

**EDUCATION PLANNING IN THE MALDIVES: A SMALL ISLAND
STATE'S PERSPECTIVE**

IBRAHIM ISMAIL

B. Ed (Uni Canb)

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ABSTRACT

This thesis examines the appropriateness of the current secondary school curriculum in the Republic of Maldives within an overall context of national education and development planning. Emphasis is placed on access to secondary education by all.

In pursuing this aim, data was gathered on aspects of the economy and demography of the country as well as government policy on education. Data was also gathered on student performance in the period 1985—1992, and subsequent employment characteristics of graduates.

The framework of analysis adopted for this thesis encompasses the special problems faced by Small Island States in their efforts to provide education for their people. Links between education planning and development planning are explored in depth.

The analysis of the data established that the current system of education contributes to increasing social inequalities. Further, it was established that this system cannot be sustained in the long term. It has been argued in this thesis that this system of education could, in the long term, contribute to the demise of national and cultural identity. Hence, it has been argued that the current curriculum is inappropriate for the people of the Maldives at this juncture.

On the basis of the findings of this thesis, a broad outline of an alternative education system which could be developed, and the assumptions about development made by this model is presented.

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CHAPTER ONE

INTRODUCTION

1.1 PURPOSES OF THE INVESTIGATION

The aim of this thesis is to explore the appropriateness of the secondary school curriculum in the Republic of Maldives schools within an overall context of national educational planning. Appropriateness in this thesis will be examined in the context of human resource development, economic planning, sustainability of the current curricula in terms of resource availability, demographic and geographical constraints and social equity.

The Maldives, classified as a third world country, has the added complexity of being comprised of a number of islands over which the population is spread unevenly. Thus, comparative smallness, coupled with scatterdness present planners and administrators some unique problems that have to be overcome.

While focussing on the secondary school curriculum, this thesis will attempt to take a macroscopic perspective on the social well being of the people of the Maldives, particularly in the long term. As such, it is imperative that all the factors outlined in the first paragraph need to be incorporated in the analyses and context of the thesis.

For example, economic planning is made difficult in the face of labour shortages—both skilled and unskilled. This then calls on human resource development which has a direct bearing on secondary education. Thus for the economist, the school system largely becomes an area for financial investment. However, financial, demographic and geographical constraints hamper the provision of secondary schooling for all children. If all children cannot be given the opportunity for secondary education, by

default only some children can be given this opportunity. This raises serious concerns about social equity in the country.

This thesis investigates the inter-relationship of all these factors and what bearing(s) these have on the secondary school curriculum. The thesis will examine the economic, demographic, historic and cultural aspects of the country as they relate to secondary education and government policy, performance of students at the secondary school level, their subject choices, employment and earnings after leaving school and further education as a component of the educational context of the investigation.

1.2 ECONOMIC CONTEXT

The economy of the country is mainly driven by the fisheries and tourism industries. Of these, the majority of the population is dependent, directly or indirectly, on the fisheries industry. Tourism has expanded rapidly in recent years and has become a major provider for the country. Economic growth in the past decade or so has allowed for increased expenditure in the provision of vital services such as primary health and education.

However whether economic growth has kept pace with growth in population and increased levels of consumption in the country need to be examined; particularly whether such growth will be sustainable in the long term. The Maldives is not rich in natural resources such as minerals, ores, fuel forms or other resources with which production capacity is equated. Nor is the Maldives capable of agricultural production on a large scale due to the relatively small land area of the country.

The current curriculum in secondary education is an adoption of the London University General Certificate of Secondary Education. This has meant that the provision of education brings about a net flow of wealth out of the country in wages to expatriate teachers, purchase of specified textbooks and costs incurred in conducting examinations. These factors

have a negative impact on the balance of trade as a direct result of education. Chapter 5 will examine the proposition that these costs may not be sustainable in the long term, particularly as a service by the government.

1.3 DEMOGRAPHY

The thesis investigates the demographic implications for the planning of secondary education and constraints this may place on the curriculum. The investigation will also encompass the growing demand for secondary education; not only due to population growth, but also due to wider spread access to primary education as a result of the policy of Universal Primary Education which has been in place for the past ten years. This discussion will also examine the proposition that the current curriculum for secondary education is not economically feasible for all children in the Maldives in view of the geographical distribution of the student population.

For most administrative and planning purposes, the Maldives may be thought of as having two regions—Male' the capital island and the atolls which are the rest of the country. The thesis examines the proposition that the majority of children in the atolls do not have ready access to secondary education, and those who do are not succeeding in achieving an acceptable level.

1.4 THEORETICAL FOUNDATIONS

The theoretical framework for the thesis is based on an examination of current policy and its theoretical underpinnings. The manpower approach to education planning, its related aspects and the Human Capital Theory will be reviewed based on existing literature. The special constraints on aspects of education and development planning, arising out of the context of Small Island States are explored in order to put such planning in the proper context of the Maldives.

1.5 METHODOLOGY

The thesis then employs a case study approach in National Education Planning. Interview techniques have been applied to obtain planning data from educational and other government officials. The data used in the thesis have been gathered from a number of different sources. Government of Maldives publications are the main source of data regarding the economy and the population. Data on student performance was obtained from the university of London. Employment and earnings data were collected through telephone survey techniques. Detailed accounts of the research design and sources of data are given in Chapter 4 of the thesis.

1.6 THE CURRICULUM

Having established the background and context of this thesis in Chapter 2, the secondary education curriculum will be discussed with a view to supporting the propositions that the current curriculum:

- cannot be sustained in the long term;
- does not adequately meet the economic requirements of the country;
- is adversely contributing to social justice;
- does not adequately meet the social needs of the country at its present stage of social and economic development.

1.7 DEFINITIONS AND ABBREVIATIONS

Following is a brief list of key terms and abbreviations, along with their definitions adopted for this thesis.

AEC	Atoll Education Centre
AHSTC	Allied Health Services Training Centre
APS	Atoll Primary School

Atoll students	Those students who completed their primary education in any atoll school
Atolls	All islands of the Maldives excluding Male', the capital
EDC	Educational Development Centre
ESCAP	Economic and Social Commission for Asia and the Pacific; United Nations.
GCSE A/L	General Certificate of Secondary Education Advanced Level
GCSE O/L	General Certificate of Secondary Education Ordinary Level
IMF	International Monetary Fund
ITE	Institute for Teacher Education
MOE	Ministry of Education
MPE	Ministry of Planning and Environment
Production industries	Fisheries, Agriculture and Tourism Industries (industries which generate monetary wealth for the country)
ROR	Rates of return
Service industries	Public Service and Teaching (industries which do not generate monetary wealth for the country)
SIS	Small Island States
UNDP	United Nations Development Program
UNESCO	United Nations Economic Scientific and Cultural Organisation
VTC	Vocational Training Centre

Having outlined the basic components of the investigation in this chapter, Chapter 2 describes the context of this thesis. Chapter concentrates

on the factors which have to be considered in planning education in the Maldives.

CHAPTER TWO

CONTEXT OF THE THESIS

2.1 INTRODUCTION

The purpose of this chapter is to establish the context in which this thesis is written. While this thesis focuses on the secondary education system in the Maldives, before the curriculum and other aspects of planning and policy can be evaluated, it is important that the parameters within which the system itself is operating are understood. As such, this chapter examines the social and cultural context, performance of the economy in recent years, the distribution of population in the country, and a brief description of the evolution of education in the country. Together with these, the nature of human resource availability in the country will also be examined in this chapter. An attempt will be made to identify key features in these areas which could have a bearing on the future direction that secondary education may take.

2.2 CULTURAL AND SOCIAL ASPECTS

Only limited research has been carried out to examine the social aspects of the Maldives in the past. Consequently, it is difficult to obtain data from literature to describe the social situation of the Maldives. Nevertheless, a few works have been published, cited later in this chapter, and are almost totally ethnographic and anthropological studies by interested authors.

It is thought that the early settlers of the Maldives most probably were migrants from southern India or Sri Lanka. Evidence for this has often been quoted from the obvious similarity in language, cultural practices, and physical features of most Maldivians bearing close resemblances to the races in these countries (Maloney, 1980). However, there are also some communities bearing resemblances to some of the African races. Maldivian

music has most certainly been heavily influenced by African rhythms. However, there is evidence that the country had been inhabited as early as 2000 BC, and as such, it has been ample time for the settlers and descendants to adapt to a new environment, and for the different cultures and races to fuse and evolve a unique Maldivian culture. Perhaps the single most important event which drastically changed the direction of this evolution of culture could be thought of as the advent of Islam in 1500 AD. By the decree of the then Sultan, the whole population embraced Islam, and destroyed places of worship in the Bhuddhist and Hindhu communities. Since then, the Islamic doctrine has shaped the cultural practices of the country.

Maldivians also are proud of their own and unique language, *Dhivehi*. Dhivehi has been a strong unifying force among Maldivians, and a source of national identity. Apart from three dialects spoken in the southern atolls, Dhivehi is universally spoken and understood within the whole of the Maldives. The origins of Dhivehi can be traced to early forms of Sanskrit. While it is quite similar to Singhalese and Tamil, it also has borrowed heavily from Arabic, Urdu and Farsi, and in recent times, from English. Nevertheless, it has evolved to be a unique language with its own grammar and usage over the centuries. Dhivehi also has a unique script, *Thaana*, in which it is written. Dhivehi is the official language, and Thaana the official script used for all purposes of formal and informal communication within the country.

Perhaps the geographical factors in the country have had a greater impact on the evolution of society in the Maldives. Owing to the scattered nature, relative smallness, and poor communication, these islands have been isolated from each other and from the rest of the world until the latter part of this century. The smallness of the communities has meant that everyone knew everyone else, and hence has evolved to be a collection of extremely closely knit communities. Family values and loyalties are most important, and the style of living may be thought of as bordering on being

communal. It would not be uncommon to find three, or sometimes four generations living under the same roof in a given family. This continues to be the case even when space is becoming a problem. These strong family ties have inhibited migration to different areas of the country by individuals. The only real migration in the country is the exodus of people into Malé, the capital, the reasons for which are examined later in this chapter.

Until recently, the Maldivian people have maintained a subsistence level of living—relying on their daily fish catch and limited root crops and other varieties of local produce to sustain themselves. Consumption was extremely low, in terms of consumption today. Rapid growth in population in recent years coupled with gradual opening up to external trade and improvements in communication have brought fairly rapid change to the traditional lifestyle of the people. Material wealth and development are seen to be almost synonymous and the quest for different types of consumer goods has had its toll on the available resources and the economy in general. The nature of these will be investigated later in this chapter.

2.3 DEMOGRAPHY

The population of Maldives is distributed unevenly over 203 islands in 21 administrative atolls. A population census conducted in 1990 enumerated 213 215 people in the entire Republic. While this figure may indicate just another small nation by world standards, a closer examination of both the geographical and age distributions of this population reveals some of the acute problems that are faced by planners and administrators of this nation. 46.9 percent of the population are under the age of 15, of which only 0.7 percent are economically active (MPE, 1992) . The country has a high birth rate estimated at 34 per 1000 (MPE, 1991). The population has nearly doubled in the period 1971-1991 (MPE, 1992). This has been mainly a result of reduced infant mortality rates and high fertility rates (infant mortality 3.8 percent and growth rate 3.4 percent in 1991). The overall trend for the

Maldivian population is that it is becoming an increasingly young population. This fact has obvious economic and administrative ramifications associated to it.

2.3.1 GEOGRAPHICAL DISTRIBUTION

As previously stated, the population is spread over 203 islands. 202 of these islands are in 20 different atolls. The capital, Malé is designated as an atoll by itself for purposes of administration. Out of the 213 215 people in the country, the 1990 census estimated 55 130 people to be living in Malé. This figure accounts for over 25 percent of the population of the entire Republic. Table 2.1 shows the distribution of population by atolls in 1990.

TABLE 2.1: DISTRIBUTION OF POPULATION BY ATOLLS 1990

North Thiladhunmathi	12031
South Thiladhunmathi	12890
North Miladhunmadulu	9022
South Miladhunmadulu	8437
North Malhosmadulu	11303
South Malhosmadulu	7716
Faadhippolhu	7725
Malé Atholhu	10133
North Ari Atholhu	4630
South Ari Atholhu	5163
Felidhe Atholhu	1697
Mulakatholhu	4186
North Nilandhe Atholhu	2614
South Nilandhe Atholhu	4199
Kolhumadulu	8189
Hadhdhunmathi	9101
North Huvadhu Atholhu	7295
South Huvadhu Atholhu	10417
Fuamulah	6160
Addu Atholhu	15177

Source : Population Census, MPE (1990)

Each atoll, on average, has a population of 7,904. Further, only 6 out of the 20 atolls have populations over 10 000, while 5 atolls have populations under 5 000. These relatively small populations are further fragmented when one notes that each atoll has a number of inhabited islands, excepting

one atoll, namely Fuamulah. The numbers of inhabited islands in different atolls range from 1 in Fuamulah to 17 in South Thiladhunmathi.

TABLE 2.2: POPULATION DISTRIBUTION: SIZE CLASS BY ISLANDS

population	no. of islands
fewer than 100	2
100-199	13
200-299	20
300-399	30
400-499	25
500-599	24
600-699	19
700-799	14
800-899	7
900-999	8
1000-1499	24
1500-1999	7
2000-2999	4
3000-3999	2
4000-4999	1
5000-9999	2
10000 and over	1

Source: MPE (1990)

Table 2.2 shows the number of inhabited islands by class size of population in 1990. It reveals that of the 202 inhabited islands, only 40 islands have populations over 1,000. 113 islands have populations less than 600.

Table 2.3 shows the projected numbers of secondary aged children in the atolls by the years 1995 and 2000. It can be seen that by the year 1995 three atolls, and five atolls by the year 2000 would have secondary aged populations of over 1 000. While most atolls would have secondary aged populations of about 500 or more, the numbers become exceedingly small when one looks at the distribution on an island basis. Table 2.4 illustrates this distribution on a size class by number of islands basis.

TABLE 2.3: PROJECTION OF SECONDARY AGED CHILDREN FOR 1995 AND 2000 BY ATOLL

Atoll	1995	2000
North Thiladhunmathi	1009	1450
South Thiladhunmathi	1071	1563
North Miladhunmadulu	790	994
South Miladhunmadulu	699	987
North Malhosmadulu	940	1330
South Malhosmadulu	698	913
Faadhippolhu	593	773
Malé Atholhu	518	621
North Ari Atholhu	354	495
South Ari Atholhu	426	691
Felidhu Atholhu	116	190
Mulakatholhu	364	438
North Nilandhe Atholhu	231	387
South Nilandhe Atholhu	356	514
Kolhumadulu	734	981
Hadhdhunmathi	817	1099
North Huvadhu Atholhu	684	881
South Huvadhu Atholhu	996	1278
Fuamulah	599	819
Addu Atholhu	1266	1867

Source : MPE (1992)

These figures show that 193 out of 202 islands had less than 150 secondary aged children in 1990. Given the current birth and survival rates, the secondary aged populations in these islands would increase. However, it would be safe to assume that there would be at least 150 islands with secondary aged populations of less than 150.

Thus far, this investigation of the demography of Maldives has mainly concentrated on secondary aged children. It is just as important to examine, however briefly, the nature of growth in population for the primary and middle school age groups, as this would have a direct bearing on the level of possible expenditure on secondary education.

TABLE 2.4: DISTRIBUTION OF SECONDARY AGED CHILDREN SIZE CLASS BY ISLANDS

population	secondary aged	no. of islands 1990
fewer than 100	6	1
100-199	7 - 13	13
200-299	14 - 19	20
300-399	20 - 26	30
400-499	27 - 32	25
500-599	33 - 39	24
600-699	40 - 46	19
700-799	47 - 52	14
800-899	53 - 59	7
900-999	60 - 65	8
1000-1999	66 - 130	31
2000-4999	131 - 325	7
5000-9999	326 - 651	2

Source : MPE (1990)

As the numbers in primary and middle school age groups increase, there would have to be a corresponding increase in expenditure in these sectors. This would place greater burdens on the public purse, necessitating some sort of redistribution of expenditure in other areas in the absence of a corresponding increase in wealth. As government priority in education at the moment is primary and middle schools over secondary schooling (MPE, 1991), this could mean cut backs or no increases in secondary education spending.

TABLE 2.5: PROJECTION OF ENTIRE SCHOOL AGED POPULATION FOR THE SHORT TERM

age group	1990	1995	Increase	percent increase
5 - 14	60733	76915	13182	21.7
14 - 16	13805	17014	3209	23.2
14 - 16 Malé	4776	3753	-1023	-21.4

Source: MPE (1990)

Table 2.5 illustrates projections for secondary aged population; primary and middle school as well as secondary school populations in the short term. It is seen that an increase of nearly 22 percent could occur in primary and middle school population and a 23 percent increase in secondary school

population is possible. These figures are on a nationwide basis. The figures for Malé point to an exceptional case in that it is against the national trend, being a decrease of 21 percent.

2.3.2 THE CASE OF MALÉ

Nearly 25 percent of the republic's population was carried by Malé in 1990, and this figure increased to 26 percent in 1991 according to estimates reported in the *National Development Plan 1991-1993*. However, nearly one half of the population of Malé is due to migration from the atolls for various reasons which are outlined later.

**TABLE 2.6: POPULATION DISTRIBUTION IN THE COUNTRY ON
2 MARCH 1990**

	Enumerated	Registered	Difference between enumerated and registered
Republic	213215	209857	3358
Atolls	158085	179893	-21808
Malé	55130	29964	25166

Source : MPE (1990)

Table 2.6 illustrates the population distribution in the country on 2 March 1990 when the most recent census was taken. It can be inferred from this table that there were 3358 expatriates residing in the country—excluding tourists—on that date. Making allowance for this presence of expatriates, it can be concluded that the net difference in the number of persons enumerated in the atolls as opposed to the number of persons registered in the atolls, -21808, that is, a migration out of the atolls, is accounted for by a corresponding increase in the population of Malé. This migration into Malé and increased urbanisation of Malé have been growing trends in the past two decades (Lateef, 1980 and MPE 1991). While there are a number of reasons for this influx of population to Malé, Lateef (1980) proposes that employment opportunities account for the better part of the total migration. *The National Development Plan 1991-1993* (MPE, 1991) also entertains this proposition, although it does acknowledge the fact that education

opportunities that exist in Malé , opportunities that are non-existent in the atolls, also play a role in this influx of people to Malé . However, this thesis proposes that the major factor which attracts people to Malé from the atolls is the opportunities for education, particularly secondary education and post secondary training programs such as teacher education, technical and other vocational training as well as training in the health sector. Support for this argument is drawn from the age distribution of the population from the atolls resident in Malé, which is presented in Table 2.7.

TABLE 2.7: AGE DISTRIBUTION OF MIGRANTS TO MALÉ

Age group	Male	Female	Total
20 - 24	9.1	5	9.6
15 - 19	11.5	7.5	19
10 - 14	5.5	4.8	10.3
5 - 9	5.1	4.7	9.8
0 - 4	5.9	5.8	11.7

Source : MPE (1992)

As can be seen from the Table 2.7, nearly 51 percent of the migrant population is under the age of 19. In fact, the largest percentage is claimed by the 15-19 years age group. Even though the official age for Grade 10 is 16 years, it is a very common occurrence that students of age 18-19 years are enrolled in Grade 10, particularly in the case of the student being from the atolls. Hence there is enough grounds to make the assumption that the majority of those in the 15-19 year age group in Table 2.7 are enrolled in an educational institution. Another reason for this migration to Malé, which is not mentioned elsewhere, could very well be the lack of adequate medical facilities in the islands. This contributes to a floating population from the atolls in Malé , particularly among the elderly, bearing in mind that with a life expectancy at birth of 65 years (MPE, 1992), 50 years of age could be regarded as elderly. Thus those seeking employment, or those in employment would form a minor percentage of this migrant population.

2.4 ECONOMY

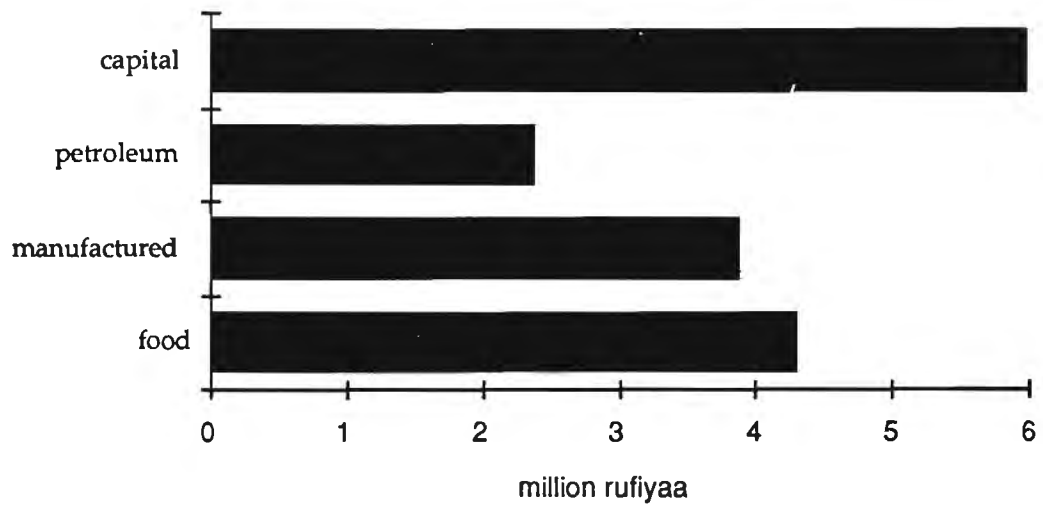
Due to the geographical isolation of the Maldives, the country has been virtually closed to the international markets in the early history of the country. However, there is evidence of some trading with neighbouring countries such as Sri Lanka, India and also with traders from the east coast of Africa and the Middle East as early as the fourteenth and fifteenth centuries AD (Maloney, 1980).

In what is known of the early history of the country, Maldives was by and large self sufficient at a subsistence level of living, mainly on tropical vegetables and fruits, some root crops and fishing. However, the small land area of the country and high levels of salinity of the soil have placed severe constraints on the development of agriculture in the country (Lateef, 1980). This led to a reliance on fishing as the main source of livelihood for the majority of the people in the country.

As the population of the country gradually increased, importation of food became a necessity as food production in the country could not keep up with the growth in population. This also opened up the Maldivian economy to external market forces gradually. Early exports of the country included different forms of sea shells such as cowry shells, as these were in high demand in some countries which used them as a form of legal tender (Haaland, 1987). The importance of these events in the current context is not the events themselves, but the implications in terms of opportunities in trading that opened up for the Maldivian people. Once trading links were established strongly, the imports were not limited to basic foodstuffs. Rather, different types of consumer goods found a potentially profitable market in the Maldives. In 1991, the Maldives imported goods to a total value of 1.7 billion Rufiya, of which foodstuffs accounted for about 0.3 billion Rufiya or about 17.6 percent of total imports (MPE, 1992).

Fig. 2.1 represents a breakdown of imports in 1991. Fig. 2.2 represents trends in imports over the period 1985-1991.

