HUMAN CAPITAL FOR A MODERN SOCIETY
GENERAL EDUCATION IN THE MALDIVES
An Evolving Seascape
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An Evolving Seascape
# TABLE OF CONTENTS

Abbreviations and Acronyms ................................................................................................ vi

Acknowledgements ............................................................................................................... viii

Executive Summary ........................................................................................................... E1

Chapter One: General Education in the Maldives .......................................................... 1
   Introduction ................................................................................................................ 1
   The Economic Context ................................................................................................ 1
   Literacy in the Maldives in International Perspective .............................................. 2
   Access and Participation in Primary and Secondary Education ............................ 3
   The Way Forward ........................................................................................................ 8
   The Objective of the General Education Policy Report ........................................... 9

Chapter Two: Enhancing the Quality of Education ...................................................... 11
   Introduction ............................................................................................................... 11
   Education Quality and Performance ....................................................................... 11
   Raising Education Quality: Promise and Potential .............................................. 15
   Enhancing the Skills and Performance of Teachers ............................................. 15
   Quality Assurance ................................................................................................... 22
   National Assessments of Learning Outcomes ....................................................... 25

Chapter Three: Economic and Social Benefits of Education ................................... 31
   Introduction ............................................................................................................... 31
   Benefits of Investment in Education ...................................................................... 31
   Enhancing Economic Benefits: Orienting Education to Labor Market Needs .. 38
   Building Good Citizens: The Social Dimensions of Education ......................... 42

Chapter Four: Empowering Schools to Improve Service Delivery ............................. 47
   Introduction ............................................................................................................... 47
   Characteristics of School-Based Management .................................................... 47
   School-Based Management: Advantages, Limitations and Effects .................... 52
   School-Based Management Reforms in the Maldives ........................................... 56
   Strengthening School-Based Management: Policy Options for the Future ...... 57

Bibliography ...................................................................................................................... 61
# ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCE</td>
<td>Centre for Continuing Education</td>
</tr>
<tr>
<td>CFBS</td>
<td>Child-Friendly Baraabaru Schools</td>
</tr>
<tr>
<td>DHS</td>
<td>Demographic and Health Survey</td>
</tr>
<tr>
<td>GCE A/L</td>
<td>General Certificate of Education Advanced Level</td>
</tr>
<tr>
<td>GCE O/L</td>
<td>General Certificate of Education Ordinary Level</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GNI</td>
<td>Gross National Income</td>
</tr>
<tr>
<td>GoM</td>
<td>Government of Maldives</td>
</tr>
<tr>
<td>HDI</td>
<td>Human Development Index</td>
</tr>
<tr>
<td>HSC</td>
<td>Higher Secondary Certificate</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communications Technology</td>
</tr>
<tr>
<td>IGCSE</td>
<td>International General Certificate of Secondary Education</td>
</tr>
<tr>
<td>MNU</td>
<td>Maldives National University</td>
</tr>
<tr>
<td>MoE</td>
<td>Ministry of Education</td>
</tr>
<tr>
<td>NER</td>
<td>Net Enrollment Rate</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>PISA</td>
<td>Programme for International Student Assessment</td>
</tr>
<tr>
<td>SBM</td>
<td>School-Based Management</td>
</tr>
<tr>
<td>SBT</td>
<td>School-Based Teacher Training/Support</td>
</tr>
<tr>
<td>SEM</td>
<td>School Excellence Model</td>
</tr>
<tr>
<td>SSC</td>
<td>Senior Secondary Certificate</td>
</tr>
<tr>
<td>TA</td>
<td>Technical Assistance</td>
</tr>
<tr>
<td>TRC</td>
<td>Teacher Resource Center</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
</tbody>
</table>
Vice President
Isabel Guerrero

Country Director
Diarietou Gaye

Sector Director
Jesko Hentschel

Sector Manager
Amit Dar

Team Leader
Harsha Aturupane

TEAM MEMBERS

This report was written by a team consisting of Team Leader Harsha Aturupane (Lead Education Specialist, SASED) and team members, Deepa Sankar (Senior Economist, SASED), Mari Shojo (Education Specialist, SASED) and Thomas Kellaghan (Education Research Center, Ireland). The peer reviewers were Qaiser Khan (Lead Human Development Economist, AFTSP) and Dingyong Hou (Senior Education Specialist, EASH2).
ACKNOWLEDGEMENTS

The team acknowledges with sincere gratitude several officials in the Maldives who assisted and provided valuable information for this study. The Minister of Education, the State Minister of Education, the Deputy Ministers of Education, the Permanent Secretary of the Ministry of Education; the Director-General of the Department of Higher Education and the Director-General of the Department of Planning in the Ministry of Education; and the senior staff of the Ministry of Education; the Minister and senior staff of the Ministry of Finance and Treasury; the Department of National Planning; the Chancellor, Rector and staff of the Maldives National University (MNU); the UN agencies such as UNICEF and UNESCO; private higher education and training providers, including from Clique College, Cyryx College, Focus Education Center, Mandhu College, Modern Academy for Professional Studies, and Villa College; education officials from the Jalaaluddeen School, Afeefuddeen School and Atoll Education Centre in the Haa Dhaalu Atoll; employers from the public and private sectors; participants at consultation workshops in Male’ and the Addu Atoll; and education officials from: the Ameeniya School, Center for Higher Secondary Education, the Hiriyaa School, in Male’; the Meedho School, Maduvvaree School, Atoll Education Centre and Teacher Resource Centre in Raa Atoll; and the Shariffudin School, Feydhoo School, Hithadhoo School, Maradhoo Feydhoo School, the Atoll Education Centre and the Teacher Resource Centre in the Seenu Atoll.

The team also acknowledges the assistance of several World Bank colleagues in the preparation of this report: in particular, Diarietou Gaye (Country Director for Sri Lanka and the Maldives), and Amit Dar (Education Sector Manager) for their encouragement, advice and guidance. The team also thanks Aminath Inasha Shafeeq (Operations Analyst) for her inputs, and Anita Fernando (Team Assistant) and Mohammad Khalid Khan (Program Assistant) of the World Bank for providing administrative and editorial assistance for the production and dissemination of this paper.

The financial assistance of the World Bank and the Education Program Development Fund (Global and Regional Activities Program) of the Global Partnership for Education for this study is acknowledged with gratitude.
EXECUTIVE SUMMARY

1. 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 about 374,000 inhabitants: 300,000 Maldivians and 74,000 expatriate workers. 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 is the second highest HDI rank in South Asia after Sri Lanka. The Maldives is seeking to accelerate human development and promote economic prosperity. The development of human capital is central to the country’s strategy to achieve this goal. The present study analyzes the main challenges facing the general education sector and presents, for the consideration of policy makers in the country, a set of strategic options for the future development of general education.

ACCESS AND PARTICIPATION IN EDUCATION

2. Participation in primary and lower secondary education in the Maldives compares well with small island economies at a similar level of per capita income. The Maldives has higher primary enrollment than is predicted for the country’s level of per capita income [Figure 1].

Figure 1 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 Maldives even 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. Lower secondary education enrollment is also high. The net enrollment rate at lower secondary education is 84 percent, with boys net enrollment at 81 percent and girls net enrollment at 87 percent. These are reasonably high rates.

3. **There is a sharp fall in enrollment at the higher secondary education level.** The gross enrollment rate in higher secondary education is only 21 percent. This results in a very steep drop in enrollment rates between lower secondary and higher secondary education [Figure 2]. The main reason for the sharp fall 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 38 schools provide higher secondary education: 4 schools in Male’ and 34 schools in the atolls. This is the result of historical government policy which focused on the expansion of primary schools to achieve 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 2 Gross Enrollment Rates Across the Stages of Education](image)

Source: Calculated from World Bank Education Statistics.

4. **The Maldives lags behind in secondary education participation in relation to other small island nations** [Figure 3]. 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 under-performs in secondary education in
comparison to small island nations that it out-performed 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 3** 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.

**EXPANDING HIGHER SECONDARY EDUCATION: STRATEGIC OPTIONS**

5. **Policy action to expand higher secondary education is now needed urgently.** There are two strategies for policy makers to expand the network of higher secondary schools. The first strategy is the promotion of private sector investment in higher secondary schools through scholarships and loans to students enrolling in these schools. This is a promising policy development for a large population center such as Male’. 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 outer atolls where the private sector is unable to invest profitably. In such atolls it is necessary for the government to expand higher secondary education in strategically selected schools and ensure equity of access across the country.
THE QUALITY OF EDUCATION

6. The quality of education is a major policy challenge facing the Maldives. The country achieved the first generation objective of providing universal access to basic education through rapid expansion of enrollment. As is frequently the case with such countries, the second generation challenge is to provide education of adequate quality. Evidence from a variety of sources shows that education quality in the Maldives is weak, and needs urgent improvement.

7. Learning outcomes in both primary and secondary education are modest. National assessments of learning outcomes at grade 4 and grade 7 show that learning levels are unsatisfactory [see Table 1 and Table 2]. The mean score for English among students at grade 4 is just 32 percent, and the mean score for mathematics is only 39 percent. At grade 7 the mean score for English is merely 29 percent, and the mean score for mathematics is just 30 percent. These are low average scores, and suggest that learning levels in both primary education and lower secondary education are weak.

Table 1 Results of National Assessments of Learning Outcomes in Grade 4, English and Mathematics, 2008

<table>
<thead>
<tr>
<th>Grade and Subject</th>
<th>Mean (%)</th>
<th>Standard Deviation (%)</th>
<th>Median (%)</th>
<th>Number of Students Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>32</td>
<td>18</td>
<td>29</td>
<td>5,503</td>
</tr>
<tr>
<td>Mathematics</td>
<td>39</td>
<td>18</td>
<td>38</td>
<td>5,686</td>
</tr>
</tbody>
</table>

Source: Report of Achievement in English and Mathematics at Grades 4 and 7, MoE.

Table 2 Results of National Assessments of Learning Outcomes in Grade 7, English and Mathematics, 2008

<table>
<thead>
<tr>
<th>Grade and Subject</th>
<th>Mean (%)</th>
<th>Standard Deviation (%)</th>
<th>Median (%)</th>
<th>Number of Students Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>29</td>
<td>19</td>
<td>22</td>
<td>7,808</td>
</tr>
<tr>
<td>Mathematics</td>
<td>30</td>
<td>17</td>
<td>26</td>
<td>8,140</td>
</tr>
</tbody>
</table>

Source: Report of Achievement in English and Mathematics at Grades 4 and 7, MoE.
8. Examination pass rates at the General Certificate of Examination Ordinary Level (GCE O/L) are poor. In 2010 only 33 percent of boys and 37 percent of girls who appeared for the GCE O/L examination obtained five passes or more [Table 3]. This is a high failure rate, as it suggests that two out of every three students is unable to pass the examination. The time trend, however, has been positive. The GCE O/L pass rate among boys has risen from 26 percent in 2007 to 33 percent in 2010, and among girls from 25 percent in 2007 to 37 percent in 2010.

<table>
<thead>
<tr>
<th>Year</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>26</td>
<td>25</td>
<td>31</td>
<td>33</td>
</tr>
<tr>
<td>Girls</td>
<td>25</td>
<td>29</td>
<td>33</td>
<td>37</td>
</tr>
<tr>
<td>Maldives</td>
<td>26</td>
<td>27</td>
<td>32</td>
<td>35</td>
</tr>
</tbody>
</table>

Source: MoE Policy Planning and Research Section and Department of Public Examinations.
Note: A student is considered to have passed the GCE O/L if he or she passes in at least 5 subjects.

9. The low learning outcomes are a serious deficiency, as the cognitive achievement of students is central to the performance of an education system. Further, the economic development of countries is closely related to the cognitive skills of the labor force. Hence, the poor cognitive outcomes of students will hinder the future economic prospects of the country.

**ENHANCING THE SKILLS AND PERFORMANCE OF TEACHERS**

10. The quality of teachers is critical to the performance of schools. However, the Maldives has a high proportion of untrained school teachers. Approximately 23 percent of primary school teachers are untrained. Hence, the first level of an adequate pre-service teacher education has not been completed in the country. Further, as these untrained teachers are in primary schools any learning deficiencies of students will have a cumulative effect further up into the secondary education system as well. A shortage of adequately qualified teachers has also necessitated the employment of a large number of expatriate teachers for secondary education. Approximately 60 percent of teachers at lower secondary and 67 percent of higher secondary teachers are expatriate teachers. Most expatriate teachers are deployed in the atolls. Among expatriate teachers, 87 percent at lower secondary level, and 64 percent at higher secondary level, are deployed in the atolls. Expatriate teachers are expensive. Over time, the Maldives needs to expand the stock of Maldivian teachers who are able to teach secondary grades.
POLICY OPTIONS FOR TEACHER DEVELOPMENT

11. The successful achievement of a high quality of education will depend on the availability of professionally educated and competent teachers at all levels. Pre-service teacher education is offered by several institutions in the Maldives, including the Faculty of Education and the Centre for Open Learning of the Maldives National University, and private education institutions such as Mandhu College and Villa College. The number graduating from these institutions, however, is too low to meet the needs of the system. Pre-service teacher education needs to be expanded to produce a fully trained cadre of school teachers. A program to provide professional skills and competencies to the stock of untrained primary school teachers is needed especially urgently.

12. School-based teacher development is a promising initiative for policy makers to advance and strengthen further. School-based teacher development has been noted globally for its effectiveness [Allemano et al (2011)]. In the Maldives it would involve the active participation of school principals and teachers, and atoll and island level officials. The range of activities under school-based teacher development could cover school-based mentoring, peer learning, peer coaching, individual consultations, and visits to classrooms in other schools and islands. It would also suit the geography of the Maldives, with its widely dispersed small populations, as it would reduce travel costs and minimize the time that teachers spend away from their schools [Aturupane and Shojo (2012a)].

