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South Asia Human Development Sector

Expanding Access and Enhancing the Economic Benefits of Education in the Maldives

Challenges and Prospects

May 2012



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South Asia: Human Development Unit

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Discussion Paper Series

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ABBREVIATIONS AND ACRONYMS

DHS	Demographic and Health Survey
GCE A/L	General Certificate of Education Advanced Level
GCE O/L	General Certificate of Education Ordinary Level
GDP	Gross Domestic Product
GNI	Gross National Income
GoM	Government of Maldives
HDI	Human Development Index
HSC	Higher Secondary Certificate
IGCSE	International General Certificate of Secondary Education
MNU	Maldives National University
MoE	Ministry of Education
NER	Net Enrollment Rate
OECD	Organisation for Economic Co-operation and Development
PISA	Programme for International Student Assessment
SSC	Senior Secondary Certificate

INTRODUCTION

Human capital is the central determinant of economic well-being and social advancement in the modern global economy. The key characteristic that distinguishes between advanced economies, middle-income economies and low-income economies, is the knowledge content of their economic activities and production processes. Industry, agriculture and especially services have become increasingly knowledge and skill intensive in recent years. Further, the dominance of knowledge and skills is increasing at an accelerating rate. Among advanced economies, for instance, the education levels of their populations is the single most important factor determining their economic performance [Hanushek and Welch (2006), Hanushek and Woessmann (2008)]. Among middle-income and low-income countries, too, economies that have high education attainment enjoy considerable welfare gains [Fasih (2008), Patrinos and Psacharopoulos (2011)]. Human resource development is particularly important for the economic development of small states [Martin and Bray (2011)]. Education also produces a variety of social benefits. These include healthier and better nourished families and children; the creation of the enlightened citizenry needed for a modern liberal democracy; and the promotion of social mobility [OECD (2012)].

The expansion and development of human capital is central to the country's strategy to achieve this goal. The Republic of Maldives, a multi-island nation of spectacular natural beauty, is one of the most advanced economies in South Asia. The Maldives consists of an archipelago of nearly 1,200 islands and a population of approximately 400,000 inhabitants: 310,000 Maldivians and 90,000 expatriate workers. More than 25 percent of the population live in Male', the capital, while the rest are distributed among just under 200 other inhabited islands. The Maldives had attained a gross national income (GNI) per capita of US\$ 5,790 in 2010. The country ranked 109th in the human development index (HDI) for 2011, which was the second highest HDI rank in South Asia after Sri Lanka. The country is seeking to accelerate human development and promote economic prosperity.

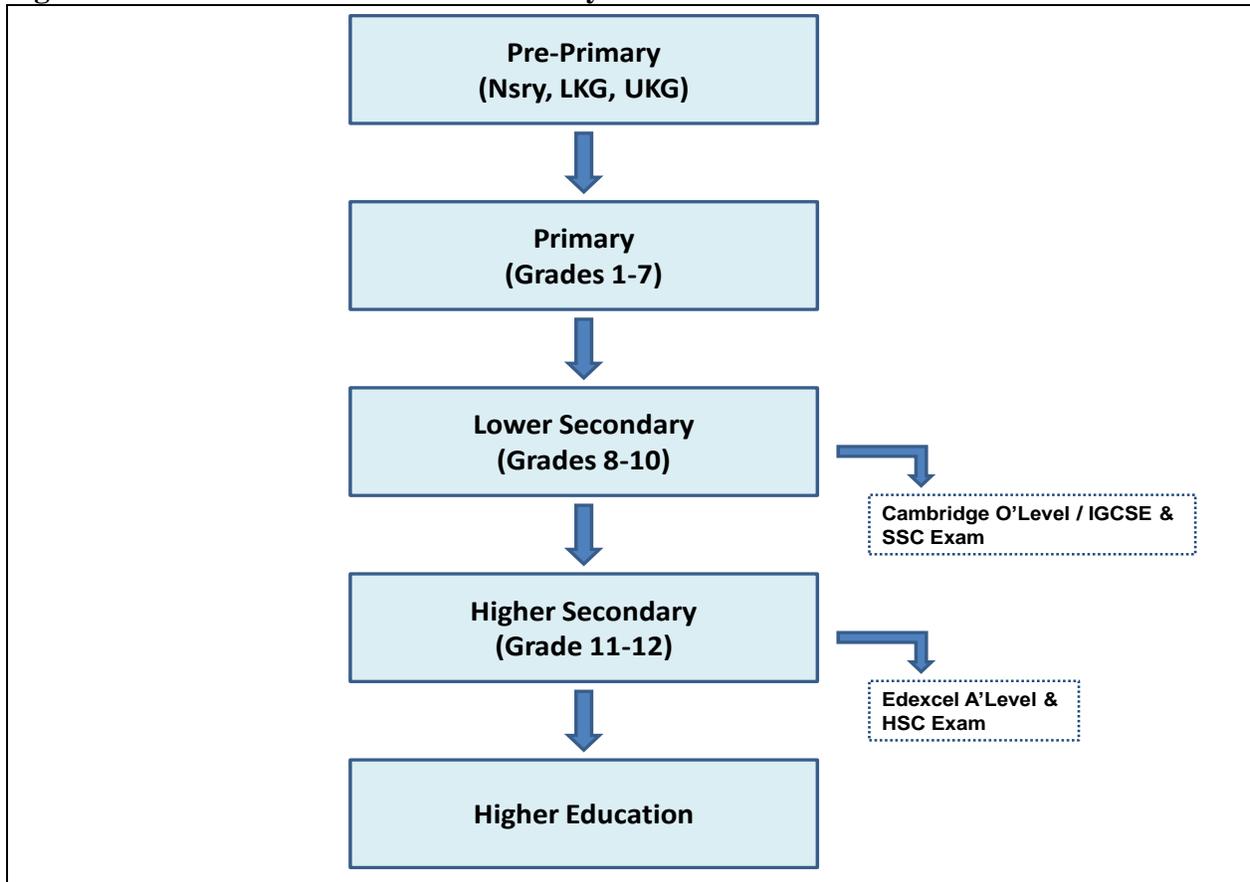
This paper offers an overview of the general education system and the current status of access and participation in the Maldives. This is followed by a discussion of the economic and social benefits of investment in education. The paper concludes by discussing options to expand access and participation at education levels where the Maldives lags behind other comparable small island economies.