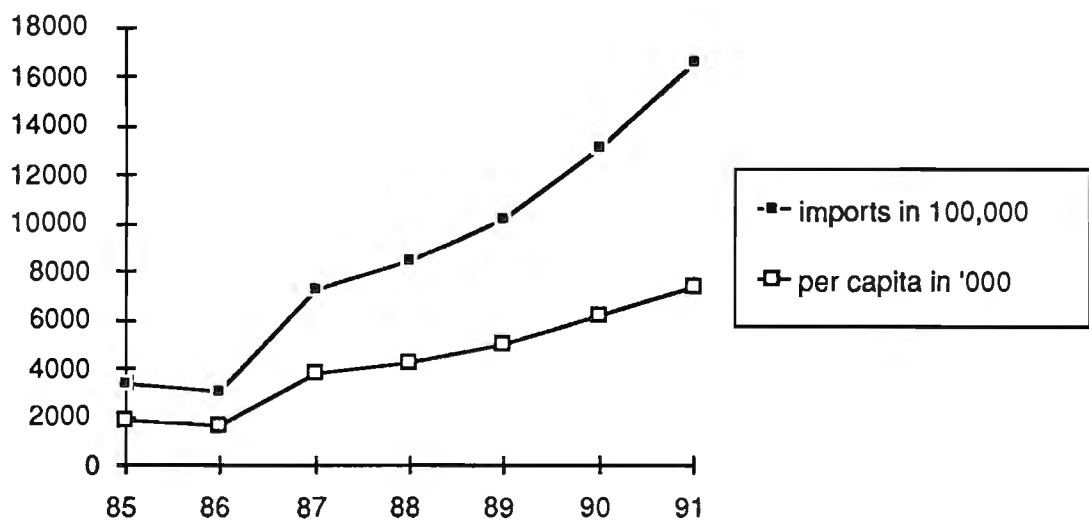
Fig 2.1 ; Breakdown of imports for 1991 in millions of Rufiya



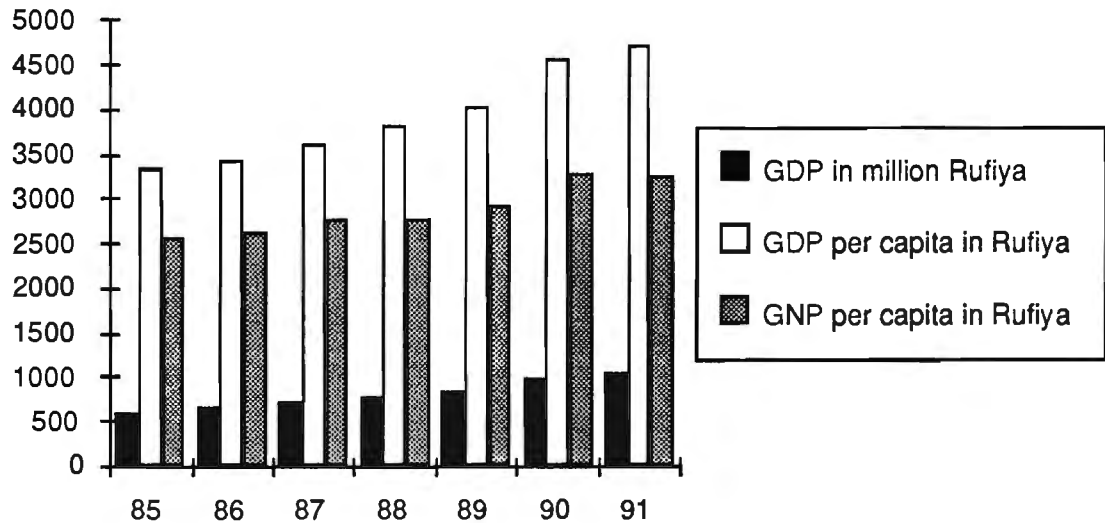
Source : MPE (1992)

From figures 2.1 and 2.2, it can clearly be seen that Maldivian society is becoming increasingly consumer oriented. This is reflected in the increase of imports per capita in the period, with the exception of 1986.

Figure 2.2 : Trends in imports 1985-1991



Source : MPE (1992)

Fig 2.3 : Per capita GDP & GNP 1985-1991

Source : MPE (1992)

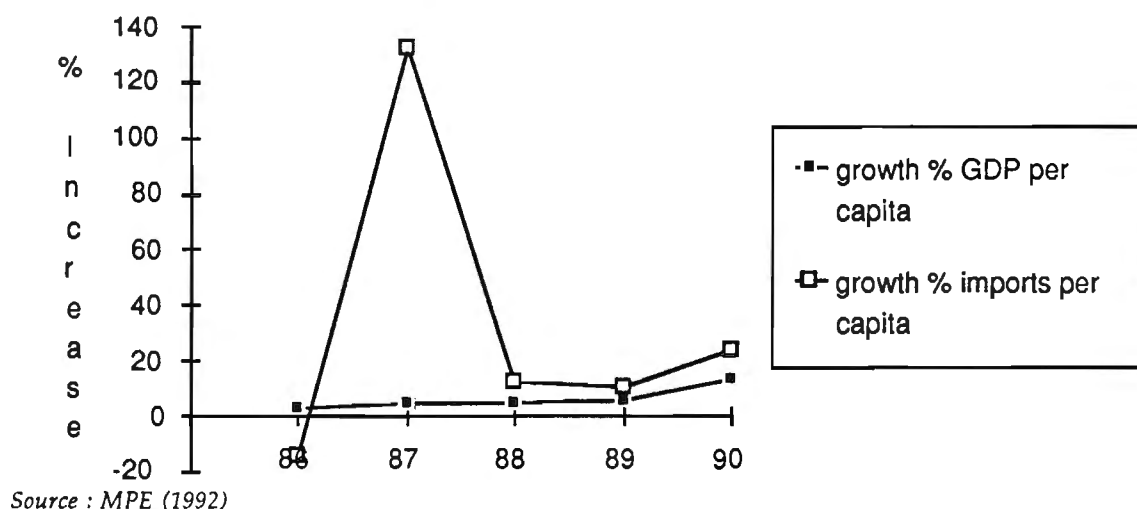
The Maldives has enjoyed modest economic growth in recent years. Fig 2.3 represents GDP and per capita growth in the period 1985-1991. While GDP has been growing almost at a constant rate, per capita growth has fluctuations. 1989-1990 saw a sharp rise in per capita growth, and almost a corresponding decline in growth is recorded for 1990-1991. Table 2.8 and Figure 2.4 shows changes in per capita growth of GDP and imports over the period 1985-1991.

TABLE 2.8: PER CAPITA GDP AND IMPORTS 1985—1991

	85	86	87	88	89	90	91
GDP per capita	3334	3427	3609	3801	4027	4551	4700
growth percent GDP per capita	—	2.8	5.3	5.3	5.9	13	3.3
Imports per capita	1888	1619	3764	4226	4957	6169	7407
growth percent imports per capita	—	-14.2	132	12.2	10.2	24.5	20.1
percent increase in population	—	3.6	3.5	3.3	3.2	3.6	4.7

Source : MPE (1992)

Fig 2.4 : Growth in per capita GDP and Imports 1986-1991



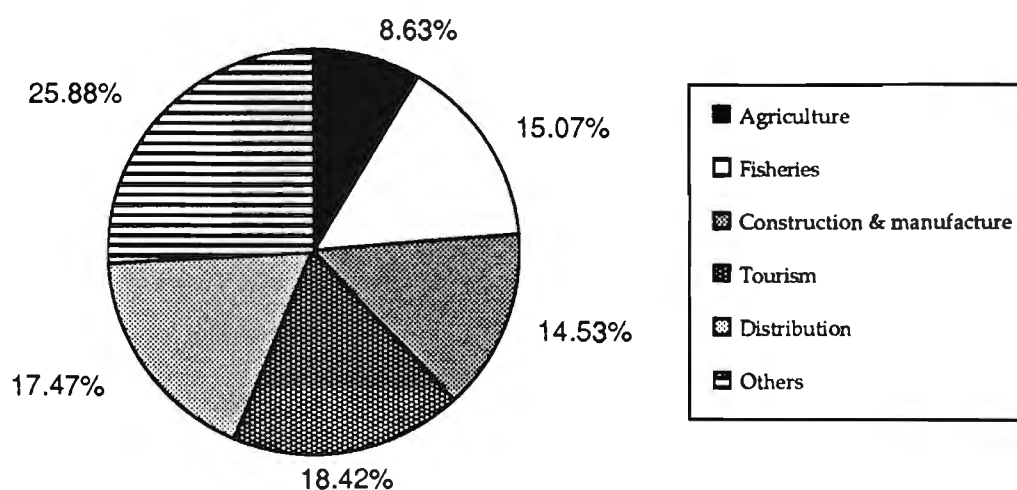
It is apparent from Table 2.8 that per capita growth in GDP has not kept pace with growth in per capita imports. This has led to a trade imbalance of -77.8 million US dollars (approximately 817 million Maldivian Rufiya) and a current account deficit of 6.8 million US dollars (approximately 71 million Maldivian Rufiyaa) in 1991. Clearly, at this rate of consumption, the economy could be headed for disaster unless productivity and exports can be increased significantly or consumption reduced. Reduction of consumption is not likely to occur as the country is aiming to reach a standard and style of living comparable to industrialised nations of the world.

Given the limited natural resources of the country, the Maldives is in a quandary when it comes to increasing GNP figures. Even if markets could be established in the face of tough competition, levels of production are limited. To compound the problem further, human resources are scarce, particularly skilled labour (MPE, 1991). This implies that the Maldives is not in a position to capitalise on forms of re-exports that are value added as have been proven successful for countries, such as Singapore, with limited natural resources.

Estimates for 1990 show the dependency ratio to be 1:0.99. This is not a surprising statistic given that a large proportion of the population is under

the age of 15 years. In the medium term, this proportion is expected to increase (MPE, 1992) and a more unfavourable dependency ratio could be expected. The significance of this is that per capita GDP may very well decrease and levels of consumption could be expected to rise, placing a greater burden on the economically active population.

Fig 2.5 : GDP by sector 1991



Source : MPE (1992)

As stated earlier, fishing or fishery related activities generated the bulk of wealth in the country until recently. Since the introduction of tourism in 1974, the tourism industry has become an increasingly significant contributor towards the GDP. Figure 2.5 is a breakdown of GDP by sector for 1991.

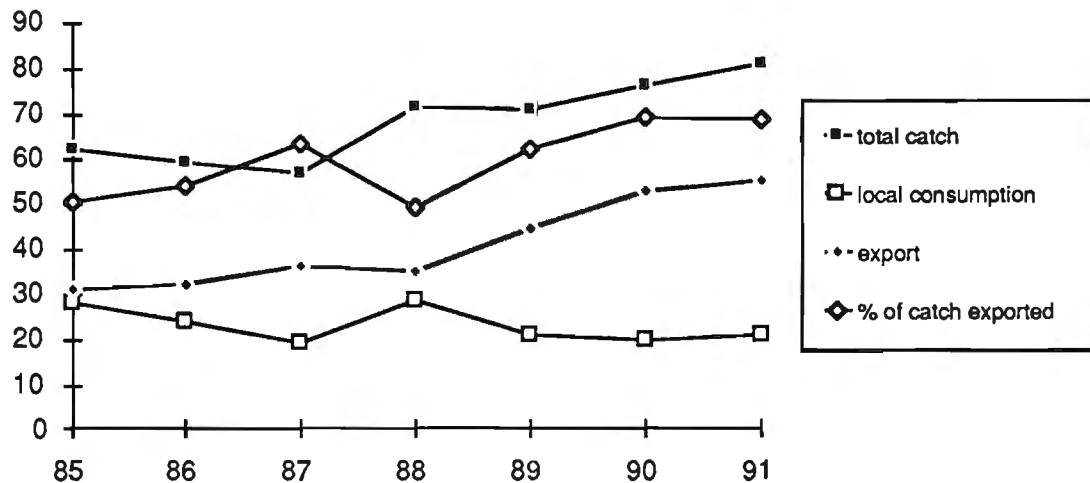
Figure 2.5 shows that Tourism is the major contributor, followed by Fisheries and Agriculture.

2.4.1 FISHERIES

Fishing has been an integral part of Maldivian life for as long as historical accounts are available. This is only to be expected given the vast expanses of sea in the country compared to the very small land areas of the

islands. Fish and other marine products are an important part of the staple diet.

Fig 2.6 : Fish catch, consumption and export 1985-1991 ('000 tonnes)



Furthermore, fisheries has evolved to be a major component of export earnings. Traditionally, it was exported as salted, smoked or dried fish. However, in recent times, a modern fish canning factory has started operating, and frozen fish also has established markets overseas. Other forms of marine produce such as ambergris, giant clams, sea cucumbers and lobsters also form part of the export package.

Fig. 2.6 illustrates local consumption and export of fish caught for the period 1985-1991. It also illustrates exported fish as a percentage of fish caught. It can be concluded from these figures that there is a general decline in the level of consumption of fish by locals. While the actual figures remain somewhat constant, the decline in consumption can be deduced when one considers the increase in population over the period. What is more apparent from Fig. 2.6 is the gradual increase in the proportion of fish and marine produce being exported. This would indicate that the marine sector could play a vital role in the growth of the economy in the future.

2.4.2 TOURISM

As indicated earlier tourism is also a growing industry in the Maldives. Currently, it stands as the major provider for the GDP. The natural beauty of the country and its unspoilt beaches, lagoons, reefs are being hailed as one of the world's best diving spots. Holiday makers from all over the world find the Maldives to be a place in almost perfect harmony with nature.

Table 2.9 shows the contribution by the tourism industry towards the GDP over the period 1985-1991. It reveals that the percentage contribution has not changed significantly over the period. However, as Table 2.9 illustrates, the industry itself has been enjoying modest growth.

Traditional clients of the industry have been mainly from Europe, particularly Germany and Italy. However, recent trends show that clients from Asia are on the increase, especially from Japan. Table 2.10 show the distribution of arrivals on a continent basis and Table 2.11 is a breakdown of arrivals from Europe.

**TABLE 2.9: CONTRIBUTION BY TOURISM TO GDP 1985—1991
(MILLION RUFUYA)**

	85	86	87	88	89	90	91
tourism	108.8	111.9	122.4	133.9	147.3	177.8	193.1
% growth	—	2.8	9.4	9.4	10	20.7	8.6
GDP	600.3	651.9	709.7	771.6	843.2	970	1048
% of GDP	18.1	17.2	17.2	17.4	17.5	18.3	18.4

Source : MPE (1992)

TABLE 2.10: BREAKDOWN OF TOURIST ARRIVALS 1987—1991

	87	88	89	90	91
Europe	98809	119487	123343	152041	147012
Asia	26541	31313	30172	37002	43899
Africa	322	280	372	296	321
America	153	1614	1702	2167	2008
Oceania	4050	2982	2861	3641	2859
Total	131399	155758	158488	195156	196112

Source: MPE (1992)

Table 2.10 shows that Europeans still form the largest proportion of tourists arriving in the country. However there is a trend of increasing arrivals from Asia. According to MPE (1992), these increases are largely due to increases in arrivals from Japan.

TABLE 2.11: BREAKDOWN OF ARRIVALS FROM EUROPE 1987—1991

	87	88	89	90	91
Germany	36957	40855	36048	41728	45442
Italy	23513	28329	30945	39808	38439
UK	7178	10406	15855	22684	14770
Switzerland	8157	9853	9248	11022	11446
France	6738	7114	8022	10685	12212
Other	16266	22930	23225	26114	24703

Source : MPE (1992)

Within the arrivals from Europe, it can be seen from Table 2.11, that Germans and Italians continue to be the largest groups of arrivals, followed by arrivals from the United Kingdom. The significance of this is that the clients of the industry are largely from non-English speaking backgrounds. Further, when considering the strengthening of the industry, care should be taken to cater for these clients according to their needs.

One of the problems associated with the development of tourism has been that the industry relies significantly on imports. This has meant that a great proportion of the revenue generated by the industry goes out of the country. ESCAP (1990) estimated that about 38 percent of tourism sales went towards imports necessary for the industry. ESCAP (1990:25) states that "...the foreign sector as a whole absorbs about 44 cents of every dollar of resort expenditure.". The same report also states that 47.8 percent of revenue is contributed towards the GDP. While recognising the difficulty for the Maldives to move away from a reliance on imports due to the physical constraints on the country, ESCAP also recommended that this exceptionally high percentage being spent on imports could be reduced by including more local content in the industry's input. To achieve this

objective, subsidiary industries would have to be developed, such as hydroponic farming, textiles, pottery and glass industries.

2.5 HUMAN RESOURCE CONSIDERATIONS

Human resource shortage is one of the biggest difficulties that planners in all areas are confronted with. The population is growing younger, and statistics show that it is likely to continue to do so for some time. Therefore the dependency ratio could be expected to increase for some time to come. Further, the participation in economic activity from the younger age groups, particularly under 15 years, is diminishing rapidly. This is mainly due to increased retention rates in all sectors of education—primary, middle and secondary schools.

In the preceding paragraphs, examination of the economy was limited to performances of key areas in terms of output only. It is also important in the current context, to examine the nature of the labour force which services the economy. The Maldives at the present time is faced with a critical shortage of labour in many areas, particularly in areas of the service sector, which has a great demand for skilled labour.

This shortage of labour in the country has led to the recruitment of such labour from abroad. For example, the majority of secondary school teachers in the country are from other countries. A number of workers in the tourism and construction industries are also expatriates. This has many social and economic implications. The main concern on the economic side is that this contributes to a considerable figure in the net flow of wealth out of the country in wages paid—mostly in valuable foreign currency.

Mention has already been made of the high dependency ratio in the country, and it was suggested that part explanation for this phenomenon could be that the population is a very young population. In addition to this, there is another equally significant factor which accounts for this figure.

Female participation in the work-force is very low. Table 2.12 is a breakdown of the economically active population by sex and sector in 1990.

TABLE 2.12: PERCENTAGE DISTRIBUTION OF ECONOMICALLY ACTIVE POPULATION BY SEX AND SECTOR 1990

INDUSTRY	Republic		Malé		Atolls		TOTAL
	M	F	M	F	M	F	
Agriculture	3.2	10.6	0.4	0.3	4.5	15	4.7
Fishing	24.9	2.9	5.2	0.2	33.9	3.9	20.6
Comm & soc.	18.1	33.5	44.6	63.3	12.8	21.2	21.2
% Total	80.2	19.8	25	5.8	55.1	14	—

Source : MPE (1992)

Note : Some row percentages do not add up to 100 as each column represents percent of total work force

The main feature of the work force from these figures is that female workers form only 19 percent of the total labour force. While about a fifth of the total working population is engaged in the fishing industry, female participation in this industry is a low 2.9 percent. The majority of women are working in community and social services areas. The figures for Malé indicate that the majority of people living in Malé are engaged in the service sectors of the economy. This is not a surprising figure as Malé is the capital where most of government administration as well as commercial activities take place. This is especially so when considering the extreme centralisation (Mohamed, 1992) found in the rendering of these services, particularly government administration. The figures for Malé also reveal an interesting statistic in that female participation in the labour force (5.8 percent) is well below the national average (19.8 percent). In the atolls, a modest 15 percent of the working female population are engaged in agriculture. The male participation in agriculture would be a minimum given that a high proportion of men in the atolls are engaged in fishing. This is reflected in the low percentage of men working in agriculture.

Figures for work force participation rates in tourism are not available. However, Hirigaa and Bushree (1993) quotes MATI¹ in saying that the industry employs 8 000 persons at the moment, a third of whom are

¹ Maldivian Association of Tourism Industry

expatriates. This would translate to a figure of 9.5 percent of the total local labour force by 1990 figures. These numbers would have been included in the community, social, and services figures quoted in Table 2.12. Hence it could be assumed that fishing still engages the majority of the economically active population. Based on these figures, the equitable distribution of the proceeds of tourism needs to be examined. However, this is beyond the scope of this thesis. What is relevant is that the only real contributions of the tourism industry towards government expenditure would be just the bed tax levied on clients by the government and the rent collected on leases of islands to resort owners.

The reduction of female participation in the labour force could be explained by changes in the fishing industry. Where the women were traditionally employed in the processing of the daily catch, direct export of fresh fish in recent years have made these tasks redundant. Thus a large proportion of women, particularly in the atolls have been freed to pursue other interests and occupations. However, the industrial and economic infrastructure has not responded to these changes by providing alternate forms of work for women. Areas such as agriculture using modern methods, manufacturing for the tourism industry which were mentioned before could be possible avenues to be strengthened. This would also contribute to a better distribution of the intake by the tourism industry.

TABLE 2.13: DISTRIBUTION OF LABOUR FORCE BY AGE GROUPS 1991

AGE	M	F	TOTAL
<15	0.6	1	0.7
15 - 19	11.3	13.5	11.8
20 -24	17	21.4	17.0
25 - 29	15.2	14	15.0
30 - 34	11.8	10.8	11.6
35 - 39	9	7.8	8.7
40 - 44	6.3	6	6.2
45 - 49	7.5	8	7.6
50 - 54	6.8	6.4	6.8
55 - 59	5.6	4.3	5.3
60 - 64	4.4	3.6	4.2
65 +	4	2.7	3.8

Source : MPE (1992)

Table 2.13 illustrates the distribution of the labour force by age groups. These figures show that the highest level of participation is in the 20-24 year age group. Overall, there is relatively high participation in the age group 15-34. Above the age of 35, there is a gradual reduction in participation.

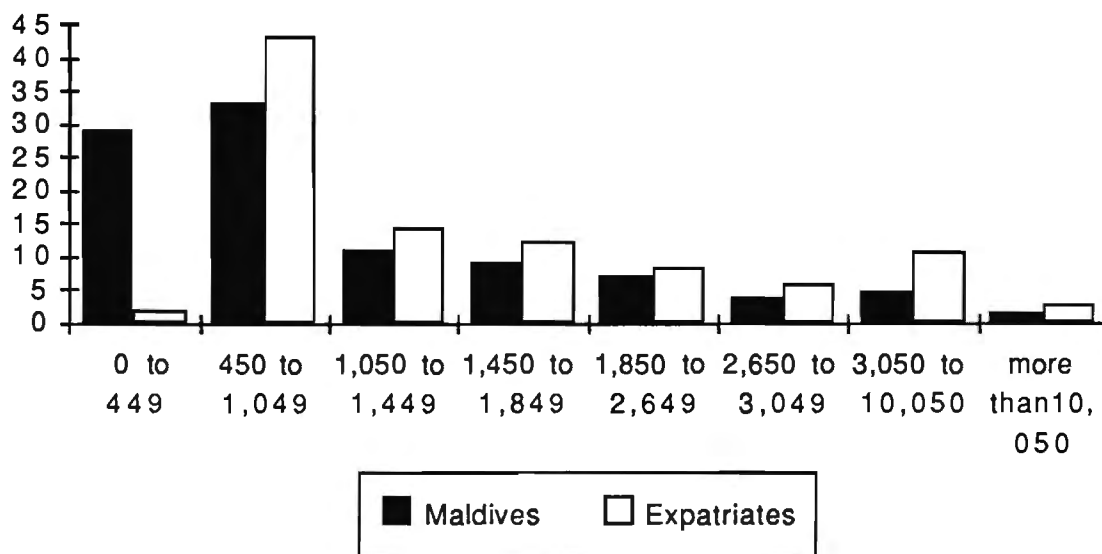
These participation figures for both age groups and sex can be explained partly by cultural practices and traditions. As mentioned before, the Maldivian people have a strong sense of family commitment. It is generally expected that men will be the bread winners for the family. Hence the low participation of women in the work-force. This is particularly the case for families with children. Further, it is also expected that adult children in the family will provide for their parents. This means that once children have grown up and started earning a living, parents will work a minimum. Hence the low participation in the work-force by older people.

Due to these factors, the Maldives has in recent years, increasingly depended on expatriate labour to fill in the gaps. This is accentuated when taking into account the skill base of the work-force. Among other types of labour, secondary school teachers are largely made up of expatriate labour. This will be examined in greater depth in chapter 5 of this thesis. In 1990, there were 13 429 foreign workers in the country compared to the 55 949 local workers (MPE, 1992). This means that more than 19 percent of the total work-force in the country is made up by expatriate labour.

