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**Beyond Primary Education:  
Challenges and Approaches to Expanding Learning Opportunities in Africa**

**Session 1**

**Introductory Presentations**

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**An African Exploration  
of the East Asian Education Experience**

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*By Birger FREDRIKSEN and Jee Peng TAN*

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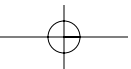
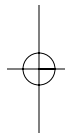
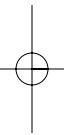
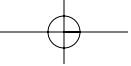
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# An African Exploration of the East Asian Education Experience

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# An African Exploration of the East Asian Education Experience

Edited by Birger FREDRIKSEN  
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# Contents

*Foreword* vii

*Acknowledgments* ix

*About the Authors* xi

**CHAPTER 1. EAST ASIA EDUCATION STUDY TOUR:  
AN OVERVIEW OF KEY INSIGHTS**

*Birger FREDRIKSEN and TAN Jee Peng*

**CHAPTER 2. EDUCATION IN AFRICA:  
KNOWLEDGE MAKES THE DIFFERENCE**

*Mamadou NDOYE*

**CHAPTER 3. EDUCATION IN SINGAPORE:  
DEVELOPMENTS SINCE 1965**

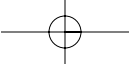
*GOH Chor Boon and S. GOPINATHAN*

**CHAPTER 4. EDUCATION IN VIETNAM:  
DEVELOPMENT HISTORY, CHALLENGES, AND SOLUTIONS**

*NGUYEN Quang Kinh and NGUYEN Quoc Chi*

**CHAPTER 5. EDUCATION IN THE REPUBLIC OF KOREA:  
APPROACHES, ACHIEVEMENTS, AND CURRENT CHALLENGES**

*Chong Jae LEE*



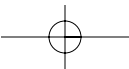
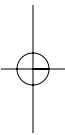
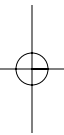
vi • Contents

**CHAPTER 6. EDUCATION IN THAILAND:  
IMPROVING SECONDARY EDUCATION**

*Luis BENVENISTE*

**CHAPTER 7. EDUCATION IN IRELAND: EVOLUTION OF ECONOMIC  
AND EDUCATION POLICIES SINCE THE EARLY 1990s**

*Daniel O'HARE*





## Foreword

**N**elson Mandela, one of Africa's foremost elder statesmen, once remarked that education is the most powerful weapon you can use to change the world. This belief in the power of education is widely shared by ordinary African parents who, like parents everywhere, make extraordinary sacrifices to secure an education for their children in the hope of equipping them for a successful future. The sentiment was resonated in the 2006 decision by the Heads of State and Government of the African Union to launch the Second Decade of Education for Africa and it motivates many African governments to invest substantial shares of their national resources in education.

The concerted effort of Africans and their governments and development partners has produced good progress in recent years, particularly in ensuring that all African children are given the chance to complete a full cycle of primary schooling. But Africa is impatient for faster and broader progress—not just in primary education but across the whole education sector, including higher level technical and vocational education and training. Underlying this impatience is the widespread recognition that a good and strong education system has the potential to foster social cohesiveness as well as deliver the skills required by individuals and nations to succeed in today's global economy.

In their quest for educational development, African leaders are keen to examine the experience of other countries for possible adaptation to their own contexts. The story of East Asian countries holds special appeal in this regard. Four or five decades ago many of these countries started from conditions quite similar to those of African countries, and since have managed to turn their colonial-era systems into highly effective instruments for national development. They have grappled with and overcome many of the difficulties faced by most African countries today: seemingly impossible trade-offs in the allocation of scarce public budgets; severe shortages of teachers and large shares of underqualified staff; overcrowded and inadequate school facilities; overburdened and irrelevant curricula; scarcity of good

learning materials; misalignment between the education and training system and the job market; poor articulation between different parts of the system; and huge losses from wasteful patterns of student repetition, dropout, and poor learning outcomes. For Africa's policy practitioners, there is therefore a special interest in the approach adopted by their East Asian counterparts to address these problems.

Responding to this interest, the World Bank sponsored an education study tour to Singapore and Vietnam in June 2006. Among the participants were senior education policy makers from six African countries—Cameroon, Ethiopia, Ghana, Lesotho, Madagascar, and Mozambique—accompanied by World Bank staff working on these countries along with staff from partner organizations. The program included site visits and presentations on Singapore and Vietnam as well as presentations on Korea, China, Hong Kong (China), and Thailand. Importantly, it also created throughout the two-week period of the study tour ample opportunities for formal and informal exchanges, both between the study tour participants and their Asian counterparts and among the African policy makers themselves.

Out of this rich dialogue and joint-learning process emerged several important lessons about East Asia's development practice in education. Perhaps the most striking is the indispensable role assigned to the education and training system as a driver of sustained economic growth and social development. Investing to prepare the next generation for good jobs in tomorrow's economy should be treated as a long-term national priority. So clear is this vision that it motivates active and sustained leadership at all levels of government and encourages close coordination of effort in policy and program implementation across sectors and ministries. The focus is two-fold: ensuring a well-functioning system of schools and institutions that delivers student learning and skills development; and fostering appropriate mechanisms to link what is taught in institutions to what employers seek and value in their workers.

These insights from the study and their operational implications are elaborated in this book and in the companion volume copublished by the Singapore National Institute of Education and the World Bank and which focuses on the development of education in Singapore. Taken together, the two books capture information that should interest a wide range of readers regarding East Asian countries' experience in developing and positioning the education and training system as a source of economic strength and social progress. The hope is that lessons from this part of the world over the past four or five decades will both inspire and inform African countries' effort to shape their own path for educational development in the coming years.

Yaw Ansu  
Director, Human Development Department  
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This book was made possible by contributions from a large number of individuals and institutions associated with the June 2006 education study tour to Singapore and Vietnam. The tour was jointly organized by the Government of Singapore and the Human Development Department of the World Bank's Africa Region, in cooperation with the Government of Vietnam and the Human Development Department of the World Bank's East Asia and Pacific Region. The coeditors of this volume—a byproduct of the study tour—wish to acknowledge with thanks the special role of several groups of people.

First, the chapter authors, whose work has helped to consolidate the knowledge gained from the study tour for wider dissemination: Lee Chong Jae for the chapter on Korea, Goh Chor Boon and S. Gopinathan on Singapore, Luis Benveniste on Thailand, Nguyen Quang Kinh and Nguyen Quoc Chi on Vietnam, Daniel O'Hare on Ireland (a case study added for reasons explained in chapter 1), and Mamadou Ndoeye on education in Sub-Saharan Africa.

Second, the study tour organizers: on the Singapore side, special thanks are owed to a number of institutions and persons who worked tirelessly to make the tour a success. They include Anna Ng, Alan Ng, Wai Yin Ho, and G. Jayakrishnan of International Enterprise Singapore (IESingapore); Professors Sing Kong Lee and Leo Tan and their colleagues at the National Institute of Education (NIE); Dr. Song Seng Law and his colleagues at the Institute of Technical Education (ITE); Mr. Cheng Ton Lin and his colleagues at the Nanyang Polytechnic; and Professor Tommy Koh, Tin Fook Koh, Teng Hoe Chua, and Emilyn Poh at the Ministry of Foreign Affairs. In Vietnam, the design of the tour benefited from guidance from Christopher Thomas, Christopher Shaw, Jeffrey Waite, and Binh Thanh Vu, whose deep knowledge and contacts greatly facilitated the consultations with counterpart officials in the Vietnamese Ministry of Education where special thanks are owed to Hung Ngoc Nguyen of the International Cooperation Department. The generous hosting of the tour by the Ministry and by the staff of the institutions visited in

## x • Acknowledgments

Hanoi and Ho Chi Minh City added to its success. Help with event management came from Julieta Watlington, Mavis Ku, Linh Van Nguyen and Nguyet Minh Nguyen, whose collective efforts made the whole program of the study tour run like clockwork.

Third, the tour participants from the six African countries—Cameroon, Ghana, Ethiopia, Lesotho, Madagascar, and Mozambique—as well as the World Bank staff and those of other partner agencies working on these countries: their active engagement prior to the tour and in the formal and informal discussions during the tour have enriched the study tour program. Their valuable contributions, particularly in the summary session in which each country delegation presented their insights from the tour, have benefited the preparation of the overview chapter of this volume. While these participants are too many to name individually here, they are listed at the end of the book.

Fourth, our friends who helped improve the book and facilitated its publication: sincere thanks are owed to Christopher Shaw, for his collaboration with the two authors of the chapter on Vietnam to finalize the English version after translation from the original in Vietnamese; to William Saint, who reviewed in detail the whole manuscript and made many incisive suggestions for improvement; and to Richard Crabbe, Valentina Kalk, Abdia Mohamed, and Dana Vorisek for guiding us through the publications process.