ACCESS AND PARTICIPATION IN PRIMARY AND SECONDARY EDUCATION IN THE MALDIVES

The Maldivian general education system consists of three stages: primary education (grades 1-7, ages 6-12), lower secondary education (grades 8-10, ages 13-15) and higher secondary education (grades 11-12, ages 16-17) [Figure 1]. Primary education is preceded by a pre-primary stage of nursery and kindergarten education. There are two public examinations in the education cycle. At the end of lower secondary education students sit the General Certificate of Education Ordinary Level (GCE O/L), International General Certificate of Secondary Education (IGCSE) or Senior Secondary Certificate (SSC) examinations. At the end of the two-year higher

secondary education stage students sit the General Certificate of Education Advanced Level (GCE A/L) examination or Higher Secondary Certificate (HSC) examinations.

Figure 1. The Structure of the Education System in the Maldives



General education is delivered chiefly through a network of government schools¹. Schools in Male' and the main islands offer a combination of primary and secondary education. Schools in smaller islands are generally primary schools. Overall, there are about 203 schools offering primary education, 179 schools offering lower secondary education, and 37 schools offering higher secondary education. The total number of schools is 222, with some schools offering more than one grade span.

There are approximately 70,000 students in the Maldivian school system. At the stage of primary education there are about 42,000 students and 3,600 teachers [Table1]. At the level of lower secondary education there are approximately 25,000 students and 3,000 teachers. And at the stage of higher secondary education there are around 3,200 students and 400 teachers. The distribution of teachers reflects the pattern of enrollment, with a student-teacher ratio of 12:1 in primary education, and 8:1 in lower secondary and higher secondary education. These are low

¹ Private schools and community schools exist in the Maldives. However, these schools are mainly engaged in the delivery of pre-school education.

student-teacher ratios, even by the standards of small countries with widely dispersed populations, which typically have low student-teacher ratios.

Table 1. Student Enrollment and Teachers in the Maldives at Primary, Lower Secondary and Higher Secondary Level, 2010

	Primary			Lower Secondary			Higher Secondary		
	Total Teachers	Total Students	Student /Teacher Ratio	Total Teachers	Total Students	Student /Teacher Ratio	Total Teachers	Total Students	Student /Teacher Ratio
Male'	775	10,867	14	570	7,070	12	140	1,903	14
Atolls	2,817	31,088	11	2,515	17,518	7	262	1,340	5
Total	3,592	41,955	12	3,085	24,588	8	402	3,243	8

Source: MoE Statistics.

The Maldives has successfully completed the first generation challenge of ensuring universal enrollment in primary education (grades 1-7, ages 6-12 years). The overall net primary Enrollment rate, 96 percent, is high. There is also high gender parity, with the net primary enrollment for boys at 95 percent, and the net primary enrollment rate for girls at 96 percent [Table 2]. The gross primary enrollment rates are also high for boys at 107 percent, and girls at 104 percent. The gap between the gross and net primary enrollment rates are relatively small, suggesting low repetition in the primary education grades. The Maldives has a policy of automatic promotion through primary education, which partly explains the small difference between the gross and net primary Enrollment rates.

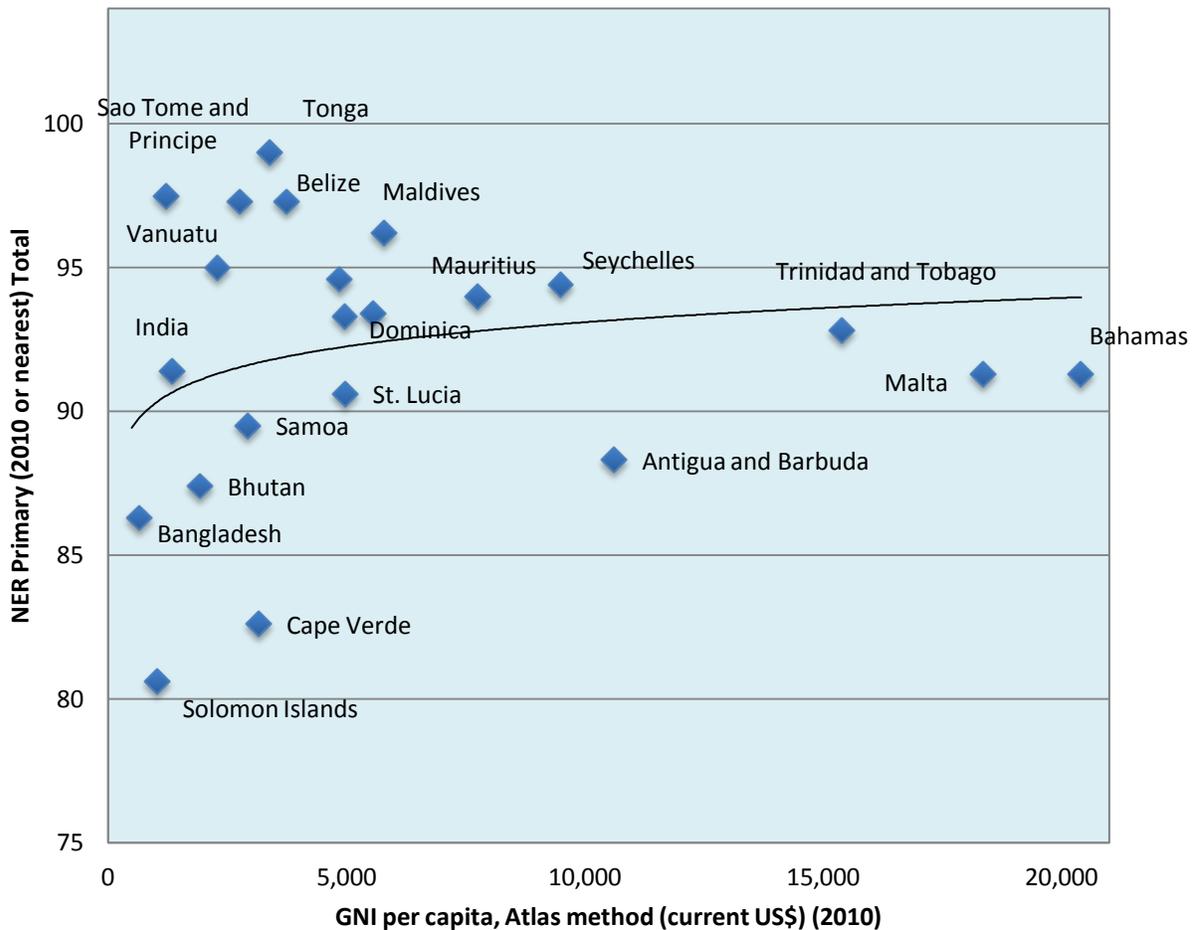
Table 2. Gross and Net Enrollment Rates by Education Level, 2010