Figure 2.7 illustrates the percent distribution of the work-force, both local and expatriate, in categories of earnings. The main features are that the lowest income earning bracket is almost totally occupied by locals. The second category has a greater percentage of the local work-force, but the similar percentage of expatriate workers are greater than locals in this category. In fact, the percentages of expatriate workers in higher income earning groups are higher than the locals. In summary, expatriates working

in the country earn more than the locals. The average annual income for locals is 17 100 Rufiya (MPE, 1991).

Figure 2.7 : Percent distribution of workers by earnings 1992



Source: Department of Public Works and Labour (1992)

NOTE: These figures are monthly earnings in Maldivian Rufiya.

Table 2.14 illustrates the distribution of workers by occupations. It can be seen that of the total numbers of workers in both local and expatriate groups, a greater proportion of expatriates are employed in professional and related works than locals. The figures indicate that locals take up the types of work that would require a knowledge of local language and modes of communication such as fisheries, agriculture, clerical works and managerial and administrative works, while other types of work are left to expatriates.

TABLE 2.14: DISTRIBUTION OF WORKERS BY OCCUPATION

	LOCAL	EXPATR'TS
Professional, technical and related works	8.2	13.1
Administrative and managerial workers	1.2	0.8
Clerical and related workers	7.2	4.9
Sales workers	9.3	3.8
Service workers	14.9	37.1
Agricultural workers and fishermen	13.3	1.8
Production and related workers	40	38.5

Source : Collopy (1992)

As the majority of professionals are employed in development works and financial operations, these positions are being filled by expatriates in the absence of qualified Maldivians to occupy these places.

2.6 EDUCATION

Traditionally, three streams of education have been in place in the Maldives. One stream is the informal training received from the family and community as a child progresses from infancy to adulthood. In describing the education system of the country, MOE (1992:1) writes :

In the ancient past, and to some extent in the present, the core of what young people knew [and know] about the nature of their world, the customs and language of their community, the role[s] people play in life, and one's occupation, was [and is] learned principally through direct participation in family and island community life.

This would include most vocational skills such as boat building, skills in fishing the seas, agriculture and other important areas which were vital to the survival of the community. Most importantly, the social etiquette and one's own position within the society were learned through this informal system of education.

With the advent of Islam, learned Maldivians from abroad started instructing others in matters of religion which resulted in the development of a unique traditional system of education contributing to a high literacy rate in the country.

There were three types of schools , namely the *edhuruge'*, *makthab* and *madhrasa*. *Edhuruge'* was usually a private home where instruction in the practise of Islam took place, particularly learning to read the Arabic script in order to read the Qurān. *Makthab* and *madhrasa* were somewhat more formal and relatively secular in their operation. *Makthab* was generally a

place where literacy and numeracy in the local language was taught. *Madhrasa* took on a wider and more general curriculum and provided the rudiments of a primary education in modern terms. All these places of instruction were privately owned and operated, in that there was no central government input or intervention in the operation of these schools, and they were funded by island communities themselves. This meant that there was no commonality in the content of the material taught in the schools on a nation-wide basis, apart from the fact that basic instruction in religious education was provided in all schools.

The first government school was opened in 1927 in Malé. The curriculum was entirely Arabic language, religious instruction, Dhivehi language and Arithmetic—similar to *makthab* and *madhrasa*. In 1932 the first constitution of the country was introduced, containing a clause acknowledging the responsibility of the government in the administration of basic schooling in the country. This was followed by the formation of a Department of Education to take on this responsibility.

The 1940's and 1950's saw the emergence of a more formalised system of education in the country. This system had as the underlying assumption that education was an important element in national development. The government was instrumental in establishing at least a *makthab* in each island. A *madhrasa* was established in each atoll, where outstanding pupils in the atoll had the opportunity to further their formal education. Many of these students were awarded scholarships to complete their education in Malé. The main aims of the schooling in Malé were to instruct students in religion, instil nationalism in younger generations and to prepare them for work in government posts.

1960 saw another major change in education in the Maldives. English medium schools were introduced in Malé, with a view to prepare Maldivians to meet development needs of the nation. The Maldives was gradually opening up to the external world and new ideas, technology and

new forms of communication were becoming a part of everyday life, and particularly important in development efforts and government administration. The decision to make English the medium of instruction was made purely because this would open up opportunities for further education.

The system was an adaptation of the University of London General Certificate of Secondary Education Ordinary Level (GCSE O/L) syllabus; again to facilitate certification acceptable to universities abroad. Along with this move, expatriate teachers and foreign textbooks (mainly English) were introduced to the system. This has, over the past thirty years evolved to be the secondary education system of the country.

Since the introduction of English-medium schooling in Malé, there was a period of decline in schooling in the atolls (MOE, 1992). The government withdrew its support for education in the atolls over the period until the mid 1970's. The latter half of the 1970's witnessed a revival of government support in education in the atolls, which remains the case to date.

The decision by the government to increase education spending in the atolls was also tied to development efforts. Efforts were also made to make the provision of education in a more organised fashion. A move to a unified national system of education was made in 1978. Since then, the main focus of education policy in the country has been the attainment of universal primary education by the year 1995.

Towards this objective, primary and middle school education is provided in each atoll by the government in Atoll Education Centres (AEC's) and Atoll Primary Schools (APS's) and also in schools on individual islands. The AEC's were initially established so that they could provide support services in the entire atoll through professional development and teacher education programs for teachers in the atolls. However, these Centres now function mainly as primary schools

themselves, with little or no support from them to other schools in the respective atolls, the reason being limited resources, both financial and human, available for these AEC's.

Access to primary education by more students has resulted in a strong social demand for secondary education. Provision of secondary education had been largely limited to schools in Malé in the past. Efforts are now being made to extend this service into the atolls. A regional secondary school was established in Addu Atoll in 1992; an initial step in this program. At the same time, the government is also increasing funding to the AEC's and APS's to create and run secondary level classes in these institutions. Constraints on, and implications of, such expansion is examined in greater detail in Chapter 6.

The move towards a unified system of education also included the setting up of a National Primary and Middle School curriculum, together with development of associated teaching resources such as textbooks. This decision also marked the beginning of formalised teacher education in the country, to cater for the new syllabus. Until then, the curriculum in the primary schools, available in Malé only, was largely English in character, the rationale being that the students should be prepared to take on the GCSE 'O' Level syllabus when they reached secondary school. With the introduction of the new Primary School syllabus, the content was redefined to include some aspects of local living. The most important feature of this curriculum in the context of this thesis is that the medium of instruction was set to be Dhivehi in primary school. English was taught as a second language only. However, due to pressure from powerful lobby groups in Malé, the medium of instruction in primary schools in Malé was later changed to English again. This has resulted in the existence of a dual system of education in the country. One, with English-medium instruction in Malé, and one with Dhivehi medium instruction in the atolls. However, secondary education still remains the same as before in that it is still the British curriculum

except for Dhivehi taught as a language and Islamic studies, also taught in Dhivehi. This has meant that students may be faced with difficulty in making the transition to a different medium of instruction; this will be investigated further in Chapter 5.

The current system of education in the country is depicted in figure 2.8. The current system may be thought of as mainly an academic one, catering for students aspiring for higher education in tertiary institutions abroad, with limited pathways into vocational training. Pre-school opportunities exist in Malé only, and are mainly government funded. Primary education is available to almost all children in the country now. However, there is a dual system in operation: Dhivehi medium for the atolls and English medium for Malé. This would provide continuity for the pre-school graduates in Malé. Middle school is the same in that the dual system exists for Malé and the atolls. Secondary schooling is available only in the English medium, and opportunities exist mainly in Malé, with extremely limited access to children in the atolls. Upper secondary (Years 11 and 12) is available in only one institution, located in Male, and places are very limited, and hence highly competitive. Education beyond this level is not available in the country, and aspiring students would have to go abroad. The great majority of students who have pursued and are pursuing education at a tertiary level are funded through government scholarships of various descriptions.

Lower secondary education, which is the focus of this thesis, is of a specialised nature, in that students are required to specialise right at the start, and are placed into either Science, Arts or Commerce streams. However, evidence suggests that students from the atolls may be at a distinct disadvantage in secondary school, even if they should get opportunities to attend secondary school.

For those students who, for various reasons, opt out of the academic stream, be it for lack of opportunity or through personal choice, training in

some fields is available on a limited basis, in the country. These opportunities are outlined in Fig. 2.8. One could see at a glance that entry into the Dhivehi medium teacher training does not require as high a level of academic achievement as does the English medium. The argument could hence be put forward that the quality of teachers in the Dhivehi medium schools, in the atolls, would be considerably lower than the English medium schools in Malé.

While the justification for English medium secondary education in 1960 was on grounds of certification required for entry into foreign universities, this practice now needs to be re-examined in the light of existing inequalities of opportunity. Chapter 7 of the thesis examines in greater depth, these aspects of the current system using some criteria that will be outlined in Chapter 3.

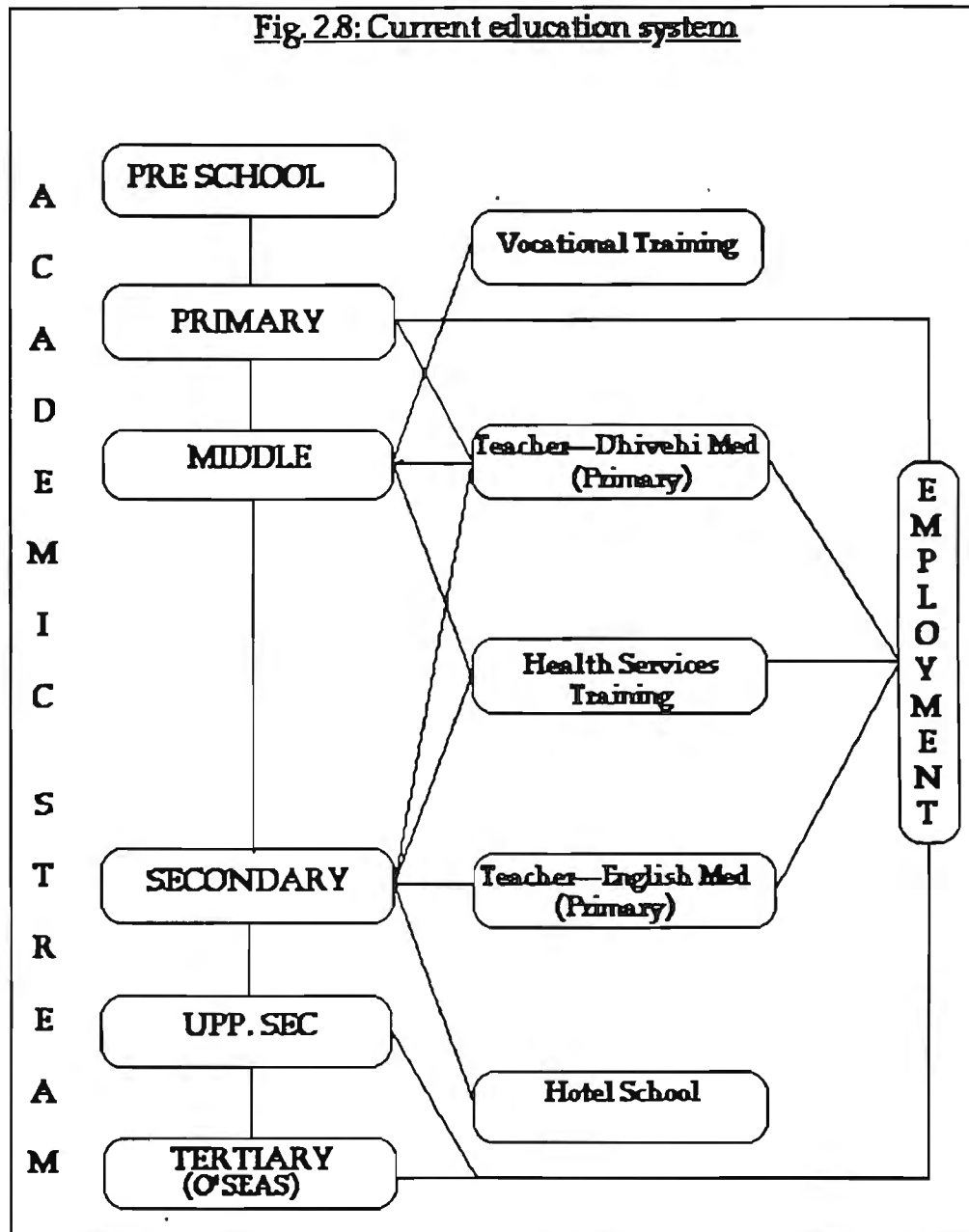
2.6.1 NATURE OF SECONDARY EDUCATION

Secondary education has two components to it. Lower secondary and upper secondary. Lower secondary comprises grades 8—10 (13 to 15 year age group) while upper secondary comprises grades 11 and 12.(16 and 17 year age group).

Lower secondary schooling essentially prepares students for the University of London GCSE O/L examinations while upper secondary prepares students for GCSE A/L examination. Together, they form the continuity in the academic stream of education.

At the lower secondary level, the curriculum offerings are grouped into three streams. Students choose a stream on entry into Grade 8. The subject organisation is outlined in the diagram given.

In addition to core subjects in each stream, students are also required to study all the compulsory subjects as well as one subject from OPTIONAL ONE and two from OPTIONAL TWO. Students are required to choose subjects which are not already in their choice of streams.



	ARTS	COMMERCE	SCIENCE
CORE	History	Accounting	Physics
	Geography	Commerce	Chemistry
	Economics	Economics	Biology
COMPULSORY	Maths, English, Dhivehi, Islam		
OPTIONAL ONE	Graphical Communication, Art, English Literature		
OPTIONAL TWO	Fisheries Science, Integrated Science, Computing, Economics, Biology		

Of the subjects listed above, Dhivehi and Islam are the only locally determined and examined subjects. All other subjects are devised and examined by the University of London.

A key feature of the secondary school curriculum is the early specialisation required from pupils. Grades 11 and 12 will be extending the students further in three selected subjects, which are usually the core subjects in their streams.

It should also be noted here that schools in the Maldives do not have the same degree of pastoral care entrusted to them as would be in many Western countries. In that sense, the functions of schooling are largely limited to 'teaching children' and does not include 'socialising' them. Nevertheless, it should be pointed out that the very process of 'teaching' itself could be construed as a form of socialising.

There is a parallel system of education (primary and secondary) which has recently been established, conducted in the Arabic medium. This stream has a limited intake, and at this point in time, is not a popular stream in terms of public demand. Although this dual system of overall education could have serious consequences in the longer term, it is beyond the scope of this thesis to examine this stream.

2.7 SUMMARY CONCLUSIONS

This chapter has established the context in which the thesis is written. The cultural, demographic economic and educational characteristics of the Maldives have been outlined. Planning for education should then take into consideration these factors.

It has been established that the Maldivian society consists of a number of closely knit family and community units without a formalised welfare state. The style of living may be thought of as being almost communal, and strongly influenced by the Islamic doctrine. Maldivians also speak their own unique language, which is the official language of the country. The population of the country is small and fragmented, with most islands not having secondary aged populations to make a secondary school in the traditional western sense financially feasible. Further, growth in the primary aged populations in the medium term is going to place heavy burdens on finances if the country is to realise universal primary education by the year 1995.

Trends in increasing consumerism raises serious concerns about the sustainability of existing development models, particularly in view of low local production of consumer items, and a heavy reliance on imports. Foreign debt is high and could be expected to grow in the medium term. The examination of the economy revealed that while tourism earnings are increasing, in the absence of a reasonable distribution mechanism, the overall value of the contribution by the tourism sector, in social terms, is negligible. There is a high rate of loss in revenue from the tourism industry to the foreign sector; through imports and employment of foreign labour. However there is the potential to develop subsidiary industries to retain this drain. Fishing or fishery related activities continue to be the vital backbone of the economy as the majority of the population is still dependent on this industry, either directly or indirectly. The potential for expansion of this sector exists, and could prove to be vital for the economy in the future.

Human resources in all areas needs to be developed as the country has a high expatriate participation in the labour force. Further, most expatriates in the country earn more than the locals and constitute the better part of professional and technical workers. There is also high participation by expatriates in the service and production industries.

The dual system of education in primary and middle schools may be disadvantaging students from the atolls, and reducing access to further education by these students. Secondary education does not reflect Maldivian society, and at the moment is only serving as preparation for further education abroad. The curriculum needs to be re-evaluated in terms of current issues in Maldivian society, labour force and development needs.

Chapter 3 explores the theoretical framework in which the education system is operating. After a review of current models, it also reviews the special problems of Small Island States in education planning as well as models of development which influence education.

CHAPTER THREE

THEORETICAL FOUNDATIONS

3.1 INTRODUCTION

The planning of education in any country involves consideration of a number of important factors. However, often one or a few paradigms tend to gain significance over others, and what eventuates as policy is geared to meet the needs of this dominant form or forms of thinking. This chapter aims to investigate some of the dominant forms of thinking which have influenced, and continue to influence the policies adopted by planners of education in the Maldives.

It is not all that difficult to locate such thinking as explicit statements have been made in recent documents which set out the educational policy in the country. For example, MPE (1991) states that the expansion of secondary education in the country will be carried out with a view to meeting the needs of the nation in 'trained and trainable manpower'. Further, MOE (1992) reiterates the same sentiment when stating one of the main objectives of education in the country as "increase [the] number of trained and trainable manpower for national development" (p 16). In the *Educational and Human Resource Development Plan 1985—1995*, MOE (1985:12) states:

The growth pole theory of material development and its long term positive effects on equity through a process of "trickle down", will have increased chances of success if it is guided by an articulate, well—informed and conscious people who can and are motivated to participate in the development process.

Thus, it can be concluded that the main approach to educational planning in the country is that of the manpower requirements approach. Even though MOE (1985) presents the rhetoric of the need to realise the unpredictability of changes which could occur in employment conditions and labour markets, subsequent activity in secondary education shows little evidence of preparing 'conscious and critical' people. Ever since formalised secondary education was introduced to the country, there has been little or no change in the curriculum. It should be noted here that although the term manpower has sexist connotations attached to it and the author is uneasy about the use of such terminology, the term will continue to be used in the following sections of this chapter and subsequent chapters, for the simple reason that much of the literature being reviewed uses the term and should be regarded as generic. The term 'manpower planning' is seen to be distinct from the more general concept of 'human resource development', the distinction not being based on gender.

This chapter then examines the theoretical basis on which this model of educational planning rests. A critique of the model, along with experiences of other developing nations will also be offered in the following pages. Emphasis is also placed on the fact that the Maldives is not simply a developing country; but it also belongs to a sub-category within these nations, that of Small Island States (SIS). The final part of the chapter focuses on the influence of models of development on educational policy and offers a critical evaluation of these models, with an emphasis on social equity and sustainability.

The manpower requirements model of educational planning derives its strength from human capital theory. Needless to point out, the human capital theory is a representation of the economic dimension of education. As such, following an examination of the human capital theory and the manpower requirements approach, other approaches within the human capital theory will also be investigated for a comprehensive coverage of the

economic dimension of education. It is not intended here to examine the mathematical formulations of the different approaches. Rather, a qualitative treatment is offered.

3.2 HUMAN CAPITAL THEORY

Perhaps the first person to articulate the idea of human beings as a form of capital for production may have been Adam Smith (1776) in his book *The Wealth of Nations*. Since then, this idea was further dwelled upon by Marshall (1890), and more recently revived by economists in the post-Second World War period.

In sum, this theory states that human beings can be thought of as an alternative form of capital and would yield a return on investments if educating the person could be thought of as investing in him or her. Becker (1964) revived this idea in a study which attempted to examine the effect of education on economic growth in the United States. In his rationale for the study, Becker (1964:xv) writes:

The origin of this study can be traced both to the finding that a substantial growth income in the United States remains after the growth in physical capital and labor has been accounted for and to the emphasis of some economists on the importance of education in promoting economic developments.

Becker also examined the differentials in earnings of individuals and concluded that the private rates of return on a college education exceeded those on business capital. Further, he also cast aside notions of different innate abilities contributing to such differentials significantly by claiming:

By and large, it appears, ability explains only a relatively small part of the differentials and college education explains the larger part. (1964: 155)

Since Becker's work, numerous researchers have investigated the potential benefit of such an approach to planning education. However, in this barrage of various research findings and theoretical formulations, one could not be ridiculed for questioning whether the central concern of such research and theorising has not been economic planning rather than educational planning. Some proponents of the human capital theory had done away with such criticisms by claiming that educational planning has to be congruent with economic planning (Goldstein, 1966)).

Hicks (1980) examined the cross-country evidence for 83 developing countries on literacy, life expectancy, and the growth in GDP per person and found that

...countries with higher levels of human resource development do indeed tend to experience more rapid rates of economic growth .(1980:ii)

He further asserts that policies directed at human resource development could influence the economic growth rate positively by improving the stock of human capital.

Hicks also claims that the attempt to reduce poverty by directly providing the poor with essential goods and services to complement other programs has resulted in an important realisation. That is, a "basic needs approach" also improves the quality of the labour force through the effects of improved health and education. This has resulted in a shifted emphasis towards improving the productivity of available human resources. He concludes his study by saying that

...policies directed at human resource development can raise the growth rate of output since they represent an investment in human capital. (1980:28)

There are two main issues that Hicks identified in his study that are of significant importance to the issues at hand. Firstly, he strengthens the arguments of the human capital theory by asserting that it is erroneous to think of human resource expenditures as purely a consumption activity. Harbison and Myers (1964) make similar claims about expenditures on education. Secondly, Hicks (1980) throws some caution to planners adopting this approach by saying that:

This analysis does not, however, indicate the proper mix of human resource and other, more traditional investments in physical capital. To do this, one would have to estimate the marginal rate of return for each type of investment, which probably varies widely between countries. (1980:28)

The first issue, that is viewing expenditure on education as an investment in human capital was of particular interest to economists. It was argued that if investing in humans through education and training would fetch a higher (monetary) return than alternative forms of investment, then such activity should be pursued. However, how much of available resources should be allocated to human resource development had not been determined by the work of researchers. This ties in directly with Becker's second point.

The work of human capital theorists had established some correlation with higher economic growth and education and training. However, it was recognised that formal schooling was only part of an individual's training. Training through on-the-job training, apprenticeships, work experience and various other avenues also contributed to the overall performance and productivity of a worker, particularly in later stages of his or her career. As such the difficulty has been, as far as planning formal education to meet this requirement, to determine exactly what proportion formal schooling contributes to the overall mix.

The post war period also coincided with a time when many countries in the world were gaining political independence from former colonial powers. These countries soon realised that in order to accelerate their socio-economic growth, they would have to find means of replacing skilled expatriate workers with workers of their own. With the colonial powers withdrawing their workers from different parts of the production process, these countries were often left with critical shortages of skilled labour, causing bottle-necks in the production processes (Hollister,1983).

These factors then set the scene for the evolution of the manpower planning approach to educational planning. Many international organisations involved with running development projects in these countries encouraged the development of educational policies to complement plans in economic development.

3.2.1 MANPOWER REQUIREMENTS APPROACH

It was argued that in the absence of skilled workers to exploit the other capital resources of a country, economic growth would be limited. Thus it was deemed as desirable to gear education systems of countries to ensure the production of graduates in sufficient quantities to meet future demands of industries. Goldstein (1966) advocated careful planning to ensure that the education system would deliver such skills in a timely fashion. Goldstein (1966:37) states:

Since the process of planning and setting up educational [systems] producing graduates is lengthy, the necessary manpower skills must be determined well ahead of time. The educational system must have a programme looking well into the future and carefully directed to fulfil the manpower requirements of a growing economy.

