substitution in this area. Most important, it would end the present discrimination against the traditional fishing and agricultural sectors and eliminate the only significant price distortion in the economy. The only major disadvantage of the move is the likely adverse impact on domestic inflation of an increase in imported rice and flour prices. This could be moderated through gradual increases in the prices of these commodities. To the extent that domestic cereal production responds positively to the stimulus of higher prices, the inflationary consequences will be partially mitigated. The budgetary consequences need to be studied in greater detail. But a cursory analysis suggests that the budgetary deficit may be reduced. STO's profits will be influenced by the extent to which the prices paid to fishermen for fish exports and the price of food imports is adjusted upwards. The rupee equivalent of dollar-denominated revenues and commodity aid receipts will increase. So will the duty base for import and export duties, which may require a corresponding lowering of duties. Expenditures denominated in dollars will rise, but will be more than offset by the aforementioned gains.

(c) STO's pricing policies are only one aspect of the issue of price incentives. Recent developments have cast a shadow on incentive levels in the productive sectors, and corrective action is needed in the following areas:

- In the fisheries sector, this inadequacy arises from the combined impact of the implicit tax on fresh fish exports arising from the divergence between prices received for fish exported and the prices paid to fishermen and of the recent sharp increase in fuel costs (para 4.15). A reduction in the effective rate of taxation on fish exports, as suggested above, would provide immediate and urgently needed relief. Moreover, average unit value realizations can be boosted by diversifying export markets and products. Collection of micro-economic data on a systematic basis would enable the Government to monitor the adequacy of incentives and to introduce corrective measures promptly.

- The new taxes on tourism threaten to stifle the industry's growth and the Government should consider

the proposals in para 5.14 to reduce the burden of the new taxes. These changes will have no adverse implication for revenues. 1/

- Although producer incentives in field crop agriculture will benefit from a reduction of the implicit subsidies on food imports, the sector as a whole will need a number of policy measures designed to provide security of tenure, and improved marketing, transport and storage facilities. For selected cash crops facing a strong demand from the tourism industry, the Government may wish to study the merits of establishing guaranteed procurement prices together with the related procurement machinery and cold storage facilities.

(d) The growing importance of the private sector in the productive sectors of the economy and the need to attract foreign private investment suggests that the Government cannot postpone much longer the establishment of a legal framework that cogently spells out the rules of the game. The establishment of a Maldives Monetary Authority is an important first step and must be followed up by banking, company and property laws and foreign investment legislation that provides clearer guarantees to foreign investors (para 3.27). A stable investment climate and an assurance of a policy environment that permits adequate returns and a clear statement of rights and responsibilities is a precondition to attracting foreign investment in fisheries, tourism, and other sectors, and ensuring stability in relations with foreign companies (paras 4.20-4.21).

(e) The Government's role in the provision of physical, financial, and social infrastructure is important in realizing the growth projected in para 8.4. The linkages between such investments and growth prospects are fairly obvious in some areas. For instance, the expansion and strengthening of the Hulule runway on schedule to permit larger aircraft to use the airport is essential to the realization of projected tourism arrivals. The improvement of inter-island transport facilities should prove a boon to cash crop agriculture. Similarly, the provision of credit is crucial to the success of the fishing boat mechanization program. But there are less obvious linkages between infrastructure investments and economic growth. Investments in education are needed to ensure adequate trained manpower for the productive sectors. Preventive health care is not only needed

1/ See Statistical Appendix Table 8.4. Assuming that tourist arrivals reach projected levels, revenues under the proposed system could exceed revenues from the existing system because the lower revenues arising from a reduced tourism tax burden will be offset by the wider tax base for both the tourism and the bed-night tax.

to ensure the quality of the labor force, but is also crucial to the survival of the tourism industry. 1/

Redistribution

8.05 The lack of a development policy for the atolls has been documented throughout the report. Redressing regional and income inequalities will require a multipronged approach. The most direct approach is to boost atoll incomes. Measures to improve incentives for fishermen and farmers will have an immediate impact on the atoll economy. A second approach is through the expenditure side. Government expenditures, which currently mainly benefit Male, will need to be increasingly redirected towards the atolls. Health and water supply are clearly a high priority. The Government already has a number of sensible health programs which can be implemented with appropriate foreign financial and technical assistance. Education and health programs will greatly benefit from the reduced isolation of the atolls following implementation of the proposed inter-island transport project (para 7.12). These separate approaches will need to be supplemented by specific programs aimed at an integrated development of selected atolls. Such programs should cover all sectors and view atoll development in the widest context, embracing spatial planning and environmental issues, and planning for forward and backward linkages between various activities.

New Growth Centers

8.06 If present trends continue, the Maldives' population will double over the next 25 years (Table W). The implications of this demographic explosion for the capital, Male, need to be carefully assessed. Over the past five years, Male's population has risen from about 15,000 to nearly 30,000, absorbing a large part of the additions to the atoll's labor force. If this rate of migration continues, Male's population by 1985 could reach 50,000. Even with the enormously expensive land reclamation program now underway, Male could not possibly absorb such a massive inflow without a severe deterioration in its already inadequate services and without a sharp worsening in the present high unemployment rates among the young. The Government will need to move quickly if it wishes to avoid the social consequences of this migration. Legal restrictions have been used in the past but may be ruled out in the more liberal political environment of 1980. The steps outlined in para 8.05 to reverse the neglect of the atolls should have a significant impact on the rate of inflow by making life in the atolls more bearable. Nonetheless, the bright lights of the city will continue to draw away the young wishing to escape the claustrophobic isolation of their island existence. There is, therefore, a strong case for providing alternatives to Male by creating one or two new growth centers cum urban settlements. Seenu atoll in the South is an obvious candidate. The physical infrastructure at the former air base at Gan (Annex C) could provide the core of one such center based on tourism and export processing. The proposals now being considered for the development of

1/ Tourist arrivals could be adversely affected by a repetition of the 1978 cholera scare.

Gan (para 5.18) must be viewed in this context. Given the infrastructure already available on Gan, the results of such an initiative could be realized in the medium term. A second settlement in the North, based on tourism and the agricultural potential of the area, could be considered in the longer run. Frequent air and sea transport links between these centers and Male will need to be established, and this itself will greatly facilitate the settlement of these centers, since, in the absence of such links, bureaucrats and private sector managers would be reluctant to break their ties with Male.

Population Policy

8.07 Urbanization, while largely unavoidable, is a costly process. The Maldives would do well to attack what lies at the root of this rapid urbanization: a population that is growing much too fast. Birth rates are expected to climb at current fertility rates 1/ to a high 47 per 1,000 by the late 1980s, due mainly to an increase in the number of women in the reproductive age group. If death rates remain at the high 18 per 1,000, the population growth rate in the late 1980s will be 2.9% per annum. However, it is highly likely that the death rate will respond to improvements in health and water supply. If the death rate falls modestly to say 15, the average for low income developing countries, the population would be growing at 3.2% per annum. The doubling of the population by 2000 AD, a conservative projection, will greatly increase the cost of providing education (para 7.34) and health services and erode the resources needed for sustained growth. The absence of a family planning program is a major lacuna in the Government's health programs (para 7.40). Apart from any considerations of population size, the close spacing of children, the large number of children, and overcrowding on islands are important factors in the poor state of health in the atolls. The Government needs to step up maternity and child health care programs; moreover, family planning services should be freely available to married couples who want them.

Table W: POPULATION PROJECTIONS, 1977-2002

	1977	1982	1987	1992	1997	2002
Population ('000s)	142.8	161.0	184.1	212.3	244.9	281.1
Males	75.2	84.0	94.8	108.6	124.5	142.4
Females	67.6	77.2	89.2	103.7	120.4	138.7
	1977-82	1982-87	1987-92	1992-97	1997-2002	
Birth Rate	41.3	44.6	46.9	47.1	45.8	
Death Rate	17.3	17.9	18.4	18.5	18.2	
Population Increase	24.0	26.8	28.5	28.6	27.6	

Source: Bank staff projections based on 1977 fertility and life expectancy rates.

1/ 6.39 children per woman, if she were to live to the end of her child-bearing years and bear children at each age in accordance with the 1977 census age-specific fertility rate.

Establishing Priorities

8.08 The major macro-economic objectives outlined above call for a sizable investment effort. Sustained economic growth is contingent on major new investments in the productive sectors. Infrastructure for the fisheries sector will need about $15-25 million at 1979 prices between now and 1985; mechanization of 1,000 boats will cost a further $6 million; tourism will need $7-10 million; MSL's modernization program will continue to absorb a large proportion of disposable profits. The physical infrastructure needs of Male for identified programs, new and ongoing, including the reclamation program and Hulule airport, are a massive $36 million. The needs of the atoll programs are less well defined, but will also require sizable investments.

8.09 The total cost of identified ongoing and proposed public sector activities (Annex D) alone amount to over $80 million at constant 1979 prices. If disbursements on these projects were spread evenly over the 1980-85 period, they would equal Rs 100 million a year at constant prices, two and one half times the current size of government budgetary expenditures and about half the current GDP. This would clearly be too large an investment program, and would cause excessive pressures on the balance of payments, aggravate inflation and cause severe shortages of skilled labor and construction materials. The phasing of public investment activities, therefore, needs to be reviewed in the context of absorptive capacity constraints, and available domestic and external resources. The Government needs to establish a clear set of priorities for public investment. This, in turn, would involve defining the respective roles of the public and private sectors. The Government's involvement in the productive sectors needs to be consistent with its implementation capability. Thus, while certain key investments by government in the productive sectors would be necessary, these must be weighed against the substantial infrastructure and other needs of the economy, particularly in the following areas: (a) health and education and related infrastructure in the atolls; (b) integrated atoll development programs in selected atolls; (c) a Male urban renewal plan; and (d) the establishment of new growth centers. Even within these priority areas, individual projects should be phased on the basis of urgency of need. Thus, the condition of Male's roads appears a far lower priority than water supply and sanitation; the growth center in Seenu should be seen as an alternative to the costly land reclamation program in Male.

The Role of the NPA

8.10 The National Planning Agency's first task will be to help determine these investment priorities and to integrate specific investment activities into a viable medium-term development program. This is likely to prove a complex task for an Agency that is new and understaffed. To overcome this difficulty the Government has sought and obtained technical assistance in initiating the planning process from UNDP and ADB. This will enable the Government, early in 1980, to establish a planning nucleus. Formal planning will require considerable preparatory work at the macroeconomic and sectoral levels. Some of the issues that need to be explored and clarified have been touched on above; they will need to be analyzed in greater depth than it has been possible to do in this introductory report. Any agenda for the necessary preparatory

work is necessarily long. At the macro-level, work is needed on domestic and external financial resources, manpower, administration, and the legal infrastructure. At the sectoral level, studies are needed on the following sectors: fisheries, agriculture and agro-based industry, tourism and civil aviation, shipping, education and health. In addition, multi-sector studies are needed for an integrated atoll development program, a Male Capital Region program, and the proposed Growth Centers. It would clearly not be possible for all these studies to be undertaken all at once. The NPA's work program, therefore, needs to be clearly defined and realistically phased in line with availability of staff and data resources. The work program could be approached in the following manner:

Domestic Resource Mobilization: At the macro-level, the first priority must be given to ensuring a higher public savings effort than has been realized in recent years. During 1979, the Government announced a number of measures designed to attain this objective. The new taxes on tourism, suitably modified to improve incentives and widen the tax base, and the airport tax, could be yielding nearly $1 million by 1980 provided tourist arrivals grow as projected. Import duty revenues will expand with the widening of the tax base and substantial tourism related imports. Other measures are also under consideration, such as a general sales tax. The Government could usefully draw on the services of a fiscal expert to assist in the planning of these budgetary reforms and in related improvements of fiscal data collection and analysis. A study of domestic resources should focus on the following areas: (a) the impact of current explicit and implicit taxes on incentives in the productive sectors; (b) the impact on the budget of the abolition of the administrative accounting rate and related price adjustments; (c) the potential for further direct and indirect taxation and for adjustments in the tariff structure; (d) the potential for domestic market borrowings, and the creation of new outlets for smallsavers: post office savings accounts, life insurance, provident funds, etc; (e) the potential for improved returns from public enterprises, in particular, MSL (para 7.06), the Telecommunications Department and the philatelic services of the post office (para 5.11); and (f) the fiscal implications of the need to substantially increase wages, salaries and other benefits in the public sector, where emoluments need to be brought closer to private sector levels.

External resources, in our view, should not prove a serious constraint in the medium term. If the current difficulties facing the fishing industry are adequately addressed and fish exports rise as anticipated, merchandise exports should be sufficient to cover 40% of the projected value of 1985 merchandise imports. The deficit, though sizable, would be more than offset by projected tourism earnings and repatriation of profits by MSL. An effort is needed to develop adequate balance of payments statistics and to project available external resources over the plan period.

Manpower and Administration: Given the extreme shortages of trained personnel, manpower and administrative resources will prove to be the severest constraint to increasing investment levels. A careful analysis of skilled manpower requirements and availability over the 1980-85 period is essential

to the success of the program. This must also be accompanied by a thorough review of the administrative system with a view to improving coordination and ensuring a more deliberate focus on development. These studies will prove the most complex since there are few instant or short run solutions. To the extent that they clearly identify training and technical assistance needs, they will greatly facilitate the task of relieving these bottlenecks. The manpower study can be integrated with the education planning exercise suggested below. A dialogue on administrative reforms had already begun with ESCAP (para 3.26), and this needs to be resumed and followed through.

Legislative Framework: The lack of a legislative framework (para 3.27) is a major lacuna that must be urgently remedied. The NPA needs to take the lead in devising a legislative program covering foreign investment, company, banking, mortgage, contract, and leasehold laws, preparing a timetable for legislation and identifying and securing technical assistance for such a program. It may be possible to draw on other Muslim countries' experiences in modernizing economic laws.

Sector Studies: The purpose of these sector studies would be to establish medium-term objectives for the key sectors and programs listed above, identify required investments and their phasing, and determine manpower and institutional needs. The ADB's technical assistance grant for project identification could be used to undertake these studies in all the productive sectors and for economic infrastructure. In many sectors, such as fisheries, a great deal of work has already been done and only requires updating and identification of specific policy actions and investment activities. Because of its complexity, the Male Capital Region study may need to be treated separately from the ADB exercise, and the Government might consider inviting assistance from other sources. Similarly, the integrated atoll development program may also lend itself to separate treatment as an extension of the present ESCAP project preparation activity (para 6.19). In the social services, we would recommend that the Government prepare ten year health and education programs with assistance from WHO and UNESCO. (The latter would have a strong manpower planning component.) Both programs would draw on the considerable experience that UN agencies have already accumulated in the Maldives.

8.11 These separate macro and sectoral policy exercises will then need to be integrated into a three-to-five year rolling public investment program. How soon this can be done will depend partly on the timely availability of external technical assistance. This is, however, one area where it is neither desirable nor possible for technical assistance to entirely substitute the Government's own homework. From the very beginning, the main brunt of responsibility for directing and guiding the work must fall on the Government. While the NPA will play a central role, the line ministries must also bear a fair share of the burden. The initiative, and guidance for the sector work must come from the concerned line ministry. This, in turn, will require developing policy planning, project preparation, and project implementation capabilities in the line ministries and further strengthening the NPA. The Government should use the next two years during which these various studies are underway to build up these capabilities, not only by fully involving its own officials in the macro and sectoral exercises but also by arranging for training of statisticians and economists and by upgrading the skills of its existing staff.

8.12 This is a formidable work program and one that will fully test the strength of the Government's commitment to planning. So long as the objective is to prepare a feasible and practical public investment program consistent with implementation capabilities and constraints, there is a good chance that planning will succeed in the Maldives. While the problems of the Maldives' economy appear large, they are by no means insurmountable. As noted above, the country's development potential is good; the country is small enough for many of the problems to be addressed quickly and relatively easily, given adequate resources. With the right policies and programs and appropriate external assistance, the Government should not have much difficulty in meeting the growing aspirations of this quite unique nation of islands.

IX. ROLE OF EXTERNAL ASSISTANCE

9.01 The success of the Maldives' first experiment with planned economic development is largely contingent on a substantial improvement in both the volume and quality of external assistance. This will not be easy to achieve for two reasons. First, although the Maldives has emerged out of its self-imposed isolation in recent years, formal economic ties with donor nations are relatively underdeveloped. Of the 42 countries with which the Maldives has diplomatic relations 1/ only three have local representatives in Male, 2/ while, for reasons of cost, the Maldives maintains only two embassies overseas, its Permanent Mission at the United Nations in New York and a mission in Colombo, Sri Lanka. The Government has, undoubtedly, been very successful in attracting bilateral aid, particularly from Muslim oil-producing states. However, this assistance has tended to take the form of responses to ad hoc requests for assistance rather than an ongoing aid program based on the donor's careful assessment of the recipient's needs. A desire to maintain strict neutrality in its foreign aid policy and to avoid a dependency relation has, in the past, resulted in a strong preference for multilateral assistance. The United Nations Development Programme has been active in the Maldives since 1966, and has provided an umbrella for other UN agencies supplying commodity and technical assistance on a grant basis. 3/ Only in 1978 did the Maldives formally join the International Monetary Fund, the World Bank, and the Asian Development Bank, and in 1979, it made its first use of these multilateral financial resources with a Fisheries Credit from the International Development Association (IDA). 4/ While these multilateral lending institutions will play an important part in the future, the Maldives will need to supplement their efforts by strengthening bilateral economic relations with interested potential donors. Second, donors are likely to find absorptive capacity constraints a major obstacle. These consist of, inter alia, weaknesses in the machinery in Male to handle a larger volume of external assistance, inadequate project preparation and implementation capabilities, and shortages of trained manpower. Moreover, the inherently small size of typical projects imposes an additional cost on donor aid programs. These constraints will require both patience and ingenuity on the part of donors to devise a program of external assistance that matches the special needs and circumstances of the Maldives. With assistance from the Government and UNDP, donors need to inform each other of their separate activities so as to avoid needless duplication. Both financial and technical assistance are needed, the former by way of support for various project activities discussed below.

Project Aid

9.02 The sectoral reviews in Part B revealed a fairly long shopping list of worthwhile activities requiring financial support from donors. In the short run, the Government will need assistance in establishing priorities and identifying specific investment activities that require immediate support.

1/ As of end December 1979.
2/ India, Libya, and Pakistan.
3/ Statistical Appendix Table 3.9.
4/ The $3.2 million Credit was approved by IDA in May 1979.

Annex D lists ongoing and proposed project activities. Many require further work and analysis before they can develop into projects worthy of donor support. Based on the analysis in Part B, financial assistance will be needed in the following areas:

(a) Productive Sectors. In the fisheries sector, there are large infrastructure needs for strengthening the country's onshore and offshore collection capacity for fresh fish (para 4.27), for improving the fuel distribution system (para 4.19), and for processing of fish (para 4.26). There is also a large ongoing mechanization program. Some of these needs will and should be met by attracting foreign investment. The Kuwait Fund and IDA are also likely to be active in the area, but there may well be room for other donors. A tourism development finance facility (para 5.23) is also a candidate for external assistance in the medium term. Its functions could be diversified to provide support to activities related to tourism, such as production of vegetables, fruit, eggs, poultry, and handicrafts. In the agriculture sector, donor support is needed for integrated atoll development programs (para 6.19) and a coconut rehabilitation program (paras 6.15-6.16). These will be relatively small projects, but their benefits will be far reaching.