	Net Enrollment Rate (%)			Gross Enrollment Rate (%)		
	Primary	Lower Secondary	Higher Secondary	Primary	Lower Secondary	Higher Secondary
Female	96	87	16	104	123	20
Male	95	81	18	107	112	22
Both sexes	96	84	17	106	117	21

Source: MoE Statistics. Note: numbers have been rounded to the nearest integer.

The net primary enrollment rate in the Maldives compares well with small island economies at a similar level of per capita income [Figure 2]. The Maldives has higher primary enrollment than is predicted for the country's level of per capita income, with the primary enrollment rate well above the regression line. The Maldives also outperforms many small island nations that are considerably wealthier, such as Antigua and Barbuda, the Bahamas, Malta, Mauritius, Seychelles, and Trinidad and Tobago, in primary education attainment.

Figure 2. Primary Education Net Enrollment in Relation to GNI per capita of Middle Income and Low Income Small Island Countries



Source: Calculated from World Bank Education Statistics.

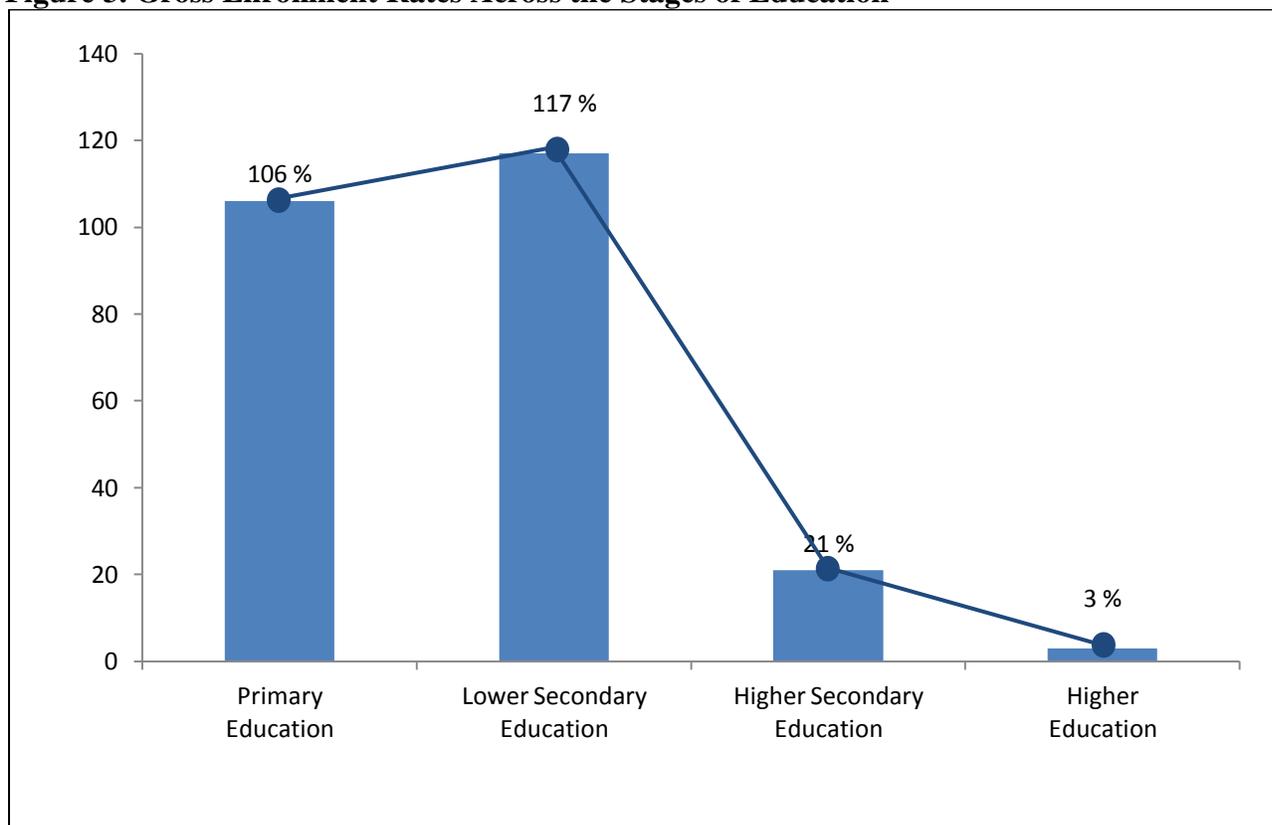
The positive performance of the Maldives in primary education is the result of strong and sustained policy action and commitment by the government. The Government of Maldives (GoM) from the 1990s onwards has sought to achieve universal primary education in the Maldives through a combination of demand-side and supply-side policies [MoE (2007)]. The key demand-side incentive has been the provision of free education in government schools. This has reduced the cost of school enrollment and attendance for children, which is important for poor households. The main supply-side policy has been the establishment of a complete network of primary schools in the inhabited islands, so that all children aged 6-12 years are able to attend a primary school in their own home island. These policies have been effective, as seen in the high participation rates in primary education.