As the system operated under constraints of limited resources, it was also thought that an accurate projection of manpower that will be required in the future would be a necessary pre-condition to ensure that surpluses of skilled labour in a given field would not occur. In short, it was realised that preventing surpluses of labour was just as important as avoiding shortages. The main consideration in this was that surpluses would result in inefficiencies in terms of returns on investment. In describing the manpower requirements approach, Blaug (1970:143) states:

It would also seem to be important to avoid manpower surpluses as manpower shortages. On the contrary, however, the emphasis in manpower requirements approach is heavily biased towards discovering impending shortages. Perhaps that does not matter when the approach is applied to very poor countries with extremely low stock of qualified people.

Two things of concern arise out of this. Firstly, the dismissal of the situation of surplus labour in poor countries as of not much concern rests on the assumption that as stocks of skilled labour are low, this surplus labour could still be utilised in other areas, thus providing employment and meeting some other unmet need. However, this assumption further entertains the notions that what is good for the nation is good for everyone, and on a national scale, such 'small' miscalculation is of no particular significance as the same labour could be put to use elsewhere. Skorov (1965:132), arguing a case for manpower planning states:

...meeting the manpower requirements for the development of the national economy and culture emerges as the major and primary task of the educational system.

However, arguments of national good and public interest needs to be approached with some caution. It could be argued that such a thing as a public interest may not actually exist, as there is no one thing which is good for everyone. In fact, a strong case could be made for the argument that what is commonly perceived as national or public interest is in fact no more than a range of opinions from different pressure and lobby groups. Often such opinions are in conflict with one another and could be diametrically opposed. What eventually emerges as policy could merely be the result of compromise or one or more group(s) dominating over others.

Secondly, from the point of view of the poorer nations, such miscalculations could be very costly, in that it represents diversion of resources into an area or areas which would not yield the return expected. Moreover, the 'investment' would have been made at the cost of another option. Thus the opportunity cost involved could be of high proportions. Thus, contrary to Blaug's observation, it could be argued that the implications of such miscalculations could have dire consequences for poorer nations whereas richer nations could take it more in their stride.

Skorov (1965) also argues that complicated technologies, advances in science and applications of such advances to production require higher levels of skills which have to be planned for in order to avoid shortages. In addition he claims that increases in numbers of workers require high level manpower for management as well. This argument is further strengthened by his claim that the requirement for higher skilled manpower results in diminishing returns for unskilled labour.

Since the adoption of this approach to educational planning in many countries, severe criticisms have been levelled at it. The main criticism is that the approach assumes perfect market conditions of labour, which will ensure that students will choose their career paths in order to get into those professions with reasonable prospects in terms of employment and remuneration. However, labour markets tend to be imperfect in that

substitutions in occupations occur. Further, the problem is exacerbated when one considers the difficulty of determining which qualifications lead to which occupations due to difficulties in defining occupations precisely.

Secondly, this model also assumes the predictability of growth areas in industry. Further it also claims the ability to quantify such growth. The reality is that such forecasts can be rendered meaningless in rapidly changing markets in a short period of time. In view of the fact that the products of education generally have a long gestation period before it comes to fruition, it may be a risky enterprise for students of today to invest heavily without guarantees. Moreover, this method of planning takes a narrow view of the future in that it would be hard to anticipate potential areas of employment which may open up due to changes in technology.

It is surprising to note how little has changed in the last thirty years or so in this debate. For example, Davis (1966) argued against manpower planning on the basis that present work-force demand may bear little relationship to future demand. He goes on to say :

Economic planners may set priorities and growth goals for sectors of the economy, but rarely is it possible for industries to be specially identified as certain candidates for future growth. The educational system may have to train people for employment in industries which have not been established. (p. 20)

After 25 years, the same battle continues and Gale (1992) makes a similar observation :

There is a danger of seeing present trends as future requirements and of frustrating another generation of young people, who will spend years in further training, only to face unemployment... As to whether or not competence goals are based on real knowledge of further needs, we know that workforce planning has proved

extremely unreliable because of changing economic, technological and social circumstances.

3.2.2 COST-BENEFIT APPROACH

Criticisms of the manpower requirements approach led believers of the human capital theory to re-examine the approach being taken. This led to a concentration on evaluating the actual rates of return (ROR) from investments in education. Psacharopoulos (1973) examined the ROR based on measuring lifetime earnings of people at various educational levels in a survey of 17 countries. In this approach, benefits are discounted and compared to the private and social costs of education, including forgone earnings while at school. It was claimed that this allowed an estimate of ROR from investments in human capital. Psacharopoulos found an average social return of 25 percent for primary education. These returns however ranged from 6.6 percent in Singapore, 1966 to 82 percent in Venezuela, 1957. At the same time, Correa (1970) and Nadiri (1972) found education not to be closely linked to economic growth in Latin America and the Pacific.

Psacharopoulos and Hinchcliffe (1973) did further work on the ROR of developing as well as developed countries and strengthened the claim made by Becker (1964) that primary education yields the highest ROR, secondary education the next highest and tertiary education the lowest of the three levels of formal education. Based on these findings, they advocated greater emphasis on the development of primary education in developing countries. In the same study, Psacharopoulos and Hinchcliffe also made another interesting observation, that:

...the returns to education are declining at first until a certain level of [economic] development is reached, at which point the returns start to rise along with the level of development. (p.9)

In short, the observation was that poorer countries experience a higher rate of return on education than richer countries. Even though none of the researchers have offered an explanation for this phenomenon, one very simple explanation could be offered. Poorer countries are defined as such on the basis of GDP per person. That is to say, it is a reflection of how successful these countries have been in exploiting and marketing the natural resources of the country. It does not include the *potential*, in terms of possible exploitation, based on resources available for exploitation. It follows then, that these poorer countries could expect a higher return for their investment on education and skills which could render greater exploitation. Once nations reach a certain level of production, the returns could be expected to fall, as the marginal returns cease to increase through primary and secondary production. The increased return after a certain point of economic growth could reflect a shift in industries towards the services or tertiary sector, which seems to be the trend that industrialised nations are taking. In other words, the areas of investment contrast sharply, going from investment in primary and secondary production to investment in areas which are aiming to take advantage of heightened technology and science, which are almost exclusively available to richer countries.

Within this important debate of education, educators have managed to counter some of the arguments from the economic sector by claiming that arguments of economic returns fail to take into account the social, non-monetary benefits, as well as costs, of education in the overall equation of efficiency (Crittenden, 1988). Advocates of the human capital theory responded to these claims by offering a different model of planning within the domain of human capital theory, namely, the cost-benefit approach. The cost benefit approach then claims to include such social costs and benefits in their overall calculation of returns on education. Woodhall (1980) claims that for the purposes of cost-benefit analysis of an investment, it is necessary to define costs in terms of the total opportunity cost of a project, that is, all

real resources that are used up by the project as well as all the benefits, both monetary and non-monetary, that come about as a result of the project. Psacharapoulos and Hinchcliffe (1983) write that according to the cost-benefit approach, "efficiency gains result from educational expansion if the social benefits exceed the social costs" at an appropriate rate of discount. They further state :

This approach is framed in terms of the relationship between the costs of education and the resulting increased productivity of graduates in whatever economic activity they work. (p.11)

According to this approach, further expansion of education is justified only if such expansion results in a greater ROR; that is the return should be above the rate set as the criterion for government investment.

For a long time then, the cost-benefit approach and the manpower requirements approach have largely dominated the planning of education in many countries, particularly in developing countries. There are reasons why this has been so, and these reasons will be addressed later in the chapter. For the moment, it should be born in mind that both approaches have had weaknesses within them. Even if the validity of human capital theory is assumed, both manpower requirements approach and the cost-benefit approach, which have been the two most widely used models emanating from the human capital theory, do have some serious problems.

The main criticisms of manpower requirements approach have been:

- that it assumes identification and forecasting requirements of growth areas
- that it assumes zero labour substitutions
- that it is growth oriented and does not generally integrate objectives of social equity and social demand

- that it neglects occupational mobility; that is the greater the mobility, the less accurate and useful the forecasts.

The criticisms of cost-benefit approach include:

- that earnings differentials reflect differences in natural ability, motivation, social background occupation and other factors
- that it assumes a perfect labour market where there is none
- that it does not include non-economic benefits of education
- that it assumes full employment
- earnings profiles represent present and past demand/supply conditions, and these cannot be projected into the future, limiting its use in planning.

Psacharopoulos and Hinchcliffe (1983:16) sum it up nicely in the following statement:

...while [the cost-benefit approach] is in principle capable of considering more of the rationales for education development than is manpower forecasting, it is not an appropriate tool for those projects based on human rights, and nation building considerations.

Such criticisms have generated activity amongst the human capital theorists to formulate, yet again, alternative approaches which would still embrace planning education for economic development. While it was thought that manpower requirements approach and cost-benefit approach were mutually exclusive in some circles (Woodhall, 1980), more recent thinking has attempted to integrate the two approaches. Woodhall (1980:49) states:

Some of the literature on educational planning has represented cost-benefit analysis and manpower forecasting as mutually exclusive approaches to planning. This is unfortunate, for both manpower forecasting and cost-benefit

analysis are attempts to achieve the same goal: the rational allocation of resources in order to avoid shortages or surpluses of educated manpower, and to ensure the most efficient use of scarce resources in terms of economic growth. In fact, the two techniques can be complementary.

Hollister (1983) criticises the manpower requirements approach, and after a lengthy discussion, concludes that the developing countries would best be served by a program which put less emphasis on manpower projections and more emphasis on manpower analysis of the operation of various aspects of the labour market at all skill levels. Psacharopoulos and Hinchcliffe (1983) surveyed the literature and experiences of some countries in terms of both the manpower requirements and cost-benefit approaches and came to the same conclusion, that an approach based on analysis of requirements and available resources in order to determine allocation would be more efficient.

From this survey of the literature on the different approaches being used, it is quite clear that while acknowledging some limitations in the particular approaches being used, all authors cited so far essentially agree on the fundamental premise on which they rest, namely the human capital theory. The next part of this chapter examines the criticisms of the human capital theory.

3.2.3 CRITICISMS OF THE HUMAN CAPITAL THEORY

Even though the human capital theory has been the driving force behind many of the educational plans of countries all over the world, particularly in developing nations, there has been doubt and concern raised about the empirical status of the theory. Since Schultz's work in (1961) and Becker's work in 1965, Campbell and Siegal (1967) attempted to estimate the demand function for higher education in the United States. They examined the time-series data from 1919—1965 on tuition costs and real disposable

incomes per household to build a case for the human capital theory. However, their failure to include forgone earnings or expected future earnings in their study renders their findings somewhat lacking in that the inference may not be related to education as an investment, but rather as a consumption activity.

Galper and Dunn (1969) introduced distributed lags for the same data as used by Campbell and Siegal and found that even without tuition costs, there existed an excellent fit on their independent variables: high school enrolments, household incomes and the size of the armed forces, thus refuting the human capital theory. Similar results were obtained by Christensen, Melder and Weisbrod (1975). These refutations were further strengthened by Psacharopoulos (1973) in a study of education in Hawaii and Canadian studies by Handa and Skolnik (1972).

Freeman (1971) investigated the demand for specialised fields of study in particular to career choices of engineers and scientists. His approach was more widely encompassing in that he included more factors such as earnings today can only influence supply of graduates four years later. He also discounted expected lifetime incomes, included nonpecuniary factors affecting occupational choice and expected alternative occupations. His results for engineers, accountants, chemists and mathematicians supported the human capital theory. Perhaps Freeman's study is the most conclusive study to date which supports the human capital theory. Nevertheless, as Blaug (1976) observes, these findings are questionable in view of the fact that Freeman failed to "test the hypothesis that students take a life-cycle view of career opportunities" (p. 835).

This observation is further strengthened by the work of O'Connell (1972) who extended Freeman's analysis by concentrating on the supply of graduate engineers irrespective of the point at which students decided to study engineering. Employing a simultaneous equation model as opposed to

Freeman's recursive model, O'Connell demonstrated that the demand for engineers was insensitive to wage differentials.

Mincer (1974) argues a case for human capital theory by analysing the marginal differences in returns to private earnings on the basis of post-school training as opposed to formal schooling. He established through his model that about a third of the differentials can be explained as a direct result of formal schooling. However, the problem with this is that lifetime earnings profiles of individuals who have not received any post-school training is not observed (Blaug, 1976). Blaug's argument is supported by the work of Psacharopoulos and Hinchcliffe (1973) who found declining returns with successively higher levels of schooling.

There is enough evidence in the literature to affirm that the attempt to empirically test the validity of the human capital theory as predicting occupational choice remains unsuccessful. The evidence for it remains largely ambiguous to say the least. After an extensive survey of relevant literature on human capital theory, Blaug (1976 : 840) states:

All in all, the question of labor training continues to haunt the human capital research program. It is ironic to realize that the program was first developed in its most general form with reference to training, of which formal schooling is a special case. Nevertheless, the bulk of the work in the human-capital research program has been devoted to investment in education; to this day we have had to make do with rates of return to educational investment that are actually averages of rates of return to schooling and rates of return to training, in the fond belief that the yields on all types of human-capital formation are more or less equalized in the labor market... there is little empirical evidence to support this belief and there is a great deal of evidence that flatly contradicts it."

Having reviewed the human capital theory, and with the conclusion that it has failed to live up to what it is purported to be, one then needs to seriously address the question: why is it still being used as the fundamental tool for educational planning in so many developing countries including the Maldives? Even though there is some merit in the theory in the context of the United States and some other developed countries, (though Blaug (1976) claims that it is really not possible to investigate the issue in European countries as the places in higher education are regulated more centrally than in the United States), the arguments for it originate mainly from the economic paradigm. That there are reasons why this domination of education in developing countries by the economic paradigm was mentioned before. It could be argued that these reasons are closely tied to perceptions and definitions of what comprises development. The prevailing practises of education in most developing countries are legitimised by arguing a case for development, and meeting such requirements and needs as identified by development plans. However, before examining definitions of development, the special case of Small Island States is examined.

The post-Second World War era saw many countries of the world gaining political independence through a withdrawal of colonial powers from these countries. With the withdrawal of expatriates in these countries, the local population were left in charge of setting future directions for their economies and general well being of the people. However, this withdrawal meant that much of the skilled labour force also left these countries. The efforts for development, which were essentially economic development, could not be brought to fruition without the development of an adequately trained labour force which was required for industrialisation.

It was mainly with this objective that most of these countries then embarked on growth plans which placed an emphasis on the role of education in providing the required manpower. The re-emergence of the human capital theory in the early 1960's—particularly amongst those

agencies such as UNDP, IMF and later the WORLD BANK, who were assisting the development of these nations—had a strong influence in formulating manpower plans as the basis of educational planning. Through this process, the education systems in many countries have largely become an instrument for economic planning. This has meant that systems of education are very much geared towards preparing pupils for higher education in specialised fields and some amount of vocational training.

Educational planning in most underdeveloped and developing countries has a number of constraints associated to it. Generally speaking, these difficulties could be grouped under the broad headings of limited resources and finances, high birth and population growth rates and insufficient supply of qualified personnel. These are conditions of which planners, policy makers and administrators in these countries are acutely aware.

In this process of planning education, the Small Island States (SIS) have been categorised simply as third world or developing countries and the systems adopted have been similar to other developing countries. The military intervention by the United States in Grenada in 1983 brought the attention of the world to the special vulnerability of SIS in the global community. Since then, vulnerability of a different kind, that is the possibility of total extinction of some of these countries through sea level rises, has also been brought to the attention of the world. (Connell and Lea, 1992).

These concerns caused the British Commonwealth of Nations to convene a special working group to look into the problems faced by SIS, and the resulting report in 1985 highlighted some of the major obstacles facing these countries in the process of development. It was acknowledged that these states may have problems which are unique to them, arising out of their smallness, and which may not be present in many other developing countries.

3.3 EDUCATION IN SMALL ISLAND STATES

Small states of the world have not been studied widely enough in the past for a well defined theory to have been established. However, limited work has been done. Initial works (Demas, 1965; Benedict, 1967) were almost exclusively in the fields of economics and politics. Nevertheless, the 1980's witnessed much activity in exploring constraints and possibilities for small states in their educational development efforts.

Most commentators on education in small states begin with a definition of what they mean by 'small'. The main factors determining smallness are usually thought to be population size, per capita GNP and land area. However, the majority of writers in the field of comparative education concentrate on population as the main criterion (Brock, 1988a, 1988b; Bray, 1991a; Bakar, 1988). For the purposes of this thesis, the same definition of smallness will be adopted due not only to the small size of the total Maldivian population, but also to the geographical distribution of the population (see Chapter 2 for details).

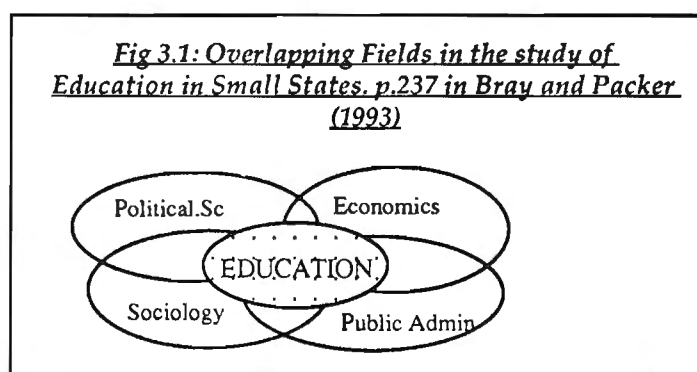
Bacchus (1989) identified the degree of openness of economies in SIS and the ensuing dependence on foreign trade as a common feature of most SIS. Bacchus and Brock (1987) commented on the political and cultural vulnerability of SIS due to this openness. Bacchus (1989) also identified the constraints placed on industrial development due to the small, and often fragmented population, which does not constitute feasible markets for large scale production. The same aspects were identified by Brock (1988b) and later by Bray (1991a) as serious constraints inhibiting not only economic growth, but also provision of vital services such as education.

Diseconomies of scale, then looms large in the face of planners in all areas in SIS. For example, provision of education, particularly secondary education which requires specialist teachers, and higher education is made difficult due to high per head costs. Further, in archipelago states such as the Maldives, the problem is compounded when one considers the fragmented

nature of the population and the high costs of transportation and communication involved (Bacchus & Brock, 1987; Bray & Packer, 1993).

Grant (1988), Bakar (1988) and Brock (1988a) examined the cultural vulnerability of small states in the wider global context. Brock (1988a) demonstrated that most small states are on the economic periphery in relation to industrial and metropolitan centres of the world. Grant (1988) explored the consequences of marginalisation of small states on their cultures and languages and strengthened the argument that external systems of education contribute to weakening the cultures and languages of the recipient people.

After an extensive review of the literature on education in small states, Bray (1991a) attempted a generalisation of the education condition of small states. His analysis consisted essentially of an examination of the relationships between small size and politics, economies, societies and public administration.



By placing education in the centre and drawing on conceptual frameworks of other fields, Bray and Packer (1993) identified six major issues and challenges, namely :

1. Resources

Lack of natural resources from which to exploit is a major constraint on development of most SIS. It also means limited finances available for public expenditure in areas such as education. Bacchus and Brock (1987) and Brock (1988a) also emphasise these constraints on SIS. The challenge is to

develop an appropriate human resource development program to maximise the output from available resources.

2. Foreign Aid

A high dependence on foreign aid, in terms of both expertise and monetary input is a major issue for most SIS to pursue development and education plans.

3. Interpersonal relationships

Small states generally have small educational fraternities. The linkages between personnel often extend beyond the workplace. This means that decision making processes often do not follow the more bureaucratic procedures one would see in larger countries, thereby losing some of the objectivity that may be required in making hard decisions. The challenge then is to develop systems of organisation and management in a way that best exploit these interpersonal networks.

4. Specialisation

Small and fragmented populations limit specialisation. The ability to offer diverse and varied courses is restricted. The challenge here is to devise ways of overcoming diseconomies of scale.

5. Research

SIS also have limited internal capacity to conduct research. This leads to a situation where ideas and technologies have to be borrowed. In this situation, SIS would have to ensure that they are not isolated professionally, keep pace with new technologies and identify which imported ideas and technologies need to be modified.

6. Identity

It is becoming increasingly difficult for SIS to retain and develop national and cultural identity. The challenge here is to balance the need for education to have cultural and national integrity with the demands of international interdependence.

These points highlight the major difficulties that SIS face, not only in the provision of education, but also in overall development.

Many of these countries are still trying to develop and maintain systems of education which were inherited in colonial times. The prevailing argument is that since many SIS do not have the capacity to have their own higher education institutions, it is essential that they adhere to a system of education which would enable them to pursue higher education abroad. The necessity for higher education, particularly of a scientific and technical nature emanates from manpower requirements policies, which are in turn essential to development. These forms of education are often acquired through various aid and assistance schemes administered by developed countries and development agencies. In the Maldives, secondary education is a direct importation of the British curricula, preparing students for the University of London GCSE examination.

One of the concerns which arise out of this is that students are instructed and educated in the English medium in secondary schools. Since the adoption of a policy of Universal Primary Education, a dual system of education has evolved in the country: A system of instruction in the vernacular for primary schools in the atolls other than Male', the capital; and a system of instruction in English in Male'. The main concern lies in that secondary education in all schools in the country has English as a medium of instruction. This places the students from the atolls at a distinct disadvantage. The effect of this inequity becomes more pronounced as arguments of meritocracy are employed in determining who gets the

opportunity to proceed further in education and determining employment opportunities.

Moreover, the current curriculum in secondary schools raises another critical issue. As it is a curriculum which is totally British, it does not reflect Maldivian society in any way. Recent attempts to redress this problem have resulted in the inclusion of a 'Maldivian subject', *Fisheries Science*, in the curriculum. However, this subject tends to be very technical in character, concentrating on the biological aspects of fisheries; and offers very little critical evaluation of the place of fisheries in Maldivian society. At the present time, there is no component of the secondary school curriculum which gives the students any opportunity of studying their own society and values. Nor is there any avenue for teachers or students to incorporate life experiences of the Maldives into subjects being taught in any meaningful way.

The adoption of foreign curricula, such as the London University GCSE in the Maldives, French education in the Comoros (Bakar, 1989), Cambridge matriculation examinations in Mauritius (Bray, 1992) to name a few, present adverse implications for these societies which are worthy of serious investigation.

Firstly, implications for social equity. In the Maldives, a dual structure of primary education is in operation. The vernacular, Dhivehi, is the medium of instruction in primary schools in all atolls except Male', the capital. English is simply taught as a foreign language, mostly by teachers who themselves have an extremely poor command of the language, in these atoll schools. By contrast, Male' schools employ English as a medium of instruction, and mostly have well qualified teachers, often expatriates. These situations by themselves may not seem significant. However, when one considers the limited opportunities for secondary education and the nature of secondary education, the picture is somewhat different. As English is the medium of instruction in all subjects (except Islam) in the secondary

schools, this may place the children in, or studying in Male' at a distinct advantage. Further, the children from Male' often bring with them a great deal of what Pierre Bourdieu (1986) would call cultural and social capital, accentuating these inequities. Bacchus (1990:297) writes:

In fact, it seems that the educational policies of the IdC's have provided strong evidence to support the social reproduction theory of education which, in these countries has largely helped to consolidate the power of the ruling elites, as it did under colonial rule.

The children from Male' are exposed to Western culture at an early age, through parents who would have had a similar education, through books, magazines and other multimedia materials such as television and video materials. On the other hand, children growing up in the atolls would not have had such exposure at all. This means that the arguments of meritocracy used for selection purposes in all stages of post secondary schooling become almost meaningless. As Spaulding (1988) writes, if a straightforward meritocratic standard is applied, children from the white-collar classes, residing in the urban areas would excel in examinations, while others would come second best and accept an inferior role in society as their just dues. While students from Male' would be concentrating on content, most students from atolls would be struggling to understand the language in which they were being instructed. The ultimate result of this could be, in Bourdieu's words :

As an instrument of reproduction capable of disguising its own function, the scope of the educational system tends to increase, and together with this increase is the unification of the market in social qualifications which gives rights to occupy rare positions (1986:255).