(b) Infrastructure. As shown in Chapter VII, the country's infrastructure needs are large. One key area, inter-island transport and communications, is being addressed by an ADB project preparation activity (para 7.12). This is expected to yield a project suitable for donor finance. The Male Capital Region also needs substantial investments, and external support is required to plan the city's essential services over the next 20 years and to begin to address some of the more urgent needs, particularly those related to water supply and sanitation (paras 7.16-7.22). Similarly, the idea of establishing new growth centers (para 8.06) requires further study prior to the preparation of a project that donors may support. The needs of the social sectors are currently being addressed by UN agencies. The financial resources are adequate for the moment, but additional support will be needed as the Government begins to raise its sights in this area.

Technical Assistance

9.03 A well-designed technical assistance program is crucial to the success of the Government's development program. The provision of experts will require careful preparatory work. The Government is short of institutional support, trained counterpart staff, and office space. It would be very easy to overburden it with foreign experts who could quickly outnumber the handful of senior civil servants and get in each other's way. This implies much heavier reliance on short-term experts (8-12 weeks) and the careful induction of a few, key specialists on a longer-term basis, handpicked for their capacity both to work in a quiet, low-key manner and to

train counterparts to replace them. Planning, project preparation and implementation, the establishment of a legislative framework, and administrative reorganization are some of the areas where such experts may be used.

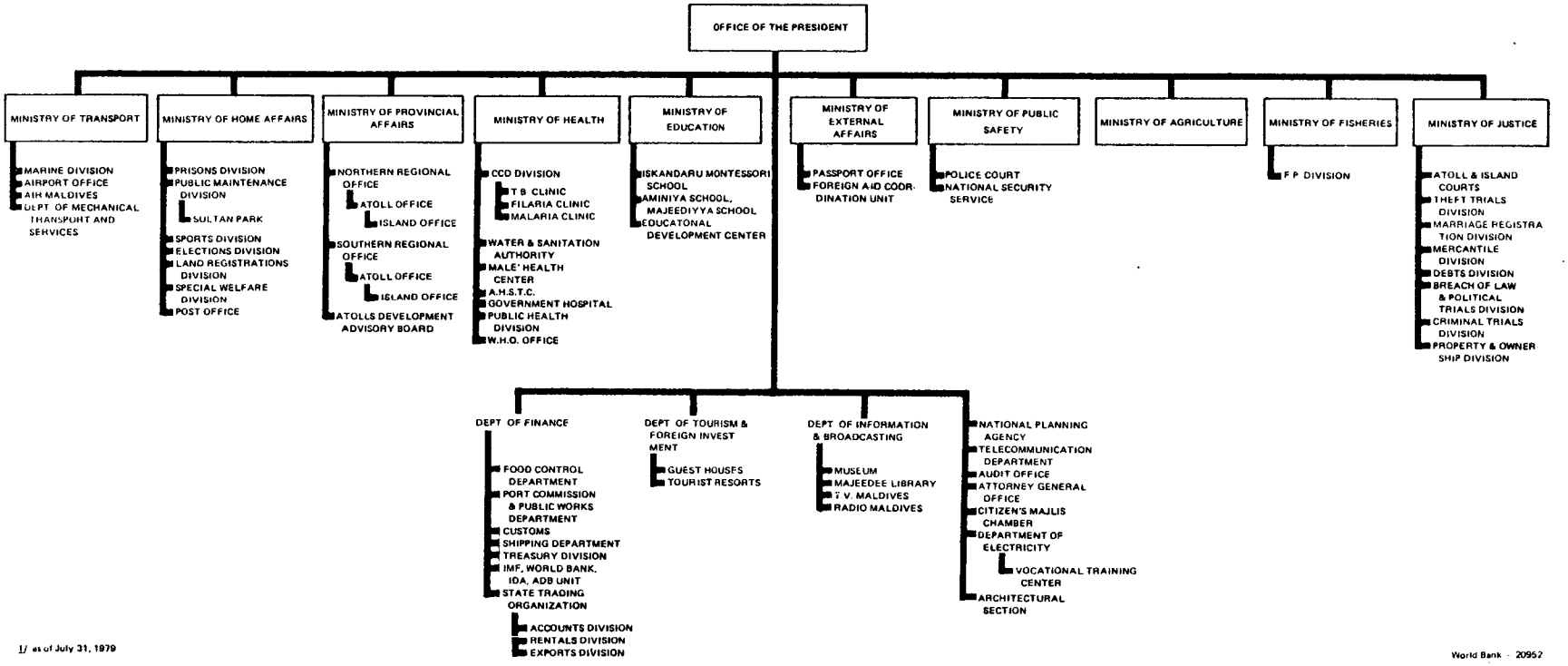
9.04 The primary thrust of technical assistance programs, however, must lie in the training of Maldivians. An essential first step is to identify training needs and to make these widely known to donors. The Maldives can rely much more heavily than it presently does on bilateral training programs in other developing countries where conditions are similar to the Maldives and where training costs are low. This would also reduce the risk of a brain drain.

Terms of Aid and Aid Coordination

9.05 Given the country's severe resource constraints and its level of development, donors should attempt to provide aid on grant or near grant terms. This is essential if debt service ratios are not to rise sharply with a sizable increase in commitments. Donors should also be prepared to finance a substantial portion of total project costs.

9.06 The recent establishment of a Foreign Aid Coordination Unit (FACU) in the Ministry of External Affairs is an effort to discourage individual line ministries from dealing directly with donor agencies and to ensure coordination in the Government's approach to external assistance. This is a welcome development. The unit's first priority must be to develop a historical data series on aid commitments and disbursements by source and type of aid and to establish a reporting procedure for the line ministries. This is not only to ensure that it remains abreast of the overall aid situation, but also to provide information on activities of all donors to prevent needless duplication of effort. FACU's activities will need to be closely integrated with NPA's to ensure adequate donor support both for the planning exercise and for individual projects identified by the exercise.

MALDIVES
STRUCTURE OF THE GOVERNMENT 1/



1/ as of July 31, 1979

MALDIVIAN STATISTICS

Introduction

1. Under the auspices of the UN Economic Commission for Asia and the Far East (ECAFE), three Advisory Services Reports were prepared on the development of statistical services in the Maldives following visits to the Maldives by Mr. S. G. Tiwari, the ECAFE regional adviser on national accounts, in October-November 1972, in June 1974, and in August 1976. The reports identified major gaps in the statistical data collection system. They also made recommendations for the reorganization of government financial statistics and for setting up an institutional framework within which existing and to-be-created data flows would be collected, analyzed, and processed as part of a necessary economic evaluation and development planning effort. Since 1976, major improvements have been made in the collection of statistics. The most important step forward took the form of a comprehensive census, held at the end of 1977. But there still remain areas of economic activity on which no statistical information is available, or where data collection is irregular. Nor is there as yet an effective central statistical office for the coordination of data collection, and the interpretation of available figures.

Outline of Basic Statistical Requirements

2. The three UN ECAFE Advisory Services reports prepared by Mr. S. G. Tiwari, on which this summary is largely based, outline the main areas for improvement of statistical services in the Maldives. The 1972 report suggested that the statistical framework should be built up to provide basic data on the following subjects. 1/

(a) Population and Manpower. The 1977 census has enormously improved the population data base. However, the age-sex-specific data appear to be unsatisfactory. The census provides a static picture of employment and unemployment levels in 1977. This now needs to be supplemented through regular surveys.

(b) Agriculture, Forestry, and Fishing. Although fishing statistics have developed rapidly and are now fairly comprehensive, detailed data on operating costs, local marketing and prices are needed. Records of agricultural production, including output from household plots, cultivated areas, yields, marketing patterns, and prices are unsatisfactory or non-existent.

1/ Based on Report on Nature and Status of Current Statistics and Type of Institutional Machinery Necessary for Development of Statistics in the Republic of Maldives (October 25-November 23, 1972).

(c) Mining, Manufacturing, Construction, and Public Utilities (electricity and water supply). Neither manufacturing nor construction activities are statistically monitored except for employment figures provided by the census. Handicrafts output used to be recorded by island chiefs, but these figures are no longer available. There are no time series for the number and type of private buildings constructed, although the Census provides data on the existing volume and standard of housing. Ancillary data, relating to coral quarrying and lime production, for example, are also lacking. Information on the value of public sector construction expenditure is only available by "culling" it out of individual ministries' or departments' budgets. The informal nature of the water supply system has prevented a statistical evaluation of the service. Comprehensive data are available on generation and sale of electricity, the consumption and the provision of electricity services in Male, but no data are collected for electricity generated in other islands and in tourist resorts.

(d) Wholesale and Retail Trade; Restaurants and Hotels. Apart from import and export data, no information is available on local wholesale and retail sales and stocks, or the real value of entrepot trade. Local restaurant trade also goes unrecorded except for census employment data. The tourist resorts, however, provided figures for 1978/79 from which value-added totals could be estimated although the industry's own employment figures were more than double those given by the census.

(e) Transport, Storage, and Communications. Certain operational statistics are collected through the registration of boats, cycles and road vehicles; there are Census employment data for water transport, but there is no information on volume of traffic or on value added except for telecommunications services.

(f) Education, Health and Social, and Other Community Services. Information is collected by the ministries concerned and by foreign aid agencies. There is a need for greater coordination and better data relating to the atolls.

(g) External Trade and Tourism. External trade statistics have improved steadily and are now available in broad SITC categories, divided between public sector (STO) and private trade. More detailed commodity breakdowns are needed as well as better data on entrepot trade and on the country of origin of imports. Due to particular efforts made by DTFI and tourist resorts on behalf of the Mission, detailed information on resort operations in 1978/79 was produced. DTFI should try to keep up the statistical effort and improve data on tourist arrivals and average length of stay.

(h) Money and Banking, Finance, and Balance of Payments. In preparation for the setting up of a Monetary Authority data are now collected regularly relating to currency issued and the commercial banks' balance sheets. Balance of payments statistics have to be compiled from various sources including budget figures as there is no central monitoring of external payments yet. Data relating to past aid inflows is patchy and not centrally monitored. Foreign exchange holdings other than those with STO and the banks are unrecorded. The commercial banks are also not required to report systematically on transactions related to the balance of payments.

(i) Government. Existing budget data are incomplete in that they exclude (a) special budget votes introduced in the course of the financial year, and (b) STO revenues and expenditures. Economic and functional classifications of expenditure of Government (both Central Government and in the atolls) are also needed. As all the data are available in Government documents, this classification should be attempted on a priority basis. The exercise was attempted for the 1972 budget 1/, but has not been repeated.

(j) Personal Income, Expenditure, and Housing. No data exist in this field. They would need to be collected through sample surveys with the help of a trained field agency.

(k) Prices. The Department of Finance currently collects prices for a number of commodities sold on the market in Male. Until a sample survey reveals the structure of personal expenditure in Male and the atolls, the significance of this exercise is limited. Even so, it could provide a useful indicator of price trends if the exercise were made more systematic as to the exact quality and volume of the goods covered and the timing of each enquiry.

(l) Domestic Product, Investment, and Savings; and

(m) Distribution of Income, Consumption, and Wealth are not covered by available statistical data. The IBRD mission made certain very tentative estimates, but the compilation of national accounts data essential for future economic and social policy formation can only be done after adequate sectoral, sample survey, wage, and price data collection mechanisms have been put in place.

1/ UN ECAFE Report on Analysis of Government Transactions, Current Flow of Statistics and Institutional Arrangements for Economic and Social Development in the Republic of Maldives (June 12 to 29, 1974) by S.G. Tiwari.

3. As a first step, the UN ECAFE expert's report recommended setting up a Department of Statistics in the Ministry of Finance 1/ and preparing a Statistics Bill for approval by the Majlis. This recommendation has been followed up in the form of a proposed UNDP project 2/ to establish a Department of Statistics in the newly created NPA. The project commenced late in 1979 and will provide technical assistance through secondment of statistical experts to the NPA and training facilities for Maldivian statistical staff. Priority is to be given to the development of balance of payments and tourism statistics and to the physical compilation of a statistical abstract for 1980. The new MMA should also generate adequate data on money and banking, and foreign exchange transactions.

4. The following areas appear to be of high priority:

(a) the Government's own statistics relating to budget revenues and expenditures and the accounts of Government agencies and enterprises classified according to economic and to functional purposes;

(b) detailed production and marketing statistics for the primary sectors, agriculture and fishing, with particular reference to the area, production and distribution of household plots, and the fishing industry's local (as opposed to export) operations; and

(c) data on aid inflows needs to be systematically collected to facilitate aid coordination and enable forward planning of aid requirements.

1/ UN ECAFE Report on Public Enterprise Statistics and Preliminary Institutional Arrangements for the Development of Statistics in the Republic of Maldives (August 7 to 26, 1976), by S.G. Tiwari.

2/ UNDP Project Number MDV/78/001/A/01/01.

INFRASTRUCTURE OF GAN ISLAND

Background

1. The Government of the Maldives is seeking foreign investment participation in the development of tourism and light industries on Gan and other neighboring islands. Gan is the southernmost of over a thousand islands that make up the Maldivian archipelago. It was used as a British air base during World War II and again between the mid-1950s and 1976. At its height of activity, the base employed 1,200 workers, many of them skilled or semiskilled, having been trained on the base. The base was closed in 1976, and all but 60 maintenance workers left the island where there was no alternative employment. They settled in neighboring islands or atolls, or moved to the capital, Male, 280 miles north. Gan could play a key role in a new regional development plan for the southern atolls. The Government also subscribes to the Indian Ocean Zone of Peace policy and despite approaches from various governments, does not want the island redeveloped in a way that might have military implications. The Government paid for advertisements in various regional publications seeking to draw investors' attention to the island's potential. During 1978/79, 12 investor groups showed enough interest to make the trip to the Maldives and the two-hour flight from Male to Gan. Only two serious proposals have come out of this, which were still being finalized at the time of writing. On the Maldivian side, Gan development is being handled jointly by the Gan Island Improvement Committee (with representatives from several ministries) and DTFI. The final say rests with the President, in consultation also with the management of MSL in Singapore, which initiated the advertising effort.

Facilities Available

2. The airstrip which is 8,700 ft. long and 150 ft wide is in good condition. It could be extended 5,000 ft. by filling in a shallow water area inside the reef. The runway strength is registered at No. 70 on the international scale and can handle any weight of modern aircraft. The aircraft servicing area is 1,900 ft. long and 405 ft. wide. The airfield ground lighting system is that of a Category A.2 RAF station. There are no hangars.

3. Port facilities consist of two jetties. The concrete off-loading jetty is 408 ft. long, 43 ft. wide and can handle ships drawing 15 ft. The steel-built fuel jetty was used for off-loading tankers. It has a reinforced concrete platform at the jetty head is 392 ft. long and 8 ft. wide.

4. The bulk fuel storage area consists of six large tanks and six slop tanks capable of storing over two million gallons of products. The tanks have been maintained, and the distribution system is in working order as are the generators in the powerhouse and cooling compressors.

5. The roads are either paved tarmac or compacted coral. There are four miles of main tarmac roads around the technical and domestic areas of the base and six miles of infrequently used secondary coral roads situated mainly on the south side of the island.

6. The main powerhouse has six Crossley diesel two-stroke engines Type MSN8, each having a normal full load rating of 520 kW. These are down-rated at Gan to 450 kW (220 V/250 V). These generators are ready for use when required. A good stock of spare parts is held in the powerhouse. Power is generated at 3,300 Volts and fed into a ring main with 11 transformer distribution cubicles to step down the voltage.

7. The fresh water supply system consists of two high-level tanks with total capacity of 80,000 gallons. Water to these tanks is pumped from two wells situated about 600 yards from the tanks. The wells and pump houses are located in the center of a well-cleared area and have been properly maintained.

8. Sewage is piped from groups of buildings to sewage ejector stations and discharged into a common main which is taken over the reef on the south side of the island. The untreated sewage is discharged into the open sea, some 2,500 ft. from the shore line.

9. The 330 buildings on the island are typical of an air base: 76 barrack buildings, officers' quarters, VIP quarters, a guest house, and staff workers' quarters, in all capable of accommodating over 1,000 people. In addition there are eight messes equipped with hotplates, boiling pans, fish fryers, water heaters, ovens, coffee machines, potato-peeling machines, and waste food disposal machines, and three cold stores (15 separate rooms) fitted with individual compressors and cooling plants in working order. Other buildings include four club houses (two social, a golf and sailing club, all with bars), a church and mosque, a 200-seat cinema, an 80-bed hospital, bakery, dairy, and machine, welding, and carpentry shops (the latter complete with all equipment).

10. Sports facilities available include a gymnasium, three tennis courts, one 18-hole golf course, a squash court and a sea-water swimming pool. The cricket, hockey, rugby and football pitches, and the golf course are thickly overgrown as there are no grass-cutting machines left on the island. Scuba diving along the reef is superb and so is the sailing; close-by islands offer lovely beaches; those on Gan itself are very small. The island has considerable potential by itself and as the center of a new tourism region.

ONGOING AND PROSPECTIVE PROJECT ACTIVITIES

I. ONGOING PROJECTS

1. Hulule Airport

Executing Agency:	Hulule Airport Construction Project Unit, Office of the President
Status:	International Airport Authority of India hired as contractors on turnkey basis for runway construction; Standard Electric Lorenz, West Germany, hired as contractors for telecommunications and navigational aids. Completion date August 1980.
Est. Cost (US$M equivalent):	20.0
External Assistance:	Kuwait Fund Saudi Fund Abu Dhabi OPEC Special Fund UNDP and ICAO
Project Description:	Runway demolition and reconstruction to permit use by Boeing 707, plus new parking apron, terminal building and tower installation of telecommunication, meteorological and navigational aids; operational and maintenance training.

2. Male Land Reclamation

Executing Agency:	Department of Public Works, Office of President
Status:	Begun April 1979; completion due April 1981
Est. Cost (US$M equivalent):	2.7
External Assistance:	None

Project Description:	Reclaming about 14.7 acres of land within the western and southern breakwater at an average depth of 5 feet; extension of retaining wall of about 11,000 feet; estimated to provide area sufficient for settlement of about 2,000 people on lots of 40 x 50 feet; provision of other settlement services not included.

3. Fisheries

Executing Agency:	Ministry of Fisheries
Status:	IDA Credit effective August, 1979; technical assistance initiated October 1979; completion due August 1981
Est. Cost (US$M equivalent):	3.9
External Assistance:	IDA 3.2 UNDP 0.3
Project Description:	Provision of credit for mechanization of about 500 sailing fishing vessels, and finances establishment of five maintenance and repair centers and installation of aids to navigation; technical assistance to implement short-term training programs for skippers and master fishermen on improved fishing techniques for mechanized vessels and to design improvements to existing vessels and test longer-range vessels.