13. ICT-based teacher professional development, given the geography of the Maldives with multiple and scattered islands, could help promote teaching and learning development in a cost-effective manner. ICT-based assistance for teacher professional development could cover pre-service teacher development, regional teacher resource centers and schools. If ICT is used effectively in the education system, it can:

- enhance student learning, teacher development, school management, community development and education sensitization;
- provide access to new learning resources, including content, lesson plans and assessments;
- enable self-directed learning and technical capacity development using resources from internet and CDs, or via online distance-learning courses;
- offer access to new learning resources, including content, lesson plans and assessment prepared by MoE and other educational agencies; and
- provide school networking and school linkages for site-based learning and local education development.

QUALITY ASSURANCE

14. Quality assurance has assumed prominence among education policy makers around the world in recent years [Aturupane, Fielden, Mikhail and Shojo (2011), World Bank (2011b)]. Quality assurance provides a framework for the systematic review and monitoring of an education
system to determine whether an acceptable standard of quality is being achieved over the medium-term, and enhanced over the long-term in line with global developments in education. Quality assurance reaches deep into the education system as the standard of education in each school is open to evaluation through the protocols and processes of the quality assurance framework [MoE (2010)]. The ultimate goal of a quality assurance system is to assure every child of a high quality of education [Materu (2007)].

15. The development of a quality assurance framework is an important recent policy initiative in the Maldives. The MoE has introduced quality indicators for Child-Friendly Baraabaru Schools (CFBS)¹ [MoE (2010)]. CFBS is a new model that provides a comprehensive tool kit for the evaluation of school performance. The main objectives of CFBS are to facilitate the assessment of education processes by schools (self-assessment) and by provincial and national level authorities (external assessments). The CFBS model helps to identify the strengths, weaknesses and development needs of schools, and assists school-based development activities.

16. While a conceptual framework for quality assurance in the Maldives has been prepared, it now needs to be implemented effectively. In particular, the two dimensions of quality assessment, the internal reviews or self-assessments by schools, and the external reviews through mechanisms such as school inspections, need to be carefully developed and supported. Priority policy attention is required for the program to be successful.

17. Considerable capacity will need to be built to implement a sound quality assurance program in the atolls and islands. The capacity of schools has to be developed to undertake internal reviews and self-assessments. Significant variation exists between and within atolls in terms of the education levels and capabilities of parents and local communities. In consequence, the MoE needs to clarify the roles and responsibilities of stakeholders from the local communities in the quality assurance process. In addition, the capacity of atolls to implement the protocols and procedures for external quality assurance activities has to be developed. A geographic unit to function as the hub for the implementation of external reviews, such as the atoll, has to be defined by the MoE and the necessary capacity built within this unit.

18. Decentralized delivery of the quality assurance program will help to improve the cost-effectiveness of implementation. Given the geography of the country with multiple and scattered islands, centrally driven quality assurance processes such as quality assurance inspections can be expensive. As such, the decentralized levels of the education system, especially atolls and islands, will need to implement nearly all the activities for the quality assurance program to be cost-effective. The program would also have to rely heavily on self-assessments by schools, with external

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¹ Baraabaru means ‘best’ in Dhivehi.
reviews taking place according to a time cycle that is affordable. The MoE needs to develop on-line tools that can support the atolls, islands and schools to implement the quality assurance program efficiently.

19. **The information from the quality assurance reviews need to feed into school improvement activities at the local level.** This would require schools to actively pursue measures to strengthen areas in which they are diagnosed as weak through the quality assurance reviews. The weaknesses identified can differ from school to school, and over time within the same school. Hence, the quality assurance reviews have the advantage of being sensitive to the needs of individual schools. However, there is considerable responsibility on schools to take the initiative and design and implement performance improving actions. If schools fail to take initiative, the potential of the quality assurance program will be under-utilized.

**ENHANCING THE ECONOMIC AND SOCIAL BENEFITS OF EDUCATION**

**ECONOMIC BENEFITS OF INVESTMENT IN EDUCATION**

20. **Investment in education produces strong economic and social benefits in the Maldives** [see Aturupane and Shojo (2012b)]. Education attainment 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 4, 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.
Table 4  Education and Economic Well-Being (Wealth Index Factor) 2009, Generalized Least Squares Estimates

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

Source: 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.
PUBLIC INVESTMENT IN EDUCATION

21. **Education expenditures have been declining over time in the Maldives.** In real terms, public education expenditure fell from 1,248 million Rufiyaa in 2008 to 1,098 Rufiyaa in 2011 [Table 5]. This is a 12 percent decrease. Both recurrent and capital education expenditures fell between 2008-2011, but the main decrease was in the capital budget. Capital education expenditure declined from 125 million Rufiyaa in 2008 to 43 million Rufiyaa in 2011 in constant prices, which is a 66 percent decrease. Recurrent education expenditure declined from 1,123 million Rufiyaa in 2008 to 1,056 million Rufiyaa in 2011 constant prices, which is a 6 percent decrease. The fall in capital expenditure means that the Government of Maldives (GoM) has unable to invest adequately in expanding the school network to cover higher secondary education, and in providing modern teaching-learning technology and material in recent years. School maintenance and the replacement of equipment have also suffered.

![Table 5](image)

**Table 5** The Time Trend of Public Education Expenditures, 2008-2011 (Million Rufiyaa, in constant 2003 prices)

<table>
<thead>
<tr>
<th>Education Expenditures</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital</td>
<td>125</td>
<td>116</td>
<td>14</td>
<td>43</td>
</tr>
<tr>
<td>Recurrent</td>
<td>1,123</td>
<td>1,042</td>
<td>1,048</td>
<td>1,056</td>
</tr>
<tr>
<td>Total</td>
<td>1,248</td>
<td>1,158</td>
<td>1,062</td>
<td>1,098</td>
</tr>
</tbody>
</table>

Source: MoE.

22. The government spent, in nominal terms, approximately 1.6 billion Rufiyaa (about US$ 113 million) on education in 2011. In dollar terms this represents an 11 percent decrease compared to the level of expenditure in 2008. The main items of expenditure under the government education budget are given in Figure 4. Personal emoluments are the single largest item of expenditure, taking up 71 percent of the total education budget. Other large budget items are the costs of services acquired (10 percent) and grants, subscriptions and subsidies (9 percent). The share of capital education expenditures in recent years is very small, just 5 percent of total education spending in 2011. The budgets in recent years, such as 2010-2012, have been formulated at a time of considerable fiscal stress in the economy. Over time, capital investment in education will need to grow as the education system expands, especially at secondary level, and the curriculum requires the use of modern equipment for teaching and learning.
ORIENTING EDUCATION TO LABOR MARKET NEEDS

23. The Maldives 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. 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. Third, there is high dependence on expatriate workers, 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.

24. 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. 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.

25. **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. English is the medium of instruction from primary education upwards. 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.

26. **The Maldives has also 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. The Maldives could consider such an option for students with suitable aptitudes for skills based jobs.

27. **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 Maldivian employers, the most important attributes they seek in employees 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; and (g) creativity and enterprise. These attributes are required by employers in both the private sector and the public sector.
28. **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.

29. **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 range of co-curricular and extra-curricular activities.

**BUILDING GOOD CITIZENS: THE SOCIAL DIMENSIONS OF EDUCATION**

30. **The promotion of values and ethics to produce enlightened citizens for a modern, liberal and democratic society is an important over-arching goal of the Maldivian education system.** The social role of education is especially important in small island communities, as these typically have an intricate network of inter-linked and overlapping social relationships. The actions of individuals in such communities usually take into account not only the relationship that applies to the current matter at hand, but also their ramifications for all the other networks through which the parties are connected. The main policy initiative to orient the education system to the social and cultural needs of the Maldives is the introduction of a new, diversified curriculum to provide a broad liberal education that can equip students to face the challenges of the 21’st century.

31. **The new Maldivian national curriculum framework has several positive features.** It is an attempt to look at education in a holistic manner, addressing varied aspects of learning and education related to the social, cultural and economic needs of the country. It contains an effort to systematically document a set of standards in a coherent manner, listing the key principles and learning areas. The curriculum also envisions key competencies and learning areas to encompass all stages of learning, thus having a logical approach to learning, moving from basic to more in-depth understanding in a systematic manner. The emphasis on the social relevance of the school curriculum is especially important and promising.

32. **The curriculum framework needs to be enriched by including aspects related to text books and learning materials.** These have important roles in translating the curriculum vision to actual classroom learning and teaching. The curriculum needs to be supported by teaching learning materials and other supplementary resources such as workbooks, additional reading materials, and
visual materials. The conceptualization and implementation of these also require imagination and an understanding of child psychology.

33. The implementation of the curriculum will need to keep abreast of international standards and developments in education. It is easy for small islands to be insular and miss developments and the standards of quality of the rest of the world. If this were to happen in the Maldives it would hamper the implementation of the curriculum and the development of the education system. With modern information and communications technology it is easier to keep abreast of international events and standards than at any time in history. The Maldives needs to make use of the opportunities provided by modern technology to ensure that the delivery of the school curriculum and the achievement levels of students are up to international standards.

34. The implementation of the new curriculum needs to be planned carefully, and be cost-effective. In this context, there are two key challenges. First, the curriculum has a large number of subjects at the secondary grades, from among which students are offered a wide range of choice. Hence, the introduction of the curriculum will need to be carefully sequenced in a multi-year framework, so that there is adequate time to train the teachers and to produce the textbooks and learning material needed to support the goals of the new curriculum. Second, given the small size of Maldivian schools in the atolls and islands, the cost of providing the full range of subjects in all secondary schools will be prohibitive. Hence, the unit of implementation for the full secondary school curriculum will need to be a strategic unit such as an atoll.

EMPOWERING SCHOOLS TO IMPROVE SERVICE DELIVERY

35. School-based management is an important policy initiative for the Maldives. Small multi-island nations have the advantage that education stakeholders on the islands, such as parents and guardians of children, have ready access to, and considerable information about, the schools located on their islands. Hence, parents and local well-wishers can easily participate in and contribute to the management of schools. Small multi-island countries also suffer from diseconomies of scale. The opportunities for face-to-face interaction between members of school communities, such as students, teachers and principals, across islands and atolls are limited by the high cost of sea transport. The opportunities for interaction between education managers and administrators with schools are similarly constrained by the geography of the country. In consequence, Maldivian schools need to be more self-reliant than schools in countries with larger contiguous land masses.

36. The school-based management policy, although in its infancy, is a popular initiative in the Maldives. The MoE has introduced a circular to establish school boards to promote school based management. Each school has a school board which comprises of the principal, and representatives from among leading teachers, teachers, parents, and the atoll education administration. Schools receive a budget to improve the quality of education. Staff salaries are paid from this budget. Net of salaries, schools are able to decide how the budget will be allocated for development activities.
Generally, schools use the budget to improve physical facilities and to purchase teaching and learning materials.

**STRENGTHENING SCHOOL-BASED MANAGEMENT: FUTURE POLICY OPTIONS**

37. Policy makers in the Maldives can consider a sequence of policy options to strengthen school-based management in the future.

38. The type of school-based management that is most appropriate for the Maldives has to be selected. Discussions with government policy makers and school communities suggests that the Professional Control model, where teachers play a key role in the management of schools under the leadership of the principal, may be the preferred option, especially for the outer atolls and islands. The principal and teachers are typically by far the most qualified individuals on the outer atolls and small islands, and can guide and mentor parents and local community representatives on school boards. In more developed atolls and islands it would be possible for parents and local community representatives to play a stronger role on school boards, so that elements of the Balanced Control model can also be incorporated.

39. The specific roles and responsibilities of school boards, as well as of education officials at the island, atoll and central levels, need to be clearly defined. The principle of subsidiarity could be applied in the definition of roles and responsibilities, where all functions that can be executed by the most decentralized unit of management should be implemented at the level of this unit, and only functions that cannot be executed at this level should be passed upwards to a larger management unit. In the context of the Maldives this would mean that all functions that can be executed at the school level should be implemented by schools. Functions that cannot be executed at the school level could be implemented at the island level where an island has multiple schools, or in most cases where islands have only one school, at atoll level. Only functions that cannot be executed at the atoll level would be passed upwards to the central level in Male’. The role of the Ministry of Education in Male’ would mainly be to support the local school boards through the atolls. The application of this principle would have the considerable merit of cost-effectiveness, as there are a large number of small and scattered single-school islands which are costly to administer above the island level.

40. Island and atoll communities need sensitization and capacity building to play their roles on school boards and on any school committees and councils. This is a vitally important step. The managerial capacity of principals, teachers, parents and any other local community organizations, such as parent-teacher associations and past pupils associations, will need to be built so that they can play a constructive role in the planning, delivery and monitoring of educational services in schools. The capacity building efforts will also have to be tailored to meet the varying needs of atoll and island communities. For instance, in the more developed areas of the country, such as Kaafu (Male’) and Seenu Atolls, there will be more educated parents available to contribute intellectually...
to the development of their atoll schools. In less developed atolls, and particularly the outer islands of these atolls, the education levels of parents are normally less advanced, so that greater capacity building will be needed. In addition, the capacity of education officials at the island, atoll and central levels to support school-based management and enable school boards to perform creatively and efficiently will also need to be developed.