Secondly, what effect is it having on the culture and ways of living in these countries? Many of these countries maintained fairly subsistence forms of living in the past. However, the quest for development has seen rapid changes in these societies. For example, in the Maldives, increased consumption in the form of 'modern conveniences' and luxury items is fast becoming a way of living. As the people get more exposed to external ideas and definitions of 'high standards of living', one sees increased consumerism becoming the accepted way of life. As Habu (1985), quoted in Bray, (1992:52) observed:

Today, the economy has enabled some of us to have foods which can only be produced by people in other countries. This has led those who did not have these things to request these things, and so very quickly we have become dependent on manufactured goods. Much of the time of education is spent in trying to learn about these new things - why they are made, how they are made, how they should be looked after, etc. Instead of planting yams for dinner a lot of us now buy and sell imported goods in order to buy yams, or sell yams to buy rice.

The question is, with the limited resources available in the country, can such practises be sustained? In the absence of a capacity to produce such consumer goods locally, the dependency on trade and importation becomes a necessity. With increasing populations, and the prospect of lowered per capita GDP, it could be argued that current levels of consumption cannot be maintained. The symptoms of a possible breakdown are already present in high imbalances in trade and increasing current account deficits. The education system has as its basis a belief that capitalism will ultimately ensure harmonious societies if a model of development as prescribed by industrialised nations can be fully embraced (Carnoy, 1974). It is with this fond belief that expansion of such a system of education throughout the country is sought. However, it could be argued that free trade, which is

fundamental to success in the capitalist tradition, is obstructed through various tariffs and regulations in international trade. The Commonwealth Secretariat (1985) raised concerns along these lines in claiming that increasing bilateral and declining multilateral arrangements were having, and continue to have, a disastrous effect on the development efforts of SIS.

Adoption of foreign curricula in SIS are also having deleterious effects on the cultural practices of SIS. One of the key reasons as to the use of such curricula could be a belief that it is knowledge from the cultures of the metropole that are the only valid forms of knowledge. This may be tied to the hegemony that exists among much of the developing countries, inherited from colonial days, about the superiority of education in the western tradition. As an effect, this could also be an acceptance of a superiority of western culture over others. Beckford (1972) claims that the most intractable problem of dependent societies is the colonised condition of the minds of the people. This condition often poses a dilemma for the people, particularly educated people, in these countries, who are working in senior positions. Farrugia (1993 : 223) writes :

Perhaps neocolonial thinking is one of the major handicaps facing small states. They tend to have a strong national and cultural identity; and yet feeling small and vulnerable, they remain intellectually dependent on larger states. They see themselves as miniature models of the larger nations and attempt to emulate them without fully realizing that as small states they have an ecology of their own.

Along similar lines, Arnove (1980) cites Hall (1978) in posing the question as to whether researchers and university faculties in developing countries have more in common with researchers and academics in industrialised countries than with their own fellow country people. Altbach (1975), referred to in Arnove (1980), in exploring what he calls "literary colonialism" and "servitude of the mind" quotes some very interesting

figures. He claims that 34 industrialised countries with 30 percent of the population produce 81 percent of the world's book titles. In fields like the social sciences, United States, United Kingdom and France produce 62 percent of the world's periodicals. Altbach also makes a claim that in India, about 50 percent of books are published in English when only 2 percent of the Indian population are literate in the language. In the Maldives, almost all plans and discussion papers for development and reports on research findings relating to such plans are formulated in English, the reason being that the majority of development plans require foreign assistance, and the approval of "experts". The end result is that the better part of the population do not have an input in formulated plans, or lack the opportunity to comment on important issues of national concern. The continued practise of education at the lower and upper secondary levels, and consequently tertiary education, in the English language, inhibits communication of a meaningful nature between the masses and administrators regarding national affairs. It is widely accepted that unless one is educated in the English language, one could not have the skills and intellect to contribute to such affairs.

The longer term effect is what Parkin (1982) has termed 'social closure'. By the gradual formation of an elite—the common denominator of who is a minimum education of the GCSE O/L, and desirably further education in the Western tradition—the exclusion in participating in national affairs is almost complete for those who do not have such an education. According to Parkin (1982:176),

The distinguishing feature of exclusionary closure is the attempt by one group to secure for itself a privileged position at the expense of some other group through a process of subordination. That is to say, it is a form of collective social action which, intentionally or otherwise, gives rise to a social category of ineligibles or outsiders. Expressed metaphorically, exclusionary closure represents the use of

power in a 'downward' direction because it necessarily entails the creation of a group, class, or stratum of legally defined inferiors.

Formation of classes and the ensuing 'domination' of one class by the other is already becoming apparent in the Maldives. Haaland (1987) examined the emergence of economic dualism in the Maldives and attributed the phenomenon to the redistribution of the revenue the Government derived from, what Haaland (1987) considers to be, its monopoly over export and import. More importantly, Haaland identified the two groups to be those who live in the islands, and those who live in Male'. He writes:

In this game [of politics] the population of the islands has virtually no influence. The urban population in Male' can, however, play a role in the streets and possibly influence some decisions which affect their interests. *The main players are, however, the members of the small educated elite, particularly those from a few important families in Male'.* Although they compete among themselves for the substantial economic privileges, influence in the political system may confer, [sic] as a group they all benefit from Government's control over the island export—import relations (1987:23) (emphasis added).

The arguments of social closure can be further extended in light of this seeming powerlessness of the islanders. If the educated elite are the 'upper class', and a system of education which denies access to the islanders is maintained, the reproduction of the entire social order is facilitated through education. Support for this line of reasoning can be drawn from the following paragraph from Parkin (1982:178):

In modern capitalist society the two main exclusionary devices by which the bourgeoisie constructs and maintains itself as a class are, first, those surrounding

the institutions of property; and, second, academic or professional qualifications and credentials. Each represents a set of legal arrangements for restricting access to rewards and privileges:...credentialism is a form of closure designed to control and monitor entry to key positions in the division of labour...,

and Bordieu (1986:255):

As an instrument of reproduction capable of disguising its own function, the scope of the educational system tends to increase, and together with this increase is the unification of the market in social qualifications which gives rights to occupy rare positions.

The domination of knowledge by western nations has adverse consequences for many developing countries. This is particularly pronounced in the case of SIS. Traditional ways of knowing and knowledge tends to be trivialised, and deemed unimportant. Ferguson (1987) quoted in Bray and Packer (1993:55) writes:

...little if any recognition has been given to indigenous and supposedly informal knowledge...to relegate local culture to informal processes is to send out powerful signals about its value and to perpetuate abject cultural and educational dependence.

Often, languages are at risk of extinction and cultures undergo rapid transformation. In colonial times, education from the coloniser's perspective or tradition was used as a deliberate attempt to control the colonised. As Macaulay, a British administrator in India in 1835, quoted in Grant (1988:156) directed :

We must at present do our best to form a class who may be interpreters between us and the millions we govern—a class of persons Indian in blood and colour, but English in tastes, in opinions, in morals and intellect.

In the same article, Grant explores the effect of dominant cultures over others at various points in history. He examines the effect of the English on the Scottish and Irish; the plight of the Basque under Spanish rule, and other minority cultures under majority rule such as German and Polish subjects in the USSR and others. The situation comes about that peripheral cultures are somewhat forced to adopt a system of education which is alien to them in many ways, for a multiplicity of reasons, be it colonialist or economic. For the dominated people, the only viable option for individual success is to prove themselves within the existing structures. This leads to the condition that the greater the successful use by a majority of the educational system, the more likely it is to weaken its culture (Grant, 1988). In neo-colonial times, those advocating such 'educational development' may have had altruistic motives. However the fact remains that the outcomes are much the same. For most SIS, the struggle to maintain their own values and traditions is not easy. The dilemma is that most countries now want a level of development that is comparable to industrialised nations of the world. In order to achieve this, it is commonly believed that the people have to be educated in the same manner as those in the metropolises. To summarise the position of SIS in the global community and their relations to the West, one could use an expression used by Pierre Trudeau, a former Prime Minister of Canada, in describing Canada's relationship with the USA. He likened sharing a continent with the USA to sharing a bed with an elephant. "It may bear you no ill will, but if it rolls over in the night, you get crushed just the same" (Quoted in Grant, 1988).

It appears then, that in order to understand why reform and restructuring education in many countries have failed, such events have to be linked to the workings of an international environment, particularly the economic order. As Arnove (1980) states,

externally induced educational innovations [have contributed] to perpetuation of existing stratification of systems within and between countries.

An acceptance by most people that education must be geared to facilitate increased industrialisation and trading has led to the development of systems of education, as described above, to be established and fostered in most countries. Carnoy (1974) argues that such practises ensure the domination of some countries, thought to be on the periphery, by other countries in the centre, of the world economic order. Abouzeid (1991: 18), commenting on the impact of western thinking on developing countries emphatically states:

Possession of developed technical resources operates in favour of western civilizations and widens the gap between north and south, and between rich and poor countries.....

...Unfortunately, western capitalist countries will not allow [developing countries] to gain the necessary skills needed in modern industry since its interests are in exploiting the third world's resources, keeping it as an open free market for distributing its own production.

Abouzeid is not alone in engaging in such sentiments. These are sentiments echoed by many people in the third world (Luteru, 1990; Jayasuriya, 1981).

Reference has already been made to the domination by human capital theory of education plans of many developing countries and SIS. The main

thrust of the theory in the context of these nations is that development of human resources is essential to development. The supply of manpower to engage in production is seen to be the principal task of the education system. In spite of severe criticisms of the theory, and empirical evidence against it, the theory continues to dominate educational planning in many countries. While the advocates of the theory claim that it will ultimately lead to social equity through economic growth, it has been claimed (Bowles & Gintis, 1975) that the theory ignores the reproductive (social) aspects of education and hence the perpetuation of the entire economic and social order.

Why is it then that most countries still have systems of education which cater for the economy? In exploring the role of education in changing societies, one should first have a theory of development. A possible answer to the question posed is that definitions of development and what ensues from them may in large part be responsible for this.

3.4 DEVELOPMENT , UNDERDEVELOPMENT AND SIS

Since the evolution of organisations such as UNDP, UNICEF, IMF and the WORLD BANK among many others, the attention of the materially rich countries of the world has been, and continues to be, drawn to the plight of millions, and now billions, of humans in the world who live and die under appalling conditions of poverty. The immediate reaction to this condition by the 'developed' nations of the world has been attempts to reduce such poverty through different forms of aid: grants and loans to these 'underdeveloped' nations aimed at reducing or eliminating starvation and malnutrition and improving standards of health and hygiene to increase life expectancy and reduce infant mortality. In this process, it was also realised that such objectives could be achieved only through forms of sustainable development; that is forms of development which could be maintained in the longer term. As Carnoy (1974) claims, the formulations for such development policies were strongly influenced by western social

scientists, who assume that "the spread of capitalist forms—the market economy and individual competition—increase everyone's well being. They assume further that since capitalism is the most 'efficient' organisation for increasing general welfare, capitalist expansion promotes development". It is important here to acknowledge that the term 'sustainable' has slightly different interpretations for the rich and poor countries. For rich countries, there is an emphasis on forms of exploitation of resources in an *environmentally* sustainable manner; for the poorer countries, the emphasis has been, not so much on the environmental concerns, but *economically* sustainable forms of development; that is, self sufficiency in the long run.

This has resulted in many countries of the world being labelled underdeveloped, developing or third world countries. However, the definitions of development in this context seem to have a very narrow focus. A nation is seen to belong in one of the three categories depending on their per capita GNP, infant mortality rates and life expectancy at birth. If nations have higher GNPs, lower infant mortalities and higher life expectancies, they are seen to be closer to the 'developed' end of the developed—third world continuum and *vice-versa*. Research has established strong correlations between high GNPs and the other two factors in the development matrix (Hicks, 1980). This is not surprising, in that the richer a country gets, the more resources it will have to combat disease and other factors which contribute towards mortality. The result has been the encouragement of policies of development geared towards economic growth in these third world and underdeveloped nations, and has in turn looked to education as a means to achieving this end as outlined above.

The definition of development as simply economic growth, and the resulting organisation of education as the primary tool to achieve this has many shortcomings. It also makes assumptions which are not well founded. For example, it has been assumed that economic growth will ultimately lead

to social equity. Existing inequalities are acknowledged in many cases, but summarily dismissed as aberrations which can be rectified within prevailing economic and social arrangements through economic growth. The experiences of western and industrialised nations have demonstrated that this may not be the case. Increased industrialisation has brought about increasingly rigid stratifications of class in some of those societies, and the gap between those who are rich and powerful and those who are poor and powerless is widening in others. It has led to intensified exploitation of more and more people by a small minority within those nations. Nevertheless, this form of thinking dominates perceptions of development as demonstrated by Psacharapoulos and Hinchcliffe (1983:3) in making the statement :

...it is judged that an increase in production is more important for social welfare than an increase in equality.

Bray and Packer (1993:239) had similar foundations to their proposals for education planning in SIS:

...it may be argued that the only feasible development strategy in small states with limited natural resources lies in export-oriented industries or services which are dependent on the quality of human resources.

This conception of development also tends to view conditions of individual countries as removed from the wider global sphere in which they operate. Even if countries could increase their productivity through various efforts, ultimate benefits from such production depend very much on successful competition in the international marketplace. The fact is that the international marketplace is largely dominated by industrialised nations of the world. Ten percent of the world population (in industrialised

countries) effectively control 90 percent of the natural resources of the world (Smith and Lovat, 1990).

Current definitions of development also advocate high levels of consumption and consumerism. This has caused many countries of the world to aspire to levels of consumption that are existent in the developed nations of the world. What is not acknowledged is many developing nations, particularly SIS are devoid of resources to pursue such affluence. If all nations of the world had an equal share of resources, with current levels of population in the world, it may well be that no nation could possibly afford such affluence.

Even if a more equitable distribution of resources in the world could be achieved, the fact remains that if the 5.4 billion people in the world started consuming at the rate which one can see in industrialised nations, the resources on this planet could not support humanity, and many other life forms for that matter, in the long term. Ecologists and conservationists are already expressing deep concern about the sustainability of current consumption rates in the world; and this only with 10 percent of the world population consuming at that rate of affluence. It can then be argued that any definition of development which necessitates high levels of consumption as a precondition for attaining that development would not be sustainable in the long term.

The quest for attaining levels of development, as defined by the industrialised west, by third world countries have had consequences which have been ignored by many. In order to achieve such development, the main target has been to raise GNP/GDP figures. The mechanism for achieving this has been thought to be industrialisation. Industrialisation as practised by the west calls for specialisation at the extreme, and more importantly, acquisition of knowledge of a *particular and narrowly defined nature*; namely knowledge seen as valid by western culture. This has been

one of the legitimising arguments for the practise of western education in many developing countries, particularly in SIS.

Abouzeid (1991 : 16) writes:

Among the limitations of social science research is the restriction of the term 'progressive' to those cultures or civilizations in the vanguard of scientific and technical advancement. Little attention is paid to other types of development. Progress, therefore, never represents anything more than the maximum progress in a given direction, predetermined by the interests of the observer.

The ignoring of values and cultures which are not materialistically and technologically inclined has had great consequences to SIS. Due to their smallness, and the relative inconsequence of their actions and thinking to the wider global picture, cultures of SIS have been marginalised and pushed to the periphery. This has occurred to the extent that many SIS have been forced to adopt systems of thought and hence education which are foreign to their cultures. However, it should also be borne in mind, that it is not necessarily beneficial to all the people in those countries. It only serves the needs and aspirations of a dominant minority. For example, in the Maldives, continuation of the current secondary school curricula provides opportunities for some members of the country to pursue further education. However, these members tend to be from sections within the wider community who already are in privileged positions of wealth, influence and power.

Many SIS have looked for change in their education systems to meet the needs of their societies. This has not always resulted in success. As the Government of the Turks and Caicos Islands observed ruefully at the *Commonwealth Education Ministers' Conference* (1990: TCI 1)

Curriculum change has been in the forefront of educational change in most developing countries, particularly the newly independent countries. It is felt that this drive is greatly influenced by the need for skilled manpower (Bone, 1987, Geethrie, 1986). Ironically, though, most of these changes have been based on Western models - the very influence that countries have sought to divest themselves of. This leads to the feeling that in many cases changes result in the substitution of one irrelevancy for another.

Similar concerns were expressed by the Royal Government of Bhutan (1989) about 'direct transportation of materials prepared by non—Bhutanese and meant for non—Bhutanese children' being used and taught in Bhutan. The argument is that such curricula has outlived its usefulness and need to be replaced now.

3.5 SUMMARY

Starting from an evaluation of manpower planning in education, this chapter has assessed the arguments for and against the Human Capital Theory, which forms the basis of educational planning in most developing countries. It has been demonstrated that the human capital theory does not fully address the needs from an education system in most developing countries, and it makes a number of assumptions which are not well founded.

The special problems faced by SIS in education planning were then examined, and an emerging model for planning was presented. It has been adequately demonstrated that the cases of SIS form a special category within third world and developing countries, and that there are some common features which are applicable to most small states.

Having outlined the special problems of SIS, a case has been argued that these problems are mostly accentuated, not necessarily because they are small countries, but because of particular definitions of development that have been adopted in these countries. It has been shown that current

systems of education are in place because they are seen to be essential to the realisation of economic development plans.

Available evidence suggests that levels of material development that are being aspired to by most SIS may never become a reality due to factors beyond their control, such as distribution of resources in the world, and weak positions in the international marketplace.

In addition to this, certain social theory suggests that current forms of education in these countries may be adversely affecting social equity through reproduction and augmentation of existing inequalities and strategies of social closure which use formal qualifications obtainable by a few people in privileged positions in the societies. Even if access to education is provided to all, aspects of social and cultural capital may inhibit equal outcomes by all.

Having explored the theoretical foundations underlying current models of education and their relationship to development in this chapter, Chapter 4 outlines the methodology followed in investigating the problem outlined in Chapter 1.

CHAPTER FOUR

METHODOLOGY

4.1 INTRODUCTION

This chapter outlines the methodology followed in writing this thesis. In order to examine the secondary education system of the Maldives within the context of national development and overall national education planning, it was necessary to gather data from a number of sources. Data was obtained on indicators of the economy, demography, education and development policy, student performance and student activity on graduation from lower secondary school.

It has already been demonstrated in Chapter 3, that in order to investigate the place and nature of education in national development, definitions of development and assumptions underlying such definitions must be understood. In addition, it is also important that systems of education proposed for such activity be sustainable in the long term. To investigate these aspects of education in the Maldives, both quantitative and qualitative analysis of data have been carried out. The following paragraphs outline the details of the analyses which have been carried out.

The data gathered could be thought of as being in three broad categories. The first category contains data which are indicators of the context in which secondary education is operating. The second category contains data on student performance and subsequent activity. The third category contains data on government policy and data relating to the feasibility and long term sustainability of proposed policies.

4.2 INDICATORS OF THE CONTEXT

The data gathered on the context has been presented in Chapter 2. It has been sub-divided into five areas: cultural and social aspects, demography, economy, human resource considerations and education.

The social and cultural aspects of the country have been presented as reported in some anthropological studies. In addition to this, the author's own understanding, of various aspects of social organisation in the country, as a Maldivian has also been included.

4.2.1 DEMOGRAPHY

Most of the data on demography was obtained from the population census conducted by MPE on 2 March 1990. Additional data was obtained from the Statistical Yearbook of the Maldives—1992, also published by MPE.

To make projections for the numbers of secondary aged children in 1995 and 2000, the numbers of children at appropriate ages in 1990 were grouped. For example, secondary aged children in 1995 would be 13, 14 and 15 years of age in 1995. Therefore, the same children would have been 8, 9 and 10 years of age in 1990. The appropriate mortality rates as reported by MPE (1992) were then applied to each age group. The same procedure was followed for all population projections.

Migration rates and characteristics within the country were also obtained from the Statistical Yearbook. These rates were then applied to the migrant population as reported in the census figures and Statistical Yearbooks to determine the age distribution of migrants to Male'.

4.2.2 ECONOMY

Figures on GDP and GNP were obtained from the Statistical Yearbook and per capita figures calculated. Figures for GDP by sector were obtained from the same source. In defining the sectors of the economy, the same definitions as used by MPE have been adopted to avoid confusion.

Data on trade and imports obtained from MPE have been used as indicators of the changes occurring in the orientation of the economy and to establish the level of dependence on trade. Again, in presenting categories of imports, definitions by MPE have been adopted.

Fisheries and tourism have been identified as the two main sectors of the economy, and hence growth and directions of these two industries have been examined in detail. The figures for fisheries are quoted exclusively from the Statistical Yearbook. Figures for tourism have been obtained both from the Statistical Yearbook, as well as an ESCAP (1990) publication on the impact of tourism on the social aspects of the Maldives. Relevant references have been made, in Chapter 2.

4.2.3 HUMAN RESOURCES

All documents relating to development plans highlight the shortage of human resources in all areas. This aspect was investigated using data from the Statistical Yearbooks, as well as a labour-force study conducted by Collopy (1992) for the Department of Public Works and Labour. Data on labour-force participation rates by age groups were obtained from MPE (1992). Areas of employment and earning categories for atoll/Male' people, as well as male/female characteristics in addition to expatriate employment were obtained from (Collopy, 1992).

4.2.4 EDUCATION

An account of the history of education in the Maldives is presented drawing on papers published by MOE as well as from reports compiled by various consultants engaged by MOE.

4.3 STUDENT PERFORMANCE AND SUBSEQUENT ACTIVITY

A 5 percent random sample of 228 students was selected from the four major secondary schools in Male'. These schools were chosen because they were the only schools in the country who had prepared students for the GCSE O/L examination in the study period 1985—1992.

The students were selected from the Grade 10 class registers of Majeediyya School, Aminiya School, English Preparatory and Secondary School and Male' English School. It should be noted that these samples were in effect stratified samples with respect to sex as both Aminiya School and Majeediyya School are single sex schools and English Preparatory and Secondary School as well as Male' English School run separate sessions for boys and girls. Having drawn the sample, their results in the GCSE O/L examination for subjects studied were obtained from the Department of Public Examination records with the permission of the University of London.

The subjects were then contacted via the telephone by the researcher to gather information on their subsequent activity. Twenty-one subjects (9.2%) could not be contacted due to various reasons, mainly because they had changed addresses and could not be located. One subject refused to take part in the study. The subjects were informed that their names were chosen in a random sample of names from their schools in a study about secondary education in the Maldives. They were then asked the following series of questions ¹.

1. Are you employed now? If so, what is your job?
2. Did you receive any form of further education or training after finishing Grade 10? If so, please give details.
3. Where did you attend primary school?
4. Are you a resident of Male' or another island?
5. How much is your monthly income?

¹The telephone interviews were conducted in Dhivehi. A translation into English is presented here.

In situations where there appeared to be some confusion as to the exact nature of the question, as much clarification as necessary was given. In some instances, more questioning was required, particularly with regard to questions 1 and 2. The researcher at all times tried to remain impartial in the conversations. The questions were asked in the given order.

Having gathered the data, it was then coded for analysis for use with SPSSX on the university mainframe. A list of variables used is given below.

4.3.1 VARIABLES

4.3.1.1 Subjects

ACCOUNT	= Accounting	BIOLOGY	= Biology
CHEMIST	= Chemistry	COMM	= Commerce
ECONOM	= Economics	ENGLISH	= English
FISHERY	= Fisheries Science	GEOGRAP	= Geography
HISTORY	= History	INTSCIE	= Integrated Science
MATHS	= Mathematics	PHYSICS	= Physics

All the subjects were coded on a scale of 0-7, keeping in line with the grading system of the University of London. Given below is a list of grades and the code for each grade.