4. Special Atoll Vote

Executing Agency:	Ministry of Provincial Affairs
Status:	Three-year program voted mid-1979; activities to be implemented by line agencies
Est. Cost (US$M equivalent):	1.9
External Assistance:	None

Project Description:	Improvement to basic infrastructure on islands, including construction of about 70 new mosques, improvements to harbors and breakwaters, aid to island schools, and supplemental financing for additional staff for atoll offices and island courts.

5. Water Supply, Sanitation and Health

Executing Agency:	Water and Sanitation Board (WSB), Ministry of Health
Status:	Ongoing programs supported by UN agencies
Est. Cost (US$M equivalent):	1979-81 programs shown below
External Assistance:	UNCDF - 1.57 (1980 only) WHO/UNDP - 0.20 UNICEF - 1.0
Project Description:	Technical assistance, institutional support, training, and provision of supplies to WSB to provide for chlorination of wells and building of rainwater collectors; UNICEF program includes US$0.9 million equivalent program for Male, which it administers on behalf of UK. UNCDF activities will be focused on islands not covered by other UNICEF programs, financing rain water tanks and latrines on 30 islands and Male, and health centers in 15 atolls.

6. Health Services

Executing Agency:	Ministry of Health
Status:	Ongoing programs supported by UN agencies
Est. Cost (US$M equivalent):	1979-81 programs shown below
External Assistance:	WHO/UNDP - 0.74 UNICEF - 0.28

Project Description:	Technical assistance, institutional support, training, provision of medical supplies, construction of facilities, and direct support of communicable disease programs; support for a pilot project on primary health care, local training programs for auxiliary health workers; construction of four regional hospitals; overseas fellowship for training of medical personnel.

7. Science Education Center

Executing Agency:	Ministry of Education
Status:	Science block completed; courses underway
Est. Cost (US$M equivalent):	1979-81 programs shown below; Educational Fund till 1979 and regular Government budget contributions from 1980 onwards.
External Assistance:	Kuwait-$0.18 for lab construction; UNESCO/UNDP $1.03 including Education Development Center, for 1977-81 period of which actual expenditures, through 1978, $0.44.
Project Description:	Provision of facilities, supplies, and teachers to establish a program for post secondary students to study science and arts subjects to A-levels.

8. Education Development Center

Executing Agency:	Ministry of Education.
Status:	Ongoing programs; first school opened February 1978
Est. Cost (US$M equivalent):	1979-81 programs shown below; Educational Fund; expenses till 1979 MR 186,500. Estimated 1980 expenses MR 762,000.

External Assistance:

UNICEF - 0.45
Japan - 1.0
Atoll Vote - 0.13
UNESCO/UNDP - 1.03 (including Science Education Center for 1977-81 period, with disbursements through 1978 totalling 0.44).

Project Description:

Establishment of community schools on islands, including development of curriculum and materials for primary education, training of teachers and headmasters, production of materials, and construction of school complexes; development of community and nonformal education programs for youths and adults; preparation of radio programs.

9. Vocational Training Center

Executing Agency:

Electricity Department, Office of President

Status:

Initiated May 1975, four courses underway

Est. Cost (US$M equivalent):

1979-81 agency support shown below

External Assistance:

ILO/UNDP - 0.45

Project Description:

Establishment of a vocational training center in Maldives to provide basic engineering training at shop-instructors level and job-entry level for four trades--electricity, diesel engine maintenance, machine shop, and welding/sheet metal work; construction of facility and supply of materials, training of counterpart staff, and provision of instructors.

10. National Planning and Statistical Development

Executing Agency:

National Planning Agency, Office of President

Status:

Initiated mid-1979

Est. Cost (US$M equivalent):	Not available
External Assistance:	UNDP/Adviser - 0.07 (tentative 1979 budget only) UNDP - 0.12 (Statistical Unit) Asian Development Bank TA - 0.17
Project Description:	Technical assistance, training, and sector/project identification work to assist in establishment of the NPA and the undertaking of formal planning exercises. Establishment of a Statistical Department.

11. Radio Service

Executing Agency:	Radio Maldives, Department of Information and Broadcasting
Status:	Feasibility studies prepared by consultants under Australian aid
Est. Cost (US$M equivalent):	Not available
External Assistance:	Australia
Project Description:	Provision of two 5 KW transmitters, rearrangement of HF aerial farm; provision of studio equipment, and rationalization of power distribution; low-powered transmitting stations in each atoll as part of microwave transmitters in no. 5 above; training of staff, provision of experts

12. Rodent Control

Executing Agency:	Ministry of Agriculture
Status:	Pilot program being prepared and implemented with FAO assistance
Est. Cost (US$M equivalent):	Not available
External Assistance:	FAO/TCP
Project Description:	Systematic, country-wide rodent eradication program, based on rodenticides and better management practices in coconut plantations.

II. PROSPECTIVE PROJECTS

1. Male Water Supply

Executing Agency:	Maldives Water and Sanitation Authority (MWSA), Ministry of Health
Status:	Feasibility studies prepared by consultants under UNDP funding.
Est. Cost (US$M equivalent):	4.5 (1974 prices)
External Assistance:	Federal Republic of Germany; funds approved for 1980, but final approval for project involving DM 20 million assistance awaited.
Project Description:	Provision of roof area catchments and rainwater collecting tanks for drinking water supply; does not include sanitation improvements estimated to cost (1974 prices) about $4.2 million for full sewerage or $3.1 million for aqua-privies with tanks. German authorities may revise project content in consultation with the Government.

2. Male Harbor

Executing Agency:	Ports Commission/Department of Public Works, Office of President
Status:	Feasibility study prepared by UK/ODA sponsored consultants
Est. Cost (US$M equivalent):	3.2
External Assistance:	Under discussion with UK Government
Project Description:	Rearmoring and realigning existing breakwater to inner harbor, provision of deep-water berth for vessels up to 12,000 GRT with cargo transfer wharf and warehouses; dredging of inner harbor for commercial, fishing, inter-island, tourist, and coral boat

	use; provision of workshops and slipway for vessels up to 100 tons.

3. Male Power Distribution

Executing Agency:	Electricity Department, Office of President
Status:	Feasibility Study prepared February 1979
Est. Cost (US$M equivalent):	1.0
External Assistance:	Undetermined
Project Description:	Upgrading and extending existing electricity distribution system by converting to 6.6 KV and construction of one 6.6 KV ring main transmission network (with power supplies at both ends, eleven secondary substations, appropriate switchgears, transformers, and overhead spurlines), low-tension distribution network, equipment, tools and spares, and professional services to manage the construction.

4. Male Roads

Executing Agency:	Department of Public Works, Office of President
Status:	Feasibility study prepared by consultant in February 1977
Est. Cost (US$M equivalent):	1.2
External Assistance:	Undetermined
Project Description:	Tarring of about six miles of roads, including construction of appropriate subgrade, with storm water gratings and catch pits at every 80 to 100 feet, and sidewalk and curb over the sidewalls of the drains.

5. Inter-Atoll Communication

Executing Agency:	TCD, Office of President
Status:	Feasibility study prepared by consultants
Est. Cost (US$M equivalent):	3.5 for Phase I; no estimate available for Phase II.
External Assistance:	Undetermined
Project Description:	Phase I - provision of inter-atoll telephone and telex facilities by a multichannel, microwave transmitter in Male, with repeaters and solar panels for power supply at appropriate places in each atoll; Phase II - linking of islands in each atoll via VHF/UHF transceivers.

6. Inter-Island Transport and Telecommunciations

Executing Agency:	Ministry of Transport
Status:	Technical Assistance for project preparation funded by ADB; consultants draft report expected in February 1980.
Est. Cost (US$M equivalent):	10.0 (approximate), though still undetermined.
External Assistance:	Undetermined
Project Description:	Provision of a few motorized passenger/cargo vessels suitably fitted with navigation and telecommunications equipment to provide regular inter-island service; improvement of landing/shore and maintenance facilities at ports of call; navigational aids and weather forecasting services; improvement of inter-island and marine communications.

7. Integrated Rural Development

Executing Agency:	Ministry of Provincial Affairs
Status:	Pilot project under preparation by ESCAP
Est. Cost (US$M equivalent):	Not available
External Assistance:	Undetermined
Project Description:	Benchmark survey and preparation of an integrated development plan for one atoll; components could include cooperative ventures for fishermen, handicrafts, women's clubs and youth activities, continuing non-formal education via community schools, health services, fuelwood production, rodent control, fruits and vegetables, and poultry; after pilot programs and administrative mechanisms are tested, similar programs could be launched in additional atolls.

8. Materials Production for Community Schools

Executing Agency:	Education Development Center, Ministry of Education.
Status:	Curriculum for grade one completed; materials for succeeding four years will be introduced in stages.
Est. Cost (US$M equivalent):	0.1
External Assistance:	Government actively seeking assistance.
Project Description:	Printing of materials developed by EDC for island schools to be made available to the entire primary school going age population; curriculum to be developed to be relevant to island society and include Dhivehi, environmental studies, religion, mathematics, and English.

9. Trade Information Services

Executing Agency:	STO, Office of President
Status:	Plans under preparation
Est. Cost (US$M equivalent):	$20,500 (1979-81)
External Assistance:	UNDP/UNCTAD International Trade Center/ESCAP
Project Description:	Establishment of a small information unit to gather trade information for major commodity purchases, with associated training in international tendering and trade promotion. Mainly equipment and some technical assistance.

10. Fish Collection and Processing

Executing Agency:	Ministry of Fisheries
Status:	Consultants' feasibility report February 1978; preparation report for initial investments due February 1980
Est. Cost (US$M equivalent):	15.0-20.0
External Assistance:	Kuwait Fund financing preparation activities; scope of final investment proposals likely to require additional external assistance.
Project Description:	Collection and marketing infrastructure for fishing operations in the southern one-third of the country; fuel distribution.

11. Gan Island Development

Executing Agency:	DTFI, Office of President; Gan Committee, Ministry of Provincial Affairs
Status:	See Annex C

12. Technical Services - Hulule Airport

Executing Agency:	Ministry of Transport
Status:	Proposal under preparation with assistance from ICAO.
Est. Cost (US$M equivalent):	Not available
External Assistance:	UNDP/ICAO/WMO
Project Description:	Training of staff and provision of equipment to be able to provide complete weather forecasting and radar control work for airline service to Maldives; due to unforeseen difficulties, this service, which was originally assumed to be provided by the Colombo, Sri Lanka airport, will need to be provided at Male airport.

13. Sports Training

Executing Agency:	Ministry of Home Affairs
Status:	Under preparation
Est. Cost (US$M equivalent):	Not available.
External Assistance:	Undetermined
Project Description:	Four coaches to build sports programs in schools and with local teams, including football, volleyball, tabletennis, basketball, and badminton; training of local instructors, referees, and umpires.

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STATISTICAL APPENDIX

Table No.

1.1 Distribution of the Population, 1967-77
1.2 Population and Households by Atolls and by Sex in 1977
1.3 Population by 5-Year Age Groups, Sex and Location
1.4 Population in Islands by Size, Class of Island and Sex
1.5 Immigrant and Permanently Resident Populations of Male and the Atolls in 1977
1.6 Immigrant Population of Male by Atoll of Origin, 1977
1.7 Employment in Government and Private Sectors by Industry, Primary Occupations and Sex in 1977
1.8 Employment in Government and Private Sectors by Main Occupation, Location and Sex in 1977
1.9 Population, Employment and Unemployment by Atoll in 1977
1.10 Age-Sex Specific Labor Force Participation Rates in 1977
1.11 Composition of Unemployment by Age, Sex and Location, 1977
1.12 Unemployment Rates by Age, Sex and Location

2.1 Gross Domestic Product by Expenditure: Preliminary Estimates
2.2 Gross Domestic Product: Preliminary Estimates of Output by Sector of Production in 1978

3.1 Balance of Payments on Goods and Services Account
3.2 Composition of Exports, 1974-79
3.3 Exports by Country of Destination
3.4 Composition of Imports by End Use, 1974-79
3.5 Unit Values for Selected Exports and Imports, 1974-79
3.6 Price and Quantum Indices for Selected Exports and Imports, 1974-78
3.7 Imports from OECD Member Countries, 1976-78
3.8 Flow of Official Development Assistance to the Maldives, 1974-77
3.9 UN Agencies' Programs

4.1 External Public Debt outstanding including Undisbursed as of December 31, 1979
4.2 Service Payments, Commitments, Disbursements and Outstanding Amounts of External Public Debt

5.1 Summary of Budgetary Operations, 1974-79
5.2 Selected Sources of Budgetary Revenue, 1978-79
5.3 Budgetary Expenditures of the Government by Spending Authority, 1977-79

6.1 Monetary Survey, 1976-79
6.2 Assets and Liabilities of Commercial Banks, 1976-79

STATISTICAL APPENDIX (continuation)

Table No.

7.1 Production, Exports and Local Consumption of Fish, 1967-78
7.2 Fish Landings, Classified by Atoll, 1977-78
7.3 Average Number of Fishing Days per Atoll and Number of Vessels Registered by Atoll, 1974-78
7.4 Purchases of Fish by Foreign Companies, 1974-79 and Implied Tax Burden on Fishermen
7.5 Distribution of Cultivated Area in the Atolls
7.6 Size Distribution of Cultivable Land on Islands
7.7 Agricultural Production, 1972-78
7.8 Lessees of Unoccupied Islands, Classified by Atoll of Residence, 1979
7.9 Cultivable Area, Fish Landings and Indicative Income Distribution from Fishing by Atolls in 1977/78
7.10 Rents Received from Unoccupied Islands, 1979

8.1 Tourist Resort Capacity, 1973-79
8.2 Tourist Resort Operations in July 1979
8.3 Tourism Earnings and Expenditures in 1978
8.4 Estimated Tax Receipts from Tourism, 1980-85
8.5 Annual Demand for Selected Foods by Tourist Industry
8.6 Maldives Shipping Limited - Fleet Particulars
8.7 Maldives Shipping Limited - Vessel Operations
8.8 Maldives Shipping Limited - Income Statement
8.9 Male Port

9.1 Structure of Government Wages and Salaries, July 1979
9.2 Retail Prices of Selected Commodities, 1975-79

10.1 Average Monthly Maximum and Minimum Temperature and Rainfall and Rainy Days, Recorded at Hulule Airport
10.2 Female Population, by Marital Status and Number of Marriages, Classified by Age Group
10.3 Per Capita Availability and Distribution of Essential Commodities by State Trading Organization
10.4 Literacy by Age, Sex and Location
10.5 Educational Attainment by Age, Sex and Location
10.6 Current School Attendance by Age, Grade, Sex and Location
10.7 Quality of Housing
10.8 Health Indicators, 1977-79

Table 1.1: DISTRIBUTION OF THE POPULATION, 1967-77[/a]

	1967			1972[/b]			1977		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	103,801	55,346	48,455	122,673	64,924	57,749	142,832	75,224	67,608
Male	11,760	6,141	5,619	15,279	7,831	7,448	29,522	16,635	12,887
Atolls, except Male	92,041	49,205	42,836	106,933	56,834	50,099	113,310	58,589	54,721
Haa Alifu	7,148	3,742	3,406	8,361	4,412	3,949	8,601	4,416	4,185
Haa Dhaalu	8,386	4,425	3,961	9,282	4,924	4,358	9,923	5,133	4,790
Shaviyani	4,892	2,602	2,290	5,805	3,116	2,689	6,363	3,293	3,070
Noonu	5,187	2,818	2,369	5,919	3,198	2,721	6,282	3,306	2,976
Raa	6,743	3,607	3,136	7,803	4,172	3,631	7,904	4,076	3,828
Baa	4,605	2,568	2,037	5,191	2,797	2,394	5,758	3,080	2,678
Lhaviyani	5,245	2,904	2,341	5,828	3,159	2,669	5,655	2,977	2,678
Kaafu	3,033	1,679	1,354	3,512	1,903	1,609	4,153	2,258	1,895
Alifu	4,731	2,617	2,114	5,470	2,975	2,495	6,219	3,365	2,854
Vaavu	818	452	366	931	519	412	1,078	595	483
Meemu	2,559	1,392	1,167	3,066	1,630	1,436	3,095	1,610	1,485
Faafu	1,498	835	663	1,692	900	792	1,986	1,070	916
Dhaalu	2,695	1,497	1,198	3,076	1,659	1,417	2,999	1,538	1,461
Thaa	5,534	2,922	2,612	6,409	3,346	3,063	6,214	3,174	3,040
Laamu	4,721	2,548	2,173	5,350	2,896	2,454	6,090	3,232	2,858
Gaaf Alif	4,128	2,113	2,015	4,817	2,490	2,327	4,977	2,572	2,405
Gaafu Dhaalu	6,612	3,351	3,261	7,815	4,002	3,813	7,717	3,805	3,912
Gnaviyani	3,405	1,819	1,586	3,987	2,120	1,867	4,202	2,128	2,074
Seenu	10,101	5,314	4,787	12,619	6,616	6,003	14,094	6,961	7,133

/a The 1977 population data for Male and for the individual atolls is not strictly comparable with earlier census data both to the poor quality of the earlier data and differences in methodology.

/b The regional population totals for 1972 do not add up to the national population totals for reasons which are not known.

Sources: Census, 1967, 1972, 1977.

Table 1.2: POPULATION AND HOUSEHOLDS BY ATOLLS AND BY SEX IN 1977

	Islands (Numbers)				Population (Numbers)				
	All Islands	Inhabited Islands	Uninhabited Islands	No. of Households	Both Sexes	Male	Female	Average Population Per Island	Average Population of Inhabited Islands
Haa Alifu	40	16	24	1,487	8,601	4,416	4,185	215.0	537.6
Haa Dhaalu	37	17	20	1,878	9,923	5,133	4,790	268.2	583.7
Shaviyani	55	15	40	1,201	6,363	3,293	3,070	115.7	424.2
Noonu	76	14	62	1,116	6,282	3,306	2,976	82.7	448.7
Raa	90	16	74	1,454	7,904	4,076	3,828	87.8	494.0
Baa	80	13	67	1,025	5,758	3,080	2,678	72.0	442.9
Lhaviyani	61	4	57	897	5,655	2,977	2,678	92.7	1,413.8
Kaafu	98	9	89	727	4,153	2,258	1,895	42.4	461.4
Alifu	79	18	61	1,104	6,219	3,365	2,854	78.7	345.5
Vaavu	19	5	14	176	1,078	595	483	56.7	215.6
Meemu	33	9	24	546	3,095	1,610	1,485	93.8	343.9
Faafu	26	5	21	309	1,986	1,070	916	76.4	397.2
Dhaalu	57	8	49	518	2,999	1,538	1,461	52.6	374.9
Thaa	68	13	55	961	6,214	3,174	3,040	91.4	478.0
Laamu	82	12	70	1,127	6,090	3,232	2,858	74.3	507.5
Gaaf Alif	87	10	77	1,008	4,977	2,572	2,405	57.2	497.7
Gaafu Dhaalu	158	10	148	1,560	7,717	3,805	3,912	48.8	771.7
Gnaviyani	1	1	-	762	4,202	2,128	2,074	4,202.0	4,202.0
Seenu	38	6	32	2,381	14,094	6,961	7,133	370.9	2,349.0
Male	1	1	-	3,053	29,522	16,635	12,887	29,522.0	29,522.0
Atolls, except Male	1,185	201	984	20,237	113,310	58,589	54,721	95.6	563.7
TOTAL	1,186	202	984	23,290	142,832	75,224	67,608	120.4	707.1

- Nil or negligible.