Lower secondary education enrollment is high, but with considerable repetition. The net enrollment rate at lower secondary education is 84 percent, with boys net lower secondary enrollment at 81 percent and girls net lower secondary enrollment at 87 percent [Table 2]. These are reasonably high rates. However, the gross lower secondary enrollment rate for girls is 123

percent and for boys 112 percent. The difference between the net and gross enrollment rates is substantial. The considerably higher gross enrollment rates suggest a high degree of repetition, especially among girls, at the stage of lower secondary education.

There is a sharp drop in enrollment at the higher secondary education level. The higher secondary education net enrollment rate is a mere 17 percent, with boys net enrollment at 18 percent and girls net enrollment at 16 percent [Table 2]. Gross enrollment rates in higher secondary education are 22 percent for boys and 20 percent for girls. This results in a very steep fall in enrollment rates between lower secondary and higher secondary education [Figure 3].² The main reason for the sharp drop in participation at the higher secondary level is the limited number of schools offering education in grades 11-12. For instance, out of the 225 schools in the country only 37 schools provide higher secondary education: 3 schools in Male' and 34 schools in the atolls. This is the result of historical government policy which focused initially on the attainment of universal primary education, and then the development of lower secondary schools to cater for the age group 13-15 years, while postponing the challenge of higher secondary education for policy consideration at a later date.

Figure 3. Gross Enrollment Rates Across the Stages of Education

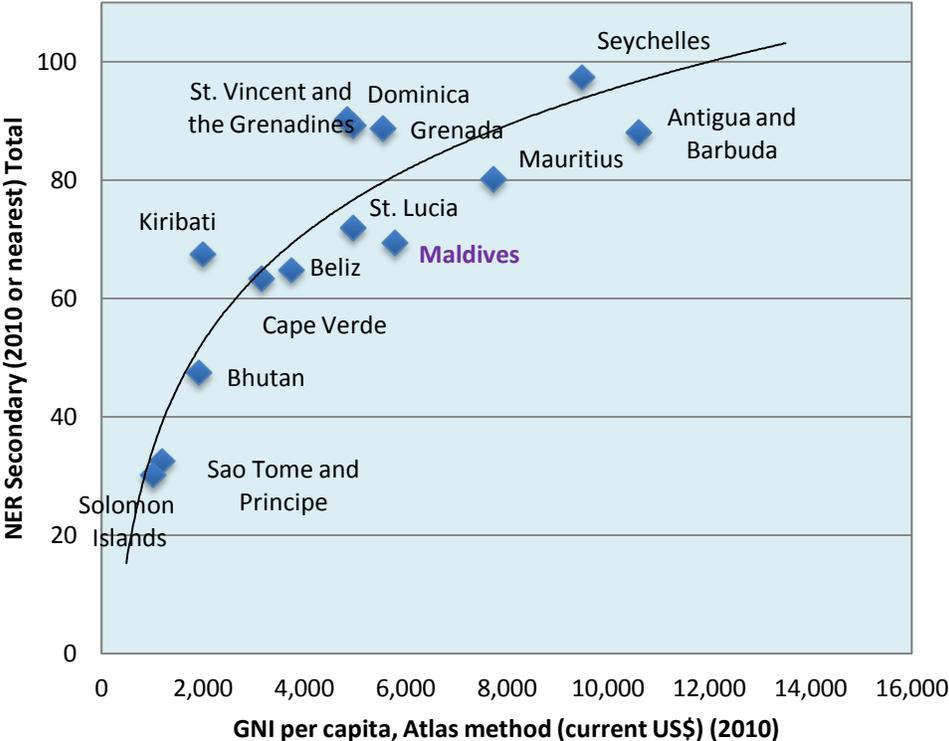


Source: MoE Statistics. Note: Numbers have been rounded to the nearest integer.

² The higher secondary enrollment rates are for students enrolled in school. There are also a small proportion of students, about 3 percent, who have completed the GCE O/L and are enrolled in vocational training or technical education courses. Even if these students were to be included the gross enrollment ratio for the relevant age cohort would still be low.

The Maldives lags behind in secondary education participation in relation to other small island nations. The secondary education enrollment rate is less than the rate predicted for the country’s level of per capita income [Figure 4]. Secondary education enrollment is below that of small island nations at even a lower level of per capita income than the Maldives, such as Dominica, Grenada, St. Lucia, and St. Vincent and the Grenadines. The Maldives also underperforms in secondary education in comparison to small island nations that it outperformed at the level of primary education, such as Antigua and Barbuda, Mauritius, and Seychelles. The overall secondary education enrollment rate for the Maldives is dragged down by the low enrollment rates in higher secondary education.