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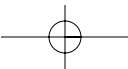
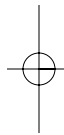
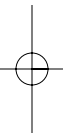
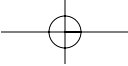
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## CHAPTER

## 1

# East Asia Education Study Tour: An Overview of Key Insights

Birger FREDRIKSEN and TAN Jee Peng

## INTRODUCTION

The study tour to Singapore and Vietnam began as an idea at a workshop on textbooks organized by the World Bank in May 2005. The workshop was designed for African countries to discuss the problem of textbook scarcity and options for overcoming it. At that workshop, a delegation from Singapore presented their country's 40-year experience with textbook provision, an experience that encompassed the transformation of a modest Ministry of Education unit struggling with its mandate to prepare and distribute high-quality textbooks with relevant content, into what is today an internationally competitive private sector publisher of multimedia learning materials. Several participants requested that a study tour to Singapore be organized to enable participants to examine the experience.<sup>1</sup> It soon became clear, however, that a study visit focusing on textbooks alone would be too narrow in scope. Instead, given the key role of education behind what economists have termed the East Asia miracle, it seemed more appropriate to seize the opportunity to learn not only about Singapore's approach to education sector development at the strategic and operational levels, but also about the experience of other East Asian countries that have made similarly impressive strides in education and economic development over the past few decades.

Accordingly, in June 2006, delegations of African educators from six countries (Cameroon, Ethiopia, Ghana, Lesotho, Madagascar, and Mozambique<sup>2</sup>)—each typically led by the minister of education or other senior policy makers and accompanied by World Bank staff and managers along with representatives of other development partners<sup>3</sup>—traveled to Singapore and Vietnam. These educators participated in a program that included site visits to education institutions in the host countries, attendance at presentations on selected aspects of education

## 2 • An African Exploration of the East Asian Education Experience

sector policies in these countries by local experts and policy makers, and participations in discussions with invited experts from China (the mainland), Hong Kong (China), the Republic of Korea, and Thailand.<sup>4</sup> As part of their pretour preparations, each country delegation drafted a short note summarizing the key education challenges in their country and their learning expectations for the visit. At the end of the tour, each delegation delivered presentations to the other participants that captured their impressions and lessons learned.

### OBJECTIVE AND DESIGN OF THE STUDY TOUR

The study tour program did not showcase the high standards attained by East Asian countries.<sup>5</sup> Instead, it focused on the choices and implementation strategies that have allowed these countries to propel their education and economic systems, over a period of 30 to 40 years, from a situation similar to that in many Sub-Saharan Africa countries, to their present standing among the more industrial countries of the world.<sup>6</sup> To make the best use of the limited time available during the tour, the agenda addressed four broad themes associated with noteworthy features of the East Asian experience over the past few decades:

- The education sector's central role in nation building and national development
- Rapid scale up of basic education of good quality for all
- Management of the pressures on postprimary education as progress toward universalizing primary education was made
- Alignment between education and the economy, particularly at the postbasic education levels and in technical and vocational fields where responsiveness to labor market needs are especially important to support economic growth

The last of the themes listed above attracted the most interest, given the success of East Asian countries in fostering dynamic, responsive, and productive links between the education system and the economy. For the past 5 to 10 years, many African countries have achieved sustained economic growth averaging about 5 percent a year, a clear break from the nearly two decades of economic decline and stagnation that occurred from the mid-1970s to mid-1990s. Yet this growth remains fragile and probably too slow to reduce poverty on a large scale. An emerging consensus is that getting onto a path of faster and more sustained growth will require a more strategic, proactive, and systemic approach to skills development in Africa than has been adopted to date. In this regard, East Asia's decades-long experience offers an interesting laboratory of successful experimentation with policy design and implementation. The study tour program thus created opportunities for participants to interact with practitioners of technical and vocational training institutions during site visits to training facilities in Singapore and Vietnam and through discussions with the experts who made formal presentations.



## OVERVIEW OF THIS BOOK

Because the lessons distilled by the study tour participants are interesting to other African countries, this book collects a set of papers associated with this study tour. This introductory chapter summarizes the insights from the visit and relates them to the education challenges faced by countries in Sub-Saharan Africa today.<sup>7</sup> Chapter 2 contains a detailed discussion of these challenges, including an analysis developed from a presentation offered during the study tour. The three chapters that follow—on Singapore, Vietnam, and the Republic of Korea—were commissioned as background papers for the study tour. Chapter 6 on Thailand is based in part on the presentation made during the tour and on information from ongoing analytical work by World Bank colleagues. Although the inclusion of Ireland in a volume on Asia may be surprising, it was motivated by the resemblance of the country's spectacular economic development over the past few decades to the experience of its high-performing counterparts in East Asia (which also explains why it has been nicknamed the "Celtic Tiger"). Many of the problems Ireland has confronted parallel those experienced in Africa, and its skill development strategy shares additional similarities with Asia. Fortunately, a paper on the Irish experience had been commissioned for other World Bank work and was readily available for adaptation to suit the purpose of this book.

## ORGANIZATION OF THIS CHAPTER

This chapter draws on other chapters in this book and adds insights from the rich discussions held during the study tour—among the participants themselves, as well as between them and their East Asian counterparts. The formal and informal exchanges and question-and-answer sessions during the tour exemplify the value of a well-planned program to provide a framework for structured conversations. Many of the approaches summarized below arose out of these conversations. These interventions may not be directly applicable to the specific education challenges of African countries, but they do represent a source of practical know-how about education strategy and reform, and thus inspire successful leadership and management of the sector's transformation. The experience of East Asian countries over the past few decades contains useful lessons that are worth exploring as African policy makers seek to reform and improve their education systems.

Although East Asian countries fit no single model of success, the policies and strategies they followed in the education sector share a few critical features. *Adaptability* is one such feature. These countries invariably customize the reform effort to their initial national conditions and continue to adapt it as conditions inevitably evolve. *Pragmatism* is another important commonality. A pragmatic approach puts flexibility in pursuit of an agreed development objectives above national pride or ideological dogmatism. This approach embodies a willingness

to learn by doing and to improve implementation by closing the feedback loop to capture lessons learned. Attention to building national *institutional capacity* is a third common factor. The leaders of East Asian countries understood the value of technical expertise as well as the importance of building a *national consensus* around the policies adopted. These countries have systematically built their own national capacity in these dimensions to better develop and implement sound policies and strategies. They also used *foreign assistance* strategically in the education sector to support their national policies. Within the education and training system, the high priority given in the early years to *adult literacy and universal primary education* is particularly noteworthy. Additionally, the constant attention paid over the last decades to developing a *technical and vocational education and training* (TVET) system has enabled these countries to consistently upgrade this system to respond to rapid changes in the skills demanded by the economy. Finally, education success in East Asian countries hardly would have been possible without the support of more general factors such as *sound macroeconomic policies* and *strong, committed political leadership*.

These common features are an admittedly stylistic and simplified description of the diversity of experiences in the region. Yet they capture well some of the key factors behind East Asian countries' success in achieving *consistently high rates of long-term economic growth* and in *rapidly raising the quality of their human resources*. The interaction between economic and human resources development and the mutually reinforcing nature of their relationship are among the most admirable features of the East Asian story.

This complex narrative unfolds as follows. The next section elaborates on the enabling conditions that contextualized education development in East Asia. This discussion is followed by education sector priorities, policies, and strategic choices in East Asian countries, and highlights of key features in their approaches to policy implementation. In each of these areas, the region's developmental experience yields interesting insights into the sources of the region's extraordinary progress in education. The last section provides a summary of participants' impressions of the study tour as reflected in their final presentations and includes a tentative agenda for follow-up.

## **ENABLING CONDITIONS FOR EDUCATION DEVELOPMENT IN EAST ASIA**

Foremost among the enabling conditions for education development are the following: (a) high rates of economic growth; (b) the emphasis on "shared growth" in the countries' overall development policy; (c) rapid demographic transition; and (d) strong public institutions. Success in establishing these (and other) enabling conditions provided the bedrock for successful education policies, which

in turn nurtured these conditions, thereby creating a virtuous cycle of mutually reinforcing interactions. To be specific, rapid economic growth generated the domestic resources necessary to finance a scaling up of education development, which in turn boosted economic growth by providing the skilled labor required to raise productivity. These enabling conditions did not materialize by chance. Creating and sustaining these conditions was the result of deliberate and persistent effort guided by visionary and determined political leadership, an effort that was arguably even more strenuous than that required for success in the education sector.