Source: Census, 1977.

Table 1.3: POPULATION BY 5-YEAR AGE GROUPS, SEX AND LOCATION

Age Group	Entire Republic			Atolls except Male			Male		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Under 1	4,866	2,439	2,427	4,157	2,074	2,083	709	365	344
Ages 1 - 4	18,971	9,640	9,331	15,886	8,019	7,867	3,085	1,621	1,464
Ages 5 - 9	21,783	11,052	10,731	18,199	9,208	8,991	3,584	1,844	1,740
Ages 10 - 14	18,126	9,409	8,717	14,411	7,504	6,907	3,715	1,905	1,810
Ages 15 - 19	16,240	8,173	8,067	11,985	5,985	6,000	4,255	2,188	2,067
Ages 20 - 24	11,684	5,958	5,726	8,440	4,016	4,424	3,244	1,942	1,302
Ages 25 - 29	7,472	3,973	3,499	5,324	2,628	2,696	2,148	1,345	803
Ages 30 - 34	7,291	3,664	3,627	5,375	2,509	2,866	1,916	1,155	761
Ages 35 - 39	8,426	4,317	4,109	6,617	3,245	3,372	1,809	1,072	737
Ages 40 - 44	7,665	4,252	3,413	6,256	3,396	2,860	1,409	856	553
Ages 45 - 49	6,073	3,621	2,452	5,066	3,015	2,051	1,007	606	401
Ages 50 - 54	4,609	2,644	1,965	3,787	2,138	1,649	822	506	316
Ages 55 - 59	3,069	1,831	1,238	2,538	1,512	1,026	531	319	212
Ages 60 - 64	2,573	1,532	1,041	2,143	1,262	881	372	212	160
Ages 65 - 69	1,440	932	508	1,252	813	439	188	119	69
Ages 70 - 74	1,006	663	343	859	570	289	147	93	54
Ages 75 - 79	441	324	117	376	275	101	65	49	16
Ages 80 - 84	217	150	67	188	131	57	29	19	10
Ages 85 and over	145	105	40	124	93	31	21	12	9
All Ages /a	142,832	75,224	67,608	113,310	58,589	54,721	29,522	16,635	12,887

/a Includes not stated.

Source: Census, 1977.

Table 1.4: POPULATION IN ISLANDS BY SIZE, CLASS OF ISLAND AND SEX

Number of Inhabitants	No. of Islands	Both Sexes	Sex	
			Male	Female
Less than 200	28	3,952	2,091	1,861
200 - 499	107	35,389	18,438	16,951
500 - 999	48	34,663	17,945	16,718
1,000 - 1,999	11	15,480	7,874	7,606
2,000 - 4,999	6	16,900	8,522	8,378
5,000 - 9,999	1	6,256	3,061	3,195
10,000 and Above	1	28,833	16,013	12,820
Total	202	142,832	75,224	67,608
Population Outside the Country	-	1,359	1,280	79
All Islands	202	141,473	73,944	67,529

- Nil or negligible

Source: Census, 1977.

Table 1.5: IMMIGRANT AND PERMANENTLY RESIDENT POPULATIONS OF MALE AND THE ATOLLS IN 1977
(Numbers and Percentages)

	Total Enumerated Population	Enumerated Population with No Other Residence	Net Immigrant Population	Immigrants As % of Total Population
Haa Alifu	8,601	8,399	202	2.3
Haa Dhaalu	9,923	9,309	614	6.2
Shaviyani	6,363	6,068	295	4.6
Noonu	6,282	6,034	248	3.9
Raa	7,904	7,726	178	2.3
Baa	5,758	5,507	251	4.4
Lhaviyani	5,655	5,482	173	3.1
Kaafu	4,153	3,922	231	5.6
Alifu	6,219	6,044	175	2.8
Vaavu	1,078	997	81	7.5
Meemu	3,095	2,973	122	3.9
Faafu	1,986	1,870	116	5.8
Dhaalu	2,999	2,904	95	3.2
Thaa	6,214	5,728	486	7.8
Laamu	6,090	5,615	475	7.8
Gaaf Alif	4,977	4,685	292	5.9
Gaafu Dhaalu	7,717	7,485	232	3.0
Gnaviyani	4,202	4,082	120	2.9
Seenu	14,094	13,261	833	5.9
Atolls except Male	113,310	108,091	5,219	4.6
Male	29,522	17,621	11,901	40.3
TOTAL	142,832	125,712	17,120	12.0

Source: Census, 1977.

Table 1.6: IMMIGRANT POPULATION OF MALE BY ATOLL OF ORIGIN, 1977

Immigrants from:	No.	Percentage of total
Haa Alifu	815	8.2
Haa Dhaalu	1,076	10.9
Shaviyani	287	2.9
Noonu	581	5.9
Raa	673	6.8
Baa	383	3.9
Lhaviyani	558	5.6
Kaafu	225	2.3
Alifu	461	4.7
Vaavu	86	0.9
Meemu	301	3.0
Faafu	97	1.0
Dhaalu	382	3.9
Thaa	934	9.4
Laamu	289	2.9
Gaaf Alif	392	4.0
Gaafu Dhaalu	1,195	12.1
Gnaviyani	212	2.1
Seenu	942	9.5
Total immigrants	9,889	100.0
Previous residence unknown or unstated	1,923	-
Permanently resident population	17,710	-
Total Population	29,522	-

- Nil or negligible

Source: Census, 1977.

Table 1.7: EMPLOYMENT IN GOVERNMENT AND PRIVATE SECTORS BY INDUSTRY, PRIMARY OCCUPATIONS AND SEX IN 1977

	Principal Occupation				
	Employed Population			Type of Employment	
	Total	Male	Female	Government	Private
Agriculture	6,347	2,970	3,377	29	6,318 /a
of which:					
Production of Cereal Crops	1,735	730	1,005	1	1,734
Production of Roots and Tubers	2,361	607	1,754	1	2,360
Toddy Tapping and Related Activities	1,253	1,170	83	1	1,252
Fishing	27,173	20,509	6,664	118	27,056
of which:					
Pole and Line Fishing	19,269	18,757	512	10	19,259
Services and Other Activities Related to Fishing	6,965	1,047	5,918	105	6,860
Manufacturing	13,851	2,927	10,924	34	13,817
of which:					
Coir and Coir Products	7,066	222	6,844	1	7,065
Cadjan, Mat and Other Textile Products	3,934	629	3,305	-	3,934
Structural Timbers, Furniture and Fixtures	1,205	1,195	10	11	1,194
Construction	1,885	1,834	51	491	1,394
of which:					
Housing and Other Buildings	979	959	20	26	953
Electricity, Water and Sanitary Services	209	206	3	133	76
Commerce and Banking	1,890	1,668	222	277	1,613
of which:					
Wholesale and Retail Trade	1,341	1,183	158	74	1,267
Banks and Other Financial Institutions	195	174	21	170	25
Transport, Storage and Communications	3,301	3,208	93	1,476	1,825
of which:					
Water Transport Not Connected with Tourism	2,336	2,315	21	882	1,454
Tourism	411	385	26	58	353
Services	4,823	3,375	1,448	2,228	2,595
of which:					
Public Administration and Defense	1,335	1,237	98	1,176	159
Education and Health	987	578	409	467	520
Personal Services	1,184	427	757	52	1,132
Total /a	60,259 /b	37,391	22,868	4,939	55,320

- Nil or negligible

/a Including others not stated.
/b Including 3,000 workers under the age of 15. Figures are not strictly comparable with those in Tables 1.9, 1.11, and 1.12.

Source: Preliminary Census, 1977 data.

Table 1.8: EMPLOYMENT IN GOVERNMENT AND PRIVATE SECTORS BY MAIN OCCUPATION, LOCATION AND SEX IN 1977

Occupation	Employed Population			Type of Employment		Location of Employment	
	Total	Male	Female	Government	Private /a	Male	Atolls
Professional, technical and related workers	982	674	308	380	602	477	505
of which:							
Engineers	45	45	-	16	29	25	20
Engineering technicians	152	151	1	79	73	115	37
Medical doctors	9	7	2	7	2	6	3
Medical technicians, public health workers, nurses and medical workers, n.e.s.	307	110	197	85	222	118	189
School teachers and administrators	295	199	96	72	223	130	165
Judges and related workers	103	103	-	91	12	23	80
Administrative, executive, managerial and clerical workers n.e.s.	1,479	1,146	333	1,166	313	1,238	241
Sales workers	1,605	1,394	211	52	1,553	970	635
Agricultural and animal husbandry workers and fishermen	33,168	23,202	9,966	42	33,126	542	32,626
of which:							
Farmers and farm laborers	4,704	1,640	3,064	3	4,701	15	4,689
Toddy tappers and related workers	1,236	1,153	83	2	1,234	15	1,221
Fishermen	19,936	19,385	551	7	19,929	418	19,518
Workers engaged in fish processing and exporting n.e.s.	6,290	440	5,850	27	6,263	23	6,267
Quarrymen and related workers	382	378	4	4	378	247	135
Transport workers	2,530	2,499	31	897	1,633	947	1,583
of which:							
Boatsmen and crew	2,054	2,033	21	678	1,376	602	1,452
Craftsmen and laborers	2,814	2,728	86	1,128	1,686	2,008	806
of which:							
Welders and related workers	51	51	-	21	30	43	8
Electricians and related workers	64	64	-	34	30	59	5
Bricklayers and reinforced concretors, tile and marble setters, and stove masons	988	970	18	36	952	454	534
Production workers n.e.s.	13,785	2,826	10,959	30	13,755	1,084	12,701
of which:							
Tailors and dressmakers	735	232	503	2	733	352	383
Carpenters and woodworkers	1,294	1,273	21	16	1,278	347	947
Service workers	3,056	2,148	908	1,121	1,935	1,616	1,440
of which:							
Policemen, security guards, watchmen and protective service workers n.e.s.	697	691	6	571	126	304	393
Cooks, waiters, maids and related workers	1,225	584	641	114	1,111	819	406
TOTAL /a	60,259 /b	37,391	22,868	4,939	55,320	9,426	50,833

- Nil or negligible

/a Including others not stated.

/b Including 3,000 workers under the age of 15. Figures are not strictly comparable with those in Tables 1.9, 1.11, and 1.12.

Source: Preliminary Census, 1977 data.

Table 1.9: POPULATION, EMPLOYMENT AND UNEMPLOYMENT BY ATOLL IN 1977
(Numbers and Percentages)

	Population		Labor Force/a		Employed		Unemployed		Unemployment as % of the labor force	Labor force as % of the population
	Numbers	%	Numbers	%	Numbers	%	Numbers	%		
Haa Alifu	8,601	6.0	3,608	5.9	3,395	5.9	213	6.0	5.9	42.0
Haa Dhaalu	9,923	7.0	4,584	7.5	4,496	7.8	88	2.5	1.9	46.2
Shaviyani	6,363	4.5	3,156	5.2	3,126	5.4	30	0.8	1.0	49.6
Noonu	6,282	4.4	2,756	4.5	2,676	4.7	80	2.3	2.9	43.9
Raa	7,904	5.5	4,010	6.6	3,936	6.9	74	2.1	1.8	50.7
Baa	5,758	4.0	2,676	4.4	2,605	4.5	71	2.0	2.7	46.5
Lhaviyani	5,655	4.0	2,487	4.1	2,419	4.2	68	1.9	2.7	44.0
Kaafu	4,153	2.9	1,589	2.6	1,451	2.5	138	3.9	8.7	38.3
Alifu	6,219	4.4	3,011	4.9	2,937	5.1	74	2.1	2.5	48.4
Vaavu	1,078	0.8	543	0.9	490	0.9	53	1.5	9.8	50.4
Meemu	3,095	2.2	1,554	2.6	1,534	2.7	20	0.6	1.3	50.2
Faafu	1,986	1.4	976	1.6	955	1.7	21	0.6	2.2	49.1
Dhaalu	2,999	2.1	1,199	2.0	1,154	2.0	45	1.3	3.8	40.0
Thaa	6,214	4.4	2,768	4.5	2,708	4.7	60	1.7	2.2	44.5
Laamu	6,090	4.3	2,737	4.5	2,588	4.5	149	4.2	5.4	44.9
Gaaf Alif	4,977	3.5	2,669	4.4	2,615	4.6	54	1.5	2.0	53.6
Gaafu Dhaalu	7,717	5.4	3,628	6.0	3,557	6.2	71	2.0	2.0	47.0
Gnaviyani	4,202	2.9	1,705	2.8	1,651	2.9	54	1.5	3.2	40.6
Seenu	14,094	9.9	4,308	7.1	3,812	6.6	496	14.0	11.5	30.6
Male	29,522	20.7	10,939	18.0	9,266	16.2	1,673	47.4	15.3	37.1
Atolls except Male	113,310	79.3	49,964	82.0	48,105	83.8	1,859	52.6	3.7	44.1
TOTAL	142,832	100.0	60,903	100.0	57,371	100.0	3,532	100.0	5.8	42.6

/a Economically active population 15 years of age and over.

Note: Due to rounding off, components may not add up to totals.

Source: Census, 1977.

Table 1.10: AGE-SEX SPECIFIC LABOR FORCE PARTICIPATION RATES IN 1977 /a

Age Group	1977 /b	
	Male	Female
10 - 14	32.7	19.9
15 - 19	78.0	52.2
20 - 24	93.4	62.1
25 - 29	95.0	64.7
30 - 34	95.7	64.8
35 - 39	96.5	70.7
40 - 44	96.8	71.9
45 - 49	97.0	73.3
50 - 54	95.5	68.1
55 - 59	93.8	61.5
60 - 64	87.5	52.3
65 - 69	80.5	40.6
70 - 74	64.1	34.1
75 +	41.6	24.1

/a Economically active population as a percentage of total population.
/b Including 3,000 workers under the age of 15. Figures are not strictly comparable with those in Tables 1.9, 1.11, and 1.12.

Source: Census, 1977.

Table 1.11: COMPOSITION OF UNEMPLOYMENT[/a] BY AGE, SEX AND LOCATION, 1977

Age Groups	Entire Republic		Atolls except Male		Male		Seenu Atoll	
	Unemployed	Percentage of Total	Unemployed	Percentage of Total	Unemployed	Percentage of Total	Unemployed	Percentage of Total
15 - 19								
Both Sexes	1,302	36.9	697	37.5	605	36.2	239	48.2
Male	968	27.4	475	25.6	493	29.5	211	42.5
Female	334	9.5	222	11.9	112	6.7	28	5.6
20 - 24								
Both Sexes	603	17.1	272	14.6	331	19.8	74	14.9
Male	420	11.9	161	8.7	259	15.5	54	10.9
Female	183	5.2	111	6.0	72	4.3	20	4.0
25 - 29								
Both Sexes	286	8.1	130	7.0	156	9.3	34	6.9
Male	192	5.4	70	3.8	122	7.3	24	4.8
Female	94	2.7	60	3.2	34	2.0	10	2.0
30 - 34								
Both Sexes	243	6.9	119	6.4	124	7.4	17	3.4
Male	141	4.0	62	3.3	79	4.7	11	2.2
Female	102	2.9	57	3.1	45	2.7	6	1.2
35 and above								
Both Sexes	1,098	31.1	641	34.5	457	27.3	132	26.6
Male	736	20.8	401	21.6	335	20.0	112	22.6
Female	362	10.2	240	12.9	122	7.3	20	4.0
Total (Both Sexes)	3,532	100.0	1,859	100.0	1,673	100.0	496	100.0

/a Unemployed as a percentage of total unemployed.

Note: Due to rounding off, components may not add to totals.

Source: Census, 1977.

Table 1.12: UNEMPLOYMENT RATES[/a] BY AGE, SEX AND LOCATION

AGE GROUPS	Entire Republic	Atolls Except Male	Male	Seenu Atoll
15 - 19				
Both Sexes	12.3	7.9	33.9	35.0
Male	15.2	9.5	35.4	41.9
Female	7.9	5.8	28.6	15.6
20 - 24				
Both Sexes	6.6	3.9	15.7	16.1
Male	7.5	4.2	14.8	19.5
Female	5.1	3.4	20.4	10.9
25 - 29				
Both Sexes	4.7	2.9	10.5	8.5
Male	5.1	2.8	9.7	9.2
Female	4.2	2.9	14.8	7.1
30 - 34				
Both Sexes	4.1	2.6	9.7	3.5
Male	4.0	2.6	7.3	4.2
Female	4.3	2.7	22.6	2.7
35 and above				
Both Sexes	3.8	2.6	10.7	5.8
Male	3.9	2.6	9.3	7.4
Female	3.6	2.5	17.6	2.6
Total				
Both Sexes	5.8	3.7	15.3	11.5
Male	6.4	4.0	14.2	14.6
Female	4.7	3.3	20.6	5.7

/a Unemployment as a percentage of economically active population.

Source: Census, 1977.

Table 2.1: GROSS DOMESTIC PRODUCT BY EXPENDITURE: PRELIMINARY ESTIMATES
(millions of Maldivian Rupees at 1978 prices)

	1974	1975	1976	1977	1978
Personal consumption expenditure	90.0	93.2	92.9	150.2 /a	103.0 /b
Gross private domestic investment	3.7	7.9	13.4	15.1	34.1 /b
Government consumption and investment	25.9	30.9	40.9	42.0	41.2
Gross Domestic Expenditure (GDX = C + I)	119.6	132.0	147.2	207.3	178.3
Exports of goods and non-factor services	70.0	55.2	71.9	92.2	137.8
Imports of goods and non-factor services	65.2	65.4	65.4	115.3	116.6
Resource Balance (RB = X - M)	+4.8	-10.2	+6.5	-23.1	+21.2
Gross Domestic Product (GDP = GDX + RB)	124.4	121.8	153.7	184.2	199.5
Net Factor Services (FSY)	22.5	13.7	13.1	16.7	7.3
Gross National Product at 1978 market prices (GDP + FSY)	146.9	135.5	166.8	200.9	206.8

/a The sharp increase over 1976 is due to an abnormal build-up of imported foodstocks.

/b Consumption and investment figures for 1978 are not strictly comparable to earlier years because they include imports by SITC groups which were not available for earlier years.

Source: Bank staff estimates.