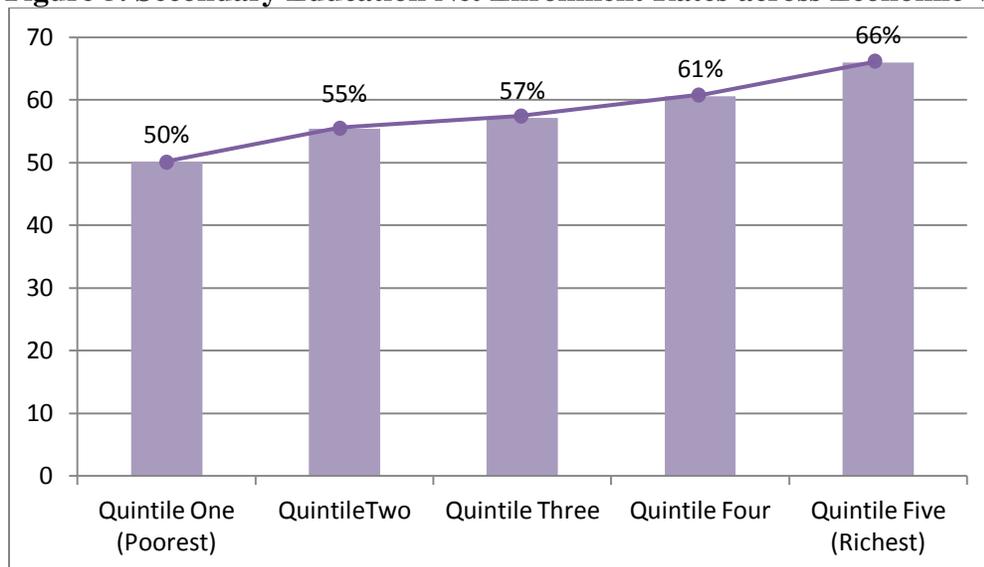
Figure 4. Secondary Education Net Enrollment in Relation to GNI Per Capita of Middle Income and Low Income Small Island Countries



Source: Calculated from World Bank Education Statistics.

The constraint on access to higher secondary education also has negative effects on equity. Secondary education enrollment rates across economic wealth quintiles show considerable disparities between the higher and lower economic groups [see Figure 5]. The secondary education net enrollment rate varies between 50 among the poorest quintile to 66 percent among the richest quintile. This means that the enrollment rate among the top wealth quintile is about 16 percent higher than the enrollment rate among the poorest quintile. This finding suggests that the benefits of higher secondary education accrue mainly to richer economic households. Relaxing the constraint on access to higher secondary education will promote equity of education opportunities.

Figure 5. Secondary Education Net Enrollment Rates across Economic Wealth Quintiles



Source: World Bank staff estimates, based on the Demographic and Health Survey, 2009.

BENEFITS OF INVESTMENT IN EDUCATION

Economic Benefits of Investment in Education

Investment in human capital has a positive and rising impact on wealth, at all levels of education from primary schooling upwards, for both men and women in the Maldives. This is clearly seen in the econometric analysis presented in Table 3, where all the coefficients from primary education to higher education are positively signed and statistically significant. In addition, as the education levels of individuals increase their wealth rises. These findings are consistent with the notion that investment in human capital is an important determinant of the economic well-being of individuals. Further, for secondary education and higher education, the education coefficients are larger than the coefficients of any other variables, for both men and women. This suggests that education has a stronger impact on wealth than any other factor, for men and women who have received secondary education or higher education. Between the sexes, the impact of education on wealth is stronger among women than among men. This can be attributed mainly to self-selection effects, as there is a greater likelihood of the more able women entering the labor market, while among men nearly all working aged individuals would participate in the labor market. The age variables, which are proxies for experience, display a familiar pattern, rising up to a maximum in late middle-age and then declining thereafter. This is consistent with the notion that experience has an economic value. The wealth functions also show that urban men and women earn significantly more than their counterparts in the rural sector. This is again a typical finding, as the urban sector has a larger range of well-paid jobs than the rural sector.

The role of education in promoting female labor force participation is an extremely important element of gender empowerment and economic modernization. The relationship between education and female labor force participation is shown in Table 4. Education exerts a

strongly positive effect on the labor force participation of women with secondary education or higher education. In addition, the likelihood of labor force participation rises with the level of education, for both married women and for all women. There are likely to be two sets of reasons for the higher labor force participation probabilities of women with secondary education and higher education. First, there are self-selection effects, as women who study up to these levels are likely to possess greater ability and motivation to work. Second, well educated women enjoy higher life-cycle earnings prospects. Hence, the opportunity cost of non-participation is greater for well-educated women.

Table 3. Education and Economic Well-Being (Wealth Index Factor) 2009, Generalized Least Squares Estimates

Variables	Male		Female	
	Coefficient	T-Ratio	Coefficient	T-Ratio
Constant	-76,551***	-29.62	-83,320***	-32.07
Age				
Age 31-40 years	9,044***	4.47	14,526***	7.94
Age 41-50 years	20,318***	8.01	26,700***	11.27
Age 51-60 years	25,205***	8.41	28,632***	9.93
Age 61-70 years	14,568***	4.60	21,375***	6.59
Age 71 years above	6,418*	1.68	20,918***	4.71
Education				
Primary	14,984***	7.19	16,019***	8.36
Secondary	36,930***	16.21	40,223***	17.89
Higher	57,741***	14.52	64,960***	16.48
Household size				
Family size	2,712***	18.52	2,731***	19.51
Marital status				
Married	13,394***	7.99	13,605***	8.98
Widowed	4,301	0.89	3,758	1.14
Divorced	-1,477	-0.40	2,927	1.09
Location				
Urban	183,896***	112.21	187,569***	122.67
Observations	12,690		14,490	
F(13, 12676)	1,381.86		1,536.24	
Adjusted R-squared	0.59		0.58	
Breusch-Pagan/Cook-Weisberg test for heteroscedasticity	chi2(1) = 10.22 Prob > chi2 = 0.0014		chi2(1) = 10.23 Prob > chi2 = 0.0014	

Source: World Bank staff estimates, based on the Demographic and Health Survey, 2009.

Note: All standard errors have been corrected for heteroscedasticity. *** means statistically significant at 99 percent, ** means statistically significant at 95 percent, and * means statistically significant at 90 percent.

Table 4. The Impact of Education on Female Labor Force Participation, Marginal Effects Derived from a Probit Model, Maximum-Likelihood Estimates, 2009

Education level	Both never-married and ever-married female	Only ever-married female
Primary education	-0.0020 (-0.11)	-0.0067 (-0.30)
Secondary education	0.1378 *** (5.90)	0.1128 *** (4.01)
Highest education	0.3959 *** (10.15)	0.3669 *** (8.05)
Partner's highest education, Primary		-0.0074 (-0.37)
Partner's highest education, Secondary		0.0195 (0.82)
Partner's highest education, Higher		0.0540 (1.23)
Observations	7,033	6,179
Prob > chi2	0.0000	0.0000
Pseud R2	0.0244	0.0223

Source: World Bank staff estimates, based on the Maldives Demographic and Health Survey 2009.