### RAPID ECONOMIC GROWTH

A full explanation of the extraordinary economic success of East Asian countries is not included in this chapter.<sup>8</sup> But clearly, this success facilitated the development of education in a way that is generally absent from the experience of most African countries during the last quarter of the twentieth century. Between 1970 and 1997, per capita gross domestic product (GDP) in East Asia rose by 355 percent (from US\$157 to US\$715 in constant 1987 U.S. dollars), or at a rate of 5.8 percent a year. By contrast, it *declined* over the same period by 36 percent in Sub-Saharan Africa (from US\$525 to US\$336 in constant 1987 U.S. dollars) (World Bank 2000, 8).<sup>9</sup> This decline was uneven, however. Per capita GDP had actually been expanding up until the first “oil-shock” in 1973. It then stagnated between 1973 and the second oil-shock in 1980, which was followed by a long decline that lasted until the mid-1990s. Thereafter, and especially since around 2000, growth has picked up in a significant number of African countries.

Looking at individual countries, per capita GDP was US\$104 in Korea in 1962, US\$430 in Singapore (which is a small urban nation state), and US\$117 in Thailand, compared with Sub-Saharan Africa’s average of US\$142 (World Bank 2001b). During the 34-year period between 1965 and 1999, the per capita GDP grew at an average rate of 6.6 percent a year in Korea, 6.3 percent in Singapore, and 5.1 percent in Thailand. Thus, measured in constant prices, at the end of this period, the per capita GDP had multiplied by a factor of 7.8 in Korea, 7.0 in Singapore, and 4.4 in Thailand (World Bank 2001a), 25–26). Of the 35 Sub-Saharan African countries for which data are available for the same period, 19 experienced a decline in their per capita GDP between 1965 and 1999, including three of the six countries that participated in the study tour, namely, Ethiopia (declining at  $-0.3$  percent a year), Ghana (at  $-0.7$  percent a year), and Madagascar (at  $-1.7$  percent a year). The other three countries underwent modest increases: Cameroon (at  $+1.1$  percent increase a year), Mozambique (at  $+1.3$  percent a year), and Lesotho (at  $+2.8$  percent a year) (World Bank 2006).<sup>10</sup>

These dramatic differences in economic performance between countries in East Asia and in Sub-Saharan Africa affected the education sector in a number of ways.

Below we highlight how they affected the countries' ability to (a) finance education development; (b) implement politically difficult education reforms; and (c) generate employment for school leavers and graduates.

*Impact on Education Financing.* Early on, East Asian policy makers demonstrated their strong commitment to education by allocating increasing shares of the GDP for investments in education. African policy makers made a similar choice and, on average, the share of the GDP devoted to education in Sub-Saharan African countries has exceeded that in East Asian countries.<sup>11</sup> However, these comparable levels of financial commitment to education translated into different trajectories in terms of the governments' actual ability to pay for education. East Asia's steady increase over time in education's share of GDP, combined with strong economic growth, produced a sustained increase in the absolute size of the education budget. By contrast, in Sub-Saharan Africa, the steady increase in the share of GDP devoted to education was undercut by economic stagnation or decline, which implied slow-growing or even shrinking education budgets in real terms. As will become clear, the differences in economic growth have had a profound impact on countries' ability to manage classroom conditions (for example, by avoiding excessively high pupil-to-teacher ratios) and, perhaps most important, to finance the wage bill for teachers.

In the context of Sub-Saharan Africa's current efforts to reach Education for All (EFA) targets, the impact of economic stagnation on the countries' ability to finance universal primary education is particularly illuminating. Between 1960 and 1980, Sub-Saharan Africa's gross enrollment ratio (GER) grew from 45 percent to 80 percent, and enrollment rose by 260 percent, a rate of expansion hardly experienced over a 20-year period in any other region at any time. Unfortunately, the next two decades of economic stagnation and decline severely constrained public budgets,<sup>12</sup> which stifled education supply. This stagnation forced governments to resort to the use of fees to mobilize resources for education, which increased private costs and reduced education demand. The GER declined from 80 percent in 1980 to 72 percent in 1992, and only slowly regained its 1980 level by 2000. The 70 percent expansion in enrollment during the period from 1980 to 2000 was barely sufficient to absorb the increase in the primary-school-age population that occurred during this 20-year period, thus leaving the GER unchanged.

The adverse impact of economic stagnation, when combined with rapid growth in the population of school-age children, is reflected in the pattern of primary education development in individual countries. In addition to the countries with a sustained GER above 100 percent,<sup>13</sup> at least nine other countries reached a GER exceeding 100 percent sometime during the period 1965–1985. In these nine countries, however, the GER dropped well below 100 percent by the mid-1990s, including three of the countries that participated in the study tour.<sup>14</sup> The

resumption of economic growth in the late 1990s has facilitated a strong rebound in primary enrollment growth in most Sub-Saharan African countries.

*Impact on the Political Economy.* East Asian countries have been able to establish and implement clear national education priorities, even when this has required difficult tradeoffs unfavorable to better-off groups (for example, giving strong budgetary priority to primary rather than higher education). Sub-Saharan African countries generally have been less successful in this regard. Although they have made many attempts, these initiatives have remained largely rhetorical.

Various factors explain why some countries are more successful than others in moving from political rhetoric to actual policy implementation. One factor that may not be sufficiently recognized in explaining Sub-Saharan Africa's often weak performance in this area is the impact of economic stagnation on these countries' political ability to successfully implement reforms. Most Sub-Saharan African countries are challenged by high unmet social demand for education, fueled by young and fast-growing populations, and slow-growing, largely rural-based economies. These economies do not generate the tax revenues necessary to achieve universal primary education and also provide publicly financed secondary and higher education in response to social demand. Nor do they generate the modern sector jobs that graduates seek. In fact, many countries are trapped in a vicious circle in which a low skill base constrains economic growth and, in turn, low growth severely limits their fiscal potential to improve skill levels and create the political space necessary to introduce difficult education reforms. East Asian countries managed early on to avoid this vicious circle by setting clear priorities for their public education spending and managing their cost structures (for example, teacher salaries, class size, and use of double-shift teaching) to ensure the early universalization of primary education.

Three examples will illustrate the difficult political economy of education reforms in slow-growing, low-income Sub-Saharan African countries. First, in the absence of growth, increased public expenditures to reach EFA often require redistribution of the benefits generated by the present use of public budgets, away from postprimary education—which favors the better-off population groups—and in favor of those who are not entering primary schools, that is, largely the rural poor who have a weak political voice. Such redistribution of a shrinking pie is difficult politically, especially when the children of those in charge of implementing the change would be the principal losers. Second, contrary to many Asian countries in the early stage of their development, Sub-Saharan African teachers generally have strong unions, and the success of education reforms depends on their support. This is difficult to obtain when teacher salaries are falling as noted above. Third, to successfully participate in the knowledge-based global economy, Sub-Saharan African countries must revitalize their higher education subsector. For most countries, this means limiting access to the many traditional academic programs that

respond poorly to current job opportunities and prioritizing quality improvement and the labor market relevance of all programs. Again, to develop and implement such reforms requires strong political commitment and an ability to provide alternatives to deal with student opposition.

In short, many of the nonimplemented education reforms long advocated by African politicians become controversial and politically risky in the absence of economic growth. Not to pursue reforms, however, also has a serious cost. This cost takes the form of slower economic growth, low job generation for a rapidly growing population of youth, a high degree of inequity in access to education, and a risk to social stability. The East Asian countries have demonstrated ways to overcome such obstacles to reforms, generally through a combination of factors such as good technical preparation, development of political commitment, strong advocacy in relation to the public, and consensus building with key stakeholders. Thus, the resumption of economic growth in Sub-Saharan African countries may remove one of the major obstacles to success in education reforms.

*Impact on Job Creation for Graduates.* Complaints about the weak capacity of the education system to produce graduates that are “employable” is a common topic of education policy discussions throughout the world and, especially, in Africa. As will be discussed, East Asian countries have a particularly good track record in adapting their education programs to their rapidly changing labor market demands. But this effort would have had little impact on employment if they had not also generated high economic growth and created the flexible labor markets needed to translate this growth into effective demand for skilled labor.

Korea’s development illustrates well the workings of this virtuous circle originating from strong economic growth, well-functioning labor markets, and an education system responsive to labor market demands. In the early 1960s, Korea was saddled with an excess supply of low productivity, low skilled labor. By 1967, a shortage of skilled labor had begun to be felt as a result of accelerating growth, and by the late 1970s, the labor market was tight for most categories of workers. As these pressures increased, they created incentives to improve the quality of both labor and employment. Consequently, an increasing number of Koreans found work in professional, technical, and clerical jobs, and fewer found work in manual jobs. This led real wages to grow by 6.7 percent a year on average between 1960 and 1985, which means that real wages over a 25-year period were multiplied by a factor of four. During the 1980s, the differences in earnings between lower- and higher-paid workers narrowed, caused partly by the rapid increase in the supply of skilled workers (World Bank 1987). In short, as summarized in chapter 5, “Korean education owes much of its rapid expansion to economic growth, which provided the financial resources and job opportunities for recent university graduates.”