Table 2.2: GROSS DOMESTIC PRODUCT: PRELIMINARY ESTIMATES OF OUTPUT BY SECTOR OF PRODUCTION IN 1978
(millions of Maldivian Rupees at 1978 market prices)

	1978	
	(MR million)	Percentage
Primary Production	79	39.7
Agriculture	3	1.5
Fishing	40	20.1
Non-monetary output n.i.e. /a	36	18.1
Secondary Production	12	6.0
Manufacturing /b	9	4.5
Construction /c	3	1.5
Public Utilities /d	-	-
Services	108	54.3
Wholesale and retail trade	32	16.1
Tourism	23	11.6
Transport	24	12.1
Banking	1	0.5
Real estate	3	1.5
Government	25	12.6
Gross Domestic Product	199	100.0

/a Including home consumption of unrecorded crop output, timber felling for boat building and fuel, smoking, salting, and drying of fish for local consumption, egg and poultry production, informal boat building, and water collection.
/b Mainly handicrafts.
/c Including coral quarrying.
/d Included under Government.

Source: Bank staff estimates.

Table 3.1: BALANCE OF PAYMENTS ON GOODS AND SERVICES ACCOUNT
(US$ million)

	1974			1975			1976			1977			1978		
	Credit	Debit	Balance	Credit	Debit	Balance	Credit	Debit	Balance	Credit	Debit	Balance	Credit	Debit	Balance
Merchandise	3.96	4.78	- 0.82	2.63	5.01	- 2.38	2.99	3.60	- 0.61	3.50	6.40	- 2.90	4.11	6.96	- 2.85
Entrepot Trade	1.53	1.33	+ 0.20	1.22	1.06	+ 0.16	1.51	1.32	+ 0.19	2.07	1.80	+ 0.27	5.51	4.80	+ 0.71
Shipment	-	0.68	- 0.68	-	0.68	- 0.68	-	0.55	- 0.55	-	0.91	- 0.91	-	1.31	- 1.31
Tourism	1.22	-	1.22	1.48	-	+ 1.48	2.19	-	+ 2.19	3.05	-	+ 3.05	5.78	-	+ 5.78
Official transactions	-	0.06	- 0.06	-	0.06	- 0.06	-	0.06	- 0.06	-	0.06	- 0.06	0.25	0.06	+ 0.19
Investment Income	2.68	-	+ 2.68	1.67	-	+ 1.67	1.56	-	+ 1.56	1.90	-	+ 1.90	1.02	0.04	+ 0.98
Emigrants' remittances	-	0.12	- 0.12	-	0.09	- 0.09	0.04	0.12	- 0.08	0.16	0.16	-	0.22	0.43	- 0.21
Balance	9.39	6.97	2.09	7.00	7.16	- 0.16	8.29	5.65	+2.64	11.02	9.33	+ 1.69	16.89	13.60	+ 3.29

- Nil or negligible

Source: Bank staff estimates.

Table 3.2: COMPOSITION OF EXPORTS, 1974-79

	(Metric Tons)						(In thousands of US dollars)					
	1974	1975	1976	1977	1978	1979 (Preliminary)	1974	1975	1976	1977	1978	1979 (Preliminary)
Exports by the STO	8,252	7,378	10,031	11,842	11,446	12,750	3,735	2,454	2,702	2,616	2,850	3,367
Dry skipjack	3,552	1,965	1,429	990	251	75	3,030	1,670	1,370	820	210	62
Fresh skipjack	4,652	5,362	8,587	10,787	10,673	12,646	700	780	1,330	1,780	2,540	3,288
Fresh fish (other)	48	51	15	57	511	10	5	4	2	6	90	2
Fresh lobsters	-	-	-	8	11	5	-	-	-	10	10	6
Salted dry fish	-	-	-	-	-	14	-	-	-	-	-	9
Exports by the private sector	420	186	100	827	1,693	2,044	230	84	271	854	1,243	1,218
Dry salted fish	273	15	63	756	1,566	1,937	100	5	20	310	670	850
Dry shark fins	8	3	8	20	25	20	30	10	110	310	340	146
Tortoise shells	6	4	6	6	2	5	80	40	140	210	50	86
Black ambergris	-	-	-	-	-	-	5	2		-	140	117
Cowrie shells	19	62	23	45	45	25	6	20	1	24	20	12
Red coral	46	26	-	-	17	44	4	3	-	-	3	5
Fish dust	48	76	-	-	-	13	4	4	-	-	-	2
Bone dust	20	-	-	-	-	-	1	-	-	-	-	-
Mica chips	-	-	-	-	38	..	-	-	-	-	20	..
Total	8,672	7,564	10,131	12,669	13,139	14,794	3,965	2,538	2,973	3,470	4,093	4,585

.. Not available.
- Nil or negligible.

Sources: Customs/Revenue Branch; Ministry of Fisheries.

Table 3.3: EXPORTS BY COUNTRY OF DESTINATION

	1978		1979 (Preliminary)	
	$'000	Percentage of Total	$'000	Percentage of Total
Japan	2,302	56.2	3,360	73.3
Sri Lanka	904	22.1	918	20.0
Singapore	665	16.2	159	3.5
Others	222	5.4	148	3.2
Total	4,093	100.0	4,585	100.0

- Nil or negligible.

Note: Due to rounding off, components may not add to totals.

Source: Customs/Revenue Branch.

Table 3.4: COMPOSITION OF IMPORTS BY END USE, 1974-79

	(In thousands of US dollars)						(As percentage of total imports)					
	1974	1975	1976	1977	1978	1979 (Preliminary)	1974	1975	1976	1977	1978	1979 (Preliminary)
Food	3,355	3,938	1,779	3,974	2,702	10,533	49.4	58.3	32.5	43.6	20.7	47.8
Rice	1,327	1,209	917	1,826	88	2,841	19.5	17.9	16.8	20.0	0.7	12.9
Wheat flour	760	861	163	634	560	996	11.2	12.8	3.0	7.0	4.3	4.5
Sugar	1,117	1,470	259	970	854	1,058	16.5	21.8	4.7	10.6	6.5	4.8
Others	151	398	440	544	1,200	5,638	2.2	5.9	8.0	6.0	9.2	25.6
Other Consumer Goods	3,180	2,262	2,850	3,954	8,230	8,137	46.8	33.5	52.1	43.4	63.0	36.9
Petroleum Products	120	204	356	656	1,190	2,408	1.8	3.0	6.5	7.2	9.1	10.9
Intermediate and capital goods	135	346	485	526	948	964	2.0	5.1	8.9	5.8	7.3	4.4
Paper	3	17	7	8	17	26	-	0.3	0.1	0.1	0.1	0.1
Cement	22	18	129	50	136	163	0.3	0.3	2.3	0.5	1.0	0.7
Steel	-	41	80	117	138	58	-	0.6	1.5	1.3	1.0	0.3
Others	110	270	269	351	657	717	1.6	4.0	4.9	3.9	5.0	3.3
Total Imports	6,790	6,750	5,470	9,110	13,070	22,043	100.0	100.0	100.0	100.0	100.0	100.0

- Nil or negligible

.. Not available

Note: Due to rounding off, components may not add to totals.

Sources: Customs/Revenue Branch.

Table 3.5: UNIT VALUES FOR SELECTED EXPORTS AND IMPORTS, 1974-79
(US$ per MT)

	1974	1975	1976	1977	1978	1979 (Jan.-June)
Exports						
Dry skipjack	852	852	959	829	829	778
Fresh skipjack	151	146	155	163	238	263
Dry salted fish	368	331	327	413	430	425
Dry shark fins	3,980	4,102	13,221	15,423	13,974	10,604
Tortoise shells	14,818	9,712	21,426	34,299	24,334	17,336
Imports						
Rice	381	308	169	122	342	216
Wheat flour	298	290	164	193	153	215
Sugar	552	241	395	294	240	260

Source: Customs/Revenue Branch.

Table 3.6: PRICE AND QUANTUM INDICES FOR SELECTED EXPORTS AND IMPORTS, 1974-78
(1978 = 100)

Exports	1974	1975	1976	1977	1978
Dry Skipjack					
Quantum	1,412.4	781.3	640.2	394.4	100.0
Price	103.0	103.0	103.0	100.0	100.0
Fresh Skipjack					
Quantum	43.6	55.0	80.5	102.0	100.0
Price	63.0	61.3	65.1	68.9	100.0
Dry Salted Fish					
Quantum	17.4	1.0	4.0	48.3	100.0
Price	86.4	77.9	75.8	95.8	100.0
Dry Shark Fins					
Quantum	32.0	12.0	32.0	80.0	100.0
Price	27.9	31.8	96.5	112.8	100.0
Tortoise shells					
Quantum	300.0	200.0	300.0	300.0	100.0
Price	60.8	41.0	88.8	137.5	100.0
Total Exports					
Quantum	65.9	61.4	78.5	97.1	100.0
Price	66.2	63.7	72.3	80.3	100.0
Imports					
Rice					
Quantum	1,351.6	1,519.4	2,103.9	5,817.1	100.0
Price	111.4	90.1	49.4	35.7	100.0
Wheat flour					
Quantum	69.6	81.0	27.2	89.5	100.0
Price	194.8	189.5	107.2	126.1	100.0
Sugar					
Quantum	56.9	171.5	18.4	92.7	100.0
Price	230.0	100.4	164.6	122.5	100.0
Essential Food Imports					
Quantum	107.7	173.6	94.6	288.6	100.0
Price	209.9	133.1	136.5	118.8	100.0

Source: Customs/Revenue Branch.

Table 3.7: IMPORTS FROM OECD MEMBER COUNTRIES, 1976-78
(US$'000 f.o.b.)

	1976	1977	1978
Japan	960	4,365	3,339
Australia	500	177	..
European Economic Community of which:	2,390	1,724	1,067
United Kingdom	920	293	554
Italy	790	163	86
Germany	470	1,108	288
Total /a	3,850	6,266	4,406

.. Not available.

/a Refers to total OECD listed.

Source: OECD.

Table 3.8: FLOW OF OFFICIAL DEVELOPMENT ASSISTANCE TO THE MALDIVES, 1974-77
(US$ Million)

	1974	1975	1976	1977	1978
ODA commitments from all sources	0.50	3.69	10.55	8.80	2.62 /a
of which:					
Grants	..	..	0.68	7.51	0.63
Recorded net flow of resources from all sources	0.98	5.43	5.68	3.89	8.40
Recorded net flow of resources from DAC countries and multilateral agencies /b	0.98	5.23	2.84	3.75	6.30
Net receipts of ODA	0.61	3.25	4.30	2.39	6.88
of which:					
DAC member countries	0.20	2.03	0.57	1.21	3.74
Multilateral agencies /b	0.41	1.02	0.89	1.04	1.04
Others /c	-	0.20	2.84	0.14	2.10
Memorandum item:					
Total official flow of resources from OPEC countries and Arab/OPEC multilateral institutions	0	0.20	2.84	0.39	2.35 /a

.. Not available.

/a Appears to exclude $11.23 million commitments from OPEC reported in Table G.10 of the OECD Development Cooperation Review of 1979.
/b Including Arab and OPEC financial agencies.
/c Bilateral aid from OPEC countries.

Source: OECD Development Cooperation Reviews, 1975-79.

Table 3.9: UN AGENCIES'[/a] PROGRAMS
(US$'000)

Sector/Activity	Actual 1977	Actual 1978	Planned 1979	Planned 1980	Planned 1981	Other Donors Name	Other Donors Amount
Health							
WHO - Health Service	-	131.5	160.7	171.7	171.7	Libya	..
- Communicable Diseases	-	45.3	55.4	59.0	59.1		
- Leprosy and TB	-	38.1	46.5	21.5	21.5		
UNDP - Auxiliary Health (WHO)	51.7	13.4	44.0	42.8	-		
- Training	13.1	8.3	15.9	11.9	8.2		
UNICEF - Programs	101.9	182.7	156.5	157.5	124.5	UK	(included in
UNCDF - Health Improvement	-	-	833.8	833.8	833.8		UNICEF)
Water							
WHO - MWSA	-	54.0	65.9	68.1	68.1	FRG	5,000.0
- UNICEF	49.6	73.5	26.5	31.0	37.5		
UNCDF[/c]							
UNDP - Preinvestment (WHO)	-	87.7	87.8	-	-		
Education							
UNICEF -	-	109.4	43.5	145.0	175.0	UK	(included
UNDP - VTC (ILO)	-	-	389.1	74.0	-	Iraq	in UNICEF)
UNDP - Development of Education	194.2	242.5	344.2	165.5	168.8	Japan	
Tourism							
UNDP - Training	-	-	65.0	-	-		
Civil Aviation							
UNDP - Civil Aviation (ICAO)	48.2	173.2	183.9	221.4	75.3	Arab Funds	21,000.0
Transport and Telecommunications							
UNDP - Radio Communication (ITU)	10.0	-	-	-	-	Abu Dhabi	..
ASDB - TA	..	..	..	..	..	Australia Japan UK	
Agriculture							
UNDP - Plant Protection (FAO)	-	1.5	2.1	-	-		
FAO - TCP	..	..	..	..	..		
Fishing							
UNDP - Fisheries Development (IDA (Executing agency: IDA)	-	-	144.7	135.0	-	Iraq	..
UNDP - Mechanization (FAO)	8.9	-	-	-	-	Japan	..
Planning							
UNDP - Statistics Department (DTCD)	-	-	8.6	71.4	57.8	Kuwait Fund	..
- Development Planning (Executing agency: IDA)	-	-	20.7	57.2	-		
ASDB - Development Planning	..	..	..	..	..		
Integrated Rural Development							
ESCAP - Pilot Project	-	-	44.0	-	-	Australia	(included)
Total	477.6	1,161.1	2,738.8	2,266.8	1,801.3		

- Nil or negligible

.. Not available

/a Excluding financial assistance from the World Bank Group.
/b Includes Nutrition and all Male Office Expenses.
/c Included in Health above.

Note: A large number of training programs and consultancies in all sectors are additionally provided by UNDP to Maldives under their various regional projects. These have not been included.

Source: United Nations Development Programme, Male, December 1979.

Table 4.1: EXTERNAL PUBLIC DEBT OUTSTANDING INCLUDING UNDISBURSED AS OF DEC. 31, 1979
DEBT REPAYABLE IN FOREIGN CURRENCY AND GOODS
(IN THOUSANDS OF U.S. DOLLARS)

TYPE OF CREDITOR / CREDITOR COUNTRY	DEBT OUTSTANDING: DISBURSED	UNDISBURSED	TOTAL	IN ARREARS: PRINCIPAL	INTEREST
MULTILATERAL LOANS					
IDA	-	3,200	3,200	-	-
OPEC SPECIAL FUND	900	1,400	2,300	-	-
TOTAL MULTILATERAL LOANS	900	4,600	5,500	-	-
BILATERAL LOANS					
KUWAIT	2,669	2,823	5,492	-	7
SAUDI ARABIA	1,147	8,110	9,257	-	-
UNITED ARAB EMIRATES	1,511	1,663	3,174	-	8
TOTAL BILATERAL LOANS	5,327	12,596	17,923	-	15
TOTAL EXTERNAL PUBLIC DEBT	6,227	17,196	23,423	-	15

NOTES: (1) ONLY DEBTS WITH AN ORIGINAL OR EXTENDED MATURITY OF OVER ONE YEAR ARE INCLUDED IN THIS TABLE.
(2) DEBT OUTSTANDING INCLUDES PRINCIPAL IN ARREARS BUT EXCLUDES INTEREST IN ARREARS.

Source: External Debt Division, Economic Analysis & Projections Department, IBRD, March 1980.

Table 4.2: SERVICE PAYMENTS, COMMITMENTS, DISBURSEMENTS AND OUTSTANDING AMOUNTS OF EXTERNAL PUBLIC DEBT

PROJECTIONS BASED ON DEBT OUTSTANDING INCLUDING UNDISBURSED AS OF DEC. 31, 1979
DEBT REPAYABLE IN FOREIGN CURRENCY AND GOODS
(IN THOUSANDS OF U.S. DOLLARS)

YEAR	DEBT OUTSTANDING AT BEGINNING OF PERIOD		TOTAL TRANSACTIONS DURING PERIOD					OTHER CHANGES	
	DISBURSED ONLY	INCLUDING UNDISBURSED	COMMITMENTS	DISBURSEMENTS	SERVICE PAYMENTS PRINCIPAL	SERVICE PAYMENTS INTEREST	SERVICE PAYMENTS TOTAL	CANCELLATIONS	ADJUSTMENT *
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1976	-	-	6,143	101	-	-	-	-	90
1977	101	6,233	500	1,648	-	24	24	-	148
1978	1,758	6,881	12,233	2,102	-	44	44	-	428
1979	3,908	19,542	4,000	2,308	-	78	78	-	-119
1980	6,227	23,423							
	* * * * * * THE FOLLOWING FIGURES ARE PROJECTED * * * * * *								
1980	6,227	23,423	-	11,249	-	163	163	-	-
1981	17,476	23,423	-	5,614	35	312	347	-	-
1982	23,055	23,388	-	333	699	386	1,085	-	-
1983	22,689	22,689	-	-	1,349	384	1,733	-	2
1984	21,342	21,342	-	-	1,423	356	1,779	-	-
1985	19,919	19,919	-	-	1,463	329	1,792	-	1
1986	18,457	18,457	-	-	1,463	299	1,762	-	-
1987	16,994	16,994	-	-	1,463	272	1,735	-	1
1988	15,532	15,532	-	-	1,463	244	1,707	-	1
1989	14,070	14,070	-	-	1,479	216	1,695	-	1
1990	12,592	12,592	-	-	1,495	187	1,682	-	2
1991	11,099	11,099	-	-	1,495	159	1,654	-	-
1992	9,604	9,604	-	-	1,233	131	1,364	-	2
1993	8,373	8,373	-	-	1,233	113	1,346	-	-1
1994	7,139	7,139	-	-	1,193	90	1,283	-	-
1995	5,946	5,946	-	-	1,153	71	1,224	-	1
1996	4,794	4,794	-	-	1,117	49	1,166	-	-
1997	3,677	3,677	-	-	716	32	748	-	-
1998	2,961	2,961	-	-	65	22	87	-	-
1999	2,896	2,896	-	-	64	22	86	-	-

* 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.

Source: External Debt Division, Economic Analysis & Projections Department, IBRD, March 1980.