41. **School-based management would need to be linked up with other education development initiatives, such as the quality assurance program.** Many aspects of quality assurance, such as the school self-review process, fit well within the framework of school-based management. In fact, the quality assurance program could be viewed as the main quality dimension of school based management. In addition, school boards and community members could be enlisted to facilitate the development of the “soft skills” or character traits and personality traits that are needed by employers. For instance, school boards could help to organize extra-curricular and co-curricular activities, which develop soft skills, across islands and atolls. School boards could also help link senior students with employers by inviting representatives of firms to communicate the types of skills and competencies required by their firms to students, parents and teachers. Interested employers may also provide in-plant training for senior school completers.
## STRATEGIC OPTIONS FOR THE DEVELOPMENT OF GENERAL EDUCATION

<table>
<thead>
<tr>
<th>Key Needs</th>
<th>Strategic Development Initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equitable expansion of higher secondary education.</td>
<td>Promote private-public partnerships in densely populated atolls (e.g. Male’).</td>
</tr>
<tr>
<td></td>
<td>Selectively expand state schools in outer atolls.</td>
</tr>
<tr>
<td>Improvement of the quality of general education.</td>
<td>Enhance teacher skills and performance in modern pedagogy.</td>
</tr>
<tr>
<td></td>
<td>Strengthen school leadership and management skills of principals.</td>
</tr>
<tr>
<td></td>
<td>Develop the quality assurance system for schools.</td>
</tr>
<tr>
<td>Orientation of the education system to the economic and social needs of the Maldives.</td>
<td>Curriculum based initiatives (e.g. English and modern foreign languages, active learning, vocational options).</td>
</tr>
<tr>
<td></td>
<td>Co-curricular and extra-curricular initiatives to develop soft skills.</td>
</tr>
<tr>
<td></td>
<td>Strengthen central and atoll education administration in support of school-based management.</td>
</tr>
</tbody>
</table>
INTRODUCTION

1.1. 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 374,000 inhabitants: 300,000 Maldivians and 74,000 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 109’th in the human development index (HDI) for 2011, which was the second highest HDI rank in South Asia after Sri Lanka. The Maldives is seeking to accelerate human development and promote economic prosperity. The expansion and development of human capital is central to the country’s strategy to achieve this goal.

THE ECONOMIC CONTEXT

1.2. The Maldivian economy has experienced strong economic growth over the last two decades. The GNI for 2010 was US$ 5,790 (based on the Atlas method). The economy enjoyed a growth rate of 7.5 percent in 2011. The tourism sector has been the main engine of growth in the Maldives. The economy is critically dependent on a small number of sectors, with the following contribution to gross domestic product (GDP) in 2011 tourism (30%), government administration (13%), transport (9%), communication (9%), construction (7%), real estate (7%), wholesale and retail trade (4%), manufacturing (4%), education (4%), and several other relatively small sectors [Figure 1.1]. Transport and communication, and other sectors including trade, construction, real estate, and business services are also linked to the tourism sector.

1.3. The dominance of tourism in the economy is both a strength and a limitation. The rapid rise in economic standards and living conditions in the Maldives over the last two decades has been driven by fast growth in tourism. On the negative side, however, it makes the Maldivian economy highly vulnerable to fluctuations and variations in global economic and social conditions through their effect on tourism, and the transmission of these effects to the other related sectors. Periods of global recession, when tourist arrivals have fallen, have been particularly difficult for the Maldives. The high dependence on tourism and its economic benefits and limitations are typical of small island economies, including countries in the Caribbean and the South Pacific.
LITERACY IN THE MALDIVES IN INTERNATIONAL PERSPECTIVE

1.4. The Maldives is a success story in the attainment of adult literacy. The literacy rate for the country is 94 percent. A literate population produces a broad array of economic and social benefits, and is of central importance for development [UNDP (2010), World Bank (2011a)]. The performance of the Maldives on adult literacy is illustrated in Figure 1.2 below. According to Figure 1.2, the Maldives is one of the best performing countries among developing nations, with an adult literacy rate well above the expected value for its level of per capita income. The Maldives has the highest adult literacy rate in South Asia. The Maldives also has an adult literacy rate greater than many small island nations with higher per capita incomes, such as Malta, Mauritius, Seychelles, and Trinidad and Tobago.

2. Points above the regression line are countries whose adult literacy rate is above the expected value, given their level of national income per capita. Points on the regression line are countries whose adult literacy rate is at the expected value, given their level of national income per capita. Points below the regression line are countries whose adult literacy rate is below the expected value, given their level of per capita income.
ACCESS AND PARTICIPATION IN PRIMARY AND SECONDARY EDUCATION

1.5. 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 1.3]. 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.
1.6. **General education is delivered chiefly through a network of government schools**. 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 government schools offering primary education, 179 government schools offering lower secondary education, and 37 government schools offering higher secondary education. The total number of schools is 222, with some schools offering more than one grade span.

1.7. **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 [Table 1.1]. 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 student-teacher ratios, even by the standards of small countries with widely dispersed populations, which typically have low student-teacher ratios.

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

1.8. **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 1.2]. 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 enrolment rates.

### Table 1.1 Student Enrollment and Teachers in the Maldives at Primary, Lower Secondary and Higher Secondary Level, 2010

<table>
<thead>
<tr>
<th></th>
<th>Primary</th>
<th>Lower Secondary</th>
<th>Higher Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Teachers</td>
<td>Total Students</td>
<td>Student / Teacher Ratio</td>
</tr>
<tr>
<td>Male’</td>
<td>775</td>
<td>10,867</td>
<td>14</td>
</tr>
<tr>
<td>Atolls</td>
<td>2,817</td>
<td>31,088</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>3,592</td>
<td>41,955</td>
<td>12</td>
</tr>
</tbody>
</table>

Source: MoE Statistics.

1.9. **The net primary enrollment rate in the Maldives compares well with small island economies at a similar level of per capita income** [Figure 1.4]. 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

### Table 1.2 Gross and Net Enrollment Rates by Education Level, 2010

<table>
<thead>
<tr>
<th></th>
<th>Net Enrollment Rate (%)</th>
<th>Gross Enrollment Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Primary</td>
<td>Lower Secondary</td>
</tr>
<tr>
<td>Female</td>
<td>96</td>
<td>87</td>
</tr>
<tr>
<td>Male</td>
<td>95</td>
<td>81</td>
</tr>
<tr>
<td>Both sexes</td>
<td>96</td>
<td>84</td>
</tr>
</tbody>
</table>

Source: MoE Statistics. Note: numbers have been rounded to the nearest integer.
considerably wealthier, such as Antigua and Barbuda, the Bahamas, Malta, Mauritius, Seychelles, and Trinidad and Tobago, in primary education attainment.

**Figure 1.4 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.

1.10. **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.

1.11. **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 1.2]. 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.

1.12. **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 1.2]. 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 1.5]. 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 38 schools provide higher secondary education: 4 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 1.5**  **Gross Enrollment Rates Across the Stages of Education**

![Gross Enrollment Rates Across the Stages of Education](image)

Source: Calculated from World Bank Education Statistics.

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4. The higher secondary enrollment rates are for students enrolled in school. There are also a small proportion of students, about 3-5 percent, who have completed the GCE O/L and are enrolled in vocational training or technical education courses or are studying overseas. Even if these students were to be included the gross enrollment ratio for the relevant age cohort would still be very low.
1.13. 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 1.6]. 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 1.6 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 WAY FORWARD

1.14. 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 in locations, such as Male’, where there is a sufficient mass of students to make the strategy viable. The Maldives could seek to promote private higher secondary schools by offering incentives such as scholarships, to students seeking to enroll in these schools. This is a promising policy development.
1.15. 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.

1.16. 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. This expansion would need to be done in strategically selected atoll centers for higher secondary education, so that it is cost-efficient.

THE OBJECTIVE OF THE GENERAL EDUCATION POLICY REPORT

1.17. This policy note, which has been prepared in consultation with senior policy makers, administrators, academics, principals, teachers, parents and students, has several objectives. First, the policy note presents a picture of the general education sector based on technical analysis and factual evidence. As such, the report serves as a vehicle to communicate the characteristics and features of the Maldivian general education sector to a global audience. Second, the policy note presents and discusses a rich and diverse range of general education systems, policies and reforms observed in the modern world. The discussion has a special focus on those areas where the Maldives faces its most important policy challenges in general education. Third, based on global and international experience, the policy note presents several policy and program options for the consideration of policy makers and stakeholders. Finally and most importantly, the policy note is intended to provide information and analysis that can be used by the GoM, and stakeholders and beneficiaries, for the long-term development of the general education sector in the country.
CHAPTER TWO
ENHANCING THE QUALITY OF EDUCATION

INTRODUCTION

2.1. The quality of education is a major policy challenge facing the Maldives. The country achieved the first generation objective of providing universal access to basic education through rapid expansion of enrollment. As is frequently the case with such countries, the second generation challenge is to provide education of adequate quality. Evidence from a variety of sources shows that education quality in the Maldives is weak, and needs urgent improvement.

EDUCATION QUALITY AND PERFORMANCE

2.2. Learning outcomes in both primary and secondary education are modest. National assessments of learning outcomes at grade 4 and grade 7 show that learning levels are unsatisfactory.

Table 2.1 Results of National Assessments of Learning Outcomes in Grade 4, English and Mathematics, 2008

<table>
<thead>
<tr>
<th>Grade and Subject</th>
<th>Mean (%)</th>
<th>Standard Deviation (%)</th>
<th>Median (%)</th>
<th>Number of Students Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>32</td>
<td>18</td>
<td>29</td>
<td>5,503</td>
</tr>
<tr>
<td>Mathematics</td>
<td>39</td>
<td>18</td>
<td>38</td>
<td>5,686</td>
</tr>
</tbody>
</table>

Source: Report of Achievement in English and Mathematics at Grades 4 and 7, MoE.

Table 2.2 Results of National Assessments of Learning Outcomes in Grade 7, English and Mathematics, 2008

<table>
<thead>
<tr>
<th>Grade and Subject</th>
<th>Mean (%)</th>
<th>Standard Deviation (%)</th>
<th>Median (%)</th>
<th>Number of Students Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>29</td>
<td>19</td>
<td>22</td>
<td>7,808</td>
</tr>
<tr>
<td>Mathematics</td>
<td>30</td>
<td>17</td>
<td>26</td>
<td>8,140</td>
</tr>
</tbody>
</table>

Source: Report of Achievement in English and Mathematics at Grades 4 and 7, MoE.
The mean score for English among students at grade 4 is just 32 percent, and the mean score for mathematics is only 39 percent. At grade 7 the mean score for English is merely 29 percent, and the mean score for mathematics is just 30 percent. These are low average scores, and suggest that learning levels in both primary education and lower secondary education are weak.

2.3. **There are wide regional disparities in learning outcomes.** Cognitive achievement levels in English language skills, at both grade 4 and grade 7, are considerably higher in the Male’ atoll than elsewhere in the Maldives [see Figure 2.1 and Figure 2.2]. The Seenu atoll and the Gnuniyani atoll also possess English language skills well above the rest of the country. Most other atolls perform poorly, with the Raa atoll at the bottom. The difference in average test scores among students from the best and the weakest atolls, the Male’ and Raa atolls respectively, is more than double. In mathematics the regional disparities are less, although gaps among atolls still exist [Figure 2.3 and Figure 2.4]. The Male, Seenu and Gnuniyani atolls display the best performance in mathematics, along with other atolls such as Vaavu, Faafu and Baa. The Raa atoll shows the lowest learning levels in mathematics, too.

**Figure 2.1 Average English Language Learning Outcomes at Grade 4 by Atoll, 2008**

![Figure 2.1](image)

Source: Achievement in English and Mathematics at Grades 4 and 7, MoE.
Figure 2.2   Average English Language Learning Outcomes at Grade 7 by Atoll, 2008

Source: Achievement in English and Mathematics at Grades 4 and 7, MoE.

Figure 2.3   Average Mathematics Learning Outcomes at Grade 4 by Atoll, 2008

Source: Achievement in English and Mathematics at Grades 4 and 7, MoE.
2.4. **Examination pass rates at the General Certificate of Examination Ordinary Level (GCE O/L) are poor.** In 2010 only 33 percent of boys and 37 percent of girls who appeared for the GCE O/L examination obtained five passes or more [Table 2.3]. This is a high failure rate, as it suggests that two out of every three students is unable to pass the examination. The time trend, however, has been positive. The GCE O/L pass rate among boys has risen from 26 percent in 2007 to 33 percent in 2010, and among girls from 25 percent in 2007 to 37 percent in 2010.5

2.5. **The low level of learning outcomes and the wide regional disparities in learning are a serious deficiency, as the cognitive achievement of students is central to the performance of an education system.** Furthermore, the economic development of countries is closely related to the cognitive skills of the labor force [Hanushek and Welch (2006), Hanushek and Woessmann (2008)]. Hence, the poor cognitive performance of students, especially in the lagging atolls, will hamper the future economic competitiveness and prospects of the country.

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5. This increase in the GCE O/L pass rate over time may be over-estimated, as in recent years there appear to be some schools which have kept back their weaker students from sitting the GCE O/L in order to raise their overall pass rates. Such a practice would artificially increase the GCE O/L pass rate.
RAISING EDUCATION QUALITY: PROMISE AND POTENTIAL

2.6. **There are several dimensions of education quality which are of vital importance.** Among these, the quality of school teachers is central to the improvement of education quality. Hence, the Ministry of Education (MoE) is concerned to develop the skills, motivation and performance of teachers. A second key policy initiative is the establishment of a sound quality assurance framework for the school system. The MoE has developed a quality assurance mechanism, which now needs to be pilot tested, refined and scaled up throughout the country. A third strategic policy initiative is the development of a system of regular national assessments of learning outcomes, which can then feed into policy formulation and program development. These three strategic policy initiatives are discussed in the subsequent sections of this report.