Note: Z-values in parentheses. The probit model was controlled for other factors affecting female labor force participation, such as age, urban-rural residence, household characteristics, and marital status. *** means statistically significant at 99 percent, ** means statistically significant at 95 percent, and * means statistically significant at 90 percent.

Social Benefits of Investment in Education: Externality Effects

The externality effects of maternal education on family health and child nutrition are among the key social benefits of investing in education. In developing countries the prevalence of life-threatening communicable diseases and under-nutrition has declined over time as girls and women have become better educated. This favorable relationship between female education and health and nutrition outcomes is seen in the Maldives, too.

Maternal education plays a strong and significant role in reducing the prevalence of child under-nutrition. The relationship between mother's education and child nutrition is presented in Table 5. The prevalence of children either severely or moderately underweight decreases progressively and significantly as maternal education rises. Children of primary educated mothers are less likely to be under-nourished than children of uneducated mothers. Children of secondary educated mothers are less likely to be under-nourished than children of primary educated mothers. And children of tertiary educated mothers are less likely to be under-nourished than children of secondary educated mothers. The positive relationship between maternal education and child nutrition is the result of superior nutrition knowledge and greater ability to implement favorable nutrition practices among educated women. Educated mothers obtain and respond faster to new information on child nutrition, and utilize health care services

for diseases that adversely affect nutrition more frequently. In addition, educated mothers have a higher propensity to use necessary nutrition supplementation in infancy and to adopt appropriate weaning practices.

Table 5. The Relationship between Mother’s Education and Child Nutrition, 2009

Mother's Education	Weight-for-age				
	Below -3 SD (%)	Below -2 SD (%)	Above +2 SD (%)	Mean Z-score (SD)	Number of children
No formal education	5.2	27.1	2.7	(1.2)	321
Primary	4.7	21.0	1.4	(1.0)	937
Secondary	1.9	12.3	2.4	(0.6)	1,092
Higher	0.0	11.9	3.7	(0.4)	110

Source: Maldives Demographic and Health Survey (DHS) 2009.

Maternal education plays a positive and significant role in reducing the incidence of child mortality. The relationship between mother’s education and child mortality is presented in Table 6. The incidence of child mortality across all indicators, neo-natal mortality, post-neonatal mortality, infant mortality, and child mortality, decreases progressively and significantly as maternal education increases. Infants and children of primary educated mothers are less likely to die than children of uneducated mothers. And infants and children of secondary educated mothers are less likely to die than children of primary educated mothers. The positive relationship between maternal education and infant and child mortality can be attributed better health knowledge and greater ability to implement favorable health practices among educated women. Educated mothers adopt better pre-natal and neo-natal practices, obtain and respond faster to new information on infant and child health, and utilize health care services for life-threatening diseases, such as respiratory and water-borne diseases, more frequently and effectively. For instance, educated mothers are more likely to seek treatment from medical facilities and to use medicines over the prescribed cycle of treatment than uneducated mothers.

Table 6. The Relationship between Mother’s Education and Child Mortality, 2009

Mother's Education	Neonatal Mortality (%)	Post-Neonatal Mortality (%)	Infant Mortality (%)	Child (under-1) Mortality (%)	Child (under-5) Mortality (%)
No formal Education	32	9	41	6	47
Primary	17	6	23	5	28
Secondary	7	6	13	1	14

Source: Maldives Demographic and Health Survey (DHS) 2009.

Note: Information on child mortality for higher educated women is not presented in the DHS report.

ENHANCING ECONOMIC BENEFITS: ORIENTING EDUCATION TO LABOR MARKET NEEDS

The Maldivian education system faces the challenge of producing school completers and graduates with the skills needed for a small multi-island nation to operate in the modern global knowledge economy. The labor market characteristics of small island economies pose special challenges to their education systems. First, the utilization of specialized skills is low, and the economy needs generalists more than specialists. For instance, the requirement for advanced physicists and chemists is infinitesimal. However, there is a need for mathematics and science teachers for secondary schools. Hence, the education system needs to produce workers with more general skills and all-round abilities than specialists. Second, there is a shortage of well-educated individuals to take up many managerial and professional jobs. This is a common feature of small island economies, especially those which depend heavily on a single economic activity such as tourism [see Box 1]. Third, there is high dependence on expatriate workers. The Maldivians has a large number of expatriate employees, including for managerial and professional jobs. This is expensive for the country, as expatriates are paid substantially more than Maldivians. The senior secondary school and tertiary education systems need to expand and increase the supply of educated Maldivians required for managerial and professional occupations.

Box 1. Skills Shortages in the Tourism Sector in the Eastern Caribbean

The Eastern Caribbean consists of a chain of small islands. Tourism is the dominant economic activity in the region. However, studies have found a shortage of educated professionals and skilled workers for the tourism sector in the Eastern Caribbean countries.

- A case study of skills in the tourism sector in St. Lucia found that adequate waiters, spa workers, and maintenance staff were available. However, there was a shortage of workers with culinary skills such as executive chefs. There was also a shortage of managers.
- A study of the yachting sector in St. Vincent and the Grenadines identified that while the required skills for administrative/clerical, sales and service jobs were available, specialized managerial skills required for marina or yacht charter company management were not available.
- An investment climate survey in Grenada showed that firms have difficulty in finding educated professionals with adequate management skills.

Source: World Bank (2008).