Table 5.1: SUMMARY OF BUDGETARY OPERATIONS, 1974-79
(Maldivian Rupees '000)

	1974	1975	1976	1977	1978 (Revised)	1979 (Estimate)
REVENUE	18,733	22,973	17,171	20,729	11,761	16,472
Taxes	5,493	5,005	457	140	3,128	7,784
of which:						
Customs	5,324	5,005	457	140	2,235	5,264
Others	169	-	-	-	893	2,520
Net receipts from public enterprises	11,827	17,333	15,928	19,818	7,735	8,174
of which:						
State Trading Organization	11,103	430	10,401	8,729	1,415	2,170
Maldive Shipping Limited	-	14,662	4,770	7,417	3,537	-
Electricity Department	-	-	-	-	-	1,061
Telecommunications Department	-	-	-	-	831	197
Other receipts	1,413	635	786	771	898	514
EXPENDITURE	22,127	27,388	35,683	38,389	41,178	39,504
Non-developmental	9,895	9,701	9,787	9,339	15,332	17,466
Internal Security	2,010	2,225	2,969	2,322	2,841	4,283
General Administration	5,285	5,613	5,084	5,549	5,492	7,248
Debt Servicing	-	-	-	-	3,046	302
Others	2,600	1,863	1,734	1,468	3,953	5,633
Developmental Expenditure	12,232	17,687	25,896	29,050	25,846	22,038
Agriculture and Fisheries	574	388	696	802	545	976
Economic Services	5,662	5,747	2,808	2,046	7,361	916
Transport and Communication	1,759	1,885	2705	11,868	3,300	5,068
Education	1,190	1,289	1,504	1,660	2,415	3,201
Health	1,282	1,261	1,363	1,559	2,419	3,249
Others	1,765	7,117	16,820	11,115	9,806	8,628
Budgetary Surplus or Deficit(-)	-3,394	-4,415	-18,512	-17,660	-29,417	-23,032
financed by:						
Surplus of past years	3,394	4,415	18,512	9,248	6,175	-
External assistance (grants)	-	-	-	8,412	16,725	12,392
Other	-	-	-	-	1,260	1,125
Deficit financing	-	-	-	-	5,257	9,515

- Nil or negligible

Source: Audit Office.

Table 5.2: SELECTED SOURCES OF BUDGETARY REVENUE, 1978-79

	Maldivian Rupees '000		Percentage of total	
	1978 Revised	1979 Estimate	1978 Revised	1979 Estimate
REVENUES	10,721	16,472	100.0	100.0
Import duty	1,004	4,100	9.4	24.9
Export duty	1,230	1,165	11.5	7.1
Airport passenger service charge	446	558	4.2	3.4
Airport passenger surcharge	-	157	-	1.0
Tourist tax	-	786	-	4.8
Bed-night tax	-	161	-	1.0
Registration	44	46	0.4	0.3
Licenses, permits	261	498	2.4	3.0
Revenue from Government property	1,203	361	11.2	2.2
Net revenue from post and telecommunications	834	2,693	7.8	16.3
Net revenue from other selected public enterprises	5,699	5,256	53.2	31.9
of which:				
State Trading Organization	1,415	2,170	13.2	13.2
Maldives Shipping Ltd.	3,537	-	33.0	-
Government hotels	-	201	-	1.2
Electricity Department	-	1,061	-	6.4
Transport Services	331	1,194	3.1	7.2
Export profits	166	444	1.5	2.7
Others	250	186	2.3	1.1

- Nil or negligible

Source: Audit Office.

Table 5.3: BUDGETARY EXPENDITURES OF THE GOVERNMENT BY SPENDING AUTHORITY, 1977-79

(Maldivian Rupees '000)

	1977 Actuals	1978 Revised	1979 Estimate
Office of the President	2,293.7	6,292.7	1,061.1
Official Residence of the President	11,171.4	4,800.0	2,410.6
Citizen's Majlis	189.5	225.2	198.2
Department of Finance	119.5	3,105.5	154.7
IMF, World Bank, IDA, ADB Unit	-	1,048.6	2,531.9
Pensions and Religious Functions Division	1,386.6	1,416.9	1,645.5
Treasury Division	29.5	28.0	43.9
Customs	232.0	243.2	370.2
STO Accounts Division	95.4	118.1	136.1
Port Commission and Public Works Department	334.9	348.3	482.9
Vocational Training Center	-	-	174.9
Department of Information and Broadcasting	-	48.7	67.5
Radio Maldives	211.9	7.0	299.1
TV Maldives	2,974.9	1,483.3	360.4
Public Library	20.5	-	21.6
Department of Tourism and Foreign Investment	17.2	45.3	65.0
Telecommunications Department	2,881.1	378.9	-
Audit Office	120.4	126.8	134.9
National Planning Agency	-	2.5	71.1
Attorney General's Office	114.1	110.5	160.7
Ministry of Justice	669.8	282.1	750.0
Ministry of Public Safety	2,552.8	2,840.7	2,429.5
Ministry of Home Affairs	1,455.8	1,058.7	1,312.7
Post Office	148.7	170.3	200.3
Ministry of Provincial Affairs	66.9	3,427.2	173.9
Northern Regional Office	655.2	640.5	765.4
Southern Regional Office	721.1	721.1	826.6
Ministry of External Affairs	475.3	280.0	757.4
Passport Office	23.6	24.1	47.9
Permanent Mission to the United Nations	-	209.9	220.0
Ministry of Agriculture	239.4	229.4	269.8
Ministry of Fisheries	365.7	315.2	199.3
Ministry of Transport	180.0	335.5	198.2
Airport Office	533.0	981.6	1,181.6
Hulule Airport Construction Unit	1,096.9	42.0	147.1
Public Works Department - expenses on Hulule Airport	2,166.8	4,987.5	-
Ministry of Shipping	44.5	41.1	51.9
Ministry of Education	350.2	120.8	181.9
Majeediya School	497.1	441.3	671.0
Aminiyya School	452.7	417.5	705.1
Montessori School	256.9	299.2	464.8
Education Fund	1,463.8	1,136.4	-
Ministry of Health	279.0	346.8	282.2
Public Health	106.3	113.0	208.0
Communicable Diseases	159.9	170.6	201.0
Malaria	73.3	87.9	114.1
Government Hospital	804.7	935.1	1,179.2
Allied Health Services Training Center	32.5	43.6	63.9
Water and Sanitation Authority	30.8	54.5	139.6
TOTAL	38,389.0	41,177.8	39.504.0

Note: Due to rounding off, components may not add up to totals.

Source: Ministry of Finance

Table 6.1: MONETARY SURVEY, 1976-79
(millions of Maldivian Rupees)

	1976	1977		1978		1979
	Dec.	June	Dec.	June	Dec.	June
Net foreign assets	2.1	5.6	-5.5	3.1	15.9	10.0
Domestic credit	35.3	39.3	54.8	33.8	36.5	48.2
Net credit to Government	33.1	33.9	36.3	24.6	22.8	25.8
Currency issued	15.4	13.7	15.2	16.7	19.7	21.6
Deposits with State Trading Organization's Accounts Division	17.7	20.2	21.1	7.9	3.1	4.2
Credit to public enterprises	-	-	2.1	0.4	-	1.3
Credit to private sector	2.2	5.4	16.4	8.8	13.7	21.1
Total liquidity	37.4	44.9	49.3	36.9	52.4	58.2
Money supply	29.4	26.6	32.4	19.6	21.5	24.7
Currency in circulation	13.2	12.1	14.2	15.3	17.6	20.1
Demand deposits	16.2	14.5	18.2	4.3	3.9	4.6
Quasi-money	8.0	18.2	16.9	16.4	29.3	31.7
Savings and time deposits	7.2	14.6	12.5	10.8	9.0	7.1
Foreign currency deposits	0.8	3.6	4.4	5.6	20.3	24.6
Other items	-	-0.1	-	-0.9	-1.6	-1.8

- Nil or negligible

Source: Based on data provided by the Department of Finance.

Table 6.2: ASSETS AND LIABILITIES OF COMMERCIAL BANKS, 1976-79
(millions of Maldivian Rupees)

	1976	1977		1978		1979
	Dec.	June	Dec.	June	Dec.	June
Net foreign assets	2.1	5.6	-5.5	3.1	15.9	10.0
Cash	2.2	1.6	1.0	1.4	1.2	0.7
Deposits with State Trading Organization's Accounts Division	17.7	20.2	21.1	7.9	3.1	4.2
Credit to public enterprises	-	-	2.1	0.4	-	1.3
Credit to the private sector	2.2	5.4	16.4	8.8	13.7	21.1
Total Assets/Liabilities	24.2	32.8	35.1	21.6	33.9	37.3
Demand deposits	16.2	14.5	18.2	4.3	3.9	4.6
Time and savings deposits	8.0	18.2	16.9	16.4	29.3	31.7
of which:						
Foreign currency deposits	0.8	3.6	4.4	5.6	20.3	24.6
Other items	-	-0.1	-	0.9	0.7	1.0

- Nil or negligible

Source: Based on data provided by the Department of Finance.

Table 7.1: PRODUCTION, EXPORTS AND LOCAL CONSUMPTION OF FISH, 1967-78
('000 M tons)

	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
LANDINGS												
Skipjack	19.5 /a	19.1 /a	20.2 /a	27.0	29.7	17.5	18.8	23.1	14.8	19.8	16.9	16.5
Yellowfin	-	-	-	2.1	1.4	2.1	5.6	4.3	3.8	4.6	3.9	3.8
Other Tuna Related Species	3.6	3.5	3.5	3.8	3.3	3.6	7.2	6.5	4.4	3.9	3.3	3.2
Reef and Bottom Fish	-	-	-	1.6	1.0	2.3	2.4	2.5	2.2	2.7	2.3	2.3
Total Landings	23.1	22.6	23.7	34.5	35.4	25.5	34.0	35.4	25.2	31.0	26.4	25.8
EXPORTS												
'Maldive Fish' /b	16.6	16.4	18.4	24.9	27.7	19.3	15.9	17.7	9.8	8.0	4.9	1.2
Salted Fish /b /c	-	-	-	-	-	-	-	.8	.1	.1	2.3	4.7
Fresh Fish: Hoko	-	-	-	-	-	2.0	4.4	4.5	5.7	8.0	7.7	7.4
ICP	-	-	-	-	-	-	-	-	-	.7	2.9	1.8
Maldives Nippon	-	-	-	-	-	-	-	-	-	-	.3	2.2
Total Exports	16.6	16.4	18.4	24.9	27.7	21.3	20.3	23.0	15.6	16.8	18.1	17.3
Available for Local Consumption and Stocks	6.5	6.2	5.3	9.6	7.7	4.2	13.7	12.4	9.6	14.2	8.3	8.5
Consumption per capita (kg/capita/year)	63	58	48	84	65	34	109	96	72	104	58	58

- Nil or negligible

/a Includes yellowfin.
/b Fresh fish equivalent.
/c No data available before 1974.

Sources: Ministry of Fisheries; GOPA Reports.

Table 7.2: FISH LANDINGS, CLASSIFIED BY ATOLL, 1977-78
(in metric tons)

Atoll	1977	1978
Haa Alifu	2,100	2,700
Haa Dhaalu	1,000	900
Shaviyani	1,100	900
Noonu	1,100	800
Raa	2,600	2,900
Baa	2,800	2,600
Lhaviyani	2,100	2,200
Kaafu /a	1,100	900
Alifu	1,400	1,600
Vaavu	400	400
Meemu	1,300	1,000
Faafu	300	300
Dhaalu	700	700
Thaa	1,800	1,400
Laamu	1,700	1,700
Gaaf Alif	2,300	1,500
Gaafu Dhaalu	1,400	2,100
Gnaviyani	200	200
Seenu	1,000	1,000
TOTAL	26,400	25,800

/a Including Male.

Source: Ministry of Fisheries.

Table 7.3: AVERAGE NUMBER OF FISHING DAYS PER ATOLL AND NUMBER OF VESSELS REGISTERED BY ATOLL, 1974-78

Atoll	No. of Fishing Days ('000)		No. of Vessels Registered		Annual Average No. of Fishing Days per Vessel	
	Trolling Vessels	Pole and Line Vessels	Trolling Vessels	Pole and Line Vessels (mechanized)	Trolling Vessels	Pole and Line Vessels /a
Haa Alifu	6.0	4.3	204	168 (39)	29	26
Haa Dhaalu	11.3	3.9	326	125 (24)	35	31
Shaviyani	23.6	3.6	326	79 (17)	72	46
Noonu	6.4	9.6	216	200 (15)	30	48
Raa	13.7	19.7	286	137 (57)	48	143
Baa	7.0	12.0	162	103 (60)	78	117
Lhaviyani	.3	13.6	65	74 (49)	5	184
Kaafu /b	3.2	14.3	246	333 (152)	13	43
Alifu	15.3	4.6	305	102 (16)	50	45
Vaavu	1.4	4.1	26	32 (14)	46	128
Meemu	1.2	8.7	55	60 (28)	22	145
Faavu	1.6	3.4	60	51 (9)	27	67
Dhaalu	6.2	4.7	94	57 (20)	66	82
Thaa	3.5	11.6	154	131 (49)	23	86
Laamu	1.3	9.9	110	105 (43)	12	94
Gaaf Alif	2.9	14.4	148	160 (38)	315	90
Gaafu Dhaalu	2.8	10.7	215	177 (46)	13	60
Gnaviyani	5.8	0.1	71	29 (1)	82	3
Seenu	9.6	5.4	411	216 (18)	23	25
TOTAL	123.1	158.6	3,480	2,339 (695)	50	68

/a Figure is average of mechanized and non-mechanized vessels and does not take into account the number of vessels used for non-fishery purposes, particularly in the Male area. Marketing problems, particularly of sailing vessels, and fuel problems of mechanized vessels, greatly reduce the number of fishing days.

/b Includes Male.

Source: Ministry of Fisheries.

Table 7.4: PURCHASES OF FISH BY FOREIGN COMPANIES, 1974-79
AND IMPLIED TAX BURDEN ON FISHERMEN

	1974	1975	1976	1977	1978	1979 (Up to Aug. 3, 1979)
Volume (Metric tons)						
Hoko (Maldives)	4,485	5,863	8,018	7,693	7,360	5,356
Maldives Nippon	-	-	-	332	2,211	1,869
ICP (Bangkok)	-	-	710	2,917	1,778	38
Total	4,485	5,863	8,728	10,942	11,349	7,263
Value (MR '000)						
Hoko (Maldives)	2,140	3,113	5,318	4,893	5,960	4,770
Maldives Nippon	-	-	-	228	1,754	1,666
ICP (Bangkok)	-	-	492	1,929	1,166	33
Total	2,140	3,113	5,810	7,050	8,880	6,469
Value (US$ '000)						
Hoko (Maldives)	545	792	1,353	1,245	1,517	1,214
Maldives Nippon	-	-	-	58	446	424
ICP (Bangkok)	-	-	125	491	297	8
Total	545	792	1,478	1,794	2,260	1,646
Average Unit Value US$ per ton	122	135	169	164	199	227
Memorandum item						
Tax burden:						
A. Payment received by fishermen (MR '000)	2,140	3,113	5,810	7,050	8,880	6,469
B. Payment fishermen would have received at free market exchange rate (MR '000)	3,624	4,554	12,932	15,787	20,069	12,345
C. Effective tax burden (MR '000)(B - A)	1,484	1,441	7,122	8,737	11,189	5,876
Effective tax burden as % of C	40.9	31.6	55.1	55.3	55.7	47.6
Free market exchange rate (Value of US$ 1.00 in Maldivian rupees)	6.65	5.75	8.75	8.80	8.88	7.50

Source: Ministry of Fisheries.

Table 7.5: DISTRIBUTION OF CULTIVATED AREA IN THE ATOLLS
(Acres)

	Inhabited			Uninhabited			Total		
	Up-land	Low-land	Total	Up-land	Low-land	Total	Up-land	Low-land	Total
Haa Alifu	580	0	580	320	0	320	900	0	900
Haa Dhaalu	629	0	629	222	0	222	851	0	851
Shaviyani	304	0	304	299	0	299	603	0	603
Noonu	237	0	237	49	0	49	286	0	286
Raa	280	0	280	299	0	299	579	0	579
Baa	25	0	25	166	0	166	191	0	191
Lhaviyani	17	0	17	106	0	106	123	0	123
Kaafu	46	1	47	-	-	-	46	1	47
Alifu	125	0	125	50	5	55	175	5	180
Vaavu	0	0	0	0	0	0	0	0	0
Meemu	1	0	1	-	-	-	1	0	1
Faafu	30	0	30	-	-	-	30	0	30
Dhaalu	53	0	53	-	-	-	53	0	53
Thaa	75	60	135	10	0	10	85	60	145
Laamu	708	155	863	175	35	210	883	190	1,073
Gaaf Alif	360	34	394	250	0	250	610	34	644
Gaafu Dhaalu	220	45	265	325	130	455	545	175	720
Gnaviyani	150	50	200	-	-	-	150	50	200
Seenu	160	83	243	-	-	-	160	83	243
TOTAL	4,000	428	4,428	2,271	170	2,441	6,271	598	6,869

Source: Report to the Government of Maldives, Agriculture Survey and Crop Production, W. T. Butany, FAO, Rome, 1974.

Table 7.6: SIZE DISTRIBUTION OF CULTIVABLE LAND ON ISLANDS

Area of Cultivable Land on Island	Number of Islands		Cultivable Land Area	
	Number	Percentage	Acres	Percentage
Inhabited Islands with				
Less than 10 acres	29	27.6	68	1.5
10 - 24 acres	27	25.7	525	11.9
25 - 49 acres	19	18.1	573	12.9
50 - 74 acres	14	13.3	800	18.1
75 - 99 acres	3	2.9	558	12.6
100 or more acres	13	12.4	1,904	43.0
Subtotal	105	100.0	4,428	100.0
Uninhabited Islands with				
Less than 10 acres	5	8.8	27	1.1
10 - 24 acres	18	31.6	299	12.2
25 - 49 acres	14	24.6	429	17.6
50 - 74 acres	13	22.8	729	29.9
75 - 99 acres	3	5.3	332	13.6
100 or more acres	4	7.0	625	25.6
Subtotal	57	100.0	2,441	100.0
Total Inhabited and Uninhabited islands with				
Less than 10 acres	34	21.0	95	1.4
10 - 24 acres	45	27.8	824	12.0
25 - 49 acres	33	20.4	1,002	14.6
50 - 74 acres	27	16.7	1,529	22.3
75 - 99 acres	6	3.7	890	13.0
100 or more acres	17	10.5	2,529	36.8
TOTAL	162	100.0	6,869	100.0

Note: Due to rounding off, components may not add to totals.

Source: Report to the Government of Maldives, Agriculture Survey and Crop Production, W. T. Butany, FAO, Rome, 1974.