ENHANCING THE SKILLS AND PERFORMANCE OF TEACHERS

2.7. **The quality of teachers is of central importance to the performance of schools.** Teachers play a dominant role in what, how, and how much, students learn [OECD (2005), Hanushek (2011)]. The performance of teachers depends on a variety of factors [Allemano et al (2011)]. A three-level model of teacher competencies is presented in Figure 2.5 below. The first level covers pre-service teacher education. The second level consists of teacher induction. The third level is professional development. The latter can be divided into two further categories: off-site teacher training opportunities, such as in teacher centers; and opportunities for on-site school based teacher development.

2.8. **The Maldives has a high proportion of untrained primary school teachers.** Approximately 23 percent of primary school teachers are untrained [Table 2.4]. Hence, the first level of an adequate pre-service teacher education has not been completed in the country. Further, as these untrained teachers are in primary schools any learning deficiencies of students will have a cumulative effect further up into the secondary education system as well.

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**Table 2.3 Proportion of Students Passing the General Certificate of Examinations Ordinary Level (GCE O/L), 2007-2010 (percentage)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>26</td>
<td>25</td>
<td>31</td>
<td>33</td>
</tr>
<tr>
<td>Girls</td>
<td>25</td>
<td>29</td>
<td>33</td>
<td>37</td>
</tr>
<tr>
<td>Maldives</td>
<td>26</td>
<td>27</td>
<td>32</td>
<td>35</td>
</tr>
</tbody>
</table>

Source: MoE Policy Planning and Research Section and Department of Public Examinations.
Note: A student is considered to have passed the GCE O/L if he or she passes in at least 5 subjects.
2.9. The proportion of untrained teachers in atolls is higher than in Male’. While 10 percent of primary teachers in Male’ are untrained, 27 percent of primary teachers in atolls are untrained. Trained teachers are more interested in residing in Male’ than in the outer atolls. However, this creates an imbalance in the quality of education between Male’ and the rest of the country. The differences in teacher quality will be partly responsible for the weaker learning outcomes of students in atolls compared to students in Male’.

### Table 2.4 Proportion of Untrained Teachers by Stage of Education, 2010

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Teachers</th>
<th>Untrained Teachers %</th>
<th>Total Teachers</th>
<th>Untrained Teachers %</th>
<th>Total Teachers</th>
<th>Untrained Teachers %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male’</td>
<td>775</td>
<td>10</td>
<td>570</td>
<td>5</td>
<td>140</td>
<td>0</td>
</tr>
<tr>
<td>Atolls</td>
<td>2,817</td>
<td>27</td>
<td>2,515</td>
<td>2</td>
<td>262</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>3,592</td>
<td>23</td>
<td>3,085</td>
<td>2</td>
<td>402</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: MoE Statistics.
2.10. **A shortage of adequately qualified teachers has necessitated the employment of a large number of expatriate teachers for secondary education.** Approximately 60 percent of teachers at lower secondary and 67 percent of higher secondary teachers are expatriate teachers [Figure 2.6]. Most expatriate teachers are deployed in the atolls, especially as qualified Maldivians are reluctant to take up positions in the remote islands. Among expatriate teachers, 87 percent at lower secondary, and 64 percent at higher secondary level are deployed in the atolls.

2.11. **The high dependence on expatriate teachers is controversial.** Critics argue that expatriate teachers are inadequately aware of the local culture, and that these teachers are not committed to the Maldivian schools, resulting in rapid turnover. The cost of expatriate teachers, too, is higher. The counter-arguments made against the critics are that: (a) there is a shortage of educated Maldivians willing to become teachers; (b) foreign teachers are willing to serve in schools in remote islands that Maldivians are not; and (c) expatriate teachers bring new ideas and cultural diversity to the education system of the country. Over the long-term the dependence of the country on expatriate teachers would be reduced if more Maldivians completed senior secondary and higher education and entered the teaching profession. In the short-medium term, however, the country will continue to depend on expatriate teachers, and their training and skills is important.

**Policy Options for Teacher Development**

2.12. **The successful achievement of a high quality of education will depend on the availability of professionally educated and competent teachers at all levels.** Pre-service teacher education is offered by several institutions in the Maldives, including the Faculty of Education and the Centre for...
Open Learning of the Maldives National University, as well as private higher education institutions such as Mandhu College and Villa College. The number graduating from these institutions, however, is too low to meet the needs of the system. Pre-service teacher education opportunities need to be expanded sharply to ensure a fully trained cadre of school teachers. A program to provide professional skills and competencies to the stock of untrained primary school teachers is needed especially urgently.

2.13. **In-service teacher training needs to be further developed.** The government has established a professional development policy for teachers. The professional hubs for teacher development in the Maldives are the Centre for Continuing Education (CCE) at the central level and Teacher Resource Centers (TRCs) at regional levels, respectively. In-service teacher training is aimed at the following categories of teachers: (a) unqualified teachers (mainly certification courses); (b) teachers requiring skills upgrading; (c) teachers needing preparation for new roles, such as teacher educators or principals; and (d) curriculum related, particularly when there are curriculum changes in the system, when teachers require refresher courses. The in-service teacher training programs are mainly off-site programs, delivered through the TRCs or in Male’. Off-site in-service teacher training is known to have limited impact internationally [Harris and Sass (2011)]. Hence, off-site teacher training will need to be supplemented with other models of teacher development.

2.14. **School-based teacher development is a promising initiative for policy makers to advance and strengthen further.** School-based teacher development has been noted globally for

**Box 2.1 Strengths of School-Based Teacher Training/Support (SBT) Program in Egypt**

Egypt implements a school-based teacher training/support (SBT) program for English teachers. This school-based teacher training and support takes place at the school site. The strengths of this program include:

- Teachers receive training without having to take time off work or travel long distances;
- Teachers receive useful materials on teaching techniques and observe demonstrations;
- Teachers can practice and discuss new techniques and new materials with colleagues and senior teachers on a daily basis;
- The senior teachers can give classroom demonstrations using SBT activities;
- The SBT activities increase communication and sharing of ideas among teachers;
- The SBT provides a positive focus for inspectors’ school visits, classroom observation, and meetings with teachers;
- Senior teachers monitor teachers using SBT activities on a daily basis and can thus better assist inspectors on their observation visits; and
- The SBT can serve as a link between a centralized type of in-service training program and specific teacher needs.

its effectiveness [Allemano et al (2011)]. In the Maldives it would involve the active participation of school principals and teachers, and atoll and island level officials. The range of activities under school-based teacher development could cover school-based mentoring, peer learning, peer coaching, individual consultations, and visits to classrooms in other schools and islands. It would also suit the geography of the Maldives, with its widely dispersed small populations, as it would reduce travel costs and minimize the time that teachers need to be away from their schools. Box 2.1 provides examples of school-based teacher development, in the context of school-based management, in Egypt.

**ICT-based Teacher Professional Development**

2.15. Given the geography of the Maldives with multiple and scattered islands, ICT (information and communications technology) based support could also help promote teaching and learning development in a cost-effective manner.

2.16. **ICT can offer a wide range of services for teaching and learning.** ICT-based assistance for teacher professional development could cover pre-service teacher development, regional teacher resource centers and schools. If ICT is used effectively in the education system, it can:

- enhance student learning, teacher development, school management, community development and education sensitization;
- provide access to new learning resources, including content, lesson plans and assessments;
- enable self-directed learning and technical capacity development using resources from internet and CDs, or via online distance-learning courses;
- offer access to new learning resources, including content, lesson plans and assessment prepared by MoE and other educational agencies; and
- provide school networking and school linkages for site-based learning and local education development.

In pre-service teacher development, ICT can be used to increase teachers’ basic skills and subject mastery, to provide access to resources that can later be used in classrooms, and to help teachers build familiarity with special instructional approaches. Regional teacher resource centers can be strengthened through ICT-based programs to serve as a cost-effective hub for regional teacher development. Teacher resource centers can also complement cluster-based methods of teacher development. In schools, ICT can be used to support teacher professional development and student learning. Teachers can have access to learning and teaching resources, can communicate with mentors and colleagues, and can enroll in distance-based learning or certification programs. As seen from the Ugandan example in Box 2.2, a good support network for teachers is essential in this model.
2.17. Attracting qualified individuals into the teacher profession field, retaining qualified teachers, and motivating them to work hard, is a critical challenge for the Maldives. Policy makers in the MoE are keen to strengthen the motivation and incentives for teachers to perform well. For instance, a hardship allowance was introduced in 2005 in order to encourage local teachers to work in the atolls. This incentive did have some positive results. The GoM now needs to develop a systematic set of policies to strengthen teacher motivation and performance.

2.18. Countries around the world have tried a wide array of monetary and non-monetary incentives to improve teacher quality and performance. These include internal motivation, recognition and prestige, salary differentials, non-salary benefits, professional growth, adequate school infrastructure and teaching materials, mastery, and responding to clients [see Figure 2.7]. The evidence from several studies suggests that a well-designed incentive system is important to attract promising young people into the teaching profession, retain good quality teachers over the career-cycle, and motivate teachers to perform well in classrooms [Bruns et al (2011)].

2.19. In the Maldives teacher salaries have declined, in recent years, relative to the salaries of other public services and the private sector. Hence, the best school completers and young graduates are reluctant to enter the teaching profession. Also, in mid-career capable teachers leave for more attractive jobs in the private sector and elsewhere in the government.

Box 2.2  Teacher Professional Development through ICTs: the Case of Uganda

SchoolNet Uganda started as a program jointly supported by World Links Organization, World Bank Institute ICT for Education Program, and MoE Uganda. The mission is to support the introduction of ICTs in schools and to build the schools’ and teachers’ pedagogical capacity to optimally use the ICT resources in the schools and the internet to enhance the teaching and learning process. Since the mid-1990s SchoolNet Uganda has implemented a number of activities. They include:

- providing technical training for school IT coordinators,
- providing basic ICT skills training,
- providing pedagogical training and on-going pedagogical support to teachers,
- conducting sensitization workshops for principals and teachers on why and how ICT can be used to enhance the teaching and learning process,
- organizing and conducting with ICT study camps,
- running a mailing for teachers for knowledge sharing, and
- carrying out research studies on the impact of ICT on education in Uganda.

SchoolNet Uganda has received a number of international and national awards for its contribution to ICT for development, and it is expanding its programs.


Improving Teacher Motivation and Performance

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Policy Options for Improving Teacher Education and Training, Motivation and Performance

2.20. The Maldives needs to consider a package of policy initiatives to develop the teacher system. This package should cover: (a) providing a benefit package that attracts bright young people into the teaching profession and retains them over the career cycle; (b) producing a sufficient number of qualified teachers over time; (c) the equitable deployment of teachers to the atolls; and (d) the development of pre-service teacher education and professional development opportunities during the career cycle [Aturupane and Shojo (2012a)]. The main policy alternatives open to the country are summarized in Table 2.5. Among these teacher policy initiatives, improving pre-service teacher education is a strategic and long-term objective to enable the quality at entry of future teachers. Improving the performance of the existing stock of teachers is a short-medium term objective, where continuing professional development will be very important.
2.21. **Quality assurance has assumed prominence among education policy makers around the world in recent years** [Aturupane, Fielden, Mikhail and Shoji (2011), World Bank (2011b)]. Quality assurance provides a framework for the systematic review and monitoring of an education system to determine whether an acceptable standard of quality is being achieved over the medium-term, and enhanced over the long-term in line with global developments in education. Quality assurance reaches deep into the education system as the standard of education in each school is open to evaluation through the protocols and processes of the quality assurance framework [MoE (2010)]. The ultimate goal of a quality assurance system is to assure every child of a high quality of education [Materu (2007)].

2.22. **The development of a quality assurance framework is an important recent policy initiative in the Maldives.** The MoE has introduced quality indicators for Child-Friendly Baraabaru Schools (CFBS) [MoE (2010)]. CFBS is a new model that provides a comprehensive tool kit for the evaluation of school performance. The main objectives of CFBS are to facilitate the assessment of education processes by schools (self-assessment) and by provincial and national level

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authorities (external assessments). The CFBS model helps to identify the strengths, weaknesses and development needs of schools, and assists school-based development activities.

2.23. **The CFBS indicators can be used for school self-assessments and for external assessments.** The CFBS quality indicators are categorized into five dimensions of education quality. These are: (a) inclusivity; (b) child-centered teaching and learning; (c) health and safety; (d) family and community partnerships; and (e) leadership and management [Table 2.6]. For each dimension, there are standards of quality. And for each standard, there are indicators that serve as criteria for ratings within the standard. There are four levels of rating: emerging, procession, achieving, and achieved. The indicators are used for both self-evaluation and monitoring. The quality assurance evaluation processes can be implemented by schools, with the support of the provincial and national level authorities.

**Table 2.6 Dimensions of Education Quality in CFBS**

<table>
<thead>
<tr>
<th>Inclusivity</th>
<th>Child-centered teaching and learning</th>
<th>Health and safety</th>
<th>Family and community partnership</th>
<th>Leadership and management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Policy on inclusivity</td>
<td>• Curriculum and syllabi</td>
<td>• Health personnel and facilities</td>
<td>• Family participation</td>
<td>• Planning</td>
</tr>
<tr>
<td>• Annual enrolment and projections</td>
<td>• Lesson planning</td>
<td>• School health policies</td>
<td>• Communication</td>
<td>• Professional development</td>
</tr>
<tr>
<td>• Inclusion plan</td>
<td>• Teaching and learning strategies</td>
<td>• Health and nutrition services</td>
<td>• Parental role</td>
<td>• Professional qualifications and skills</td>
</tr>
<tr>
<td>• Children at risk</td>
<td>• Teaching and learning resources</td>
<td>• Health education</td>
<td>• Community involvement</td>
<td>• Human resources management</td>
</tr>
<tr>
<td>• Leadership and mentorship</td>
<td>• Learning environment</td>
<td>• Healthy physical environment</td>
<td>• Community resources</td>
<td>• Infrastructure and finance</td>
</tr>
<tr>
<td>• Learner-centered assessment</td>
<td>• Learner-centered assessment</td>
<td>• Fitness activities</td>
<td></td>
<td>• Leadership and management</td>
</tr>
<tr>
<td>• Co-curricular and extra-curricular activities, and career guidance</td>
<td></td>
<td></td>
<td></td>
<td>• Community collaboration</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Student leadership</td>
</tr>
</tbody>
</table>

Strategic Options for an Effective Quality Assurance Program

2.24. While a conceptual framework for quality assurance in the Maldives has been prepared, it now needs to be implemented effectively. In particular, the two dimensions of quality assessment, the internal reviews or self-assessments by schools, and the external reviews through mechanisms such as school inspections, need to be carefully developed and supported. Priority policy attention is required for the program to be successful.