## EMPHASIS ON SHARED GROWTH

Shared growth is an important principle of the strategies followed by East Asian countries to reach national consensus on the policies required to achieve high economic growth. “To establish their legitimacy and win the support of the society at large, East Asian leaders introduced the principle of shared growth early on . . .” (World Bank 1993, 13).

Explicit policies and mechanisms were established to implement this principle. Some of these policies will be highlighted in the discussion of institutional factors. Although these policies varied by country, and extended well beyond the education sector,<sup>15</sup> rapid development of education was a common—and arguably the most important—instrument to achieve the objective of shared growth. Thus, in addition to investing in education to develop the human capital required to sustain the economy, the configuration of these investments also reflected a desire to ensure that the benefits from growth were shared among all population groups (see chapters 3–7 for examples of such policies). Rapid attainment of universal adult literacy and primary education was particularly important in this regard. Early universalization of primary education ensured that the gender gap in education was closed more rapidly in East Asia than in other developing countries. In turn, this enhanced the “equalizing effect” of growth by improving women’s access to gainful employment. It also allowed women, families, and society to take advantage of the universally accepted benefits associated with the education of girls and women.

As a region, Sub-Saharan Africa has perhaps the world’s highest income inequality.<sup>16</sup> In addition, the region’s stagnant economies have not provided much growth to share. Furthermore, Sub-Saharan African countries have not been as propoor as East Asian countries in the pattern of their public expenditures on education. Sub-Saharan African countries put less emphasis on universalizing adult literacy and primary education, and they do not rely as heavily as East Asian countries on private financing for tertiary education. For example, in 1965, primary education received 58 percent of the education budget in Singapore, 66 percent in Thailand, and 66 percent in Korea. The corresponding share for Sub-Saharan African countries averaged 49 percent in 1970, and it fell to 44 percent in 1975 and 1980 (World Bank 1988).<sup>17</sup>

This difference in policy emphasis has major implications for the distribution of public education expenditure across population groups. For example, late-1990’s data for eight Sub-Saharan African countries show that the 20 percent of the population with the highest income received 34 percent of public education expenditures, whereas the poorest 20 percent received only 12 percent. For countries such as Malaysia, the distribution is the reverse: about 28 percent is allocated for the poorest 20 quintile of the population, and 11 percent for the richest.

As the demographic transition in East Asia got under way, the primary-school-age population fell while that of older cohorts of youth rose, and the relative distribution of education budgets shifted as well. As a result, by 1995, the share of the education budget devoted to primary education had decreased to 26 percent in Singapore, 45 percent in Korea, and 50 percent in Thailand.

### RAPID DEMOGRAPHIC TRANSITION

East Asian countries' rapid transition from high to low fertility rates helped to accelerate both education and economic development in these countries. In turn, rapid development of the education system and the economy are major factors in determining the onset and speed of fertility decline. The resulting decreases in family size and in the overall magnitude of the primary-school-age population made it possible for families and governments to spend more per primary school student and gradually shift their resources to postprimary education.

The impact of the demographic transition on the size of the primary-school-age population began to be felt at different points in the four East Asian countries covered by the papers in this publication. In Singapore, this population expanded at 0.4 percent a year between 1965 and 1970, and then decreased by 1.8 percent a year during 1970–85.<sup>18</sup> In Korea, it also increased between 1965 and 1970—in this case, by 2.5 percent a year—and then declined during 1970s and into 1985, at a rate of 0.6 percent a year. Thailand's school-age population increased sharply between 1965 and 1975, at an average of rate of 2.9 percent a year, and continued to grow between 1975 and 1980. But the rate of increase was already tapering off at 0.8 percent a year. In the early to mid-1980s, the growth rate was negative (Lockheed and Verspoor 1990, 166–67). In Vietnam, the decline in the primary-school-age population started in the 1990s and is projected to fall by 20 percent between 2000 and 2012. Clearly, this decline facilitates Vietnam's ongoing efforts to reduce class size and increase spending per student in primary education, as well as to attain its goal of universal lower-secondary education by 2010.

Several attempts have been made to estimate the benefits that East Asian countries accrue as a result of their rapid demographic transition. One such estimate compares the share of GDP actually allocated to primary education in Korea, Singapore, and Thailand with what would have been required if the school-age populations in these countries grew as rapidly as those in Kenya (at that time, probably the fastest-growing population in Sub-Saharan Africa) (World Bank 1993, 195).<sup>19</sup> The estimates suggest that Korea would have had to allocate 5.6 percent of its GNP to primary education rather than the 2.8 percent it actually allocated, that is, twice as much. The corresponding estimate is 4.2 percent for Singapore compared with the actual allocation of 2 percent, and 3.9 percent for Thailand, compared with the actual allocation of 2.6 percent.



Because of several factors, including the scarcity of quality family planning services and low contraceptive prevalence levels, the benefits of an early and rapid demographic transition have not been available to Sub-Saharan African education systems. Thus, in most countries, this transition is only in its early stages. On average, the region's primary-school-age populations expanded by about 95 percent between 1960 and 1980 (an average rate of 3.4 percent a year) and by about 70 percent between 1980 and 2000 (an average rate of 2.7 percent a year). Even though the school-age population is now growing less rapidly in this region than before, the demographic momentum of past high fertility and the slow transition to lower fertility imply that Africa's primary-school-age population will continue to grow for some time to come. Sub-Saharan Africa's school-age population is thus projected to grow by 24 percent between 2000 and 2015 (that is, at an average rate of 1.4 percent a year), compared with a *decrease* of 13 percent in East Asia over the same period.

### STRONG PUBLIC INSTITUTIONS

Institutional strength is the last enabling factor that we identify as a key factor behind East Asia's success in education. Building effective public institutions is a complex task and the insights from this study offer only a glimpse into how different institutions were created, how they evolved, and what role they played in facilitating education development in each setting. Furthermore, this glimpse is limited by the fact that it comes mostly from the visit to Singapore, and development experience clearly shows that, in this area as in others, one size does not fit all.

Notwithstanding the above reservations, the study tour generated some useful perspectives that may be of particular interest to African countries, particularly given their ongoing struggle to build and retain institutional capacity, including in the education sector. These insights are presented below under three related rubrics: (a) political will and visionary leadership; (b) quality of the civil service; and (c) consultative and consensus-building mechanisms.

*Political Will and Visionary Leadership.* The crucial importance to education development of strong political will at the highest political level is underlined in all the presentations as well as in the overview papers, including the one for Ireland. For example, Ng states that "[t]he economic and education success of Singapore did not happen by accident. Strategic planning, a strong political will and stable government are key factors in charting the success of Singapore" (2006, 1). As underlined elsewhere in this chapter, strong political will manifests itself in many ways: (a) in the governments' overall policies, including the volume of resources devoted to the education sector; (b) willingness to implement politically sensitive education reforms; (c) concerted and sustained effort to build consensus

and support for these reforms beyond the education sector; and (d) attention to ensuring that the education system responds explicitly and demonstrably to the country's national development agenda. Furthermore, as discussed below, East Asian countries were effective in ensuring that national policy decisions were given the follow-up attention needed for implementation at the sector level.

*Reputable and Reliable Civil Service.* To achieve and sustain growth—be it in the economy or in the education sector—a country needs solid institutional capacity to formulate effective policies and implement them. In analyzing the good performance of East Asian countries in this area, the importance of cultural factors such as Confucianism (which places a high value on education) has often been invoked. But even if cultural factors have played a role, it is important to note that East Asian countries have labored tenaciously to develop a technically competent civil service as well as an overall institutional environment in which professionalism, performance, and integrity are required and rewarded. Specific measures to implement such policies included merit-based and highly competitive recruitment and promotion, and a level of total compensation, including pay, perks, and status, which are generally competitive with the private sector (for further discussion, see World Bank 1993, 174–75). Finally, a job in the civil service is associated with prestige, and civil servants generally enjoy considerable insulation from undue outside interference.<sup>20</sup> Aspects related specifically to developing the institutional capacity of the education sector will be discussed below.

*Consultative and Consensus-Building Mechanisms.* East Asian countries emphasized the principle of “shared growth” and chose among their policy options accordingly. This approach—

raised complex coordination problems. First, leaders had to convince economic elites to support pro-growth policies. Then they had to persuade the elites to share the benefits of growth with the middle class and the poor. Finally, to win the cooperation of the middle class and the poor, the leaders had to show them that they would indeed benefit from growth (World Bank 1993, 13).