Unemployment in the Maldives is high compared to other small island countries. The unemployment rate for the Maldives is over 14 percent, which is the second highest unemployment rate among small island countries [Table 7]. Only Sao Tome and Principe has a higher unemployment rate. All other countries except the Bahamas have considerably lower unemployment rates. Among the sexes, the female unemployment rate in the Maldives is nearly 24 percent, and the male unemployment rate just under 8 percent. This pattern of unemployment, with substantially higher unemployment rates among women, is also seen in countries such as Sao Tome and Principe, Belize, Mauritius and Barbados. A similar pattern is also seen in many South Asian Countries [World Bank (2012)]. The main reason for high female unemployment in these countries may be that women have considerably higher reservation wages than men, and are willing to search for much longer periods of time till they get a desired job.

Table 7. Unemployment in the Maldives and Comparator Small Island Countries (% of total labor force), 2010

Country	Total	Male	Female
Maldives	14.4	7.9	23.8
The Bahamas	14.2	14.4	14.0
Malta	6.9	7.0	6.8
Trinidad and Tobago	5.3	3.5	6.2
Barbados	8.1	6.8	9.4
Seychelles	5.5	6.1	4.9
Mauritius	7.3	4.4	12.3
Belize	8.2	5.9	13.0
Tonga	1.1	Na	na
Sao Tome and Principe	16.7	11.0	24.5

Source: World Bank Education Statistics.

The Maldives has adopted certain strategic policy initiatives to increase the orientation of the education system to the global labor market. First, the country is seeking to improve the English language fluency of Maldivian nationals to integrate better with the international economy. Schools are given the option of using English as the medium of instruction from grade 1 onwards. Also, English is the principal medium of instruction in secondary education. This policy seeks to improve the capability of Maldivians to engage in international commerce and trade. As tourism is the main economic activity, this is a strategic policy measure. However, it is also controversial, as critics contend that English is not the mother tongue of many Maldivians, especially in the outer atolls, and compelling such students to study in English places them at a learning disadvantage. Champions of the policy argue that this is a one generation problem, and that from the next generation onwards, with households becoming fluent in English, the problem will be solved. Meanwhile, it is considered a necessary measure, as the Maldives needs to be competitive in the global economy whose lingua franca is English.

The Maldives has introduced options of vocational subjects for students in the secondary education grades. Students can select vocational subjects from Grade 8 onwards, if their aptitudes are more towards skills based subjects. Such choices can be particularly useful in skills that are linked to the growth sectors of the economy, such as tourism and allied services. However, it should also be noted that in the Maldives, as in much of the rest of South Asia, jobs requiring vocational skills are considered inferior to white collar jobs requiring academic skills by the general population. Hence, the demand for vocational subjects is lower than for academic subjects, irrespective of the aptitudes and talents of students. Vocational subjects are also more expensive than subjects in the general curriculum, so that the government has to be careful about the number of schools in which the vocational options can be provided. However, a relatively large number of students in some high performing OECD countries, such as Finland, Germany and Japan, tend to take up vocational higher secondary education [see Box 2 on Finland]. The Maldives could consider such an option for students with suitable aptitudes for skills based jobs.

Box 2. Vocational Secondary Schools in a High-Performing Country: the Case of Finland

Finland is a medium-small, rich country, with a population of 5.4 million and a per capita income of US\$31,533 in 2010. The country is a major intellectual leader in the academic performance of its secondary school students. It has consistently ranked in the very top tier of countries in all PISA (Programme for International Student Assessment) studies of learning skills among 15-year-olds. Moreover, the high performance is remarkably consistent across schools.

In the Finnish education system, children between ages 7 and 16 are required to attend comprehensive schools. Upper secondary education is divided between general (academic) and vocational education. Students may go on to the academic upper secondary school that lasts three years, or to the vocational secondary school that also lasts approximately three years. The vocational secondary schools have been significantly strengthened and expanded in recent decades. Currently 42 percent of the graduates from comprehensive schools enroll in vocational secondary schools. The country has offered a broad, rich curriculum to all students, even those who choose the vocational school in upper secondary level. Several studies have suggested that one important factor underlying the economic success of Finland is the strength and expansion of vocational secondary education.

Source: OECD (2010).

Employers in the Maldives require high levels of “soft skills” from employees. This reflects a widespread global phenomenon. Employers around the world are placing increasing emphasis on a variety of attitudinal and associative skills for their employees and workers. According to interviews with Maldivian employers, the most important attributes they look for in employees and workers are:

- a) a disciplined and industrious work ethic;
- b) punctuality, and the ability to meet deadlines;
- c) the ability to collaborate and work in teams;
- d) adaptability and trainability;
- e) good communication skills;
- f) the ability to solve work related problems;
- g) creativity and enterprise.

These attributes are required by employers in both the private sector and the public sector. Paradoxically, students and youth workers are often unaware of this high demand for soft skills.

CONCLUSION AND RECOMMENDATIONS

Investment in education yields high economic and social benefits. The wealth of households and individuals increases as the education level of individuals rises. This, in turn, enables households and individuals to improve their consumption and economic welfare. Female labor force participation is promoted by education. This improves gender empowerment. The children of educated mothers are better fed and nourished. The improved nutrition of children has long-term benefits, as it improves the cognitive ability and health of individuals through childhood and into adult life. Finally, the chances of surviving infancy and childhood are better for individuals born to educated mothers.

Policy action to expand higher secondary education is now needed urgently. This is the result of the pattern of enrollment, with widespread participation in primary and lower secondary education, and very limited participation in higher secondary education. Policy makers are aware of this challenge, and are seeking to expand the network of schools providing higher secondary education through two strategies. The first strategy is the promotion of private-public partnerships. The Maldives is seeking to promote private higher secondary schools by offering scholarships and loans to students to enroll in these schools. This is a promising policy measure.

Further options to expand higher secondary education through private-public partnerships that the government can consider include:

- (a) paying teacher salaries in private education institutions up to an agreed number of students and student-teacher ratio;
- (b) meeting recurrent expenditures and some maintenance costs;
- (c) contributing to the capital costs of construction to establish or expand higher secondary schools; and
- (d) providing land for new higher secondary schools.