2.25. Considerable capacity will need to be built to implement a sound quality assurance program in the atolls and islands. The capacity of schools has to be developed to undertake internal reviews and self-assessments. A significant degree of variation exists between and within atolls in terms of the education levels and capabilities of parents and local communities. In consequence, the MoE needs to clarify the roles and responsibilities of stakeholders from the local communities in the quality assurance process. In addition, the capacity of atolls to implement the protocols and procedures for external quality assurance activities has to be developed. A geographic unit to function as the hub for the implementation of external reviews, such as the provincial or atoll, has to be defined by the MoE and the necessary capacity built within this geographical unit.

2.26. Decentralized delivery of the quality assurance program will help to improve the cost-effectiveness of implementation. Given the geography of the country with multiple and scattered islands, centrally driven quality assurance processes such as quality assurance inspections can be expensive. As such, the decentralized levels of the education system, especially atolls and islands, will need to implement nearly all the activities for the quality assurance program to be cost-effective. The program would also have to rely heavily on self-assessments by schools, with external reviews taking place according to a time cycle that is affordable. The MoE needs to develop on-line tools that can support the atolls, islands and schools to implement the quality assurance program efficiently.

Potential Innovations to Utilize the Quality Assurance Program

2.27. The information from the quality assurance reviews can and should feed into policy initiatives at the national level. An important national level policy measure could be the classification and grouping of schools according to their performance, on quality assurance reviews, such as is done in Singapore [Box 2.3]. Appropriate policy attention, including the allocation of more resources, can then be directed at these groups of schools. Another policy use would be to observe recurrent deficiencies or challenges across schools, which may require changes either in academic programs (e.g. teacher education and training) or in the management of the education system.

2.28. The information from the quality assurance reviews need to feed into school improvement activities at the local level. This would require schools to actively pursue measures to strengthen areas in which they are diagnosed as weak through the quality assurance reviews.
The weaknesses identified can differ from school to school, and over time within the same school. Hence, the quality assurance reviews have the advantage of being sensitive to the needs of individual schools. However, there is considerable responsibility on schools to take the initiative and design and implement performance improving actions. If schools fail to take initiative, the potential of the quality assurance program will be under-utilized. Sri Lanka has developed and implemented a system of quality assurance over the last decade or so [Box 2.4]. The feedback from Sri Lankan schools which have utilized the quality assurance processes to improve school performance is that the quality assurance system provides a very useful organizational framework for school improvement activities.

NATIONAL ASSESSMENTS OF LEARNING OUTCOMES

2.29. The Maldives has conducted national assessments of learning outcomes in the past. These national assessments have been useful to measure and understand the levels of cognitive achievement in the country as a whole, as well as in the various atolls. However, institutional capacity has not been developed in the Maldives to undertake regular national assessments of learning outcomes that are technically rigorous and useful for policy purposes.
2.30. **The Maldives should develop institutional capacity to conduct national assessments of learning outcomes on a regular cycle.** National assessments have become the main tool for policy analysis and policy development in the education systems of developed countries [see Greaney and Kellaghan (2008)]. Many middle-income countries, and countries in South Asia such as Sri Lanka, India, Afghanistan and Bangladesh, are developing institutional capacity to undertake national assessments according to a regular cycle and in line with the requirements of policy makers.

2.31. **National assessments are useful for a variety of purposes.** These include the following:
- measuring the level of learning by students;
- monitoring the level of student learning over time;
- obtaining evidence on the strengths and weaknesses of students’ knowledge and skills;
- examining disparities in learning between different sub-groups of students. e.g. regional disparities, gender disparities, or disparities among children from different economic groups;
• analyzing the factors associated with student learning, such as school resources, teacher competence and preparation, and the home learning environments of students; and
• developing policies and programs based on scientific information on learning levels and the covariates of learning outcomes.

Examples of the uses of national assessments in several other countries are given in Table 2.7 below.

**Table 2.7 Selected Countries That Used National Assessment Results in Reviewing the Education System**

<table>
<thead>
<tr>
<th>Country</th>
<th>Examples of Some Claimed Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Instituted a program of school inspection</td>
</tr>
<tr>
<td>Bolivia</td>
<td>Linked assessment data to a program for child nutrition</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>Provided input for country analysis</td>
</tr>
<tr>
<td>Cuba</td>
<td>Strengthened preschool and early childhood care programs</td>
</tr>
<tr>
<td>Kenya</td>
<td>Led to benchmarks for providing facilities</td>
</tr>
<tr>
<td>Kuwait</td>
<td>Provided support for the policy of introducing classroom libraries</td>
</tr>
<tr>
<td>Malawi</td>
<td>Provided input for reform program</td>
</tr>
<tr>
<td>Mauritius</td>
<td>Used data to support national sector study</td>
</tr>
<tr>
<td>Namibia</td>
<td>Used by national commission</td>
</tr>
<tr>
<td>Nepal</td>
<td>Supported major government reform program</td>
</tr>
<tr>
<td>Niger</td>
<td>Provided input for country analysis</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>Provided input for national sector strategy for education</td>
</tr>
<tr>
<td>Uganda</td>
<td>Used to prepare educational reform program</td>
</tr>
<tr>
<td>Uruguay</td>
<td>Used to support a policy of expanding an equity program for full-time schools</td>
</tr>
<tr>
<td>Vietnam</td>
<td>Used to establish benchmarks for providing facilities (desks per pupil, books per pupil)</td>
</tr>
<tr>
<td>Zanzibar (Tanzania)</td>
<td>Used in review of educational policies, standards, and benchmarks</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>Used in commission review</td>
</tr>
</tbody>
</table>

Sources: Kellaghan et al (2009).

2.32. **The national assessments can be designed to take into account the policy interests of Maldivian policy makers.** For instance, policy makers could benefit from a national assessment which examined the factors associated with student learning, as such an information base does not exist in the country. The findings of such an assessment can be used to develop policies in areas such as teacher education and training, the implementation of the new curriculum, and education resources.
2.33. It is important to keep in mind that National Assessments of Learning Outcomes and Public Examinations are different. These key differences are highlighted in Table 2.8 below.

<table>
<thead>
<tr>
<th></th>
<th>National assessments</th>
<th>Public examinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>To provide feedback to policy makers</td>
<td>To certify and select students</td>
</tr>
<tr>
<td>Frequency</td>
<td>For individual subjects offered on a regular basis (such as every four years)</td>
<td>Annually and more often where the system allows for repeats</td>
</tr>
<tr>
<td>Duration</td>
<td>One or two days</td>
<td>Can extend over a few weeks</td>
</tr>
<tr>
<td>Who is tested?</td>
<td>Usually a sample of students at a particular grade or age level</td>
<td>All students who wish to take this examination at the examination grade level</td>
</tr>
<tr>
<td>Format</td>
<td>Usually multiple choice and short answer</td>
<td>Usually multiple choices</td>
</tr>
<tr>
<td>Stakes: importance for</td>
<td>Low importance</td>
<td>Great importance</td>
</tr>
<tr>
<td>students, teachers, and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coverage of curriculum</td>
<td>Generally confined to one or two subjects</td>
<td>Covers main subject areas</td>
</tr>
<tr>
<td>Effect on teaching</td>
<td>Very little direct effect</td>
<td>Major effect: teacher tendency to teach what is expected on the examination</td>
</tr>
<tr>
<td>Additional tuition sought</td>
<td>Very unlikely</td>
<td>Frequently</td>
</tr>
<tr>
<td>for students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do students get results?</td>
<td>Seldom</td>
<td>Yes</td>
</tr>
<tr>
<td>Is additional information</td>
<td>Frequently, in student questionnaires</td>
<td>Seldom</td>
</tr>
<tr>
<td>collected from students?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scoring</td>
<td>Usually involves statistically sophisticated techniques</td>
<td>Usually a simple process that is based on a predetermined marking scheme</td>
</tr>
<tr>
<td>Effect on level of student attainment</td>
<td>Unlikely to have an effect</td>
<td>Poor results or the prospect of failure, which can lead to early dropout</td>
</tr>
<tr>
<td>Usefulness for monitoring</td>
<td>Appropriate if tests are designed with monitoring in mind</td>
<td>Not appropriate because examination questions and candidate populations change from year to year</td>
</tr>
<tr>
<td>trends in achievements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>levels over time</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2.9 Options for Implementing a National Assessment

<table>
<thead>
<tr>
<th>Designated agency</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drawn from staff of ministry of education</td>
<td>Likely to be trusted by ministry. Enjoys ready access to key personnel, materials, and data (for example, school population data). Funds that may not have to be secured for staff time.</td>
<td>Findings might be subject to political manipulation including suppression. May be viewed sceptically by other stakeholders. Staff may be required to undertake many other tasks. Technical capacity may be lacking.</td>
</tr>
<tr>
<td>Drawn from staff of public examination unit</td>
<td>Usually is credible. Has experience in running secure assessments. Funds may not have to be secured for staff time. Some skills (for example, test development) can be transferred to enhance the examination unit. More likely to be sustainable than some other models.</td>
<td>Staff who may be required to undertake many other tasks. Technical capacity that may be weak. May lack ready access to data. Public examination experience that may result in test items that are too difficult.</td>
</tr>
<tr>
<td>Drawn from research/university sector</td>
<td>Findings that may be more credible with stakeholders. Greater likelihood of some technical competence. May use data for further studies of the education system.</td>
<td>Have to raise funds to cover staff costs. May be less sustainable than some other models. May come into conflict with education ministry.</td>
</tr>
<tr>
<td>Recruited as foreign technical assistance (TA)</td>
<td>More likely to be technically competent. Nature of funding that can help ensure timely completion.</td>
<td>Likely to be expensive. May not be sensitive to educational context. Difficult to ensure assessment sustainability. Possibly little national capacity enhancement.</td>
</tr>
<tr>
<td>Made up of a national team supported with some international TA</td>
<td>Can improve technical capacity of nationals. May ensure timely completion. May add credibility to the results.</td>
<td>Possibly difficult to coordinate work of national team members and TA. Might be difficult to ensure skill transfer to nationals.</td>
</tr>
<tr>
<td>Ministry team supported with national TA</td>
<td>Can ensure ministry support while obtaining national TA. Less expensive than international TA.</td>
<td>National TA that may lack the necessary technical capacity. Other potential disadvantages that are listed under ministry of education and that may apply.</td>
</tr>
</tbody>
</table>

2.34. **The GoM needs to decide the institutional home for the national assessments of learning outcomes**, if the development of such institutional capacity is considered desirable. Some countries use an external agency: for instance, Ireland has an Education Research Center in Dublin; and Sri Lanka is building capacity for rigorous national assessments in the National Education Research and Evaluation Center of the Faculty of Education in the University of Colombo. Other countries use either their Department of Public Examinations, or staff in their Ministries of Education. The various models have their advantages and disadvantages which are summarized in Table 2.9.

2.35. The Maldives in the past trained a small pool of officials in the MoE and conducted national assessments from within the government. However, these officials were either promoted or transferred elsewhere in a few years, and the capacity in the MoE weakened. A model that policy makers could consider for the future is to develop the technical capacity for national assessments in the Faculty of Education of the Maldives National University (MNU). This model would have the advantage that the academic staff of the Faculty of Education will be available over the long-term, as academics are not in a transferable service. The technical rigor of the analysis is also likely to be strong when university researchers are involved. The role of the MoE in this model would be to utilize the results of the national assessments for policy formulation and program development.

2.36. **The Maldives could also consider participating in international assessments of learning outcomes from time to time.** The benefits would include assessing the performance of the education system in relation to other middle-income and developing countries. This comparative assessment could produce policy ideas for the further development of the system. The cost, of course, is that participation in such studies can be very expensive. National policy makers would need to measure the benefits and costs of such participation and choose.
CHAPTER THREE
ECONOMIC AND SOCIAL BENEFITS OF EDUCATION

INTRODUCTION

3.1. 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)]. Investment in education has been found to produce strong economic and social benefits in the Maldives [see Aturupane and Shojo (2012b)].