To create and maintain a viable social compact, countries developed institutions and mechanisms dedicated to promoting overall economic development (such as the Economic Development Board in Singapore, and the Korea Development Institute in Korea); attracting private investments; and very important, minimizing debilitating conflicts in the labor market.<sup>21</sup> Korea and Singapore established formal deliberative councils that included such members as government officials, journalists, labor representatives, and academics. This type of arrangement facilitated coordination between government agencies and firms, and generally improved the flow of information. These councils may have strengthened the

commitment to shared growth among the general public and contributed to a reduction in rent-seeking behaviors (World Bank 1993, 352–53).

## EDUCATION PRIORITIES, POLICIES, AND STRATEGIES

The policy decisions taken outside the education sector by East Asian governments were essential, but not sufficient, to sustain success in education. Equally critical were the forward-looking policies and strategies within the education sector itself and the strong follow-through in policy implementation. Accordingly, the study tour program focused on the evolution of the education priorities chosen, the policy tradeoffs made, and the strategies adopted. This section summarizes insights with regard to the (a) exercise of visionary leadership in the education sector; (b) adoption of an “integrated” approach to policy development; (c) validation of the importance of TVET; (d) mobilization of resources for education; and (e) use of external resources catalytically to advance national goals in education.

### EXERCISING VISIONARY LEADERSHIP

East Asian leaders at the highest levels of political office have been strong and effective advocates of education as a foundational asset for and driver of their development agendas. Typically, the Ministry of Education itself is led by one of the stronger ministers in the cabinet. This visionary political leadership has been a key ingredient in ensuring that the country’s education system has (a) shaped future citizens by teaching moral values, (b) fostered national cohesion among groups with diverse backgrounds, (c) helped build a national identity, and (d) equipped students with the skills required for individual as well as national progress.

Understanding how to align the education sector with the national development agenda has been a central topic of debate in most developing countries over the past half century. To this end, weighty statements have been adopted at both national and international conferences about ways to achieve this alignment. However, political leaders in East Asian countries have often done better than their counterparts in most other countries at translating this rhetoric into explicit policies and substantive implementation. This leadership is exemplified by actions such as follows:

- *The sustained priority given early on to enrolling all children in primary school and, as progress toward this challenge was made, to universalize 8 to 10 years of basic education. In Korea, this meant concentrating education subsidies in rural areas and tolerating, for a time, huge class sizes (in some cases, more than 90 pupils per class). In Vietnam, it meant bringing all schools up to a minimum*

standard of quality for inputs (under the so-called Fundamental School Quality Level program). In Singapore, it meant spreading resources evenly across schools and operating all schools on double shift for most of the 40 years after independence. The priority of universalizing primary education so clearly stated by African leaders just after independence could not be maintained when the economic stagnation started in the early 1980s.<sup>22</sup>

- *The priority given soon after independence from colonial rule to revamping the school curriculum* and gearing it to serve the country's own goals for nation building and economic development.<sup>23</sup> This orientation, which is shared by Korea, Singapore, and Vietnam, stands in sharp contrast to the situation in many African countries, where today, some 40 to 50 years after independence, many political leaders still complain that their education system is burdened by a colonial heritage that responds poorly to their national conditions (this aspect is discussed further in chapter 2).
- *The priority given to ensuring that education programs respond to labor market needs* is strongly underlined in the chapters on Korea, Singapore, and Vietnam. As discussed further below, this priority manifested itself particularly in the attention paid to ensuring consistency between education policies and wider national development goals, and in the priority accorded to TVET.

### ADOPTING AN INTEGRATED APPROACH

East Asian countries deal with education in an integrated manner, thus avoiding the error of treating subsectors as separate, special-interest silos with tangential links to the rest of society. It is tempting to leave educators alone to their task of teaching and learning, but East Asian policy makers have side-stepped this pitfall by explicitly recognizing the mutually dependent and reinforcing interaction between education (at all levels), economic performance, and national development.

To achieve the desired result in practice, policy makers use institutional arrangements to reduce potential inconsistencies in the relationship between national and sector goals. In Singapore, the minister of education at the time of the study tour held a concurrent position as the second minister of finance. His job is thus not only to make claims on the state budget, but also to keep these claims in balance with other national priorities in light of the contribution of education to national development. Moreover, all large expenditures in education (as in other sectors) must be approved by a three-party committee made up of a representative each from the Ministry of Education (as the sponsoring ministry), the Ministry of Finance, and a third ministry with no direct stake in the matter—an arrangement made to ensure that sectoral interests are evaluated within a broader context. Recently, the Singapore government has even broached the idea of cluster ministries, which would further emphasize the cross-cutting nature of policy choices.

In Vietnam, the top leadership is likewise fully engaged in guiding the development of education in an integrated manner. The minister of education at the time of study tour was also the deputy prime minister and was thus very well-versed on the country's education strategy and maintained continuous discussion at the highest level of government by chairing monthly meetings to discuss education and training issues. Such practices not only put education at the center of the development agenda, but also ensure that it stays on track in implementation. At the institutional level, particularly in Singapore's vocational and technical training institutions, this integrated approach is evident in the composition of their governing boards. Typically, these boards include a large number of industry leaders who give direction to the design of course curricula to maintain a tight link to the professional world.

Interestingly, the chapters on Korea, Thailand, and Ireland all show that similar concerns arose in these countries regarding the need to ensure close links between education and economic development. And they have responded with approaches that resemble those used in Singapore and Vietnam.

#### VALIDATING THE IMPORTANCE OF TVET

For most participants, the discussions on TVET and the visits to TVET institutions in Singapore and Vietnam were perhaps the single-most interesting aspect of the study tour. There are many reasons for this, including the following: (a) the key role TVET has played in the rapid industrialization and economic growth of Korea and Singapore, and now also Vietnam; (b) the urgency of revitalizing TVET institutions in Sub-Saharan African countries—outdated and dilapidated after decades of economic stagnation; (c) the growing problem of creating employment for Africa's rapidly growing youth population;<sup>24</sup> and (d) the urgency of adapting to the competitive realities of globalization.

Successful cultivation of TVET capacities is perhaps the most complex of all the education and training challenges facing industrial and developing countries alike. Over the past few decades, countries have struggled with such issues as the role of vocational subjects in general secondary education, the level in secondary education at which to introduce vocational and technical specializations, the balance between general and specialized TVET streams, and the role of industry and the public sector in providing vocational training. In addition, as the experience of East Asian countries demonstrates so well, in high growth economies, the TVET system needs to be dynamic so that it can adapt and evolve constantly to rapid changes in the labor market and in the demand for skilled workers.

The study tour offered good opportunities to explore these and other questions. East Asian countries consider skilled and technically competent workers indispensable ingredients to transform their economies, from being driven by

factor endowments, to being driven by knowledge and innovation. Therefore, these countries have developed training systems to support this change process. In Singapore, study tour participants learned about the remarkable changes to most aspects of TVET programs and the delivery mechanisms that have restructured the traditional vocational workshops and training centers created in the early years. These original programs have been integrated into today's full-fledged system with multiple ladders and built-in opportunities for students to move from TVET streams to the polytechnics and universities.<sup>25</sup> In Vietnam, participants saw a system that appeared to be headed in the same direction.

The openness of Singapore's current system fosters connectedness across courses in terms of curricular content and objectives. The current system offers options to young people who shift interests and develop capabilities at different stages of their lives. The site visits revealed other attractive aspects of the Singapore system. For example, the teaching equipment at all the TVET institutions typically was current by industry standards; students routinely worked on projects commissioned by private industry as part of their final-year studies; and graduates enjoyed high rates of employment. By creating a strong demand from employers, the "poor image" problem traditionally associated with TVET institutions has been kept at bay.

In Vietnam, the emphasis on TVET was equally palpable. Study tour participants were especially struck by how strongly the Vietnamese felt that they needed highly skilled technical workers to compete successfully with their neighbors. They are working hard to attract foreign direct investments (FDI), and provisions for skilled worker training are a vital part of the packages they negotiate. One such example is the Vietnam-Singapore Training Center in Ho Chi Minh City (HCMC), which the tour participants visited. The center trains workers for firms in the Vietnam-Singapore Industrial Park (VSIP), as well as those in the vicinity, and it is funded by the two governments and VSIP. The skilled workers trained at this center are viewed as assets that the government can use to attract additional FDI.

Study tour participants also visited HCMC Industrial University where the same emphasis was placed on skilled workers. The hosts for the visit explained that foreign companies may take perhaps 10 years to scale up their operations, using a phased approach that buys them time to assess whether Vietnam can indeed supply the skills required. More generally, this approach enables foreign companies to determine whether cultural and other business climate factors are sufficiently favorable to justify a major scaling up of investment. The hosts underlined the need for Vietnam to compete with other East Asian countries to attract FDI and the associated high-end jobs. To attract cutting-edge firms was considered crucial to realize Vietnam's goal of becoming an industrialized country by 2020.