Table 7.7: AGRICULTURAL PRODUCTION, 1972-78
(metric tons)

Crops	1972	1973	1974	1975	1976	1977	1978
Coconut (No. of nuts)	4,819,853	6,281,616	5,623,568	10,735,633	7,138,885	13,266,880	8,542,054
Finger millet	19.3938	693.4936	623.7252	1,731.6543	66.3152	35.7900	18.881
Arecanuts	0.4129	0.8562	1.8776	2.1926	10.0901	1.8461	0.516
Banana	14,270	-	-	-	-	-	-
Maize	0.3589	3.8788	29.9925	46.0526	13.8963	12.5620	7.774
Bajara	0.0599	0.1824	0.0190	0.0043	0.00426	-	-
Sorghum	0.2432	0.5458	3.3288	1.6848	0.6103	0.2142	-
Italian millet	3.2609	68.8734	165.0580	311.9397	63.7523	33.0181	0.038
Cassava	3.1860	13.7794	9.3671	15.7265	4.0615	5.5219	5.136
Colocasia	184.2713	529.3339	604.6610	925.7896	1,210.9122	865.3676	358.026
Alocasia	9.7958	38.6810	67.6439	77.7827	53.9585	45.2310	16.283
Sweet potato	0.3739	54.3698	103.0014	118.4753	24.9479	26.3007	7.425
Onion	9.6370	0.7005	0.7290	21.9259	0.8481	6.5306	1.223
Chillies	0.2963	0.8103	0.7799	1.9008	2.9818	2.7421	2.400
Ura (Common millet)	-	-	-	-	0.0068	-	-

- Nil or negligible

Source: Ministry of Agriculture.

Table 7.8: LESSEES OF UNOCCUPIED ISLANDS, CLASSIFIED BY ATOLL OF RESIDENCE, 1979

Name of Atoll	No. of Unoccupied Islands	No. of Unleased Islands	No. of Islands Leased to Residents of:				Islands Leased To Male Residents as % of Total Islands Leased
			Same Atoll	Male Island	Other Atoll Except Male	Government Agency	
Haa Alifu	24	5	11	8	-	-	42.1
Haa Dhaalu	20	4	7	9	-	-	56.3
Shaviyani	40	7	18	13	2	-	39.4
Noonu	62	18	26	16	2	-	36.4
Raa	74	12	39	20	1	2	32.3
Baa	67	5	29	32	-	1	51.6
Lhaviyani	57	10	26	14	-	7	29.8
Kaafu	89	26	4	44	-	15	69.8
Alifu	61	7	34	18	-	2	33.3
Vaavu	14	6	3	3	-	2	37.5
Meemu	24	2	16	4	-	2	18.2
Faafu	21	9	6	4	1	1	33.3
Dhaalu	49	4	26	15	-	4	33.3
Thaa	55	5	31	19	-	-	38.0
Laamu	70	16	31	21	2	-	38.9
Gaaf Alif	77	12	35	23	7	-	35.4
Gaafu Dhaalu	148	50	60	34	2	2	34.7
Gnaviyani	-	-	-	-	-	-	-
Seenu	33	4	18	10	-	1	34.5
TOTAL	985	202	420	307	17	39	39.2

- Nil or negligible

Source: Ministry of Agriculture, July 1979.

Table 7.9: CULTIVABLE AREA, FISH LANDINGS AND INDICATIVE INCOME DISTRIBUTION FROM FISHING BY ATOLLS IN 1977/78

	Cultivable Area per Head of Population (acres)/a	Fish Landings per Head of Population (kgs)/b	Indicative Incomes per Head from Fishing (MR)/c
Haa Alifu	0.10	279	223
Haa Dhaalu	0.09	96	77
Shaviyani	0.10	157	126
Noonu	0.05	151	121
Raa	0.07	348	278
Baa	0.03	469	375
Lhaviyani	0.02	380	304
Kaafu	0.01	240	192
Alifu	0.03	241	193
Vaavu	-	371	297
Meemu	-	371	297
Faafu	0.02	151	121
Dhaalu	0.02	233	186
Thaa	0.02	257	206
Laamu	0.18	279	223
Gaaf Alif	0.13	382	306
Gaafu Dhaalu	0.09	227	182
Gnaviyani	0.05	48	38
Seenu	0.02	71	57
All Atolls except Male	0.06	230	184

- Nil or negligible

/a UNDP estimates.
/b Average fish landings in 1977/78.
/c Fish landings valued at the 1978 average realized price of MR 0.80 per kg.

Sources: Report to the Government of Maldives, Agriculture Survey and Crop Production, W. T. Butany, FAO, Rome, 1974; Ministry of Fisheries; Census, 1977; Bank staff estimates.

Table 7.10: RENTS RECEIVED FROM UNOCCUPIED ISLANDS, 1979
(Maldivian Rupees)

Atoll	Number of Islands	Total Annual Rent Received	Average Annual Rent	Highest Rent Received	Lowest /a Rent Received
Haa Alifu	24	7,814.0	325.6	2,440.5	2.0
Haa Dhaalu	20	7,414.5	370.7	2,648.0	2.0
Shaviyani	40	10,379.5	259.5	1,486.0	0.5
Noonu	62	13,425.0	216.5	1,577.0	1.5
Raa	74	11,166.0	150.9	2,157.0	1.0
Baa	67	15,151.0	226.1	1,259.0	2.0
Lhaviyani	57	14,111.0	247.6	2,293.0	1.5
Kaafu	89	6,615.5	74.3	1,776.0	2.0
Alifu	61	6,288.5	103.1	1,929.5	1.0
Vaavu	14	1,050.5	75.0	341.0	2.0
Meemu	24	5,772.5	240.5	1,279.0	0.5
Faafu	21	1,935.0	92.1	1,477.0	2.0
Dhaalu	49	9,605.0	196.0	1,670.0	2.0
Thaa	55	21,589.5	392.5	4,610.0	2.0
Laamu	70	10,379.5	148.3	1,872.5	2.0
Gaaf Alif	77	12,554.0	163.0	1,403.0	0.5
Gaafu Dhaalu	148	33,071.0	223.5	5,160.5	1.5
Gnaviyani /b	-	-	-	-	-
Seenu	33	2,986.0	90.5	1,122.5	0.5
TOTAL	985	191,308.0	194.2	5,160.5	0.5

/a Excluding 37 islands which paid no rent.
/b There are no unoccupied islands in Gnaviyani Atoll which consists of a single island.

Source: Ministry of Agriculture.

Table 8.1: TOURIST RESORT CAPACITY, 1973-79

	Number of Rooms in Operation on October 1						
	1973	1974	1975	1976	1977	1978	1979
Villingili	104	104	104	104	104	104	104
Velassaru	-	-	-	-	45	45	45
Vabbinfaru	-	-	-	-	12	22	22
Kurumba	30	30	45	45	61	61	66
Bandos	110	110	110	110	105	105	105
Baros	28	28	28	28	28	28	28
Kuramathi	-	-	-	-	24	24	24
Alimatha	-	-	10	10	10	15	19
Kanifinolhu	-	-	-	-	-	9	20
Little Huraa	-	-	-	-	16	16	16
Kuredhoo	-	-	-	-	8	8	8
Vaadhoo	-	-	-	-	-	9	9
Meerufenfushi	-	-	-	-	-	64	64
Rannaalhi	-	-	-	-	-	17	17
Ihuru	-	-	-	-	-	-	20
Furanafushi	-	56	56	56	56	56	56
Farukolhufushi	-	56	56	56	56	56	56
Bodu Hithi	-	-	-	-	-	-	25
Emboodhao	-	-	-	-	-	-	22
Helengeli	-	-	-	-	-	-	10
Olhuveli	-	-	-	-	-	-	12
Nakachchaafush	-	-	-	-	-	-	40
Medhufinolhu	-	-	-	-	-	-	12
Total	272	384	409	409	525	639	832 /a

- Nil or negligible

/a During the last week of December 1979, two resorts were opened, Lankan Finolhu and Lhohifushi, with 12 and 20 rooms, respectively, thus bringing the total to 832.

Source: Department of Tourism and Foreign Investment.

Table 8.2: TOURIST RESORT OPERATIONS IN JULY 1979

Resorts	Start of Operations	No. of Rooms (Nos.)	No. of Beds (Nos.)	Room Charge Per Night ($)	Annual Income Assuming 55% Occupancy ($'000)	Investment Per Room /a ($)	Employment (Nos.)	Employment Per Room (Nos.)
Villingili /b /c	Dec. 1973	104	208	42	877	4,000	110	1.06
Velassaru /b /c	Nov. 1974	45	90	33	298	n.a.	110	2.27
Vabbinfaru	Dec. 1977	22	44	26	115	3,000	50	2.00
Kurumba	Oct. 1972	61	122	33	404	4,000	164	2.69
Bandos /b	Dec. 1972	105	210	40	843	n.a.	207	1.97
Baros	Dec. 1973	28	56	28	157	3,000	30	1.07
Kurumathi	Oct. 1977	24	48	28	135	3,000	36	1.50
Alimatha	Sep. 1975	18	36	24	87	3,300	12	0.67
Kanifinolhu	Dec. 1978	9	18	36	65	2,700	10	1.11
Little Huraa	Oct. 1977	16	32	24	77	3,000	25	1.56
Kuredhoo	Feb. 1978	8	16	40	64	940	9	1.13
Vaadhoo	Dec. 1977	9	18	24	43	2,500	22	2.44
Meerufenfushi /b	Nov. 1978	64	128	30	385	5,000	66	1.03
Rannaalhi	Jan. 1978	17	34	24	82	400	30	1.76
Ihuru	Jan. 1979	10	20	28	56	n.a.	24	2.40
Total Maldivian Operated		540	1,080	34 /d	3,688	n.a.	905	1.68
Furanafushi /b	Dec. 1973	56	112	30	337	n.a.	128	1.29
Farukolhufushi /b	Dec. 1973	56	112	94 /e	1,057	n.a.	85	1.52
Total Foreign Operated		112	224	62 /d	1,394	n.a.	213	1.90
TOTAL ALL RESORTS		652	1,304	39 /d	5,082	2,600 /f (1978 Average)	1,118	1.71

/a Actual 1978 costs or replacement cost at 1979 prices with respect to resorts built before 1978.
/b Currently Government or Majlis controlled.
/c Government managed.
/d Average rate.
/e Special Club Mediterranee all-inclusive package.
/f Based on actual data and estimates.

Sources: Department of Tourism and Foreign Investment; tourist resorts; Bank staff estimates.

Table 8.3: TOURISM EARNINGS AND EXPENDITURES IN 1978
(US$ '000)

REVENUES	Total	of which: Foreign Exchange Earnings	Local
Accommodation and Food			
Locally Operated Resorts /a			
Gross Revenues /b	3,113	-	-
less 15% tour operators' discount	467	-	-
Operating Revenues	2,646	2,646	-
Foreign Operated Resorts /c			
Operating Revenues	1,389	1,389	-
Total Operating Revenues	4,035	4,035 1/	-
Tourists' Purchases of Other Goods and Services			
In the Resorts /d	1,560	1,560	-
Elsewhere /d	1,114	1,114	-
Airport Tax	114	114	-
Total Other Income	2,788	2,788	

EXPENDITURES	Total	of which: Imports	Local
Resorts			
Food /e	1,114	780	334
Wages and Salaries /f	362	-	362
Others /g	220	133	87
Total	1,696	913	783
of which: Foreign Managed Resorts /h	340	204	136
Tourists' Spending on Incidentals			
In the Resorts /i	1,560	936	624
Elsewhere /j	1,114	279	835
Taxes	114	-	114
Total	2,788	1,215	1,573
Investment /k	260	170	90

/a Except Kanifinolhu, Vaadhoo, Meerufenfushi and Ihuru which were not operative most of 1978.
/b Assuming 55% capacity utilization at published room charges (Table 8.3)
/c Furana and Farukolhufushi.
/d Based on 1,114 guests for 200 days (55% occupancy) spending $7 per day each in resorts and $5 per day outside.
/e Average cost of $5 per day per person, of which $3.50 on imports.
/f Based on 50 managers, cooks, etc. earning an average MR 1,200 per month and 1,040 other workers averaging MR 200 per month (converted at MR 8.88 per US$1).
/g Estimated at 15% of food and wage costs with a 60% import content (mainly fuel).
/h Calculated pro rata 20% of resort capacity.
/i Import content estimated at 60%.
/j Import content estimated at 25%.
/k Based on 100 rooms under construction at an average cost of $2,600, of which: construction $2,000 (imports $1,200), other fixed and moveable assets $600 (imports: $500).
1/ Of these foreign exchange earnings, only enough to cover resorts' operating expenditures is estimated to have been repatriated to the Maldives in 1978.

Sources: Department of Tourism and Foreign Investment; Tourist Resorts; Budget; Bank staff estimates.

Table 8.4: ESTIMATED TAX RECEIPTS FROM TOURISM, 1980-85

	1980	1981	1982	1983	1984	1985
Total capacity (No. of beds)	1,752	2,202	2,752	3,302	3,852	4,402
Taxable capacity (No. of beds)						
Excluding government resorts /a	924	998	1,434	1,884	2,434	2,984
Including government resorts	1,222	1,296	1,732	2,182	2,732	3,282
Tourist arrivals ('000) /b	41	52	65	78	91	104
Tourist nights ('000) /b	415	522	652	782	913	1,043
Tourism tax						
Receipts at 1979 rates (US$'000)						
Excluding government resorts /a	454	490	705	926	1,197	1,467
Including government resorts	600	637	852	1,073	1,342	1,612
Receipts, assuming 25% year round capacity taxation (US$'000)						
Excluding government resorts /a	253	274	392	516	666	784
Including government and new resorts	334	355	474	597	748	898
Other taxes						
Bed-night tax at 1979 rates /b (US$'000)						
Existing system /a	220	240	340	450	580	710
Including all resorts	420	520	650	780	910	1,040
Airport tax at 1979 rates /b (US$'000)	170	210	260	310	370	420
Duties on imports for tourism (MR'000) /c	1,630	2,050	2,560	3,070	3,590	4,100
Tourism imports:						
(US$'000)	2,080	2,610	3,260	3,910	4,570	5,220
(MR'000)	8,170	10,260	12,810	15,370	17,960	20,510

/a Villingili and Velassaru and all resorts less than 2 years in operation exempted.
/b Assuming 65% occupancy rates and an average stay of 10 days per tourist.
/c Calculated at 1979 rates of tourist spending on imports per day of US$5, converted at the official rate of MR 3.93 = US$1 to MR 18. An average duty rate of 20% has been assumed. Actual rates will be: 10% on rice, flour, sugar, fuel, and stationery; 20% on other food, tobacco leaves, and textiles; 30% on cigarettes and all other goods except goods requiring special permits (including spirits) subject to 35% duty. The figures for 1979 are given for illustration purposes only since import duties were only scheduled to apply from 1980 onwards.

Source: Bank staff estimates.

Table 8.5: ANNUAL DEMAND FOR SELECTED FOODS BY TOURIST INDUSTRY

	Weekly Requirements for Six Island Resorts (kg)	Implied Annual Requirements for all 23 Resorts (metric tons)
Cabbages	690	96.4
Carrots	690	96.4
Tomatoes	615	85.9
Cucumbers	680	95.0
Pineapples	670	93.6
Potatoes	940	131.3
Oranges	75	10.5
Eggs (units)	7,750	1.1 (million)
Broiler chickens	885	123.7

Source: Department of Tourism and Foreign Investment.

Table 8.6: MALDIVES SHIPPING LIMITED - FLEET PARTICULARS

M.S.L.	1974	1975	1976	1977	1978	1979 (Estimate)
No. vessels	25	28	34	29	29	31
DWT	81,836	106,243	115,466	97,794	100,956	130,922
Freight tons carried	567,260	512,706	453,142	444,165	574,507	537,981
Total Employees	833	959	1,101	940	985	1,070
of which: Maldivian Nationals	551	653	744	626	664	735
Climax /a						
No. vessels	5	8	10	10	8	8
DWT	30,778	44,905	64,691	64,691	45,128	45,128
Freight tons carried	103,950	144,753	148,268	162,951	226,137	118,316
Total Employees	181	331	350	366	296	149
of which: Maldivian Nationals	151	235	243	250	194	94
Others /a						
No. vessels	N.A.	4	8	9	8	6
DWT	14,383	28,140	47,821	57,277	56,707	35,651
Freight tons carried	117,350	58,331	141,370	202,383	244,208	73,270
Total Employees	N.A.	159	262	317	307	151
of which: Maldivian Nationals	N.A.	104	186	200	196	98
Total						
No. vessels	30	40	52	48	45	45
DWT	126,997	179,288	227,978	219,762	202,791	211,701
Freight tons carried	788,560	715,790	742,780	809,499	1,044,852	729,567
Total Employees	1,014	1,449	1,713	1,623	1,588	1,370
of which: Maldivian Nationals	702	992	1,173	1,076	1,054	927

/a Climax and others are small privately owned shipping companies which are managed by MSL; MSL owns roughly 30% on average of equity in these companies, to which MSL has also extended loans.

Sources: Maldives Shipping Limited; Ministry of Shipping.

Table 8.7: MALDIVES SHIPPING LIMITED - VESSEL OPERATIONS

	1975	1976	1977
Operations (US$M) /a			
Gross Operating Revenues	20.9	19.8	18.8
Operating Costs	16.7	18.2	19.5
Net Operating Revenue	4.2	1.6	-0.7
Memorandum Items			
Revenue/Book Value /b	2.4	2.0	2.3
Gross Profit /c /Revenue (%)	22.9	11.4	0.003
Costs as a Percentage of Gross Operating Revenue	80.0	91.9	103.7
of which:			
Handling and Stevedorage	15.0	16.0	19.3
Crew Costs /d	15.3	22.2	23.4
Fuel	17.2	18.7	18.4
Repairs	7.1	9.2	7.0
Insurance	3.1	3.9	8.9

/a 1975 and 1976 accounts in Pounds Sterling converted to US dollars at $2.10 and $1.88 = ₤ 1.00, respectively.
/b Book value end year (after depreciation) of purchase price during year.
/c Before depreciation.
/d Salary, mess, recruitment and repatriation, traveling and accommodation.

Source: Maldives Shipping Limited.

Table 8.8: MALDIVES SHIPPING LIMITED - INCOME STATEMENT
(US$ '000) /a

	1975	1976	1977
Income			
Vessel operations			
Net Profit	4,656	3,055	1,643
Net loss	(460)	(1,532)	(2,359)
Subtotal	4,196	1,523	(716)
Other Income			
Management fee	135	237	266
Dividends	176	-	165
Profit on Ship sales/Brokerage	206	135	502
Others	31	25	45
Subtotal	548	397	978
TOTAL	4,744	1,920	262
Administrative and Other Expenses			
Staff Salaries and Office Expenses	376	585	574
Interest	-	15	163
Directors' fees	11	10	8
TOTAL	387	610	745
Net for Year	4,357	1,310	(483)
Adjustment from previous year	11	(21)	347
Profit Available for Appropriation	4,368	1,289	(136)
Transfer to Government	1,757	1,468	890 /b

- Nil or negligible

/a 1975 and 1976 accounts in Pounds Sterling converted to US dollars at $2.10 and $1.88 = ₤ 1.00, respectively.

/b Department of Finance figures.

Source: Maldives Shipping Limited Audited Accounts.

Table 8.9: MALE PORT

	1974	1975	1976	1977	1978	1979
No. of Ships	64	58	88	62	39	22 /a
Average Turn-around Time of Ships (days per call)	7	9	5	7	5	9
Port Capacity /b ('000 tons)	-	-	-	-	40	-
Total Incoming Traffic ('000 tons)	19.8	18.7	27.9	32.8	19.3	27.3
Composition of Incoming Traffic						
Foodgrains ('000 tons)	7.9	10.3	17.9	21.6	7.7	15.8
Petroleum Products ('000 tons)	0.6	0.8	2.5	4.1	2.4	3.5
Other Cargo ('000 tons)	11.2	7.6	7.5	7.2	9.2	7.9

- Nil or negligible

/a Through June 1979.
/b Maximum traffic port can handle each year.