BENEFITS OF INVESTMENT IN EDUCATION

Economic Benefits of Investment in Education

3.2. 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 3.1, 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
Table 3.1 Education and Economic Well-Being (Wealth Index Factor) 2009, Generalized Least Squares Estimates

<table>
<thead>
<tr>
<th>Variables</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>T-Ratio</td>
</tr>
<tr>
<td>Constant</td>
<td>-76,551***</td>
<td>-29.62</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age 31-40 years</td>
<td>9,044***</td>
<td>4.47</td>
</tr>
<tr>
<td>Age 41-50 years</td>
<td>20,318***</td>
<td>8.01</td>
</tr>
<tr>
<td>Age 51-60 years</td>
<td>25,205***</td>
<td>8.41</td>
</tr>
<tr>
<td>Age 61-70 years</td>
<td>14,568***</td>
<td>4.60</td>
</tr>
<tr>
<td>Age 71 years above</td>
<td>6,418*</td>
<td>1.68</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>14,984***</td>
<td>7.19</td>
</tr>
<tr>
<td>Secondary</td>
<td>36,930***</td>
<td>16.21</td>
</tr>
<tr>
<td>Higher</td>
<td>57,741***</td>
<td>14.52</td>
</tr>
<tr>
<td><strong>Household size</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family size</td>
<td>2,712***</td>
<td>18.52</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>13,394***</td>
<td>7.99</td>
</tr>
<tr>
<td>Widowed</td>
<td>4,301</td>
<td>0.89</td>
</tr>
<tr>
<td>Divorced</td>
<td>-1,477</td>
<td>-0.40</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>183,896***</td>
<td>112.21</td>
</tr>
<tr>
<td>Observations</td>
<td>12,690</td>
<td></td>
</tr>
<tr>
<td>F(13, 12676)</td>
<td>1,381.86</td>
<td>1,536.24</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.59</td>
<td>0.58</td>
</tr>
<tr>
<td>Breusch-Pagan/Cook-Weisberg test for heteroscedasticity</td>
<td>chi2(1) = 10.22</td>
<td>Prob &gt; chi2 = 0.0014</td>
</tr>
</tbody>
</table>

Source: 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.
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.

### Table 3.2 The Impact of Education on Female Labor Force Participation, Marginal Effects Derived from a Probit Model, Maximum-Likelihood Estimates, 2009

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

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

3.3. **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 3.2. 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.

Social Benefits of Investment in Education: Externality Effects

3.4. 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.

3.5. 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 3.3. 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

Table 3.3 The Relationship between Mother’s Education and Child Nutrition, 2009

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

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

3.6. **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 3.4. 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 3.4 The Relationship between Mother’s Education and Child Mortality, 2009

<table>
<thead>
<tr>
<th>Mother’s Education</th>
<th>Neonatal Mortality (%)</th>
<th>Post-Neonatal Mortality (%)</th>
<th>Infant Mortality (%)</th>
<th>Child (under-1) Mortality (%)</th>
<th>Child (under-5) Mortality (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Formal Education</td>
<td>32</td>
<td>9</td>
<td>41</td>
<td>6</td>
<td>47</td>
</tr>
<tr>
<td>Primary</td>
<td>17</td>
<td>6</td>
<td>23</td>
<td>5</td>
<td>28</td>
</tr>
<tr>
<td>Secondary</td>
<td>7</td>
<td>6</td>
<td>13</td>
<td>1</td>
<td>14</td>
</tr>
</tbody>
</table>

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

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

### Public Investment in Education

3.7. **Education expenditures have been declining over time in the Maldives.** In real terms, public education expenditure fell from 1,248 million Rufiyaa in 2008 to 1,098 Rufiyaa in 2011 [Table 3.5]. This is a 12 percent decrease. Both recurrent and capital education expenditures fell between 2008-2011, but the main decrease was in the capital budget. Capital education expenditure declined
from 125 million Rufiyaa in 2008 to 43 million Rufiyaa in 2011 in constant prices, which is a 66 percent decrease. Recurrent education expenditure declined from 1,123 million Rufiyaa in 2008 to 1,056 million Rufiyaa in 2011 constant prices, which is a 6 percent decrease. The fall in capital expenditure means that the GoM has unable to invest adequately in expanding the school network to cover higher secondary education, and in providing modern teaching-learning technology and material in recent years. School maintenance and the replacement of equipment have also suffered.

Table 3.5 The Time Trend of Public Education Expenditures, 2008-2011 (Million Rufiyaa, in constant 2003 prices)

<table>
<thead>
<tr>
<th>Education Expenditures</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital</td>
<td>125</td>
<td>116</td>
<td>14</td>
<td>43</td>
</tr>
<tr>
<td>Recurrent</td>
<td>1,123</td>
<td>1,042</td>
<td>1,048</td>
<td>1,056</td>
</tr>
<tr>
<td>Total</td>
<td>1,248</td>
<td>1,158</td>
<td>1,062</td>
<td>1,098</td>
</tr>
</tbody>
</table>

Source: MoE.

3.8. The government spent, in nominal terms, approximately 1.6 billion Rufiyaa (about US$ 113 million) on education in 2011. In dollar terms this represented an 11 percent decrease compared to the level of expenditure in 2008. The main items of expenditure under the government education budget are given in Figure 3.1. Personal emoluments are the single largest item of expenditure, taking up 71 percent of the total education budget. Other large budget items are the costs of services acquired (10 percent) and grants, subscriptions and subsidies (9 percent). The share of capital education expenditures in recent years is very small, just 5 percent of total education spending in 2011. The budgets in recent years, such as 2010-2012, have been formulated at a time of considerable fiscal stress in the economy, and the government was attempting to consolidate public expenditures. Over time, capital investment in education will need to grow as the education system expands, especially at secondary level, and the curriculum requires the use of modern equipment for teaching and learning.

3.9. The costs per student vary considerably, ranging from about 8,000 Rufiyaa to nearly 30,000 Rufiyaa, among the 60 largest schools in the Maldives, called autonomous schools, which receive their own budgets [see Figure 3.2]. The larger the size of schools, the lower the expenditure per student, as large schools are able to reap the benefits of economies of scale. Conversely, small schools experience diseconomies of scale. Given the geography of the Maldives, the majority of schools are small. Out of about 225 schools (primary and secondary) 39 have less than 100 students.

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7. Per student expenditure for the balance schools, for which budgets are not directly allocated to schools but channeled through the education administration, is not available.
(approximately 18 percent of the total) and 14 have less than 50 students (around 6 percent). Hence, if per student costs for the remaining schools in the Maldives were available, there would be even greater variation in unit costs. The small size and high unit costs of the majority of schools means that policy interventions need to be as cost-effective as possible, in the interests of efficiency and long-term sustainability.

Figure 3.2  School Size and Per Student Allocations, 2011

Source: MoE Statistics.
Note: Non-autonomous schools are not included.
ENHANCING ECONOMIC BENEFITS: ORIENTING EDUCATION TO LABOR MARKET NEEDS

3.10. 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 3.1]. 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 3.1 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.


3.11. 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 3.6]. 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 3.6 Unemployment in the Maldives and Comparator Small Island Countries (% of Total Labor Force), 2010

<table>
<thead>
<tr>
<th>Country</th>
<th>Total</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maldives</td>
<td>14.4</td>
<td>7.9</td>
<td>23.8</td>
</tr>
<tr>
<td>The Bahamas</td>
<td>14.2</td>
<td>14.4</td>
<td>14.0</td>
</tr>
<tr>
<td>Malta</td>
<td>6.9</td>
<td>7.0</td>
<td>6.8</td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>5.3</td>
<td>3.5</td>
<td>6.2</td>
</tr>
<tr>
<td>Barbados</td>
<td>8.1</td>
<td>6.8</td>
<td>9.4</td>
</tr>
<tr>
<td>Seychelles</td>
<td>5.5</td>
<td>6.1</td>
<td>4.9</td>
</tr>
<tr>
<td>Mauritius</td>
<td>7.3</td>
<td>4.4</td>
<td>12.3</td>
</tr>
<tr>
<td>Belize</td>
<td>8.2</td>
<td>5.9</td>
<td>13.0</td>
</tr>
<tr>
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3.12. The proportion of youth who are neither attending school nor working are high [Figure 3.3]. Twenty-five percent of youth in the age range 15-19 years and 32 percent of youth aged 20-24 years are neither participating in education nor working. This is a high level of waste of valuable human resources in the Maldivian economy. The high unemployment rates are also linked to youth aspirations. Young people with moderate education levels, such as lower secondary education or a few passes in the GCE O/L, seek public sector jobs, especially in the civil service. These jobs are perceived as secure. They also enjoy high prestige and status, particularly in the atolls and islands. The supply of such civil service jobs falls short of the demand, but youth are willing to wait for a lengthy period of time to secure such a position. The preference for civil service jobs, once again, is typical of many South Asian countries, not just the Maldives [World Bank (2012)].
3.13. **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.

3.14. **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

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**Figure 3.3 Economic and Education Participation of Youth in the Maldives**

![Figure 3.3 Economic and Education Participation of Youth in the Maldives](chart.png)

Source: World Bank staff estimates, based on the Maldives Demographic and Health Survey (DHS) 2009.
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 3.2 on Finland]. The Maldives could consider such an option for students with suitable aptitudes for skills based jobs.

**Box 3.2 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).

3.15. **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.
3.16. **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 teamwork. Child centered pedagogy which encourages active learning can also contribute to improving soft skills such as enterprise and initiative.

3.17. **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.

3.18. **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.

3.19. **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.

**BUILDING GOOD CITIZENS: THE SOCIAL DIMENSIONS OF EDUCATION**

3.20. **The promotion of civic values and ethics to produce enlightened citizens for a modern, liberal and democratic society is an important over-arching goal of the Maldivian education system.** The social role of education is especially important in small island communities, as these typically have an intricate network of inter-linked and overlapping social relationships. The actions of individuals in such communities usually take into account not only the relationship that applies to the current matter at hand, but also their ramifications for all the other networks through which
the parties are related. The main policy initiative to orient the education system to the social and cultural needs of the Maldives is the introduction of a new, diversified curriculum to provide a broad liberal education that can equip students to face the challenges of the 21st century.

3.21. The proposed new curriculum has the following key principles.
- The establishment of religious values, principles and practices in the society.
- An in-depth awareness of the unique Maldivian culture, and an appreciation of the archipelago’s collective heritage.
- The upholding of human rights, democracy and justice.
- Promoting the holistic development of the child, focusing on enhancing the spiritual, moral, social, cultural, physical and mental development of the child.
- Empowers all students to reach their maximum potential and attain personal excellence.
- Being inclusive and non-discriminatory.
- Fostering the development of skills in preparation for life.
- Offering learning that is purposeful, and encourages students to see the value of what they are learning.

3.22. The national curriculum framework has identified eight key learning areas which define the knowledge, understanding, skills, attitudes and values that all young people need to acquire to be successful, confident, competent, responsible and productive individuals. The national curriculum framework sees these eight key learning areas as essential for a broad and balanced education that promotes the holistic development of students. These key learning areas are:
- **Creative Arts:** students should be provided opportunities to communicate and express life experiences, feelings, ideas and imaginations in a creative and enjoyable way.
- **Entrepreneurship:** students need to gain the skills required to take initiative, become innovators of new ideas and become competent in business-related fields.
- **Environment, Science and Technology:** students should learn about the physical environment, and about how science and technology impact our lives, and how students can use these to be innovative.
- **Health and Wellbeing:** students explore concepts of a healthy lifestyle, including how to be emotionally, physically and socially well adjusted individuals.
- **Religion and Spirituality:** students learn about the teachings and practice of the national religion.
- **Language and Communication:** students learn how to communicate effectively and confidently in both Dhivehi and English. Opportunities to learn other foreign languages are also made available.
- **Mathematics:** students learn the process of enquiry, discovery and verification and to apply mathematical ideas, rules and procedures to particular situations and problems.
- **Social Sciences:** students learn to value their roots, explore the past and understand their contexts, and learn about interrelationships between people across time, environments and cultures in order to develop civic norms and good behavior.
3.23. The new Maldivian national curriculum framework has several positive features. It is an attempt to look at education in a holistic manner, addressing varied aspects of learning and education related to the social, cultural and economic needs of the country. It contains an effort to systematically document a set of standards in a coherent manner, listing the key principles and learning areas. The curriculum also envisions key competencies and learning areas to encompass all stages of learning, thus having a logical approach to learning, moving from basic to more in-depth understanding in a systematic manner. The emphasis on the social relevance of the school curriculum is especially important and promising. Japan is a country that has been very successful in promoting high standards of civic values and ethical behavior. The framework for the promotion of ethics and civic values through the Japanese education system, and their application to social situations faced in real life, is given in Box 3.3.

**Box 3.3 Promoting Civic Values and Ethical Behavior through Education in Japan**

Moral education and social studies are subjects which the Japanese Ministry of Education has designated for civic education. Moral education is divided into four major areas of study. These are self-awareness, relations with other people, relations with groups and with society and, relations with nature and the universe. Students up to the age of 16 are given one school hour of moral education per week. Teachers can draw on a series of recommended texts and instruction books and integrate these with practical stories and examples from the students own lives. Moral education aims to introduce children to appropriate codes of behavior and teach them how Japanese culture operates. At the elementary school stage, the emphasis is on encouraging students to think of how they would respond to real-life moral decisions. Social studies have been introduced to Japanese schools as a formal part of the curriculum to introduce children to social issues and develop their understanding of society. At the elementary level, the social studies program is more experientially based with visits to off-school sites and invited speakers forming an important part of the program. Social study classes begin with an introduction to the concept of community followed by study of community organization and Japanese life style. High school students are offered education in Geography, History and Civics as elements of the subject known as social studies. These elements are compulsory in junior high school and electives in senior higher school. Additionally, in Japanese education, there is a strong emphasis on achieving the moral and social goals of education through daily and practical activities that occur throughout the school year. These include involvement in school clubs and societies, sports festivals, school open days, field trips, and interactive activities with local communities. Through these activities, there are expected to acquire a sense of teamwork, communication, understanding of cultures and community values and social responsibilities.

3.24. **There are several important next steps for the implementation of the curriculum.** The focus thus far has been on establishing the key competencies and key learning areas. At present, this focus is on the theoretical underpinnings. Attention will now be needed for practical aspects of curriculum implementation, especially the important dimension of classroom processes and pedagogy.