In Korea, the importance of TVET has been stressed since the creation of the Republic in 1948 (see chapter 5 for a summary and the data). But in the early days,

TVET graduates found it hard to obtain good jobs, which naturally dampened demand for this course of study. In the early 1960s, the government reformed the TVET system to sharpen its capacity to train the type of skilled workers required by the country's labor-intensive light manufacturing industries. As a result, by 1970, TVET accounted for 47 percent of all high school students. During the 1970s, the focus of the training shifted to align with the goal of developing the country's heavy-chemical industries. TVET's share of high school enrollment stayed above 40 percent through most of the 1970s and 1980s, and made a marked contribution to Korea's rapid economic growth during this period.<sup>26</sup>

In the 1980s, when Korea's economy was making the transition toward technology-intensive industries, the demand for technically trained workers shifted from the secondary to the tertiary level. Despite the government's efforts during the 1990s to maintain a high share of high school enrollment in TVET—and indeed even to increase it to 50 percent—the share actually dropped steadily, from 42 percent in 1995 to 36 percent in 2000 to 29 percent in 2005. The trend reflects the increasing demand for workers with technical training at the tertiary rather than secondary level (see chapter 5 for details on the ongoing debate in Korea regarding the future role of the TVET high schools).

In Thailand, policy makers were concerned about the balance between the academic and vocational tracks of secondary education, as chapter 6 indicates. A recent external evaluation suggests that low-quality equipment and a shortage of qualified teachers are compromising the quality of instruction. Thus, Thailand appears to be facing similar issues as those faced by Korea and Singapore at an earlier stage of their development. In 2004, 12 percent of Thailand's secondary students were enrolled in TVET programs, but the share was higher at 29 percent in upper-secondary education. Chapter 7 on Ireland tells a similar story to that of Korea and Singapore regarding the second-class label attached to TVET institutions in the early years, and discusses how these institutions were upgraded to become indispensable sources of the technical skills required to support the Irish "economic miracle."

The study tour offered multiple opportunities to explore how successful economies have addressed some of the most vexing issues of TVET development. Given the complexity of these issues, Africa's urgent needs in this area, and the wealth of experience in East Asia, this is one of the most promising areas for follow-up cooperation between East Asian and African countries.

## MOBILIZING PUBLIC AND PRIVATE RESOURCES

East Asian governments have acted on their belief that skills, beginning with literacy and numeracy, are fundamental drivers of growth. This belief has sustained for decades a policy of allocating a significant share of the public budget to education.

Sub-Saharan Africa, countries have allocated comparable shares of their GDP to education. But while East Asia's faster economic growth and effective population management have enabled this policy to generate rapidly growing education budgets, the combination of economic stagnation and continued rapid population growth has produced severe budget constraints in Sub-Saharan Africa.

Public education spending in East Asian countries is supplemented by significant financial contributions from families. One calculation for Korea puts family inputs at 50 percent of the national total, and the estimate for Vietnam appears to be of a similar order of magnitude. African families contribute in a major way to education financing—at a level that has increased during the economic crisis of the 1980s and 1990s—through payment of fees at public schools and financing of teacher salaries at community schools (established largely in rural areas with no public school). In contrast to the Sub-Saharan African approach, however, public financing in East Asia has favored basic education and relied more heavily on private financing for higher education. For example, in 1989, Korean households paid only 2 percent of total expenditures for primary education, but paid 42 percent for junior secondary education, 73 percent for senior secondary education, and 72 percent for colleges and universities (Yoon 2001, 18). Most Sub-Saharan African countries, especially francophone countries, traditionally have spent a high share of public education budgets on providing tuition-free higher education with generous scholarships,<sup>27</sup> while parents contributed to the financing of primary education. For example, a study of 12 francophone countries in 2002 found that on average almost one-third of all primary school teachers were paid by parents rather than by government (Mingat 2004).<sup>28</sup> A similar survey for Cameroon in 2001 concluded that parents' education expenses corresponded to 44 percent of total expenditures in primary education (World Bank and Pôle de Dakar 2003).<sup>29</sup>

#### USING EXTERNAL RESOURCES CATALYTICALLY

Foreign aid played a positive role in the development of education during its early stages in Korea and Singapore. When expressed in terms of its share of the education budget, however, that share was lower than currently prevails in Africa, and because it focused on strengthening technical and vocational skills and science research capacity, the aid was different in nature. Early on, aid made an important financial contribution to education reconstruction in Korea, first through the United Nations Korea Reconstruction Agency (UNKRA) and U.S. donations, and later through loans from different development banks, the two largest of which were the World Bank (59 percent of all loans) and the Japanese Overseas Economic Cooperation Fund—OECF (24 percent). Over the period 1969–99, the World Bank financed 11 projects in Korea focusing on upper-secondary vocational



schools and junior technical colleges. About 80 percent of these loans were used to equip labs and training facilities.

In addition to external financial support and technical advice, East Asian countries have used a number of mechanisms to actively strengthen their technical and scientific skill base and to acquire foreign technology and experience, for example, through licenses, capital good imports, foreign training, use of foreign technical expertise, FDI, and country visits to acquire knowledge.<sup>30</sup> The region's approach has been—and continues to be—characterized by pragmatism and a willingness to test new ideas, adopt what has been found to work, and drop or change what does not work.

Singapore is an excellent example of this approach. Since gaining self-governance in 1959, the government has consistently sought cooperation with industrialized countries and foreign firms to upgrade the technical skills of its labor force. It started by the government requesting the United Nations Development Programme (UNDP) to send a team of experts “from small, developed countries so that Singapore could learn the lessons of development from their experience” (Chan 2002, 5). The resulting report convinced the political leaders that continued dependence on *entrepôt* industries would not ensure economic survival and that Singapore urgently needed to train the technicians and engineers needed for industrial takeoff.<sup>31</sup>

This training started a process that continually upgraded the country's capacity to develop the various skills required to support its evolving technologically based economy. Although the instruments used have changed over time, the process continues. It includes the creation of specialized training centers with aid from UNDP (by 1968, six centers had been created) and three apprenticeship training centers in cooperation with leading external firms (Tata in 1972, Rollei in 1973, and Philips in 1975). These and other facilities later merged into the Institute of Technical Education (ITE), created in 1992, which since has evolved into a world-class postsecondary institution focused on developing vocational and technical skills.<sup>32</sup> Similarly, three institutes were established to provide high-level technology training in cooperation with, respectively, Japan (1979), Germany (1982), and France (1983).<sup>33</sup> In 1993, these three institutes became core elements of the Nanyang Polytechnic. Today, world-class foreign institutions such as the Wharton School of Business are establishing campuses in Singapore, thus providing the country with new opportunities to acquire the necessary skills to undergird an increasingly global and skills-based economy.

The presentations and site visits in Vietnam demonstrated that a similar deliberate and pragmatic process is under way there to develop a TVET system that responds to rapidly evolving labor market demands. In HCMC, study tour participants visited the Royal Melbourne Institute of Technology-Vietnam, a 100 percent foreign-owned private tertiary-level institution (tuition fees are US\$6,000 a year),

which started with 2,700 students in 1998 and is projected to enroll 10,000 students within the next five years.<sup>34</sup> Rather than see this private enterprise as a threat to the country's socialist ideology, our hosts noted that it adds value by accomplishing what the government cannot do on its own—that is, provide a performance benchmark for the rest of the system, thereby stimulating competition and creating market pressures for improvement, particularly in terms of the alignment of course offerings with labor market conditions and student expectations for the quality of services.

Also noteworthy is Vietnam's view on external aid, which now finances almost 10 percent of the country's investment in education. The Vietnamese government has made it clear that it expects all external aid to fund what the country has determined are its own national priorities. In other words, if an external donor were to come with tied resources that fail this test, the government was quite prepared to forgo the money rather than be side-tracked from its plans. This does not mean that external partnerships are merely tolerated. On the contrary, the deputy prime minister stressed during his meeting with the heads of the study tour delegations that these relationships were indeed highly valued as channels of expert technical assistance, sources of knowledge, and benchmarks for external validation of Vietnam's education performance.

## IMPLEMENTATION OF EDUCATION POLICIES

Good policies and strategies will not produce results without determined implementation and follow-up. What seems to characterize implementation in both Singapore and Vietnam is a consistent ability to choose pragmatism over ideology through a deliberate and pragmatic process of testing new ideas, adopting what has been found to work, and dropping or changing what does not work. One member of a country delegation commented that he now saw what Deng Xiaoping meant when he said, "it doesn't matter whether the cat is black or white, as long as it catches mice."

The discussion below highlights a few areas for which deliberate actions have been particularly important in explaining the progress achieved: (a) sequencing of reforms; (b) benchmarking for excellence; (c) retaining high-quality staff; (d) ensuring availability of high-quality yet low-cost training materials for all students; and (e) pricing policies in education.