Source: Department of Shipping.

Table 9.1: STRUCTURE OF GOVERNMENT WAGES AND SALARIES, JULY 1979

Maldivian Rupees per Month	No. of Employees	Percent of Total	Annual Salary Bill (Maldivian Rupees)	Percent of Total
0-99	905	16.2	807,672	6.6
100-199	3,397	60.6	5,949,480	48.3
200-299	787	14.1	2,226,372	18.1
300-499	294	5.2	1,244,112	10.1
500-799	163	2.9	1,106,040	9.0
800-999	21	0.4	210,960	1.7
1,000 and over	34	0.6	769,560	6.2
Total	5,601	100.0	12,314,196	100.0

Source: National Planning Agency, Government of Maldives.

Table 9.2: RETAIL PRICES OF SELECTED COMMODITIES, 1975-79
(In Maldivian Rupees)

	Unit	1975	1976	1977	1978	July 1979	Dec. 1979
Rice (ordinary) /a	kg.	0.70	1.09	0.97	1.02	1.27	1.55
Sugar /a	kg.	1.67	2.29	2.03	1.86	1.68	1.76
Flour /a	kg.	0.72	1.37	1.34	1.45	1.43	1.87
Condensed milk	14 oz.	3.59	-	4.20	3.58	2.96	3.13
Red onions	lbs.	1.59	3.88	4.07	4.75	8.75	13.00
Gasoline	liter	-	1.92	2.40	3.52	4.62	6.45
Kerosene /a	liter	-	1.35	1.66	1.83	2.45	2.46
Electricity rate	kwh	0.66	0.95	1.48	1.50	1.50	..
Soap	bar	3.90	3.90	3.90	2.36	2.40	3.69
Printed fabrics	meter	12.80	12.80	12.80	10.89	9.25	12.00
Shirting material	meter	8.90	8.90	8.90	9.45	10.38	11.25
Coconuts	one	0.20	-.40	0.60	0.34	0.30	0.35
Bananas	one	0.33	0.46	0.50	0.21	0.26	0.24
Fresh fish	one	4.00	5.00	4.00	7.00	9.67	8.50
Dried fish	one	4.00	3.00	2.00	2.17	2.75	3.09

.. Not available

/a Subject to price control by the Department of Finance.

Source: Department of Finance.

Table 10.1: AVERAGE MONTHLY MAXIMUM AND MINIMUM TEMPERATURE AND RAINFALL AND RAINY DAYS, RECORDED AT HULULE AIRPORT

	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Total	Average
Maximum Temperature C°														
1974	29.9	30.2	32.2	31.9	31.2	31.4	29.9	30.0	29.0	29.4	30.4	29.3	364.8	30.4
1975	29.2	30.0	31.2	32.7	30.0	29.8	30.5	30.1	29.4	29.1	29.3	29.4	360.7	30.1
1976	29.5	30.0	31.1	31.2	30.4	30.7	30.1	30.3	30.6	29.5	29.3	29.5	362.2	30.2
1977	30.2	30.4	31.5	32.2	30.2	30.8	30.5	30.2	30.4	29.5	29.7	29.5	365.1	30.4
1978	29.7	30.5	30.8	31.0	30.1	30.2	29.6	29.6	29.8	29.5	29.7	29.4	359.9	30.0
Minimum Temperature C°														
1974	24.4	27.2	21.7	21.9	25.9	25.9	24.8	25.5	24.1	25.4	24.3	24.9	296.0	24.7
1975	25.1	25.3	26.1	27.3	25.6	25.6	25.9	24.9	25.4	25.0	25.2	25.2	306.6	25.6
1976	24.9	25.0	26.3	26.4	26.5	26.9	25.7	26.1	26.1	25.0	25.0	24.8	308.7	25.7
1977	26.2	25.6	25.5	26.5	24.9	25.8	25.2	25.0	22.4	24.3	24.4	24.6	300.4	25.0
1978	25.0	25.7	25.8	25.6	24.4	24.5	23.3	23.4	23.7	24.0	24.7	24.2	294.3	24.5
Rainfall (inches)														
1974	.039	.913	1.130	6.583	6.693	4.634	9.703	5.783	10.858	5.740	.764	7.205	60.045	5.004
1975	8.618	3.339	.980	10.016	14.248	4.343	4.740	11.142	10.264	7.815	5.130	6.059	86.694	7.225
1976	2.697	1.480	.134	5.630	8.390	7.819	9.122	2.319	4.165	18.016	9.098	5.555	74.425	6.202
1977	.398	1.933	2.823	1.366	13.177	3.717	5.827	6.327	16.091	18.272	8.827	12.287	91.045	75.871
1978	.756	.067	4.760	7.575	20.055	10.902	10.728	9.961	16.472	10.894	8.031	6.390	106.591	88.826
Rainy Days														
1974	1	5	4	9	14	13	22	13	23	16	6	18	144	12.0
1975	7	7	4	19	17	16	10	25	16	21	14	11	167	13.9
1976	6	2	1	14	12	18	15	10	10	20	15	12	135	11.3
1977	3	7	10	6	19	15	15	14	20	22	18	13	162	13.5
1978	2	2	13	7	21	13	20	16	19	16	10	12	151	12.6

Source: Weather Reports: Airport Office, Male, Maldives.

Table 10.2: FEMALE POPULATION, BY MARITAL STATUS AND NUMBER OF MARRIAGES, CLASSIFIED BY AGE GROUP

Age Group	Marital Status						No. of Times Married				Percent of Women Now Married, Widowed or Divorced Who Have Been Married	
	Never Married	Now Married	Widowed	Divorced	Not Stated	Total	1	2-3	4-6	7+	2 or More Times	4 or More Times
Under 10 Years	22,489	-	-	-	-	22,489	-	-	-	-	-	-
10 - 19	11,953	3,596	12	986	237	16,784	2,576	1,538	278	30	40.2	6.7
20 - 29	422	7,349	55	1,158	241	9,225	2,533	3,622	1,787	447	68.4	26.1
30 - 39	43	6,625	138	776	154	7,736	1,236	2,589	2,250	1,285	81.2	46.9
40 - 49	39	4,645	350	705	126	5,865	863	1,985	1,668	1,027	82.1	47.3
Over 50 Years	22	2,563	1,481	1,059	194	5,319	632	1,656	1,523	1,074	83.3	50.9
Not Stated	26	78	3	17	66	190	15	37	25	13	76.5	39.0
Total	34,994	24,856	2,039	4,701	1,018	67,608	7,855	11,427	7,531	3,876	72.3	36.1

- Nil or negligible

Source: Census, 1977.

Table 10.3: PER CAPITA AVAILABILITY AND DISTRIBUTION OF ESSENTIAL COMMODITIES BY STATE TRADING ORGANIZATION
(metric tons)

	1974	1975	1976	1977	1978	1979 (Estimate)
Rice						
A. Opening Stock	1,254.6	1,258.4	1,604.5	5,832.0	9,307.1	1,363.8
B. Imports	4,008.0	3,878.2	13,940.7	15,098.0	276.8	11,638.8
C. Total Supplies (A+B)	5,262.6	5,136.6	15,545.2	20,930.0	9,583.9	13,002.6
D. Sales	4,004.2	3,532.1	9.713.2	11,622.9	8,220.1	9,267.3
E. Closing Stock (C-D)	1,258.4	1,604.5	5,832.0	9,307.1	1,363.8	3,735.3
F. Per Capita Availability (kg)	40.8	38.9	114.3	149.5	66.5	87.8
G. Per Capita Distribution (kg)	31.0	26.8	71.4	83.0	57.1	62.6
Flour						
A. Opening Stock	299.8	-	474.4	318.7	703.6	1,158.9
B. Imports	2,414.6	4,128.5	1,995.9	3,278.9	3,691.9	4,284.9
C. Total Supplies (A+B)	2,714.4	4,128.5	2,470.3	3,597.6	4,395.5	5,443.8
D. Sales	2,714.4	3,654.1	2,151.6	2,894.0	3,236.6	4,518.3
E. Closing Stock (C-D)	-	474.4	318.7	703.6	1,158.9	925.5
F. Per Capita Availability (kg)	21.0	31.3	18.2	25.7	30.5	36.7
G. Per Capita Distribution (kg)	21.0	27.7	15.8	20.7	22.5	30.5
Sugar						
A. Opening Stock	976.7	855.0	893.6	922.6	1,372.4	1,303.7
B. Imports	2,048.2	2,260.4	2,443.0	3,293.5	3,541.4	4,016.0
C. Total Supplies (A+B)	3,024.9	3,475.4	3,336.6	4,216.1	4,913.8	5,319.7
D. Sales	2,169.9	2,581.8	2,414.0	2,843.7	3,610.1	4,715.6
E. Closing Stock (C-D)	855.0	893.6	922.6	1,372.4	1,303.7	604.1
F. Per Capita Availability (kg)	23.4	26.3	24.5	30.1	34.1	36.0
G. Per Capita Distribution (kg)	16.8	19.6	17.7	20.3	25.1	31.9
Kerosene						
A. Opening Stock	109.1	159.5	164.0	1,193.7	683.4	448.1
B. Imports	105.2	461.6	1,532.9	81.5	596.6	824.3
C. Total Supplies (A+B)	214.3	621.1	1,696.9	1,275.2	1,280.0	1,272.4
D. Sales	54.8	457.1	503.2	591.8	791.9	916.4
E. Closing Stock (C-D)	159.5	164.0	1,193.7	683.4	488.1	356.0
F. Per Capita Availability (kg)	1.7	4.7	12.5	9.1	8.9	8.6
G. Per Capita Distribution (kg)	0.4	3.5	3.7	4.2	5.5	6.2
Memorandum Item						
Mid-Year Population ('000)	129	132	136	140	144	148
Per Capita Distribution of Cereals (Rice and Flour)	52.0	54.5	87.2	103.7	79.6	93.1

Source: State Trading Organization.

Table 10.4: LITERACY BY AGE, SEX AND LOCATION

Age Group	Total Population			Literates			Percentage Literate		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
05 - 09	11,052	10,731	21,783	3,283	3,479	6,762	29.7	32.4	31.0
10 - 14	9,409	8,717	18,126	6,443	6,408	12,851	68.5	73.5	70.9
15 - 19	8,173	8,067	16,240	6,665	6,971	13,636	81.5	86.4	84.0
20 - 24	5,958	5,726	11,684	5,157	5,014	10,171	86.6	87.6	87.0
25 - 34	7,637	7,126	14,763	6,685	6,184	12,869	87.5	86.8	87.2
35 - 44	8,569	7,522	16,091	6,946	5,892	12,838	81.1	78.3	79.8
45 - 54	6,265	4,417	10,682	4,794	3,254	8,048	76.5	73.7	75.3
55 - 64	3,363	2,279	5,642	2,664	1,625	4,289	79.2	71.3	76.0
65 and over	2,174	1,075	3,249	1,643	737	2,380	75.6	68.6	73.3
TOTAL /a	62,600	55,660	118,260	44,280	39,564	83,844	70.7	71.1	70.9
Of which ages 15 and over	42,139	36,212	78,351	34,554	29,677	64,231	82.0	82.0	82.0
Location									
Male Capital	14,649	11,079	25,728	12,852	9,871	22,723	87.7	89.1	88.3
Other Atolls	48,496	44,771	93,267	31,639	29,786	61,425	65.2	66.5	65.9

/a Includes not stated.

Source: Census, 1977.

Table 10.5: EDUCATIONAL ATTAINMENT BY AGE, SEX AND LOCATION

	5-24			25-44			45 and over /a			Total /a		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Male Capital												
No Standard Passed	4,848	4,485	9,333	2,897	2,236	5,133	1,820	1,211	3,031	9,565	7,932	17,497
Primary Level	2,256	1,770	4,026	667	334	1,001	193	32	225	3,116	2,136	5,252
Middle Level	363	388	751	361	168	529	84	30	114	808	586	1,394
Secondary School	295	212	507	359	89	448	48	12	60	702	313	1,015
Pre-University	41	38	79	42	9	51	1	2	3	84	49	133
University	4	-	4	34	10	44	3	-	3	41	10	51
Not Stated	72	26	98	68	8	76	193	19	212	333	53	386
Total	7,879	6,919	14,798	4,428	2,854	7,282	2,342	1,306	3,648	14,649	11,079	25,728
Other Atolls												
No Standard Passed	21,073	20,053	41,126	8,699	8,861	17,560	9,048	6,287	15,335	38,820	35,201	74,021
Primary Level	5,568	6,245	11,813	2,561	2,896	5,457	701	321	1,022	8,830	9,462	18,292
Middle Level	39	12	51	354	30	384	219	43	262	612	85	697
Secondary School	25	6	31	157	7	164	33	3	36	215	16	231
Pre-University	4	1	5	2	-	2	1	-	1	7	1	8
University	-	1	1	4	-	4	-	-	-	4	1	5
Not Stated	4	4	8	1	-	1	3	1	4	8	5	13
Total	26,713	26,322	53,035	11,778	11,794	23,572	10,005	6,655	16,660	48,496	44,771	93,267
Entire Republic												
No Standard Passed	25,921	24,538	50,459	11,596	11,097	22,693	10,868	7,498	18,366	48,385	43,133	91,518
Primary Level	7,824	8,015	15,839	3,228	3,230	6,458	894	353	1,247	11,946	11,598	23,544
Middle Level	402	400	802	715	198	913	303	73	376	1,420	671	2,091
Secondary School	320	218	538	516	96	612	81	15	96	917	329	1,246
Pre-University	45	39	84	44	9	53	2	2	4	91	50	141
University	4	1	5	38	10	48	3	-	3	45	11	56
Not Stated	76	30	106	69	8	77	196	20	216	341	58	399
Total	34,592	33,241	67,833	16,206	14,648	30,854	12,347	7,961	20,308	63,145	55,850	118,995

- Nil or negligible

/a Includes not stated.

Source: Census, 1977.

Table 10.6: CURRENT SCHOOL ATTENDANCE BY AGE, GRADE, SEX AND LOCATION

	Age Group					Sex		Location	
	05-09	10-14	15-19	20-24	Total 05-24	Male	Female	Male Capital	Other Atolls
Total Population	21,783	18,126	16,240	11,684	67,833	34,592	33,241	14,798	53,035
of which: Attending School	5,047	5,676	1,437	133	12,293	6,274	6,019	4,350	7,943
No standard	2,593	2,069	353	39	5,054	2,614	2,440	1,406	3,648
Primary - Grade 0	2,002	2,048	268	9	4,327	2,130	2,197	893	3,434
- Grades 1-5	446	1,403	460	28	2,337	1,241	1,096	1,503	834
- Other	-	8	37	11	56	43	13	54	2
(subtotal)	(2,448)	(3,459)	(765)	(48)	(6,720)	(3,414)	(3,306)	(2,450)	(4,270)
Middle - Grades 6 & 7	3	125	105	5	238	103	135	234	4
- Other	-	1	10	10	21	14	7	15	6
(subtotal)	(3)	(126)	(115)	(15)	(259)	(117)	(142)	(249)	(10)
Secondary - Grades 8-10	1	8	163	14	186	90	96	182	4
- Grade 10+	-	-	22	9	31	19	12	29	2
- Other	-	-	3	1	4	2	2	4	-
(subtotal)	(1)	(8)	(188)	(24)	(221)	(111)	(110)	(215)	(6)
Pre-University	-	1	6	6	13	7	6	12	1
University	-	-	-	-	-	-	-	-	-
Not Stated	2	13	10	1	26	11	15	18	8

- Nil or negligible

Source: Census, 1977.

Table 10.7: QUALITY OF HOUSING

Housing: Households by material of construction of walls and roofs.

	Total /a	Wall			Roof		
		Coral/brick with plaster	Coral/brick without plaster	Thatch/Galvanized sheets/other	Reinforced Concrete Galvanized Sheet	Tiles	Thatched and Others
Number of Households							
Entire Republic	23,290	4,704	11,379	7,065	14,755	1,161	7,237
Atolls except Male	20,237	3,797	10,522	5,858	12,755	1,149	6,955
Male	3,053	907	857	1,210	2,680	12	282
Percentage of Households							
Entire Republic		20.2	48.9	30.3	63.4	5.0	31.1
Atolls except Male		18.8	52.0	28.9	63.0	5.7	34.4
Male		29.7	28.1	39.6	87.8	0.4	9.2

Housing: Households according to source of drinking water, type of latrine, and availability of electricity in the census house.

	Total /a	Source of Drinking Water		Type of Latrine		Electricity	
		Rain water	Well water	W. C.	Others	Yes	No
Number of Households							
Entire Republic	23,290	1,617	21,532	578	22,568	2,276	20,932
Atolls except Male	20,237	735	19,451	77	20,122	466	9,766
Male	3,053	882	2,081	501	2,446	1,810	1,157
Percentage of Households							
Entire Republic		6.9	92.5	2.5	96.9	9.8	89.9
Atolls except Male		3.6	96.1	0.4	99.4	2.3	97.7
Male		28.9	68.2	16.4	80.1	59.3	37.9

/a Includes not stated.

Source: Census, 1977.

Table 10.8: HEALTH INDICATORS, 1977-79

INDICATOR		
Total Fertility Rate (per '000)	6.39	/a
Crude birth rate (per '000)	44.0	/a
Crude death rate (per '000)	17.6	/a
Natural population increase (per '000)	26.4	/a
Infant mortality rate (per '000)	120.7	/b
Maternal mortality rate (per '000)	11.9	/c
Child death rate /d	21.2	/a
No. of practicing physicians	9	/e
Population per practicing physician	15,894	/e
No. of practicing physicians per 10,000 population	0.63	/e
No. of practicing nurses	7	/e
Population per practicing nurse	20,435	/e
No of practicing nurses per 10,000 population	0.49	/e
No. of auxiliary health workers:		
Nurse aides	11	/f
Health assistants	24	/f
Community health workers	31	/f
Family health workers	48	/f
Foolumas (traditional midwives):		
trained	190	/f
untrained	273	/f
traditional practitioners	171	/g
No. of hospital beds	40	/e
Population per hospital bed	3,576	/e
No. of beds per 10,000 population	2.8	/e
No. of atoll health centers	23	/e
Health expenditure as percent of national budget	6.0	/e
Per capita health expenditure (Maldivian Rupees)	9.65	/e

Sources:
/a Census, 1977.
/b WHO/SEARO document SEA/Immun/16, page 47.
/c Manager, Government Hospital, Male.
/d Number of deaths among children 1 to 4 years of age, per thousand children in the same age group in a given year.
/e WHO Office, Male.
/f Director, Allied Health Services Training Center, Male.
/g Ministry of Health.