RESULT	GRADE	CODE
Did not study	—	0
Unclassified	U	1
Fail	E	2
Fail	D	3
Pass	C	4
Credit	B	5
Distinction	A	6
Absent for examination	X	7
Missing data	—	9

This coding was used for the initial frequency analysis. The coding for the result X was then changed to a U result. The classification 'Did not study'

was only used in the calculation of the variable **SCORE**. For all other analyses, this category was recoded to be missing data.

4.3.1.2 Other Variables

- EARNING** = Current monthly income in Maldivian Rufiyaa
- EMPLOY** = Employment areas following graduation
- ORIGIN** = Status of residence : whether Male' or atoll resident
- POSTSEC** = Level and type of further education pursued after graduation
- PRIMARY** = Whether student completed his/her primary education in Male' or in the atolls
- SCORE** = The overall score for each student when the individual scores for each subject studied by the student is summed.
- SEX** = Male or female
- STREAM** = Arts, Commerce or Science streams depending on subject choice of students.

EARNING

Actual earning figures in Maldivian Rufiyaa were entered on this variable. Missing data was coded 9999.

EMPLOY

The categories of employment used, and respective coding are presented below.

CATEGORY	CODING
Public service	1
Primary Teacher	2
Pre-school Teacher	3
Services Industry	4
Technical/Professional	5
Production Industry	6
Not Employed	7
Self Employed	8
Missing Data	9

ORIGIN

Students who were residents of Male' were coded 1 and those who were residents of atolls were coded 0. Missing data were coded 9.

POSTSEC

Categories and respective coding for the variable POSTSEC are given below.

CATEGORY	CODING
Primary Teacher Training	1,2 *
Pre-School Teacher Training	3
GCSE Advanced Level (Gr. 11&12)	4
University studies	5
Vocational Training (Certificate)	6
No further studies	7
Missing data	9

* 1 is for English medium and 2 is for Dhivehi medium

PRIMARY

Students who completed their primary education in Male' were coded 1 and those who did their primary schooling in the atolls were coded 0. Missing data was coded 9.

SCORE

An overall score for each student was calculated by summing the scores for each subject studied by the student. SPSSX generated 99 as code for missing data.

SEX

Male students were coded 1 and female students 0. Missing data was coded 9.

STREAM

Subject streaming for students were coded 1 for Arts, 2 for Commerce and 3 for Science. Missing data was coded 9.

4.4 STATISTICAL PROCEDURES

In general, the analyses were conducted to ascertain whether there were differences in achievement between Male' and atoll students as well as male and female students. In addition to this, analyses were carried out to ascertain any differences that may exist in terms of access to secondary as well as post secondary education. Further analyses examined differences in employment areas and earnings.

Using Spearman's rank correlation coefficients, it was investigated whether any correlation existed between achievement in English and other subjects. Following this, a Mann—Whitney U test was used to test for difference in achievement in English between Male' and atoll students.

The variable SCORE was calculated, and differences in overall achievement was examined using t-tests. A t-test is justified in this case as the grades of individual subjects could be regarded as normally distributed in light of the fact that a reasonably large number of students from different countries take part in the examinations.

Using t-tests, differences in earnings was also examined. Characteristics of employment areas were investigated using chi-square tests. Based on the results of this analysis, the categories of employment was redefined as a binary variable to be simply public service or other. A binomial test was used to investigate proportions working in either. For this analysis, teachers were treated as public servants.

Chi-square tests were also used to examine differences in access to further education as well as levels of further education.

A binomial test was applied to the variable PRIMARY to determine proportions of Male' and atoll students in secondary schools. As the sample was a random sample, if there were no significant differences in access, one would expect the proportions to be 50 percent each way. Therefore the test probability was set at 0.5.

4.5 POLICY AND FEASIBILITY

Data on government policy on secondary education was obtained from government publications, presentations at international conferences and reports by consultants employed by the government. In addition to this 13 semi-structured interviews were conducted with key officials in various relevant ministries and departments. These officials were selected from areas such as development planning, human resource planning and management, education planning, curriculum development, economic planning and government financing. For reasons of confidentiality, specific references have not been made to officials. Rather, a condensed summary of the issues and solutions as perceived by these officials is reported in Chapter 5.

Some indicators pertaining to the feasibility and sustainability of proposed policy is presented in Chapter 5. The data for these investigations include figures on secondary school enrolment, progression to upper secondary (A/L), and government expenditure on education. Data was obtained from MOE and MPE.

4.6 LIMITATIONS OF THE STUDY

While this study has investigated the nature and appropriateness of secondary education in the Maldives, and in the process has examined a number of issues which should be taken into account, it does not claim to have conducted an exhaustive analysis of all the variables and factors involved. Hence there are some limitations which should be brought to the notice of the reader.

1. In making population projections, approximations have been made due to unavailability of some data. These approximations have been referred to in the appropriate sections of the thesis.

2. The sample of students was drawn from four different schools, and hence their achievement may have been effected due to varying performance indices associated to these schools. These effects have not been incorporated into the analyses, and the sample has been treated as a homogeneous sample.

3. Students who graduated from Grade 10 at the end of 1992 have also been included in the sample. Employment, earnings and further education of these students have not been included in the analyses. It has been assumed that if there are any effects arising out of this, they would effect all groups under consideration equally.

4. Proportions of atoll and Malé students in secondary schools were established using a longitudinal sample and the results were then applied to total secondary aged populations in different years to obtain approximate enrolment figures. Therefore these figures do not account for the 'demographic dynamics' across the period in terms of actual differentials that may have occurred in the two strata.

5. The political aspects of the country have not been included in the thesis. It is well established that political factors play a crucial role in determining education policy in any country. However, a detailed examination of these factors is beyond the scope of this thesis.

This chapter has presented the methodology followed in the investigation, and some of the limitations of the study. Chapter 5 presents the findings of the study.



MEMORANDUM

TO: Accounts
FROM: Val Oliver
RE: Early issue of invoice
DATE: 4 February 1994

Please arrange for an invoice to be forwarded to Mr John Ison at the address below for the attendance of six officers from the Sydney Electricity on two Investigation Methods courses in Sydney:

23, 24 & 25 February 1994

Ian Westrup
Terry Bailey
Keith Hodgkinson
Bert Kwanten

27, 28 & 29 April 1994:

Geoff Wilding
David Groth
Brian Ferguson
John Ison

The invoice for an amount of \$5400.00 (which includes 10% discount, i.e. should be addressed to Ms Val Smith, Customer Accounting Branch, Sydney Electricity, GPO Box 4009, Sydney NSW 2001

Thanks and please let me know if any further information is required re the above.

Val Oliver

CHAPTER FIVE

FINDINGS

5.1 INTRODUCTION

This chapter examines some indicators of the status quo in secondary education in the country. The data collected, as reported in Chapter 4, have been analysed using statistical techniques in order to reach certain generalisations.

The first part of this chapter deals with performance of students at the GCSE O/L examination. Two main criteria have been emphasised when searching for differences: gender and medium of primary education. As outlined in Chapter Two, the medium of instruction in primary schools in the atolls is Dhivehi, whereas the medium of instruction in Malé is English. The main proposition being investigated here is that within the context of English medium secondary schooling students from the atolls are at a disadvantage with regard to achievement and subsequent further education.

The second part examines employment and earnings of students after graduation. Explorations are made of areas of employment as well as earning differentials.

Part three investigates the status in further education by graduates. Levels of further education pursued by students are presented.

Following this, part four examines trends in lower and upper secondary school enrolments. Along with this, government expenditure on education in recent years, as well as a long term, minimalist scenario of costs that would be incurred is examined.

The final part of the chapter presents current directions in government policy on secondary education in the country.

5.2 PERFORMANCE AT THE GCSE O/L EXAMINATION

INVESTIGATION 1

Using the Spearman correlation coefficients, it was investigated whether there was a significant correlation between achievement in English language and achievement in other subjects. The results indicate that there is a significant positive correlation, at the 0.005 level, between achievement in English and achievements in Biology, Chemistry, Economics, Mathematics and Physics. The results obtained from the tests are presented in Table 5.1.

TABLE 5.1: CORRELATIONS BETWEEN ACHIEVEMENTS IN ENGLISH AND OTHER SUBJECTS

	BIOLOGY	CHEMIST	ECONOM	MATHS	PHYSICS
ENGLISH					
CORR	0.394	0.272	0.306	0.347	0.315
SIG	0.000	0.002	0.001	0.000	0.000

It should be noted that the correlation obtained is between English and all the core subjects of the Science stream, and one core subject in the Arts and Commerce streams.

INVESTIGATION 2

To find out whether any differences existed in performance in English between Malé and atoll students, the Mann-Whitney U test was carried out. The results are given in Table 5.2 .

Table 5.2 indicates that students who have completed their primary education in the atolls are less likely to perform well at English. This result is significant at the 0.025 level.

TABLE 5.2: DIFFERENCES BETWEEN MALE' AND ATOLLS STUDENTS IN ACHIEVEMENT IN ENGLISH

MEAN RANK FOR ENGLISH			
ATOLL		39.65	
MALE'		53.21	
U	W	Z	1-tailed probability
583.0	793.0	-1.9441	0.025

Coupling this result with that obtained in Investigation 1, it can be concluded that the students from the atolls are at a distinct disadvantage in successfully completing a course of study in the science stream, and at least one core subject in the other two streams, due to their weak performance in English.

INVESTIGATION 3

Following these observations, an analysis of variance was conducted to examine if performance in ENGLISH would explain any variances in overall SCORE. The variable SCORE was recalculated to get an average score out of 8 subjects for each student. This calculation was done on the assumption that if any student did less than eight subjects, then they were not performing at the level that they should. The results are displayed in Table 5.3

TABLE 5.3: ANALYSIS OF VARIANCE FOR SCORE AND ENGLISH

Factor	Mean	Std. Dev	N	95% Conf. Interval	
Eng. (Fail)	1.950	1.022	136	1.777	2.124
Eng. (Pass)	3.080	1.152	28	2.634	3.527
Sample	2.143	1.125	164	1.970	2.317
Var. Sourc	SS	DF	MS	F	Sig of F
Within cells	176.80	162	1.09		
English	29.65	1	29.65	27.17	0.000

INVESTIGATION 4

A Student's t-test was administered to examine for differences in overall achievement between male and female students. The results, presented in Table 5.4, indicate that male students tend to perform better

than female students. A significance of 0.03 was obtained for the pooled variance estimate.

TABLE 5.4: DIFFERENCES BETWEEN MALES AND FEMALES IN OVERALL ACHIEVEMENT

GROUP	MEAN	t-VALUE	df	1-TAILED-P
FEMALE	14.33	-1.89	187	0.030
MALE	16.90			

5.3 EMPLOYMENT AND EARNINGS

INVESTIGATION 6

Student's t-tests administered to examine differences in earnings after schooling did not reveal any differences between male and female, or atoll students and Malé students. However, differences do exist in employment areas between male and female, as well as atoll and Malé students. To test for differences in employment areas, chi-square tests were used, and the results obtained from both tests are presented in Tables 5.6a and 5.6b below.

TABLE 5.6a: DIFFERENCES BETWEEN MALES AND FEMALES IN EMPLOYMENT AREAS AFTER SCHOOLING

	1	2	3	4	5	6	7 *
MALE							
COUNT	28	0	0	4	5	1	20
ROW %	48.3	0	0	6.9	8.6	1.7	34.5
TOT %	22.8	0	0	3.3	4.1	0.8	16.3
FEMALE							
COUNT	24	10	2	8	5	1	15
ROW %	36.9	15.4	3.1	12.3	7.7	1.5	23.1
TOT %	19.5	8.1	1.6	6.5	4.1	0.8	12.2
	CHI-SQUARE =14.00229			df=6	SIGNIFICANCE= 0.0296		

* 1=public service 2=primary teacher 3=pre-school teacher
4=service industry 5=technical/professional 6=production
7=not employed.

The figures presented in Table 5.6a indicate that those who go on to become teachers are predominantly female. Not one male teacher was recorded in the sample. Females also seem to dominate in the services industry. Males also seem to have a higher unemployment rate than females.

TABLE 5.6b: DIFFERENCES BETWEEN ATOLL & MALE' STUDENTS IN EMPLOYMENT AREAS AFTER SCHOOLING

	* 1	2	3	4	5	6	7
MALE'							
COUNT	37	8	2	10	9	0	29
ROW %	38.9	8.4	2.1	10.5	9.5	0	30.5
TOT. %	30.6	6.6	1.7	8.3	7.4	0	24.0
ATOLL							
COUNT	14	2	0	1	1	2	6
ROW %	53.8	7.7	0	3.8	3.8	7.7	23.1
TOT. %	11.6	1.7	0	0.8	0.8	1.7	5.0
	CHI-SQUARE =11.1191		df=6		SIGNIFICANCE= 0.0848		

* 1=public service 2=primary teacher 3=pre-school teacher
 4=service industry 5=technical/professional 6=production
 7=not employed.

Table 5.6b indicates that most atoll students are employed in the public service. Further, they are under-represented in the services and technical/professional areas. Nevertheless, their overall unemployment level is lower, compared to students from Malé. It is also of particular interest to note that no Malé students are working in production industries. In fact, the overall proportion of graduates working in this area is low.

For this analysis, the level of significance has been set at 0.1 in order to reduce Type II errors.

INVESTIGATION 7

The results from Investigation 6 also suggest that a great proportion of graduates from secondary school may be employed in the public service or as teachers, primary or pre-school. Following this observation, it was further investigated whether there was a significant proportion of graduates represented in these two areas as opposed to others. The categories teachers and public service were collapsed and tested against a collapsed category containing all other forms of employment. The results of a binomial test is outlined in Table 5.7.

TABLE 5.7: PROPORTION OF GRADUATES WORKING IN THE PUBLIC SERVICE

	PUBLIC SERVICE	OTHER	TOTAL
CASES	64	24	88
PERCENT	72.7	27.3	100
TEST PROBABILITY=0.5			
2-TAILED PROBABILITY = 0.000			

Table 5.7 demonstrates that over 70 percent of graduates work either as teachers or in the public service. Less than 30 percent of graduates are employed in all the other sectors combined.

5.4 FURTHER EDUCATION

INVESTIGATION 8

Using a chi-square statistic, it was investigated for any significant differences which may exist between atoll and Malé students in whether they pursued any further studies, at any level. The results from this investigation are presented in Table 5.8.

TABLE 5.8: DIFFERENCES BETWEEN MALE' AND ATOLL STUDENTS IN FURTHER EDUCATION

	NO FURTHER ED	HAD FURTHER ED
ATOLL		
COUNT	18	8
ROW %	69.2	30.8
TOT. %	14.6	6.5
MALE'		
COUNT	58	39
ROW %	59.8	40.2
TOT. %	47.2	31.7
	CHI-SQUARE=5.419	df=1
		SIGNIFICANCE=0.0192

Table 5.8 indicate that students from the atolls do not pursue further education to the level that students from Malé do. This result is significant at the 0.02 level.

INVESTIGATION 9

Following Investigation 8, a further analysis was made, examining for the same differences as in Investigation 8, but controlling for achievement in English, on a pass/fail basis. The results of a Chi-square two-sample test is displayed in Table 5.9

TABLE 5.9: DIFFERENCE BETWEEN MALE' AND ATOLL STUDENTS IN FURTHER EDUCATION CONTROLLING FOR ENGLISH

	NO FURTHER ED	HAD FURTHER ED
ATOLL		
COUNT	6	13
ROW %	31.6	68.4
TOT. %	6.2	13.4
MALE'		
COUNT	31	47
ROW %	39.7	60.3
TOT. %	32.0	48.5
	CHI-SQUARE =0.15497	df=1
		SIGNIFICANCE= 0.6938

These results indicate that there is no significant difference between atoll and Malé students in their progression to further education, when their achievement in English is discounted for.

INVESTIGATION 10

A Chi-square analysis also revealed that there is no significant difference between male and female students in their progression to further education. However, there was evidence to suggest that the levels of further education may be different. This is investigated further in Investigation 12.

INVESTIGATION 11

The actual proportion of students progressing to University level was investigated through applying a binomial test on the variable POSTSEC. The categories in this variable were first collapsed to two categories: those who attended university and those who did not. The results of the test are presented in Table 5.10a.

The results indicate that 26.7 percent of secondary school graduates study at university level and 73.3 percent do not.

TABLE 5.10a: PROPORTION OF GRADUATES PROGRESSING TO UNIVERSITY LEVEL EDUCATION

	UNI	NO-UNI	
TOTAL CASES	20	55	75
PERCENT	26.7	73.3	100
TEST PROBABILITY=0.5			
2-TAILED PROBABILITY = 0.001			

INVESTIGATION 12

Following Investigations 9 and 10, a further analysis was made to examine differences in the levels of further education obtained between male and female, as well as atoll/Malé students. The results obtained are presented in Tables 5.10b and 5.10c.

TABLE 5.10b: DIFFERENCES BETWEEN MALE' AND ATOLL STUDENTS IN LEVELS OF FURTHER EDUCATION

	NO FURTHER	TEACHER	A-LEVEL	UNIVERSITY
ATOLL				
COUNT	11	2	4	4
ROW %	52.3	9.5	19	19
TOT. %	9.7	1.8	3.5	3.5
MALE'				
COUNT	39	14	24	15
ROW %	42.4	15.2	26	16.3
TOT. %	34.5	12.4	21.2	13.3
CHI-SQUARE =1.19547 df=3 SIGNIFICANCE= 0.7541				

Table 5.10b indicates that of the students who progress on to further education, there is no significant difference in the level that they study.

TABLE 5.10c: DIFFERENCES BETWEEN MALE AND FEMALE STUDENTS IN LEVELS OF FURTHER EDUCATION

	NO FURTHER	TEACHER	A-LEVEL	UNIVERSITY
FEMALE				
COUNT	28	15	8	13
ROW %	43.8	23.4	12.5	20.3
TOT. %	23.7	12.7	6.8	11.0
MALE				
COUNT	26	1	20	7
ROW %	48.1	1.9	37	13
TOT. %	22.0	0.8	16.9	5.9
CHI-SQUARE =18.55272 df=3 SIGNIFICANCE= 0.0003				

These results indicate that while there is no difference between atoll/Malé students, a significant difference, at the 0.0003 level, exists between male and female students. It appears that more females are represented at the university level than males. It is most interesting to note that while more males enrol for A/level studies, a lower percentage are progressing to university.

INVESTIGATION 13

To find out if there was disproportionate representation by atoll or Malé students at secondary schools, a binomial test was applied to the variable PRIMARY. The results from this test are outlined in Table 5.11 below.

TABLE 5.11: DIFFERENCES BETWEEN ATOLL AND MALE' STUDENTS IN SECONDARY SCHOOL ENROLMENT

	ATOLL	MALE'	TOTAL
CASES	30	101	131
PERCENT	23	77	100
TEST PROBABILITY=0.5			
2-TAILED PROBABILITY = 0.000			

Table 5.11 indicates, at a significance level of 0.000, that students from the atolls are under-represented in secondary schools. It appears that 77 percent of enrolments are Malé students and atoll students form 23 percent of enrolments.

5.5 ENROLMENT TRENDS AND FINANCING

Table 5.12 shows trends in secondary school enrolment in the country from 1986—1993. Fig 5.1 below shows the trends in grades 8—10 enrolments in the entire republic compared to the percentage of grade 10 students progressing to grade 12.

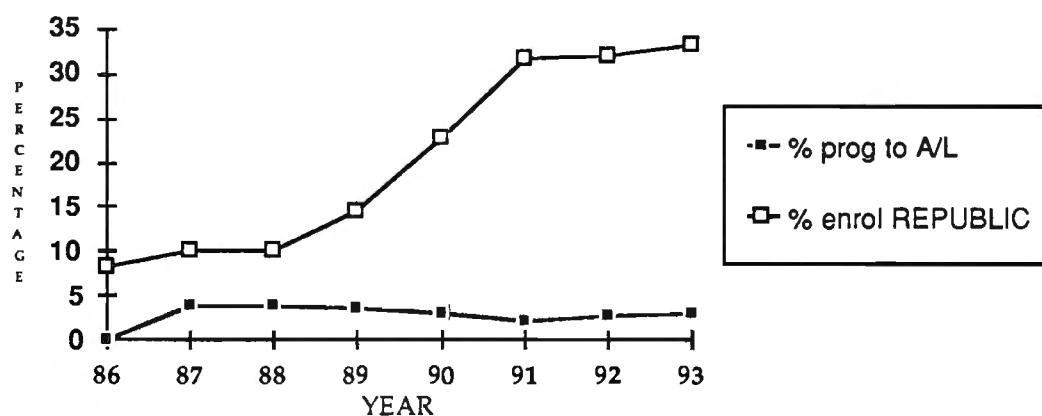
**TABLE 5.12: TABLE SHOWING TRENDS IN ENROLMENTS AT GRADES 10 & 12
1986—1993**

	1986	1987	1988	1989	1990	1991	1992	1993
enrolled in Malé	1041	1247	1318	1938	3062	4157	4456	4850
enrolled in Atolls ##	-	-	-	-	-	-	955	1343
% inc Malé	-	19.8	5.7	47	58	35.8	7.2	8.8
% inc Atolls	-	-	-	-	-	-	-	40.7
A/L enrol	53	83	101	97	118	135	215	275
% inc A/L	-	56.6	21.7	-4	21.6	14.4	59.3	27.9
% prog to A/L sch. age	-	4	4	3.7	3	2.2	2.6	3.1
REPUBLIC#	12321	12511	13289	13261	13405	13170	13883	14565
% enrol REBUPLIC	8.4	10	10	14.6	22.8	31.6	32	33.3
Malé enrolled **	802	960	1015	1492	2358	3200	3431	3735
sch. aged Malé #	4193	4454	4928	5191	5267	4992	4776	4538
% enrol Malé	19.1	21.5	20.6	28.7	44.8	64.1	71.8	82.3
Atoll enrolled **	239	287	303	446	704	957	1980	2458
sch. aged atoll#	8128	8057	8361	8070	8138	8178	9107	10027
% enrol Atoll	2.9	3.6	3.6	5.5	8.7	11.7	21.7	24.5

These figures are estimates made by extrapolating 1990 census figures. They do not take into account mortality rates.

** These figures calculated using the enrolment proportions presented in Table 5.9

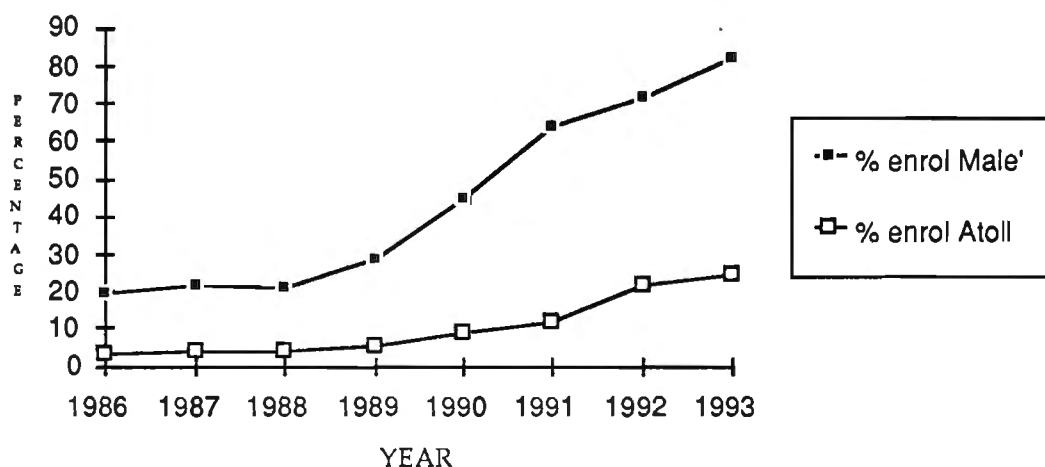
**FIG 5.1: CHART SHOWING PERCENTAGE OF SCHOOL AGED
CHILDREN ENROLED IN GRADE 10 AND PERCENTAGE
PROGRESSING TO GRADE 12**



It is apparent that schooling at the grades 11—12 level has not expanded in line with the expansion observed for the grades 8—10. The period 1988—1991 witnessed an almost linear growth in lower secondary enrolments. However, it appears that from 1992 onwards, that growth has almost dwindled to nothing. In comparison, the corresponding growth at the upper secondary level is almost negligible for the whole period.