### SEQUENCING REFORMS

Over the past 40 years, many Asian countries have built education systems characterized by a strong foundation of quality universal basic education, diversified options for postbasic education, and multiple (but not haphazard) routes to

acquire skills before entry to the labor market, as well as an emphasis on science and mathematics. In Singapore, a skills development fund, financed by employer contributions, has been established to upgrade skills or retrain those already in the labor market, creating a system that practices the concept of lifelong learning. Similarly, in Korea, a number of initiatives have been taken—by the government and the private sector—to promote lifelong competency building. Vietnam has also developed proactive policies designed to reach this goal. Asian countries are beginning to reap significant benefits from their sustained investment in science and technology capabilities, as seen by a pattern of economic development that increasingly draws its strength from skills, technology, knowledge, and innovation. Against this backdrop, tour participants were keen to understand how Asian countries have sequenced their reforms to achieve the remarkable transformation of their education systems.

At risk of oversimplification and without implying a strict sequencing of interventions, the pattern, particularly in basic education, has generally been as follows:

- First, expand quantity to ensure access while tolerating “low quality” in terms of inputs such as less qualified teachers, large class size, and multiple shifts (the “low-cost approach” described in chapter 5)
- Next, upgrade the worst-off schools to meet minimum standards of inputs
- Finally, upgrade the quality of inputs and tighten management of the inputs, especially teachers, to meet standards for performance as measured by learning outcomes

These steps make up a continuous series of overlapping interventions intended to move the system forward and position it to perform even better in the next phase. This attitude of seeking progressive and continuous improvement is applied to the whole system, not just basic education. In other words, while emphasizing basic education as a first priority, Asian countries simultaneously grow and reform the rest of the system and expect these other parts to perform to ever higher standards as well. For the latter, indicators of results include the employment status of graduates, employer satisfaction with their job performance, and the graduates’ aggregate contribution to moving the economy up the technological and economic value chain.

In Singapore, the approach to sequencing was accomplished in three phases: a survival-driven phase (1965–78), an efficiency-driven phase (1979–97), and a knowledge- and ability-driven phase (1998–present) (the content of each phase is described in chapter 3). The focus in the early years had been to put together the building blocks to align the education system with the national development agenda, an effort that involved (a) rationalizing the curriculum and addressing

language-of-instruction issues to create a unitary system; (b) developing textbooks to go with the curriculum, reforming the examination system and certification framework; (c) standardizing procedures and processes in schools to lay the groundwork for school-based management; and (d) investing in staff development programs for school heads and teachers to professionalize and strengthen the teaching service and its managers. As the institutional structure took shape, the shift toward the efficiency- and knowledge-driven phases meant intervening to make the system more efficient and ever more responsive to the economic agenda. In vocational and technical education, the system is now sufficiently mature that institutions routinely use tracer surveys of graduates to evaluate the effectiveness and relevance of course offerings.

Korea also placed clear priority on universalization of primary education. To achieve this goal at a time when the infrastructure was largely destroyed because of the Korean War, during which time the primary-school-age population was still growing and the education budget was severely constrained, the government gave clear priority to quantitative expansion through the “low-cost approach” described above. This policy choice was a temporary measure, followed by measures to address quality issues when the quantitative objective of universal primary education had been reached in the late 1950s. It is interesting to note that a similar “low-cost approach” was followed to universalize lower-secondary education during the 1970s and 1980s and to achieve the rapid expansion of higher education during the 1980s. For example, average class size in lower-secondary education stayed above 60 during the period 1955–85 and reached a peak of 65.7 in 1979. Average class size was brought down through a combination of fewer students and more teachers, reaching 35 in 2005. Similarly, in upper-secondary education, average class size remained around 60 until about 1985, and then started to decline, reaching 34 in 2005. Once enrollment targets were attained, efforts were redirected toward education quality enhancement.

In Vietnam, a similar sequencing of interventions is under way. The country has completed the early stages of reform and is now implementing quality standards and outcome-based management of the education system. It is entering the equivalent of the efficiency phase experienced in Singapore, but the country is simultaneously attempting to leapfrog toward the knowledge-driven phase (and perhaps also the ability-driven phase). The desire to strengthen and expand TVET is strong, and some of the arrangements that worked in Singapore (for example, governance structures that engaged industry leaders in determining the course curricula) are being scaled up in Vietnam.

Thailand likewise gave strong priority to achieving universal primary education, reaching a GER of about 83 percent in 1970 and 96 percent in 1980. The strong priority on universalizing primary education, targeting the enrollment of children from poor families, was maintained until the early 1990s when Thailand

started a drive to rapidly develop secondary education<sup>35</sup> as well (the GER at that level increased from 31 percent in 1990 to 82 percent in 2000).

Ireland, like all western European countries, gave high priority to achieving universal primary education, using “low-cost” approaches to provide education in rural areas close to the families. Even in year 2000, more than a quarter of all classrooms were multigrade, combining two grades (or age-groups), and 16 percent had more than two grades. But in the twenty-first century, the emphasis has shifted to tertiary education, where one-third of the workforce now holds a university degree.

### BENCHMARKING FOR EDUCATION EXCELLENCE

The drive for excellence was particularly evident in Singapore, but it was interesting to note how strongly the Vietnamese also embraced it. In fact, the value placed on education achievement goes back a long, long way as we learned in Hanoi. There study tour participants visited the Temple of Literature, the 1,000-year-old site of Vietnam’s first university, where the most successful candidates sitting for imperial examinations were honored by having their names carved permanently onto large stone tablets.

East Asian countries have an ancient tradition of merit-based professional mobility based on exams. Korea provides an excellent example of this system, which created a “virtuous circle” of quality. Formal academic credentials—the principle criterion for merit—were achieved through highly competitive exams, the results of which formed the basis for selection into jobs in both the private and public sectors. Rules of examinations were the same for everybody, and the content was confined to what was covered in textbooks. Absence of corruption in the examination and selection process encouraged students and parents to do their best and to accept the outcomes.<sup>36</sup>

As described in chapter 5, however, competitive examinations also presented disadvantages, including an emphasis on memorization, high examination pressure on students, and extensive reliance on private tutoring, which poor families could ill afford. Therefore, in 1968, the government abolished entrance exams in lower-secondary education and introduced a lottery system for student placement in high schools, designed to provide equal opportunity of access to the most prestigious schools. In 1974, the government also adopted the High School Equalization Policy, intended to equalize such school inputs as operating expenditures, class size, and education facilities. As a result, no discernable quality difference can be found across public schools or between public and private institutions. In short, the examination system has accompanied education progress, as Korea universalized first lower, then higher, secondary education, and expanded tertiary education to almost two-thirds of the relevant age-group.

The tradition in East Asian countries to measure their learning against high standards continues today with an interesting twist—by measuring themselves against world standards and taking deliberate action to reach those standards. For school education, the benchmarks including the international assessments of student learning, such as the Trends in International Mathematics and Science Study (TIMSS), in which several Asian countries have participated for many years now. In the 2003 survey, the top-five countries for eighth-grade performance in mathematics were all from East Asia, with Singapore on the top,<sup>37</sup> followed by Korea, Hong Kong (China), Chinese Taipei, and Japan. Singapore was on top of the 2003 survey for eighth-grade science, with Chinese Taipei second, Korea third, Hong Kong (China) fourth, and Japan sixth.<sup>38</sup> In Africa, only three countries—Botswana, Ghana, and South Africa—have participated in TIMSS 2003, although many of these countries do take part in regional assessments (for example, francophone countries in PASEC [Programme d'analyse des systèmes éducatifs de la CONFEMEN, or Conférence des ministres de l'éducation des pays ayant le français en partage] and Anglophone countries in SACMEQ [Southern Africa Consortium for Monitoring Educational Quality]).

Singapore continues to rely on the British system of "O-" and "A-level" examinations, for the simple reason that these examinations offer an external validation of the quality of instruction and open doors for students to pursue studies overseas. Both Singapore and Vietnam send their best and brightest students to compete in international academic Olympiads (mathematics and the sciences) in which the young competitors test their mettle against other bright students, and get a chance to mingle with and be inspired by the Nobel Laureates who frequently attend these events (eight of them will participate in this year's Physics Olympiad in Singapore). Winning is clearly only part of the story: The goal is to provide role models for the country's budding talent and through them to inspire the rest of their cohort.

Finally, the trend toward establishment of branches of renowned foreign universities in East Asian countries (such as Singapore and Vietnam) is another important way for these countries to benchmark the standards in their higher education institutions against the best in the world.

#### ATTRACTING AND RETAINING HIGH-QUALITY STAFF

Attracting and retaining high-quality staff is relevant at the systemic level, at which the concern is about the connection between education and goals of nation building and social and economic development, and the individual school and institutional level, at which the concern is about schooling outcomes. In each case, effective management is vital for efficient resource use as well as for the choice and implementation of cost-effective learning strategies. Effective management

depends not only on the skills of school managers and administrators but also on the management capacity of teachers who, in addition to their main pedagogical duties, are given important management functions with respect to how they manage classroom instruction and how they use school resources.