3.25. **The key competencies, and how each key learning area contributes to the development of key competencies, have been elaborated in detail.** Their linkages, especially with subject syllabi, now need to be clarified and detailed. A major challenge for the national curriculum is its translation into grade wise, subject specific syllabi and the need to reflect the key learning competencies through lessons that can be easily related to a child’s experiences.

3.26. **The curriculum framework needs to be enriched by including aspects related to textbooks and learning materials.** These have important roles in translating the curriculum vision to actual classroom learning and teaching. The curriculum needs to be supported by teaching learning materials and other supplementary resources such as workbooks, additional reading materials, and visual materials. The conceptualization and implementation of these also require imagination and an understanding of children’s psychology.

3.27. **Teachers will be the key actors in the delivery of the curriculum.** Preparing future teachers to teach within a learner centered approach is a key need. The pre-service teacher education curriculum will need to incorporate the pedagogical needs of the new school curriculum. Preparing the existing teachers in the system to implement the new national curriculum framework is also a vital requirement. In-service teacher training and continuing teacher development will be required.

3.28. **There also needs to be a focus on key learning issues faced by students, based on the findings of the national assessments of learning.** There is especially a need to focus on early learning and assessment of basic competencies, which underpin learning in higher grades. In addition, assessments will need to reflect the new learning outcomes, and the acquisition of the skills as envisaged in the key competencies.

3.29. **The implementation of the curriculum will need to keep abreast of international standards and developments in education.** It is easy for small islands to be insular and miss developments and the standards of quality of the rest of the world. If this were to happen in the Maldives it would hamper the implementation of the curriculum and the development of the education system. With modern information and communications technology it is easier to keep abreast of international events and standards than at any time in history. The Maldives needs to make use of the opportunities provided by modern technology to ensure that the delivery of the school curriculum and the achievement levels of students are up to international standards. Singapore, a small country with a world renowned education system, ensured right through its
path of economic development that the education standards to be achieved should be on par with the OECD countries [see Box 3.4].

**Box 3.4 Aiming High and Reaching High in Education: the Case of Singapore**

Singapore is a remarkable example of a small country that has transformed itself from a developing economy into a modern knowledge-based industrial and service economy in just one generation. Since the 1990s Singapore’s education system has consistently remained at or near the top of most major world education rankings. The country, throughout its history, awarded central importance to investment in education. Building the capacity of teachers and of school leaders to deliver reforms at the school level, and a culture of continuous improvement that benchmarks the country’s education practices against the best in the world, have been hallmarks of Singapore education development strategy.

Source: OECD (2012).

3.30. **The implementation of the new curriculum needs to be planned carefully, and be cost-effective.** In this context, there are two key challenges. First, the curriculum has a large number of subjects at the secondary grades, from among which students are offered a wide range of choice. Hence, the introduction of the curriculum will need to be carefully sequenced in a multi-year framework, so that there is adequate time to train the teachers and to produce the textbooks and learning material needed to support the goals of the new curriculum. Second, given the small size of Maldivian schools in the atolls and islands, the cost of providing the full range of subjects in all secondary schools will be prohibitive. Hence, the unit of implementation for the full secondary school curriculum will need to be selected strategically. This unit would have to be an atoll, rather than an island.

3.31. **Finally, it should be borne in mind that well-balanced and good citizens are produced through a variety of learning subjects and activities, including co-curricular and extra-curricular activities.** Currently, examination results have become the ultimate focus of the secondary education system in the Maldives and have created severe pressure on schools and students. Exam-related activities such as revision, practicing papers and exam drills are given detailed attention, while non-examination subjects and activities are given less attention. The delivery of the new curriculum should encourage a broader approach to and understanding of education, where examination performance is just one aspect of education achievement. The character-building and good citizenship aspects of education, too, need to be given prominence.
CHAPTER FOUR

EMPOWERING SCHOOLS TO IMPROVE SERVICE DELIVERY

INTRODUCTION

4.1. **School-based management is an important policy initiative for the Maldives.** Small multi-island nations have the advantage that education stakeholders on the islands, such as parents and guardians of children, have ready access to, and considerable information about, the schools located on their islands. Hence, parents and local well-wishers can easily participate in and contribute to the management of schools. Small multi-island countries also suffer from diseconomies of scale. The opportunities for face-to-face interaction between members of school communities, such as students, teachers and principals, across islands and atolls are limited by the high cost of sea transport. The opportunities for interaction between education managers and administrators with schools are similarly constrained by the geography of the country. In consequence, Maldivian schools need to be more self-reliant than schools in countries with larger contiguous land masses. Policy makers in the Maldives desire that school-based management is strengthened in the country. This chapter discusses school-based management, its characteristics and effects, and the evidence on outcomes. This is followed by a discussion of the current status of school-based management in the Maldives in relation to global trends and findings. The chapter concludes by presenting a menu of strategic options for the development of school-based management in the Maldives.

CHARACTERISTICS OF SCHOOL-BASED MANAGEMENT

4.2. **School-based management systems exhibit a variety of characteristics** [Barrera-Osorio *et al* (2009), Bruns *et al* (2011), Caldwell (2005), World Bank (2008b)]. Only the first two characteristics below apply to all systems [Kellaghan (2011)].

1. The school has the authority and responsibility to make decisions about one or more of the following:
   a) use, maintenance, and improvement of school plant;
   b) intended curriculum (range of subjects taught, syllabus content);
   c) implemented curriculum (methods of instruction; choice of textbooks);
   d) budget/expenditure;
   e) procurement of educational materials;
   f) management (deployment of teachers, assigning students to classes, school calendar, classroom hours);
   g) human resources (employment, remuneration, and conditions of employment of teachers and other staff); professional development;
h) admission, suspension, and expulsion of students;

i) monitoring and evaluation of student performance (judgment of student achievement/failure; certification of student achievement);

j) quality assurance (supervision and evaluation of teacher performance);

k) publication of information about a school's performance.

2. School decision making is carried out within a centrally determined framework of goals and policies. School-level actors have to conform to, or operate within, a set of centrally determined policies and procedures.

3. An internal school management group comprising the principal, teachers, and in some cases students, is constituted either (a) to advise the principal or (b) to actually take decisions.

4. Parents’ and other community members are provided with the opportunity of participating in school management, planning, and development, usually through the creation of a school-based management board. Again, the board may (a) advise the principal or (b) actually take decisions.

5. School principals and teachers are considered accountable (a) to education authorities for adhering to policy and rules; (b) to their peers for adhering to standards of instruction; and (c) to students, parents, and the general public for student achievement. There is great variation in accountability systems. In some, information on student achievement is published in league tables, and sanctions, including monetary rewards, are attached to performance for schools and teachers. The use of monetary rewards, however, has proved controversial, and usually has not lasted very long. Furthermore, rewarding successful schools at the expense of increasing resources to schools that are failing would not contribute to overall school improvement. Non-monetary rewards (working in an environment conducive to learning, seeing positive results in student learning, or responding to parent pressure) can be motivating.

4.3. The accountability framework in a general model of school-based management is presented in Figure 4.1. The beneficiaries of education, such as students and parents, are the clients who demand education services. The frontline suppliers of education services are schools. Behind the schools are the central, atoll and island education organizations such as the Ministry of Education in Male’, and the atoll education administrative offices. In ordinary education management systems the clients who demand services and the schools and education organizations which supply services are separate. However, in school-based management, the clients are also represented in the delivery of services through their participation in school boards. The accountability system flows in both directions between the clients and providers.
4.4. The combinations of various characteristics of school-based management above can result in four broad models of: the administrative control model, the professional control model, the community control model, and the balanced control model [see Figure 4.2]. The characteristics of each model are summarized in Box 4.1 below. While the four models are theoretically neat, in practice school-based management systems in countries can and often do combine the characteristics of one or more models. However, the weight of characteristics may still favor one model or the other. For instance, within South Asia the model implemented in Sri Lanka is mainly a balanced control model, with power shared relatively evenly between education principals, teachers and education officials on the one hand, and parents, past pupils and local well-wishers on the other hand. The model in Nepal, in contrast, is chiefly a community control model, with local communities exercising more authority over schools.
Box 4.1 Key Characteristics of the Models of School-Based Management

- **Administrative control.** School-based management (SBM) devolves authority to the school principal. This model aims to make each school more accountable to the central district or board office. The benefits of this kind of SBM include increasing the efficiency of expenditures on personnel and curriculum, and making one person at each school more accountable to the central authority.

- **Professional control.** SBM devolves the main decision-making authority to teachers. This model aims to make better use of teachers’ knowledge of what the school needs at the classroom level. Participating fully in the decision-making process can also motivate teachers to perform better and can lead to greater efficiency and effectiveness in teaching.

- **Community control.** SBM devolves the main decision-making authority to parents or the local community. Under this model, teachers and principals are assumed to become more responsive to parents’ needs. Another benefit is that the curriculum can reflect local needs and preferences.

- **Balanced control.** SBM balance decision-making authority between parents and teachers, who are the two main stakeholders in any school. It aims to take advantage of teachers’ detailed knowledge of the school to improve school management and to make schools more accountable to parents.

4.5. **The different models of school-based management seek to combine autonomy and empowerment of schools with participation by stakeholders such as parents and well-wishers from the community.** There is considerable variation across countries in the extent of autonomy given to schools and the extent of participation under the various models of school-based management [see Figure 4.3]. In countries such as the Netherlands and Madagascar, autonomy is high while participation is low. The programs in countries such as Mexico and Mozambique, in contrast, are high in participation but relatively low in autonomy. The programs in the United States and New Zealand are high in both autonomy and participation. The degree of autonomy and participation depends on a variety of factors, including the extent of decentralization that already existed when the school-based management program was introduced, and the aims and objectives of school-based management in each country. For instance, the United States scores high on both autonomy and participation because its education system was already considerably decentralized when school-based management commenced, and obtaining greater participation in schools by education stakeholders was an explicit objective of the program.

**Figure 4.3 The Autonomy-Participation Nexus, Selected School-Based Management Programs**

Note: AGE stands for a la Gestión Escolar (Support to School Management Program).
PEC stands for Programa Escuelas de Calidad (Quality schools Program).
4.6. A variety of reasons have been proposed in support of school-based management in the education literature. Some disadvantages of school-based management have also been identified. These advantages and disadvantages are summarized below.

Advantages of School-Based Management

a) School-based management is democratic as it involves a distribution of powers among the education partners in regulating institutional and individual behavior, and in allocating funds. When parents and community members are involved, it contributes to their empowerment and ownership.

b) School-based management facilitates the recognition of, and responsiveness to, local needs. Large bureaucracies can overlook peripheral needs and ignore regional cultural variation, while school-based management allows local decision makers to adapt education policies to local realities and needs and determine the appropriate mix of inputs.

c) School-based management should lead to a more effective educational delivery and use of resources at school, island, and atoll levels. This view, in part, reflects the concept of total quality management, according to which decisions made close to the actual product will produce a better result. Studies suggest that local management is most appropriate in organizations where the work is complex, involves uncertainty in its day-to-day tasks, and is carried out in a continually changing environment, all of which characterize the teaching-learning situation. It should, for example, be possible for actors at the island and atoll level to work more effectively than the central authorities in Male’ to mobilize local resources, improve community co-operation, and integrate services.

d) School-based management should lead to improved communication between stakeholders, facilitating principals’ awareness of teacher and parent concerns.

e) School-based management should lead to greater accountability of schools and teachers to students, parents, and island communities.

f) School-based management is more transparent, reducing opportunities for waste.

g) School-based management provides for decisions made by groups, which are generally better than decisions made by individuals.

h) School-based management contributes to the development of high levels of professionalism in schools.

i) School-based management should ultimately lead to improved student retention and learning. It can help identify and address issues such as low enrollment and poor learning outcomes. From the late 1990s onwards the improvement of outcomes has became a major objective of school-based management initiatives.

j) School-based management can contribute to improving the students’ home environment. Community members and parents involved in education are likely to not only have a better
understanding of schooling but also to become more willing to cooperate with schools. Such community members and parents are also more likely to be interested in their children's education. This, in turn, can lead them to helping children with homework, and making sure that children are ready to learn at school.

k) Training (when provided) for parents and other stakeholders in shared decision making, interpersonal skills, and management skills can benefit the community as a whole.

l) The development of school-based management is relatively inexpensive as it involves a change in the locus of decision making rather than a large increase in resources.

Limitations of School-Based Management

4.7. School-based management may also be associated with certain constraints and challenges. First, it can have adverse some effects on equity. It may, for example, result in disparities in resource availability (including capacity to manage) between schools in economically advantaged and disadvantaged areas. According to Bray (2001), “a major question for policy makers concerns ways to harness the resources and energies of prosperous communities while protecting and encouraging their less prosperous counterparts” (p.3). Thus, the need is indicated to monitor the impact of decentralizing management on income and social groups, and to identify measures to mitigate possible adverse effects. This, in turn, points to the need for a central authority to retain powers that can be employed to implement policies which favor areas most in need. Second, there is a danger that in a decentralized system, unnecessary duplication will occur in certain services (e.g., in policy to address the special needs of students with disabilities). To address this issue, it will be necessary to specify carefully the categories of decision that are most appropriately dealt with at the national and schools levels. Thirdly, there is a danger that elite groups in the islands will take control or dominate School Boards and committees on which parents or other stakeholders are represented. Also communities are not homogeneous in nature. There can be power imbalances and conflicts among them. Fourth, in small island communities the dynamics of social interactions can be particularly sensitive, as school officials and local stakeholders may be related through a complex network of official, social and personal networks. These need to be taken into account when school-based management programs are being designed for small-island countries [see Box 4.2 for an example].