Examining the differences in enrolment for atoll and Malé students, the general trend is a rapid increase in the enrolment of Malé students. Fig 5.2 illustrates this growth comparison.

**FIG 5.2: ENROLMENT TRENDS IN
SECONDARY SCHOOLS IN MALE' AND ATOLL STUDENTS**



In comparison, there is no noticeable growth for atoll students until 1990. The years 1991—1993 record a sharp growth in enrolments for atoll students. However, these figures should be treated with caution. The figures marked ## in Table 5.10 are due to the opening of a new regional secondary school in one of the atolls in 1992. Further, these figures also contain students enrolled in Grade 8 in some of the AEC's. The breadth of curriculum offerings, teacher quality and resource availability for these students are not comparable to those students studying in Malé.

INVESTIGATION 14

Enrolment ratios of male to female students, both in Malé and the atolls was examined using a Chi-square analysis. The results are presented in Table 5.13.

TABLE 5.13 : MALE AND FEMALE ENROLMENT IN SECONDARY SCHOOLS

	MALE	FEMALE
ATOLL		
COUNT	9	21
ROW %	30	70
TOT. %	6.9	16.0
MALE'		
COUNT	59	42
ROW %	58.4	41.6
TOT. %	45.0	32.1
CHI-SQUARE =18.55272	df=3	SIGNIFICANCE= 0.0003

Table 5.13 shows that more females from Malé, and more males from the atolls are enrolled in secondary schools. This result is significant at the 0.01 level.

INVESTIGATION 15

An investigation into enrolment by STREAM also revealed that a significant proportion of females are enrolled in the ARTS stream compared to males who tended to be enrolled in COMMERCE and SCIENCE streams. This result is significant at the 0.01 level. Results from a chi-square analysis are presented in Table 5.14

TABLE 5.14: GENDER DIFFERENCES IN STREAMING

	FEMALE	MALE
ARTS		
COUNT	19	9
ROW %	67.9	32.1
TOT. %	11.0	5.2
COMMERCE		
COUNT	6	13
ROW %	31.6	3.5
TOT. %	3.5	7.6
SCIENCE		
COUNT	50	75
ROW %	40	60
TOT. %	29.1	43.6
CHI-SQUARE=8.47508	df=2	SIGNIFICANCE=0.0144

Table 5.15 shows expenditure by the central government as a percentage of annual GDP. It also shows the expenditure on education as a percentage of total government expenditure.

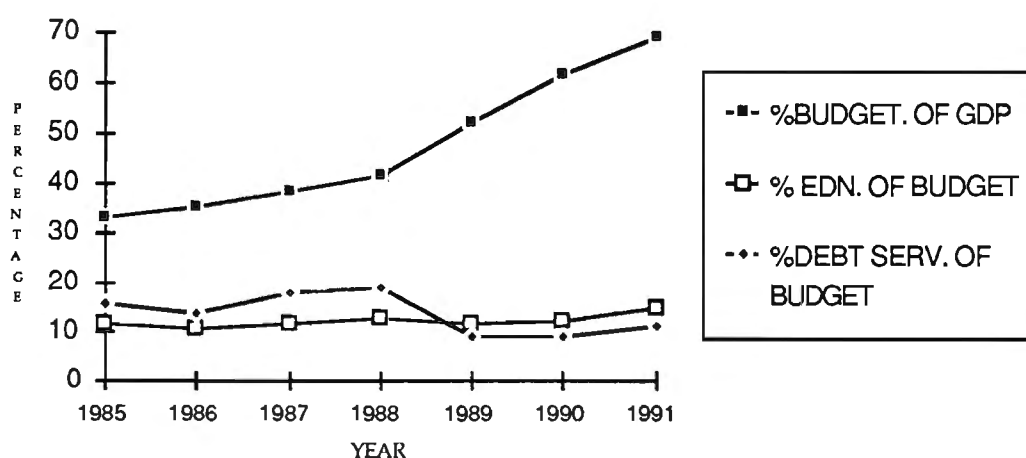
TABLE 5.15: CENTRAL GOVERNMENT EXPENDITURE AS A PERCENTAGE OF GDP AND SPENDING ON EDUCATION 1985—1991

	1985	1986	1987	1988	1989	1990	1991
TOTAL BUDGET	198.2	228.6	270.6	319	439.2	597.6	721
EDN. BUDGET	22.39	24.26	31.46	39.88	50.76	73	103.9
DEBT SERVICE	31.59	31.17	48.44	59.63	38.02	52.7	80.6
GDP	600.3	651.9	709.7	771.6	843.2	970.3	1048
%BUDGET. OF GDP	33.0	35.1	38.1	41.3	52.1	61.6	68.8
% EDN. OF BUDGET	11.3	10.6	11.6	12.5	11.6	12.2	14.4
%DEBT SERV. OF BUDGET	15.9	13.6	17.9	18.7	8.7	8.8	11.2

*Source : Statistical Yearbook of the Maldives 1992, MPE.
All figures quoted in million Rufiyaa.*

In view of the relatively high national debt figures quoted in Chapter 2, expenditure on servicing debts has also been included in the table. Fig 5.3 below is a graphical representation of the data.

FIG. 5.3: EXPENDITURE ON EDUCATION BY CENTRAL GOVERNMENT COMPARED TO TOTAL EXPENDITURE AND GDP 1985—1991



It is clear from figure 5.3 that the government, even in the absence of direct taxation, has successfully harnessed a large proportion of the GDP for public expenditure. In 1991, the government spent 68.8 percent of the GDP. This figure is more than twice that of 1985. What is also apparent from Fig

**TABLE 5.16 : COST PROJECTIONS TO REALIZE EQUAL ACCESS BY MALE' AND ATOLL STUDENTS TO SECONDARY EDUCATION BY 1990
(IN MILLION RUFYAA)**

Atoll	STUD POP.	NO. OF CLASSES	NO. OF TEACHER	TEACHER COSTS #	COST OF C/ROOMS	BOOKS & EQUIP ##	TOTAL YEAR 1	RECURR 2 YEARS	EXAM COSTS **	TOTAL COST
North Thilandhunmathi	1160	39	51	2.50	8.83	0.30	11.63	5.60	1.62	18.85
South Thiladhunmathi	1250	42	55	2.70	9.51	0.33	12.53	6.04	1.75	20.32
North Miladhunmadulu	795	27	35	1.72	6.11	0.21	8.03	3.84	1.11	12.99
South Miladhunmadulu	790	26	34	1.67	5.89	0.21	7.76	3.74	1.10	12.61
North Malhosmadulu	1064	36	61	2.99	8.15	0.28	11.42	6.53	1.49	19.44
South Malhosmadulu	730	24	31	1.52	5.43	0.19	7.14	3.42	1.02	11.58
Faadhippolhu	618	21	27	1.32	4.75	0.16	6.24	2.97	0.86	10.07
Malé Atholhu	497	17	22	1.08	3.85	0.13	5.06	2.42	0.69	8.17
North Ari Atholhu	396	13	17	0.83	2.94	0.10	3.88	1.87	0.55	6.30
South Ari Atholhu	553	18	23	1.13	4.08	0.14	5.35	2.54	0.77	8.66
Felidhu Atholhu	152	5	7	0.34	1.13	0.04	1.51	0.77	0.21	2.49
Mulakatholhu	350	12	16	0.78	2.72	0.09	3.59	1.75	0.49	5.83
North Nilandhe Atholhu	310	10	13	0.64	2.26	0.08	2.98	1.44	0.43	4.85
South Nolandhe Atholhu	411	14	18	0.88	3.17	0.11	4.16	1.98	0.57	6.71
Kolhumadulu	785	26	34	1.67	5.89	0.20	7.76	3.74	1.10	12.59
Hadhdhunmathi	879	29	38	1.86	6.57	0.23	8.66	4.18	1.23	14.07
North Huvadhu Atholhu	705	24	31	1.52	5.43	0.18	7.14	3.41	0.98	11.53
South Huvadhu Atholhu	1022	34	44	2.16	7.70	0.27	10.12	4.84	1.43	16.39
Fuamulah	655	22	27	1.32	4.98	0.17	6.47	2.99	0.91	10.38
Addu Atholhu	1494	50	65	3.19	11.32	0.39	14.89	7.15	2.09	24.13
TOTAL	14616	489	649	31.80	110.71	3.81	146.32	71.22	20.41	237.95

Sources : # based on per teacher (foreign) costs obtained from MOE
 * based on costs for building/furnishing per classroom estimated by MOE
 ## based on per student expenditure in Male' schools (1991/1992); MOE
 ** based on per student expenditure 1992; MOE

5.3 is that the proportion of educational expenditure compared to total government expenditure remain almost constant, barring minor fluctuations. It is also observed that from 1985—1988, government expenditure on servicing foreign debt represents a greater proportion than education spending. Even though the corresponding figures for the period 1989—1991 are slightly more favourable towards education, foreign debt has grown disproportionately in the period 1991—1993. Hence an increase in expenditure for servicing foreign debt could be expected.

Current government policy (outlined in more detail later in the chapter), is geared towards expanding secondary education in the atolls. It has been proposed that the emphasis is to work towards providing greater access to secondary education by atoll students. Table 5.16 outlines costs that would be incurred in educating one cohort of students from grades 8—10, starting in the year 2000. Certain assumptions have been made in calculating the figures presented in Table 5.16. Firstly, the level of participation has been set at 80 percent of projected population figures for the age group given in Table 2.11. Based on these figures costs have been calculated using current expenditure levels of schools in Malé. For class sizes and student to teacher ratios as well as teacher costs, figures used by Rawlinson and Masters (1993) in a study of teacher demand and supply have been used. Costs incurred in conducting the University of London GCSE O/L examinations were based on 1992 expenditure by the Department of Public Examinations. A minimalist position has been adopted in making the projections presented in Table 5.16.

The calculations for teacher costs have been based on the assumption that in order to realise the goal, all teachers will have to be recruited from abroad. This is a reasonable assumption to make, as Rawlinson and Masters (1993) estimate a maximum of 201 trained nationals in the teaching force by the year 2000. This figure includes teachers who will be teaching in Malé.

5.6 GOVERNMENT POLICY ON SECONDARY EDUCATION

Government policy on secondary education in the country is difficult to locate as not many documents have been published and distributed to the public. However, there are some documents which contain broad heads of plans, mostly formulated for presentations to international agencies, conferences and aid donors. No document which outlines a specific secondary education policy or policies could be located.

In what is available, the main concern expressed is the need for skilled human resources to meet development plans, and the vital role that secondary education has to play in preparing 'trained and trainable manpower' (MPE, 1991; MOE, 1985; MOE, 1992). MOE (1985) presents contradictory arguments on the matter. While arguing a case against basing education in the country towards manpower plans, it also devotes three sections to a discussion of "education and manpower", "labour market trends" and "manpower demand" (pp 64-66).

MPE (1991: 115) states that one of the objectives of education within the national development framework is to "Expand and diversify secondary education with a focus on the manpower needs of the country".

MPE (1991) states that efforts will be made to expand secondary education in the atolls. It proposes to do this by opening three regional secondary schools in the south, north and centre. A further plan is :

...for the gradual introduction of English-medium secondary education in selected Atoll Education Centres...(p 116).

MPE (1991) as well as Rawlinson and Masters (1993) refer to plans which seek to expand places in the upper secondary level to increase the number of graduates with GCSE A/L qualifications.

It is clear that the medium of instruction in secondary schools will continue to be English, and curricular reform is not viewed as necessary.

The assumption appears to be that if access to secondary education is provided, the students from the atolls should have the same outcomes as students from Malé.

A total of 13 semi-structured interviews, each for a duration of one to two hours, were conducted with key officials in the government. The officials interviewed were selected from MPE, MOE, EDC and the Department of Finance. For reasons of confidentiality, no interviewee will be quoted or identified. What is presented here is a generalised summation of key issues discussed.

The key questions directed were to inquire into government policy on equity, human resource development, secondary education curriculum and financing education.

In summary, the directions of policy are towards maximising economic growth, and it is assumed that equity will be achieved through the trickle down effect. While acknowledging the current disadvantaged condition of the atolls in general and atoll students in particular in terms of secondary education, it is believed that expansion of secondary education in the atolls, through provision of English-medium secondary education will redress this disadvantage.

The GCSE O/L curriculum is viewed as the only possibility which will achieve growth and development goals of the nation. It was seen as crucial for the human resource required for development plans. It was also suggested that secondary education should diversify to include aspects of vocational training. This suggestion was made on the basis that a great proportion of students would not have the opportunity to proceed to further education.

Concerns were also raised about the increasing cost of providing secondary education. The predominant solution suggested was to introduce some kind of levy or fees for education at the secondary level.

There appeared to be some disagreement between administrators in the education sector and some administrators in other sectors about the education for girls. The educational administrators seemed to view the education of girls as essential as the education of boys. In fact, a study has been proposed to inquire into some disparities showing up in enrolment trends on a male/female basis, particularly at the higher secondary level. Some other administrators seem to view the continued education of girls as wasteful in terms of economic returns in view of the low female participation in the work force.

5.7 SUMMARY

This chapter has presented the major findings of the thesis. The results of analyses conducted on the achievements of students indicate lower achievements by atoll students compared to Malé students as well as differences in achievements between male and female students. There are also differences in employment areas between male and females and atoll and Malé students. Enrolment trends revealed growing disparities between Malé and atoll students at the secondary school level. An examination of government policy revealed that secondary education planning is seen as an instrument for economic planning, and the mechanism for achieving equity is seen as economic growth.

The implications of these findings are discussed in detail in the next chapter, Chapter 6.

CHAPTER SIX

DISCUSSION AND CONCLUSIONS

6.1 INTRODUCTION

This chapter synthesises the findings of the thesis reported in Chapter 5. The discussion that follows will focus on these findings in the context of the Maldives, described in Chapter 2. Further, links to the theoretical perspective adopted for this thesis, outlined in Chapter 3, will be made in drawing conclusions.

The approach taken in this chapter is to tie in the findings to government policy in secondary education in particular and education planning in general. It is important to bear in mind that policies in other areas, such as primary education, tertiary education as well as general development, have a direct bearing on secondary education policy.

The general approach to development in the Maldives is to increase productivity and thus raise per capita GDP/GNP figures so that the population as a whole will benefit through such growth. It is assumed that in the process of such growth, equality will be achieved through a distribution mechanism implied by the trickle down effect.

The education-economy nexus is emphasised in education plans at all levels, more so at the secondary level. The main focus of secondary education is to increase the trained and trainable manpower for the needs of the economy.

It is with this view that the GCSE O/L curriculum is being promoted throughout the country as the appropriate curriculum for secondary schools. In the absence of a tertiary institution in the country, its authorities argue, that secondary school graduates should have a qualification that

would gain them entry into foreign tertiary institutions to study further in areas perceived as important to the economy.

The arguments advanced in this thesis question the validity of these claims and assumptions in the light of the findings of the thesis. Special emphasis is placed on issues of equity, and outcomes of and access to secondary education in the country.

6.2 SUMMARY CONCLUSIONS

The main conclusions arrived at following the examination of the evidence are summarised below :

- Disparities in enrolment between Malé and the atolls at secondary school level have increased with increased prosperity in the Maldives.
- Achieving equal enrolment and performance for atoll and Malé students are unlikely with the current curriculum.
- A user-pay system will further increase existing inequalities in access to secondary schooling.
- Expanding places in Grades 11 and 12 without changes in primary and/or lower secondary school curricula will accentuate inequities between atoll and Malé students.
- The dual system of primary education in conjunction with English-medium secondary education reduces access to higher education by atoll students.
- The current system of secondary education acts mainly as a screening device for the selection of 3.9 percent of the secondary aged population for higher education and a higher proportion for public service.
- Secondary education seems to be facilitating increased employment of girls.
- The majority of graduates from secondary schools are employed in service sectors rather than primary or secondary industry sector.

- The current system of secondary education is contributing towards the creation and maintenance of an elite class of decision makers in the country and thereby disempower the masses.
- The findings support theories of social and cultural capital in education.
- The GCSE O/L curriculum in secondary schools, adopted for the creation of human capital, does not have enough justification for its continuation in relation to the social inequalities arising from them.

The following discussion elaborates on these conclusions.

6.3 ENROLMENT TRENDS AND FINANCING

Recent years have witnessed a modest growth in per capita GDP. Along with this, there has been wider access to primary education in the country, and a growth of enrolments in secondary education as well. In 1986, 8.4 percent of secondary aged children in the country were enrolled in schools. By 1993, this figure had increased to 33.3 percent. Taking into account the increase in population in the same period, this is a major achievement. A claim could be made that education is being made more equitable. However, when one examines the nature of this increased enrolment in terms of who is getting increased access, the picture is somewhat different. In the period 1986—1993, enrolment for Malé students increased from 19.1 percent to 82.3 percent, compared to enrolment for atoll students which had increased from 2.9 percent to 24.5 percent. Even these figures are misleading. The figures for atoll students for 1992 and 1993 include enrolments in Grade 8 in the newly opened regional secondary school in Addu Atholhu and some AEC's and APS's. The quality of teaching, and the availability of materials and resources in the atolls are not comparable to the standard of those in Malé. The enrolment percentage for atoll students in 1991 was 11.7 percent, which is much lower than the enrolment for Malé students in 1986. These

figures suggest that while secondary education is expanding, it is expanding in Malé, and not so much in the atolls. It could be argued then that increased prosperity in the country has brought about increasing inequities, at least in terms of access to secondary education.

Recognising these disparities and due to increasing public demand, the government is proposing expansion of secondary education in the atolls, and the gradual introduction of English-medium schooling at the secondary level. Assuming that the ultimate target is to have equal enrolment in the atolls as that in Malé, Chapter 4 presented a minimalist cost projection to raise the enrolments in the atolls to 80 percent. The estimated minimum cost of putting one cohort of students through secondary school, starting in 2000, is 240 million Rufiyaa. This is on average 80 million Rufiyaa per year, and is about three quarters of the entire education budget in 1991 and about a tenth of the total government budget for the same year. When the goal of UPE by 2000 is considered along with expansion in middle school, coupled with a population growth of 3.4 percent annually, it could be argued that this goal will not be achieved.

Some policy makers are contemplating the introduction of fees at the secondary level to overcome this problem. While this idea has some merit in it, the concerns for equity are augmented. With a user-pay system, the emerging differences in social class will no doubt become more pronounced. A further consideration of importance is also the question, who, if any, in the country can afford to pay for such an expensive education. The projections made in Chapter 5 suggest that the minimum annual cost per student (excluding capital costs) is about 4 800 Rufiyaa. Comparing this to the average earning per working person of 17 100 Rufiya, and in view of the fact that the most families have one working parent, and that Maldivian nuclear families are often large, ranging from 2 children to as many as 5 and 6, it would not seem feasible. Compounding the situation is the fact that the government already spends nearly 70 percent of the GDP. This would

suggest that families would not be able to further expend on education for their children at such high costs. Even if the government did subsidise part of the costs, the parent contribution may not be affordable by most families.

6.4 HIGHER EDUCATION

The main justification for the current curriculum is the need for further education as outlined in the opening paragraphs. The figures for enrolment at Grades 11 and 12, which leads to the GCSE A/L, which is the pre-university level, cast some doubt upon this argument. The proportion of students progressing to Grade 12 from Grade 10 has actually declined from 4 percent in 1987 to 3.1 percent in 1993. Although the government is proposing some expansion in this sector, it should be borne in mind, that it would have to be financed from the same resource base. Further, there is at present, only one institution, located in Malé, offering studies at this level. The same arguments of access to atoll students would apply in this sector. In fact it accentuates the inequality, in that to gain entry into this highly competitive sector, a student would have to excel at the GCSE O/L. As indicated previously, the quality of delivering education in the atolls is not comparable to that in Malé at the present time. It will take a reasonable period of time and increased expenditure in the atolls for this quality to become comparable, even if secondary education can be expanded to a level that is being aspired to by the government. This means that students from the atolls would actually have to study in Malé for longer periods of time. This necessitates a certain level of income by parents to spend on a child studying in Malé for the extra length of time. It also means a longer period of forgone earnings for the students, and hence the family in general. Often this would place greater pressure on students as they are expected to care for their parents and younger siblings in the family. The situation comes about that the actual opportunity cost for a student from the atolls to complete an education to Grade 12 would then be much higher than for a student from

Malé. Hence it could be argued that expanding the upper secondary sector would in effect increase existing inequalities between the peoples of Malé and the atolls.

The investigations in Chapter 5 also established that students from the atolls were not represented in higher education to the level that students from Malé were. However, this disparity disappeared when their achievement in English language was taken into consideration. This indicates that proficiency in English plays a major role in determining access to further education. This evidence supports the proposition that Malé students have the advantages of social and cultural capital that atoll students are denied. This claim is made in view of the fact that students from Malé have greater exposure to the English language and western culture at an earlier age than atoll students. Moreover, this finding also lends credence to the argument that the dual system of primary education in operation in the country is inhibiting atoll students from progressing on to further education.

While there is no difference between male and female students in their progression to higher education, there are differences in the levels of study. It appears that there are more female students who study at university level than males. This is particularly surprising when one notes that more males enrol at the upper secondary level than females. An explanation for this may be that of the females who enrol at the upper secondary level, a greater proportion than their male counterparts are succeeding. Moreover, in light of the fact that there are fewer enrolments of girls in the upper secondary level, it is likely that the girls who do are more motivated and sure of what they want to do whereas a large proportion of boys may be enrolling because it is expected of them even though they may be lacking the motivation to achieve at that level. However, data was not gathered for the upper secondary level to confirm this proposition.

It was also found that nearly 27 percent of students enrolled in secondary school progressed onto some form of further education; 73 percent do not. On the surface, 27 percent may appear to be a relatively high figure. However, when one considers that this represents only 3.9 percent of the entire secondary aged population in the study period, the justification for the curriculum is further questionable. The practise of current curriculum necessitates a high cost per student, which prevents wider access. If the opportunities of the better part of the secondary aged children are being sacrificed for the selection of 3.9 percent of such children for further study, such practises are highly questionable on grounds of equity. This is more-so when only a certain section of the entire population has access to such rare opportunities.

This finding lends further credence to the arguments of the critics of human capital theory who claim that education acts as a screening device in the selection of individuals for rare opportunities through its credentialist function.

6.5 EMPLOYMENT FOLLOWING GRADUATION

Chapter 5 also established that there were no significant differences between atoll/Malé or male/female students in their earnings after completion of secondary school. However, an inquiry into areas of employment revealed some differences. Firstly, it appears that most female graduates are working as teachers or in the service industry. They are not equally represented in the technical areas. In light of the fact that more females than males are represented at university level, it could be inferred that most university courses offered by the government are geared for services and not necessarily for production related aspects. This weakens the claims of current policy that the focus of secondary education is towards manpower development for the economy.

Secondly, unemployment among males is predominantly higher than females. This is a surprising result as the 1990 census indicates that females form only 19 percent of the economically active population. It could very well be that increased representation of women in paid work is an emerging pattern in the Maldives. However, it must be remembered that most women in the Maldives tend to leave paid work when they start families. As the majority of subjects in the sample are under 21 years of age, this occurrence may be a temporary phenomenon. Further, a number of subjects in the sample were waiting for replies from various higher education institutions to their applications. This probably has implications towards the explanation of the high level of unemployment recorded by males.