Option (a) above, where the government subsidizes the teacher salary bill, is done in Sri Lanka for a set of schools called “assisted schools”. Option (b) above occurs in several states of India, in grant-in-aid schools. Thus, there are examples of these models in practice among the Maldives’ neighbors within the South Asia region.

The second strategy to expand higher secondary education is to allow state schools that have adequate class sizes for grades 11 and 12, but an insufficient mass to attract private investment, to establish higher secondary classes. This strategy is needed in the smaller atolls where the private sector is unwilling to invest. In such atolls it will be necessary for the government to expand higher secondary education to ensure equity of access across the country.

The expansion of higher secondary education also needs to address issues of education quality [World Bank (2012)]. There are three key strategic interventions to improve the quality of education [Aturupane and Shojo (2012)]. First, the quality of school teachers is central to the improvement of education quality. Therefore, the skills, motivation and performance of teachers needs to be strengthened. Second, a sound quality assurance framework for the school system needs to be established. The Ministry of Education has developed a quality assurance mechanism, which now needs to be pilot tested, refined and scaled up throughout the country.

This quality assurance system would cover both internal reviews by schools and external reviews by central and atoll education agencies. Third, a system of regular national assessments of learning outcomes, which can then feed into policy formulation and program development, needs to be built. The Ministry of Education conducted a few national assessments in the past. What is now required is to conduct these according to a regular cycle, and most important, use the information from the assessments for policy preparation.

The production and development of soft skills can take place in schools through a variety of activities. Some of these are activities linked to the formal school curriculum. For instance, problem solving skills, a reasoned approach to issues, and creativity can be instilled partly through subjects in the school curriculum. The arrangement of classrooms where students sit in groups and engage in group work and activities, can enhance collaboration and cooperation, and strengthen team work. Child centered pedagogy which encourages active learning can also contribute to improving soft skills such as enterprise and initiative.

Soft skills are also acquired, to a considerable extent, through co-curricular and extra-curricular activities. For instance, the ability to work in teams can be fostered through team sports, and participation in school societies and clubs. Good language and communication skills can be developed through activities such as literary festivals, oratory, elocution and debating. Talent contests, entrepreneurship clubs and guest festivals can contribute to the development of creativity, innovativeness and enterprise. Overall, schools can play a vitally important role in developing the soft skills that employers value through a large range of co-curricular and extra-curricular activities.

The diseconomies of scale in the Maldives pose additional challenges to the development of soft skills. Sometimes, there is only one small school on an island. This precludes many team type events that take place between schools in larger countries. Team sports and team events between schools across islands can be expensive due to the high cost of sea transport. And the cost would be even greater for inter-atoll competitions.

The Maldives can adopt several strategies to develop soft skills within the geographical constraints of the country. First, children can generally be required to engage in extra-curricular and co-curricular activities, in addition to their normal school curriculum. Sparsely populated islands, in particular, have space for children to engage in such activities. Second, intra-atoll and intra-island extra-curricular and co-curricular activities can be organized, where student numbers make it feasible. This would be cost-effective, in comparison to activities across atolls. Thirdly, where educational considerations make it desirable to facilitate activities across atolls, the interactions can be focused on neighboring atolls, so that the activities are again carried out as cost-effectively as possible.

The improvement of quality and the orientation of general education to labor market needs will also help initiatives to strengthen the higher education sector [see Aturupane, Fielden, Mikhail and Shojo (2011) and World Bank (2011) for discussions on developing higher education in the Maldives]. The quality of inputs into higher education depend on the quality of the output of secondary education. Hence, better quality school completers will also promote the development of higher education.

BIBLIOGRAPHY

- Aturupane, H., J. Fielden, S. Mikhail, and M. Shojo. (2011). “Higher Education in the Maldives: An Evolving Seascape.” *Discussion Paper Series*, 36. World Bank South Asia Human Development Unit, Washington DC.
- Aturupane, H. and M. Shojo. (2012). “Enhancing the Quality of Education in the Maldives: Challenges and Prospects.” *Discussion Paper Series*, 51. World Bank South Asia Human Development Unit, Washington DC.
- Fasih, T. (2008). *Linking Education Policy to Labor Market Outcomes*. World Bank, Washington DC.
- Hanushek, E. and F. Welch. (2006). *Handbook of the Economics of Education*. Vol. 1. Elsevier Science and Technology Books.
- Hanushek, E. and L. Woessmann. (2008). “The Role of Cognitive Skills in Economic Development.” *Journal of Economic Literature*, 46 (3): 607-668.
- Martin, M. and M. Bray. (eds.) (2011). *Tertiary Education in Small States: Planning in the Context of Globalization*. UNESCO IIEP, Paris.
- Ministry of Education, Maldives (MoE). *School Statistics*, various years. MoE, Male’, Maldives.
- Ministry of Education, Maldives (MoE). (2007). *Education for All: Mid-decade Assessment National Report*. MoE, Male’, Maldives.
- Ministry of Health and Family, Maldives (MoHF). (2010). *The 2009 Maldives Demographic and Health Survey (MDHS)*. MoHF, Male’, Maldives.
- OECD (2010). *Finland: Slow and Steady Reform for Consistently High Results*. OECD, Paris.
- OECD (2012). *Strong Performers and Successful Reformers in Education: Lessons from PISA for Japan*. OECD, Paris.
- Patrinos, H. and G. Psacharopoulos. (2011). “Education: Past, Present and Future Global Challenges.” *Policy Research Working Paper*, 5616. World Bank, Human Development Network, Washington DC.
- World Bank (2008). *School and Work in the Eastern Caribbean: Does the Education System Adequately Prepare Youth for the Global Economy?* World Bank, Washington DC.
- World Bank (2011). *Human Capital for a Knowledge Society: Higher Education in the Maldives, An Evolving Seascape*. World Bank, Washington DC.
- World Bank (2012). *More and Better Jobs in South Asia*. World Bank, Washington DC.