The Effects of School-Based Management

4.8. The international research conclusions on the impact of school-based management are ambiguous. However, there are several countries in which the findings of recent research are positive [Barrera-Osorio et al (2009), Bruns et al (2011), World Bank (2008b)]. The evidence from such research is that school-based management policies: (a) changed the dynamics of the school, so that parents became more involved and teacher behavior changed; (b) had a positive impact on repetition rates, failure rates, and to a lesser extent dropout rates; and (c) impacted on standardized test scores. For example, in Mexico, a compensatory education program that provided
extra resources to disadvantaged rural schools and empowered parent associations had a positive impact on improving learning outcomes [Gertler et al (2006)]. In Nicaragua, the establishment of school-site councils (composed of teachers, parents, and students) that determined how all school resources were allocated and had the authority to hire and fire principals was associated with higher student test scores [Ozler (2001)]. In Indonesia, in the “Creating Learning Communities for Children” project, in which schools were given a small budget, teachers were provided with professional development programs relating to new approaches to curriculum and teaching, parents were encouraged to support their schools, the school experience of students was “invigorated”, and

Box 4.2  School-Based Management in the Seychelles

Seychelles is a multi-island state located in the western Indian Ocean, and comprising 115 islands scattered with a land mass of 445 square kilometers. About 88 percent of the total population lives on the island of Mahé, which accounts for approximately 35 percent of the total land area. The country has one of the smallest populations in the world, approximately 89,000 people. It is a middle-income country, with a GNI of US$ 9,760 in 2010. The key sectors of the economy are tourism and fisheries.

A school-based management program called the Seychelles School Improvement Program was instituted in the 1990s to improve the quality of teaching and learning and student outcomes by creating a culture of self-evaluation and collaborative planning in schools, and empowering staff to manage the process of change within their schools, with support from external agents. The main strategies used were: (a) the institutionalization of the process of development planning, (b) the promotion of school-based professional development, (c) the promotion of greater community participation, and (d) the strengthening of school leadership.

To support the program, a secretariat for the School Improvement Program was established in 1995. School improvement coordinators were appointed in 1996 to assist schools with the school improvement process on regional basis. The schools’ improvement teams (SIT), which were usually led by principals, were formed as school-level and broad-based teams. They were responsible for planning and implementation of the school development plans. For further reinforcement, a professional development facilitator at each school was appointed. They were generally experienced senior teachers, and they were additionally responsible for planning and implementing professional development activities specified in individual school plans.

The implementation experience of the Seychelles School Improvement Program found that in some schools leaders were able to implement the program well. However, the social dynamics of small communities needed to be taken into consideration. Due to the culture of small communities, some leaders were reluctant to openly confront members of SITs. This was especially the case when the members of the team were their past colleagues or persons well known to them personally. Hence, the complexity of social interactions in small communities needs to be taken into account when school-based management programs are being designed.

dramatic improvements in attendance rates and test results were recorded [Caldwell (2005)]. In Sri Lanka, a school-based management pilot program introduced in 2006 allowed school communities, such as principals, teachers, parents, past pupils and local well-wishers, to raise resources to supplement the resources provided by the government for learning improvement activities. This program was very popular with school communities, and over time had a positive effect on the learning outcomes of primary school children [Aturupane and Deolalikar (2011)]. School-based management programs in Kenya and El Salvador have also showed a positive relationship with learning outcomes [Barrera-Osorio et al (2009)].

4.9. Three general conclusions can be drawn from studies of school-based management. First, a major focus of decision making in the school should be on teaching and learning and how to support them, building staff capacity to deliver a curriculum and pedagogy that identifies the needs of students, meets those needs, and monitors outcomes. Secondly, it is essential that the capacity of parents and community (including past pupils associations, local well-wishers and philanthropists, leisure groups) be developed to support the efforts of schools [Barrera-Osorio et al (2009)]. Thirdly, school-based management needs to be supported not only by parents, teachers and community members, but also by local and national governments. The government still has an important role. The division of decisions and responsibilities between the national and school levels needs to be done with care [Bruns et al (2011)].

4.10. The evidence from other countries shows that the successful implementation of school-based management has been associated with a number of factors [World Bank (2011c)]. They include:

- a strong commitment and leadership of the principal and teachers to the values of school-based management;
- a school plan prepared and its implementation monitored;
- a wide range of extra-curricular activities provided for pupils (e.g., dance, music, sport, gardening);
- increased community involvement in the school;
- regular meetings between teachers and parents to monitor and discuss the progress of individual pupils;
- regular visits to the schools by zonal and divisional officers to participate in committees, to advise on teaching methods, and to assist in development and implementation of the school plan; and
- a shift in teachers’ minds from inputs to the quality of student learning.
SCHOOL-BASED MANAGEMENT REFORMS IN THE MALDIVES

4.11. The school based management policy, although in its infancy, is a popular initiative in the Maldives [see Box 4.3]. The MoE has introduced a circular to establish school boards to promote school based management. Each school has a school board which comprises of the principal, and representatives from among leading teachers, teachers, parents, and the atoll education administration. Schools receive a budget to improve the quality of education. Staff salaries are paid from this budget. Net of salaries, schools are able to decide how the budget will be allocated for development activities. Generally, schools use the budget to improve physical facilities and to purchase teaching and learning materials.

Box 4.3 School-Based Management and Education Development: Voices of Education Stakeholders in the Raa and Seenu Atolls

“We think school-based management is a good idea. This strengthens the power of our ownership and we easily become more responsible for educational matters.”

(Focus group discussions with parents)

“The School Board Operations Manual describes our roles, but we need to discuss and understand our responsibilities better. Some Board members may not fully understand their roles and responsibilities yet.”

(Focus group discussions with school board members)

“We can say parents at these schools are supportive. But some parents think that they should have more room to discuss and contribute to school management.”

(Focus group discussions with leading teachers)

“We have professional development coordinators in our schools. School-based (teacher) professional development needs to be conducted on a regular basis. Although we are given chances to conduct such school-based teacher development and participate in workshops, we need more professional and subject related development.”

(Focus group discussions with teachers)

“Child-Friendly Baraabaru Schools (CFBS) promote self-improvement at the school level. This year we decided to focus on one dimension of CFBS, child-centered teaching and learning. Before it was teacher-centered, but now it has become child-friendly and child-centered teaching and learning.”

(School Principal)

“Educational decentralization is ongoing, but should be strengthened more. Only limited responsibilities have been devolved to the atoll level. Central ministry still holds two major responsibilities: human resources and budget. Greater devolution of responsibilities for human resource management and budget, in support of school-based management, would improve procedural efficiency.”

(Head of Education Atoll Unit)
4.12. The recent policy initiative, quality indicators for Child-Friendly Barrabaru Schools (CFBS), stresses that the participation of the school stakeholders in school management is one of the most important factors in increasing the quality of education. The CFBS program currently focuses mainly on primary schools. The quality assurance framework of this program, however, can be expanded to cover secondary education as well. The overall quality assurance work can then provide the foundation for quality enhancement under the school-based management program. However, the differences in abilities of school boards and stakeholders, especially parents and community representatives across the various atolls and islands, will need to be taken into account in the future development of school based management. Clarity of guidelines and policies, and capacity building of local stakeholders, will be essential.

STRENGTHENING SCHOOL-BASED MANAGEMENT: POLICY OPTIONS FOR THE FUTURE

4.13. Policy makers in the Maldives can consider a sequence of policy options to strengthen school-based management in the future.

4.14. The type of school-based management that is most appropriate for the Maldives from among the four main models, or a combination of these models, has to be selected. Discussions with government policy makers and school communities suggests that the Professional Control model, where teachers play a key role in the management of schools under the leadership of the principal, may be the preferred option, especially for the outer atolls and islands. The principal and teachers are typically by far the most qualified individuals on the outer atolls and small islands, and can guide and mentor parents and local community representatives on school boards. In more developed atolls and islands it would be possible for parents and local community representatives to play a stronger role on school boards, so that elements of the Balanced Control model can also be incorporated. As seen repeatedly in the experience of other countries, strong commitment and leadership of the principal and teachers to the values of school-based management have to be assured to promote stakeholder involvement and to improve the efficiency and effectiveness of the management of schools.

4.15. The specific roles and responsibilities of school boards, as well as of education officials at the island, atoll and central levels, need to be clearly defined. The principle of subsidiarity could be applied in the definition of roles and responsibilities, where all functions that can be executed by the most decentralized unit of management should be implemented at the level of this unit, and only functions that cannot be executed at this level should be passed upwards to a larger management unit. In the context of the Maldives this would mean that all functions that can be executed at the school level should be implemented by schools. Functions that cannot be executed at the school level could be implemented at the island level where an island has multiple schools, or in most cases where islands have only one school, at atoll level. Only functions that cannot be executed at the atoll level would be passed upwards to the central level in Male'. The role of the
Ministry of Education in Male’ would mainly be to support the local school boards through the atolls [an example of an education system where the central Ministry of Education has a special unit to support local school boards is given in Box 4.4]. The application of this principle would have the considerable merit of cost-effectiveness, as there are a large number of small and scattered single-school islands which are costly to administer above the island level.

4.16. Island and atoll communities will need sensitization and capacity building to play their roles on school boards and on any school committees and councils. This is a vitally important step. The managerial capacity of principals, teachers, parents and any other local community organizations, such as past pupils associations, will need to be built so that they can play a constructive role in the planning, delivery and monitoring of educational services in schools. The capacity building efforts will also have to be tailored to meet the varying needs of atoll and island communities. For instance, in the more developed areas of the country, such as Kaafu (Male’) and Seenu Atolls, there will be more educated parents available to contribute intellectually to the development of their atoll schools. In less developed atolls, and particularly the outer islands of these atolls, the education levels of parents are normally less advanced, so that greater capacity building will be needed. In addition, the capacity of education officials at the island, atoll and central levels to support school-based management and enable school boards to perform creatively and efficiently will also need to be developed.

4.17. School-based management would need to be linked up with other education development initiatives, such as the quality assurance program. Many aspects of quality assurance, such as the school self-review process, fit well within the framework of school-based management. In fact, the quality assurance program could be viewed as the main quality dimension of school based management. In addition, school boards and community members could be enlisted to facilitate

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Box 4.4 School Boards and Central Government Support in Trinidad and Tobago

Trinidad and Tobago is a twin island State of about 1.3 million people, with a net enrollment rate in 2009 of about 93 percent for primary education and 66 percent for secondary education. To improve quality and efficiency at school level, and especially at the secondary level, the government has established a platform for effective school-based management. As a part of this initiative, local school boards were established. A school boards unit was set up within the MoE to support the local schools boards. The school is regards as a major site of teacher development. Training for teachers is implemented within the context of school-based management programs. The school-based management program facilitates teachers to continuously develop their knowledge through school-based teacher development activities including collaborative teaching and evaluation. Such activities encourage teachers to collaborate and learn from each other and helped to improve the quality of secondary education.

Source: MoE, Trinidad and Tobago.
the development of the “soft skills” or character traits and personality traits that are needed by employers. For instance, school boards could help to organize extra-curricular and co-curricular activities, which develop soft skills, across islands and atolls. School boards could also help link senior students with employers by inviting representatives of firms, including hotels and tourist resorts, to communicate the types of skills and competencies required by their organizations to students, parents and teachers. Interested employers may also provide opportunities for in-plant training for senior school completers.

4.18. **School report cards could be introduced to provide an information feedback loop for education service providers and users.** School reports cards are useful tools for decision-making by principals, teachers, school boards and parents. The information in school report cards can motivate education reform and development at all levels, including schools, atolls and the nation. School report cards could include the following data:

- Student information (enrolment, attendance, dropout, repetition, transfer);
- School characteristics (teachers’ information, class size, school facilities, school resources, school management, extra and co-curricular activities);
- Student performance (test scores, examination pass rates, performance in extra-curricular and co-curricular activities); and
- Evaluations and feedback by parents and school boards on school performance, issues and development initiatives.

4.19. Some countries in South Asia have introduced school report cards. For instance, India has successfully developed school report cards for more than 1.3 million primary and upper primary schools. The report cards contain qualitative school information and a descriptive report about individual school characteristics, in addition to quantitative school information such as student flows and teacher information. Information about school report card in all schools can be accessed publicly. Sri Lanka is in the process of developing a school-report card program linked to Sri Lanka's school-based management initiative, the Program for School Improvement. Chile has had census-based student assessment systems that publicly report the results of school performance. In the case of Namibia, parents and school councils are involved in writing their own school report cards and school improvement plans. Findings from the school report card and assessment are disseminated to school management teams, summarized at the regional levels and used as a diagnostic tool for educational management at all levels.

4.20. **Finally, it would be useful to undertake a rigorous impact evaluation of school-based management to guide policy makers as the program evolves.** The evaluation could focus initially on processes and intermediate outcomes, such as the formation and capacity building of school boards and government officials, followed by the types of educational activities that are undertaken by schools. Final outcomes, such as improved cognitive skills and soft skills, could be assessed later after the program has been in operation for some time. The evaluation design would also need
to be undertaken carefully. Schools could be phased into a school-based management program over time, so that a set of control and treatment schools would be available from the start. This approach would also make the program itself easier to implement, as the capacity building of school communities could be undertaken progressively as schools are phased into the program.
BIBLIOGRAPHY


The World Bank
1818 H Street, NW
Washington, DC 20433
USA
Telephone: 202-473-1000
feedback@worldbank.org
www.worldbank.org

The World Bank
Maldives Country Office
2nd Floor, Hithigasdhoshuge Aage
Hakuraa Goalhi, Heneiru
Male’ 20094, Republic of Maldives.
Telephone: +960 334 1909-10
Facsimile: + 960 334 1911