Thirdly, atoll students are predominantly employed in the public service, and under-represented in the service and technical/professional areas. The results of analyses presented in Chapter 5 also indicate that their overall employment is lower than that of Malé students. Chapter 5 also established that in the sample studied, no Malé students were employed in the production industries as defined in Chapter 1. In fact, secondary school graduates do not work in these production related areas in general. These observations further strengthen the claim that secondary education is not really contributing to the output of the primary, manufacturing or tourism industries. In fact, it appears that it is having the opposite effect of drawing graduates away from the production related areas into the public service sector, which is more closely related to national consumption activities than national production (investment) activities.

These findings also substantiate the claims made in Chapter 3 about the formation of class and the corresponding social closure facilitated by education. It appears that acquiring a secondary education gains access to the elite group of people in the country working in the 'white collar' areas, mainly the public service. This means that in the longer term, the 'blue collar' workers will be the 'uneducated lot of the country'. On the basis of

the findings of this thesis, it appears that these blue collar workers are increasingly from the atolls. Therefore it is in the interest of the privileged few in Malé if such education remains out of reach of the masses, thereby using their rare qualifications as a means of legitimising their elevated status and positions of power.

Finally, it was also established in Chapter 5 that 73 percent of the graduates of secondary education are working in the public service or as teachers. The explanation for this observation is that until 1990, all secondary school graduates were required to enter the public service by law. This observation weakens the arguments of current policy in claiming that education is designed for economic advancement. The inference drawn from this observation is that the current system of schooling simply serves as a mechanism for propagating the system itself, and not much else if one were to disregard the self development of successful individuals. GCSE O/L qualifications are being quoted as the requirement for public service posts more frequently. On the consideration that the curriculum does not contain any element of the functioning of Maldivian society, it could be argued that these requirements are being made not because of the knowledge or skills obtained, but because it serves as a basis for discrimination among applicants. The question to be asked is: why does one have to be educated in the Western tradition to be employed in the public service of the Maldives? It appears then that under the guise of economic advancement, under which the current system is legitimised, the actual effects of the system serve as a selector in an evolving stratification of society.

6.6 PERFORMANCE AND ACHIEVEMENT AT THE GCSE O/L

Having recognised the unequal access to secondary education in the country, and due to greater social demand for education at the secondary level, the government is proposing a remedy to this situation by expanding secondary education in the country. The plan is to gradually increase

English-medium secondary education into the atolls. The assumption being made is that the provision of facilities such as schools, teachers and resources will rectify the situation.

The findings of this thesis question the validity of this assumption. The investigations in Chapter 5 revealed positive correlations between achievement in English and achievements in all the subjects in the science stream in addition to economics and mathematics. This result by itself may seem to be as should be expected as instruction and examination are in the English medium. However, the observations that atoll students do poorly in English in comparison to Malé students and that most students in both groups choose the science stream puts a different complexion on these correlations. This would suggest that the atoll students cannot be expected to perform as well as Malé students overall. Even though there was no significant difference observed in overall score for these two groups, an analysis of variance established that performance in English accounted for the variance in overall score. These observations support the proposition made in Chapter 3 that the dual structure of primary education in the country may be disadvantaging the atoll students by the actions of social and cultural capital. It appears, therefore, that availability of schools by themselves is not necessarily going to result in equal outcomes. The discontinuity in the medium of instruction from primary and middle schools to secondary school in the atolls works in favour of students in Malé.

The investigation into the overall distribution of scores also established that students in general were performing very poorly at the secondary school level. About 77 percent of students are failing in the GCSE O/L examinations. While Malé students may have an edge over atoll students, the overall performance of Malé students themselves does not appear to be high. These results throw doubt on the effectiveness of the system. While acknowledging that school effectiveness has a number of

factors associated to it, there is enough grounds here to suggest that a curriculum which is alien to students' everyday experiences and culture has negative effects on their learning outcomes.

6.7 DEVELOPMENT ISSUES

In Chapter 3, it was argued that the model of development which has been adopted in the Maldives may not be appropriate in terms of its sustainability. A limited natural resource base combined with diseconomies of scale in the domestic market as well non-accessibility to international markets, place serious constraints on industrial expansion, which may be insurmountable. Even in the case of this goal being achieved, the sustainability of a consumer economy in the longer term is in serious doubt considering the ecologists' and conservationists' perspective on consumer economies. While education is seen to be the panacea for the economic woes of the country, and strengthening the stock of human capital is seen as the main concern of education, what has been neglected is that skilled people by themselves can hardly increase material output. For the investments in human capital to yield a profitable return in nummular terms, there has to be a medium through which the acquired skills can be marketed. Almost invariably, these media tend to be some form of material good which has to be produced. In the context of the Maldives as in other SIS, there are not many material resources to which value may be added.

Chapter 2 established that the most likely candidates for some future growth in the economic sector were the marine industry, tourism and some expansion in agriculture. The above discussions demonstrate that secondary school graduates are not entering these areas. While acknowledging that an efficient public service infrastructure is essential for the development of an industrial infrastructure, it could be argued that current trends in employment do not indicate any diversion of human resources to the production sector.

These findings indicate that graduates from secondary schools are not necessarily being used in production related sectors of the economy. From the preceding discussion, the reason could be that there is no industry established that requires the skills of these graduates.

6.8 IMPLICATIONS ARISING FROM THE FINDINGS

There are a number of implications arising out of the findings of this thesis. While they may not all relate to education directly, it is important that some of them be mentioned.

Firstly, it has been established that the government spends a high proportion of the country's earnings. This has enormous implications for the role of the government in redistributing the wealth in the country. The extreme centralisation of government activities suggest that a considerable proportion of this wealth would be spent in Malé. Haaland (1987) suggests that the population of Malé enjoys the benefits of modernisation at the expense of the atoll population. For example, most people in Malé can ring anywhere in the world directly from their homes in a matter of seconds, while it would take hours, if at all, for someone to get in touch with someone else residing in the atolls. This is as a direct result of development related grants from donor countries. As the major part of government revenue is raised directly or indirectly from the atoll population, this has enormous implications for social justice in the country.

Secondly, it has also been established that secondary education as it stands now is contributing to the emergence of a class of people in the country who are in positions of making decisions which will affect the entire population. Added to this is the fact that the majority of the population is excluded from the dialogue that is necessary between the people and the rulers for a democratic form of government that is a constitutional right of all citizens. While this exclusion may not be deliberate, it still occurs because of the elevated status of the English

speaking community in the country and the perceived lack of ability to contribute to national affairs by those who do not speak English.

This thesis has investigated the access to secondary education mainly on the basis of an atoll/Malé dichotomy. The data gathered do not allow for analyses concerning access and success as a function of socio-economic status within these two main groups. Therefore it does not allow any conclusions to be made about social mobility within groups.

Examination on an atoll/Malé basis suggests that if the current curricula in secondary schools is to be maintained and made equitable, changes in the primary sector has to be made. This has implications of two kinds: that regarding costs involved in re-writing the National Primary Curriculum, retraining teachers and developing materials for the implementation of those changes; and those regarding the effect on national culture and language. If all young people in the country are educated in a foreign language with foreign curricula at all levels, the demise of the national language and culture will be imminent. The investigation of this thesis has not examined the achievements of secondary pupils in Dhivehi to find out if their mastery of their own language reduces in relation to their education. This does not allow further generalisations along these lines.

Finally, it was noted that secondary education is allowing more women to enter the work force. Whether or not they will remain in the work force cannot be inferred from this study for reasons stated in the discussion above. While the advocates of the human capital theory would embrace the increased 'productivity' of women, there could be negative aspects to this. It was noted in Chapter 2 that Maldivian communities are closely knit and does not have a formalised welfare state. The role of women has been crucial in holding the community together in the past. Increased participation in the work force would in the longer term mean less time for them to fulfil those roles that they have engaged in traditionally. It is not being suggested here that the role of women in society

is, or should be, limited to nurturing their families. What is being emphasised is that someone has to do it to preserve those communal and family ties which are vitally important to the smooth functioning of society. If not, the Maldives could easily see the emergence of the types of social problems that one can see in many industrialised countries of the world, as a result of the disintegration of the social fabrics of those countries. It is only now that Western societies are realising the negative consequences of rapid changes in social organisation which has arisen, at least in part, due to lack of time for individuals to 'care for their families'. The solution for most of these countries appears to be a specialisation of yet another kind: that of formalised childcare.

It appears that the quest for development which prescribes material wealth may be the determining factor in forcing women to enter into paid work. The status of and equality for women does not necessarily have to depend on their earning capacities. In fact, in a society such as the Maldives, where emphasis has been traditionally placed on communal values and human relationships, the role played by women in the past has been highly valued. The inferior role that has been assigned to women in industrialised countries may have been due to the value placed on material wealth and individualism which occurs due to industrialisation and consumer oriented societies. These frameworks do not necessarily apply to societies such as the Maldives where the value systems are not the same. Whether the Maldives should embrace a similar path of industrialisation or not is not the place of this thesis to dictate. Nevertheless, in a study of this nature, it is appropriate to refer to the possible consequences of following such a path. While no conclusions are being drawn from this particular discussion, suffice it to say that if both parents in young families are working, there is a strong possibility that family values that have traditionally played such a vital role in holding communities together could suffer as a consequence.

The above comments do not imply that girls should not be educated or should be denied access to secondary education. There is a vital role to be played by women in the development efforts of the country. The longer term social benefits of educating women in developing countries have been well established (Subbarao and Raney, 1993; Kindervatter, 1983; King and Hill 1993). However, it is being suggested that an education embracing a socially critical component, rather than an irrelevant curriculum justified by pecuniary returns, may be of greater value in view of the critical role that women have played in ensuring social harmony.

6.9 FURTHER RESEARCH

The findings of this thesis and the discussions above indicate that there are implications for further research arising out of the thesis. Some of these are presented below:

- Research needs to be undertaken to investigate areas in which higher education is taking place among scholarship holders, and whether these areas have relationships to the economy or public and social services in order to determine the level of resources to be diverted to overseas training, or if in-country training could be established
- The enrolment trends and performance at GCSE A/L need to be investigated both on gender as well as atoll/Malé bases. The relevance and relative benefits in terms of equity in this sector have to be carefully reviewed before further expansion of the sector.
- Research into the emerging trend of increased female participation and in the paid work force and their implications for the future economy as well as possible changes in social organisation in the country needs to be carried out as a priority.
- Level of social mobility within socio-economic groups as a result of education needs to be researched. For example, this thesis has established

that enrolments from the atolls at the secondary level have increased both among Malé as well as atoll students. This study does not indicate which sub groups within this two broad groups are being represented. Therefore, emerging patterns of inequalities if any, within groups must be studied.

- Research into the social awareness and proficiency in Dhivehi among graduates of secondary school also need to be researched.

6.10 RECOMMENDATIONS

This thesis has identified some severe limitations of the current secondary education system in the Maldives. The source of these limitations has been traced mainly to conceptions and definitions of development, and the perceived role of education in fulfilling development plans. It has been adequately argued that development centring on consumer economies and material affluence may never be achieved in the Maldives, and by extension, in most SIS with poor resource bases similar to the Maldives.

The remainder of this thesis focuses on an alternative system of education, and hence an alternative conception of development. It must be stressed at the onset that no claims are being made that these suggestions are the only viable alternatives, nor are they definitive in any way. These suggestions simply form a broad outline of one set of possibilities that needs to be discussed and refined before any definitive action can take place.

6.10.1 DEVELOPMENT

There are certain assumptions that have to be made in defining development. For the model that is presented here, the underpinning assumptions are:

- Development has to be based on cultural and social practices and in the context of the environment in which it is taking place.

- Proceeds of such development should be available to all citizens. A model of development which results in disproportionate distribution is not justifiable.

- To make development sustainable, it has to be based on optimum consumption geared for the long term and non-materialistic forms of individual contentment and happiness.

Such a definition of development is in contrast to current definitions, taking a postmodernist approach, describe by Aronowitz & Giroux (1991:14-15):

As a form of cultural criticism, postmodernism has challenged a number of assumptions central to the discourse of modernism. These include modernism's reliance on metaphysical notions of the subject; its advocacy of science, technology, and rationality as the foundation for equating change with progress; its ethnocentric equation of history with the triumphs of European civilization; and its globalizing view that the industrialised Western countries constitute a legitimate center — a unique and superior position from which to establish control and to determine hierarchies.

A model of development based on the above set of assumptions recognise that the first and foremost consideration in development efforts should be to conserve scarce resources for future generations, as well as positive elements in the culture of the people which had held society together for the better part of 4 000 years. It is proposed that an appropriate model of development should cater for individual aspirations of happiness, but not at the expense of some other person's aspirations. In short, conveniences and luxuries which cannot be afforded by the population at large do not have a rightful place in society. Those luxuries can only be had by a few, at the expense of a more basic need of some other individual or individuals in the society.

6.10.2 EDUCATION FOR DEVELOPMENT

A model of development as described above does not require the same type of manpower which is being prescribed by the current model. This suggests that secondary education does not have to be geared to select a small percentage of students for further training overseas.

Such a model of development would require different outcomes from education. It follows that assumptions underlying an appropriate system of education would be considerably different. The assumptions and aims underpinning the suggested model of education are :

- Equitable access to education by all.
- A general education which will empower people to think and act critically in terms of their social responsibilities to peace, harmony and cooperation with their fellow country people and environment.
- An education which highlights constraints and possibilities for peaceful co-existence of all people, and enhance their quality of life through critical interaction rather than material consumption.
- An education which enable equal participation in the democratic process by all through an increased awareness about issues of national concern and facilitated dialogue.

This model is based on the emancipatory possibilities open to all as suggested by advocates of socially critical theory. This does not mean that training aspects necessary for participation in economic activity should be ignored. What it is suggesting is a mode of education which will allow critical reflection on Maldivian issues by Maldivians, and the opportunity for them to determine future directions for their nation, as a result of the ability to think and reflect critically on issues of concern.

Such an education would hopefully avoid the condition of subservience to external ideas and the resulting oppression created. Paulo Freire (1972:47-48) writes:

Indeed, the interests of the oppressors lie in 'changing the consciousness of the oppressed, not the situation which oppresses them'(Simone de beauvoir in *La pensée de Droite Au.ourd'hui*) for the more the oppressed can be led to adapt to that situation, the more easily they can be dominated. To achieve this end, the oppressors use the banking concept of education in conjunction ...[The oppressed] are treated as marginal men [and women] who deviate from the general configuration of a 'good, organised, and just' [or in this context, developed or developing nations] society. The oppressed are regarded as the pathology of the healthy society, which must therefore adjust these 'incompetent and lazy' folk to its own patterns by changing their mentality. These marginals need to be 'integrated', 'incorporated' into the healthy society that they have 'forsaken'.

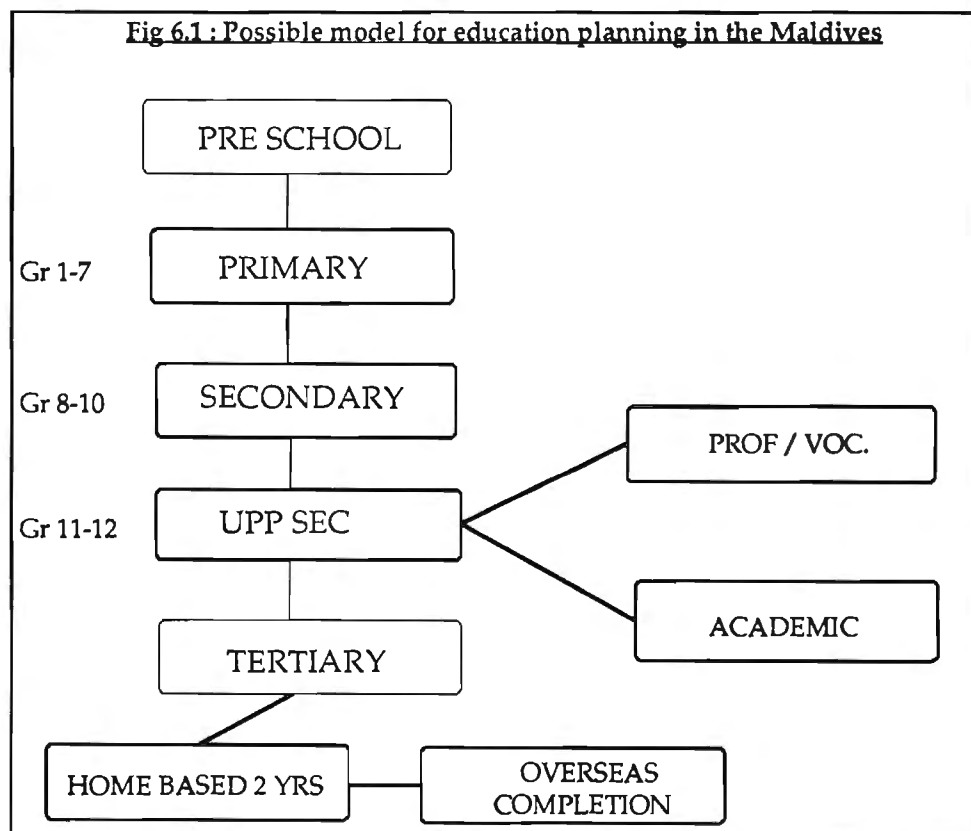
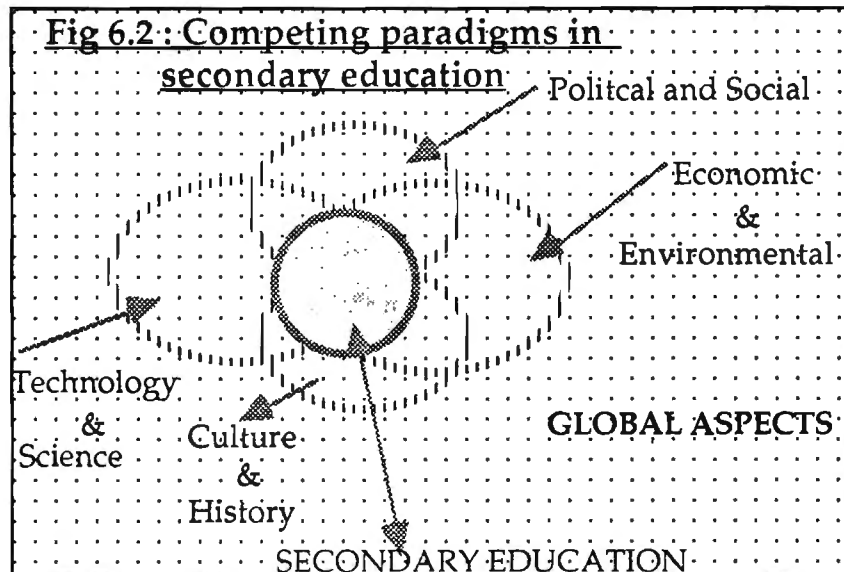


Fig 6.1 is a schematic representation of the model being proposed. The first change to the current system is in relation to Pre-school. At the moment, this level is offered only in Malé. The argument is advanced in this thesis that this is an extravagancy (in relative terms) which contributes to the advantage of cultural and social capital of Malé students. The merits of early childhood education in the overall development of children are not being questioned. However, it must be borne in mind that Pre-schools in Western nations includes large components of child care which is unnecessary in the Maldives in view of the discussion above. It is proposed that the skills of the trained professionals in this area be utilised in developing and implementing community-based programs which will enable parents to assist in their children's learning. The advantage of such a program is that it will free valuable resources to be spent elsewhere and make the benefits of Pre-school education more accessible.

In the primary sector, it is proposed that primary education be extended to Grade 7, and at the same time, dissolve the current dual system of primary education. No major changes to the Grades 1—5 curriculum is being proposed. The curriculum for Grade 6—7 will need to be revised to facilitate continuation to Secondary education. Functional literacy and numeracy should be given prime importance in these areas. The quality of teaching and learning in all primary schools, particularly in the atolls have to be addressed as a matter of grave urgency.

Secondary school curriculum needs to be redesigned to include aspects of Maldivian society. Without going into too much detail, the following points are highlighted as key features of the proposed model.



- Curriculum should be organised to reflect the five paradigms (Global Aspects, Economic and Environmental, Political and Social, Culture and History, Technology and Science) illustrated in Fig 6.2.

- Curriculum does not necessarily have to consist of specialised subject domains. In fact it is proposed that the curriculum be kept as general as possible until the end of Grade 10.

- Integration of various domains of knowledge and teaching methods involving synthesising and a problem solving approach is strongly recommended.

- English should be taught as a subject from K—12.

- The general medium of instruction should be Divehi, borrowing terminology from English if necessary.

- Distance education would play a key role in assisting teachers in the atolls in terms of specialist information in areas in which they are not fully qualified.

- Emphasis, both in learning and assessment, should be placed on communication and cooperation rather than competitiveness.

The upper secondary school is where some specialisation could start taking place. Further, this level has a dual structure. A component of vocational education and a more academically oriented stream, is proposed.

It is envisaged that the vocational stream would be a more efficiently organised amalgamation of the current offerings in AHSTC, ITE, VTC and Hotel School. Properly managed and built upon, such an amalgamated institution could ultimately be the preparation work for further training overseas, under proper arrangements and understandings with foreign institutions.

The academic stream would extend students' knowledge in the academic sphere, and could possibly be conducted in the English medium if so desired.

The above model offers the obvious advantages over the existing model. Firstly, arguments of meritocracy in selecting from applicants into the upper secondary level would be more acceptable in that all students would have a better chance of achieving equally, as factors of cultural and social capital contributing to better performance by Malé students would have been reduced. Secondly, the pool of secondary graduates from which to choose into upper secondary level would be larger due to increased access. Thirdly, graduates would be more socially aware, and their heightened critical consciousness would in the long term be beneficial both to the individual and the nation. Democracy can be an effective form of government only if the participants are in a position to contribute positively. Fourthly, the resources freed from the current highly expensive model can be more effectively used.

As stated previously, this model is by no means a completed product. Before it can be implemented, or even formulated in detail, it is recommended that a needs analysis incorporating all the paradigms presented in Fig 6.2 be conducted.

6.11 CONCLUDING REMARKS

A basic service such as education in any country should be equitable, and reflect the realities in which it is operating. The nature of education,

and education in this context being slightly different from the wider encompassing concept of training, has been hailed to be the solution to many problems in many societies. It has been thought to have been the mechanism to rescue nations from economic crises, to eradicate indigence, to advance social justice, to solve the environmental crisis, and to improve health standards among other things. From the time of Plato to the twenty first century, nobody has ever disagreed on the necessity to educate the young. The exact content, delivery methods, and who should receive what form of education has been the centre of much debate for just as long. It seems to be a never ending debate.

Recent thinking (Freire, 1972; Aronowitz & Giroux, 1991; Giroux & Aronowitz, 1985 and many others) has highlighted the role that education could play in empowering people to emancipate themselves from various forms of shackles that lock them into positions of subservience and conditions of oppression. More importantly, this approach to, or perspective of education, stresses on the possibilities open to all in truly being enlightened and liberated individuals and creating a society in which they would want to live. To achieve this, it is argued that pedagogy should become more political and that the political should become more pedagogical.

It has been argued in this thesis that the constraints identified in the effort for development in the Maldives, as well as in many other SIS are only constraints when viewed from a particular dominant world view. In the haste to conform to externally defined levels and kinds of development, the possibilities open to the country have been shadowed. After many years of experimenting with their societies, the industrialised West has demonstrated one irrefutable fact. That industrial advancement and material comfort have been achieved through a high social and environmental cost. Should the rest of the world follow along the same path, or should they stop and gain the benefit of hindsight? This thesis

advances the argument that it is indeed time to stop, think, reflect, take stock of the situation and act accordingly.

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