With respect to teachers, East Asian countries recognized that devoted and quality teachers at all levels of education are fundamental to achieving quality education. These countries have used a combination of financial and nonfinancial incentives to achieve this quality. Salary level is not the only factor affecting the attractiveness of the teaching profession, but it is an important factor. In the initial stages of their economic takeoff, East Asian countries did not pay their teachers high salaries. Even in the 1990s, data for a sample of countries indicate that the average pay was about 2.5 times the per capita GDP. Similar to other salaried workers, however, teachers benefited from the rapid increase in average national income.

This pay increase is quite different from the situation in most Sub-Saharan African countries. These countries suffered sharp declines both in GDP per capita (by 36 percent on average between 1970 and 1997) and in primary school teacher salaries expressed in per capita terms (from 8.6 times GDP per capita in 1975 to 6 times GDP in 1992 to 4.4 times GDP in 2000) (Mingat 2004).<sup>39</sup> The combination of these two factors eroded the salaries of Sub-Saharan African teachers (like those of most other civil servants) during the last two decades of the twentieth century, especially in Francophone countries. The loss of income, and the absence of explicit validation of their role in society, further undercut the professional morale of educators. Apart from affecting salary levels, the decline severely constrained the overall education budget, thus limiting teacher recruitment, increasing class size, and causing extreme shortages of other pedagogical inputs.<sup>40</sup> Following the recent resumption of growth, many countries are trying to address this problem. The tradeoffs in the use of these increased public budgets among competing needs—such as higher salaries, better trained teachers, smaller classes, more training materials, or abolition of school fees—are extremely difficult in a situation of continued high population growth and strong demand pressure on postprimary education.

This contrasts with the situation in East Asia, where economic growth has made it possible to raise the pay of teachers over time. In Singapore, teacher pay is now highly competitive. It is comparable to that of recent law school graduates, for example, which explains the surplus of candidates over available openings in teacher-training programs. In Korea, the entry level salary in 1995 for a primary school teacher was already slightly above the average in member countries of the Organisation for Economic Co-operation and Development (OECD) average (see chapter 5). In Vietnam between 1999 and 2001, the pay of teachers rose at all levels of education, but especially in primary education where a fourfold increase

occurred (albeit from a very low base, see chapter 4). Incentives are in place to attract teachers to less popular rural postings. Notably, the study tour presentations for Vietnam and Thailand underlined the strong financial incentives reserved for teachers who accept and remain in rural posts.

Apart from these financial incentives, Asian countries are also using nonfinancial rewards to attract and retain good teachers. In Singapore, for example, better rewards and recognition combined with comprehensive in-service professional development has improved the image of the profession and attracted higher-quality teaching talent. Singapore motivates teachers by recognizing that teachers mold the nation's future; they offer teachers meaningful career tracks leading to positions as master teachers, school principals, and senior administrators or specialists. This policy is backed up by a pay structure that keeps the incentives for the various tracks in balance. At the same time, they encourage continuous professional upgrading by allowing teachers to earn credits from in-service training that accumulate toward formal certification (for example, master's and doctoral degrees).

Vietnam has likewise launched efforts to raise the status of the teaching profession, beginning with the pay increase mentioned above, as well as through a stock-taking exercise to establish a baseline of teacher qualifications (or "profiles") to inform the design of a strategy to strengthen pre-service and in-service training. Parallel efforts are under way to improve the effectiveness of teacher deployment, organization, and utilization, as well as to address the skill development needs of teachers and managers in areas such as computer competence and mastery of foreign languages (primarily English). More generally, while the high social status of teachers is well-established and requires little development in the Confucian-influenced societies of East Asia, the political leadership nonetheless relies on social marketing as well as pecuniary and nonpecuniary rewards to reinforce and affirm their status, including regular opportunities for staff development.

Over the last three decades or so, East Asian countries—similar to the experience of most European countries in the 1950 and 1960s—have been upgrading the training of their primary school teachers from secondary-level programs to postsecondary degree programs. In Korea until the 1960s, primary school teachers were trained at secondary-level teacher-training colleges. In 1962, these colleges were upgraded into junior teacher-training colleges at the postsecondary level and again in 1982 to colleges offering four years of postsecondary training leading to a degree. The four-year programs were introduced after enrollment levels had peaked as a result of the decline in fertility rates. This gradual upgrading increased the attraction of the teaching profession and positioned the education sector to compete successfully for qualified staff during a period of rapid economic growth.

In Vietnam, the upgrading of teacher-training programs—from lower-secondary education plus three years of teacher training to programs of upper-secondary



education plus one year of teacher training—is ongoing. To be considered “qualified,” primary school teachers must hold an upper-secondary pedagogical diploma. In school year 2004–05, 82 percent of teachers met this requirement, while 10 percent held a college or university degrees.

Many African countries are seeking to provide primary school teachers with opportunities to pursue postsecondary degree programs. But because of continued rapid growth in the primary-school-age population, countries find it difficult to cope financially with the impact this has on the teacher salary budget. Before recruitment of teachers holding postsecondary degrees becomes affordable, many Sub-Saharan African countries are implementing intermediary measures (similar to those adapted earlier in Singapore and Korea, and now in Vietnam) to improve teacher qualifications by increasing the entry requirements to primary school teacher-training programs from completion of lower-secondary education to completion of upper-secondary education, followed by one or two years of pedagogical training. African countries can also learn from the approach of East Asian countries, which extends systematic in-service training and other support to existing teachers.

Regarding education managers, Singapore has done a lot to validate the role of managers at all levels and to empower them to lead. The debate about what kind of manager should be put in charge of education institutions—professional business managers or educators—appears to have been resolved by combining both qualifications. To this end, educators who seek to become school heads are selected carefully and given specific training as managers, ensuring that they not only can handle their institution’s day-to-day operations but also can make strategic choices informed by their personal knowledge of the teaching and learning process. Vietnam is also upgrading the management expertise, computer skills, and professionalism of its education managers.

Seniority plays almost no role in a competency-based system. Rigorous screening and recruitment of potential principals and leaders in education is as important as the training provided to this small pool of candidates. Within the technical institutions, managers are often either technical specialists with managerial training or former industry leaders who naturally would be keenly aware of the skills required to run a competitive business. For all managers, the performance expectations are clear—that is, achieve global standards for learning outcomes and economic impact.

## PROVIDING HIGH-QUALITY LOW-COST TRAINING MATERIALS FOR ALL

In addition to qualified and committed teachers, no other education input is likely to be more important to the quality of the learning process than the availability to all students of high-quality written learning materials. This is especially true in countries where many teachers have little training, classes are large,

duration of the effective school year is comparatively short, and homes are lacking in alternative reading materials. The two countries visited, as well as Korea, did exceptionally well in ensuring early on that their drive to universalize primary education included universal access to quality textbooks. Again, this experience is relevant to Sub-Saharan African countries where schools generally suffer from a severe shortage of textbooks and where book prices often are much higher than in East Asian countries.

After attaining self-governance in 1959, the government of Singapore chose as an urgent national priority to inculcate students with shared civic values and responsibilities to achieve social and racial harmony.<sup>41</sup> The textbooks available at that time were produced by private publishers only in English with content largely not relevant to the issues faced by the new state. The Ministry of Education set up a Civic Training Subject Committee (1966–73) to develop syllabus and produce civics textbooks, which first were developed in Chinese. More textbooks were developed by seconded textbook writers working under a University of Singapore editorial board. To ensure low cost, the Ministry established the Education Publishing Bureau (EPB) in 1967, tasked with producing affordable textbooks that promoted national objectives such as social cohesion and nation building. As a government agency, EPB was able to make textbooks available in the three main languages by cross-subsidizing development of textbooks for the two smaller groups (Malay and Tamil) with income from the sales of textbooks for the largest group (in Mandarin for the Chinese). A textbook-to-student ratio of 1:1 in key subjects was reached at an early stage.

Over time, the Singapore government implemented various mechanisms to ensure that syllabuses and textbook materials evolved in a way that reflected successive changes in education policies made to respond to changing national economic and social priorities. For example, after the introduction in 1979 of a major education reform (the New Education System, NES) to support the restructuring of its economic strategy, the government set up the Curriculum Institute of Singapore (CDIS). The CDIS changed the syllabuses and textbooks so that they were consistent with NES objectives. Following successful implementation of the NES, the CDIS was closed down in 1996 and its staff transferred to the Ministry of Education to serve other functions. At that time, the responsibility for textbook publishing returned to the private sector, based on syllabuses and specifications defined by the Ministry. In the process, the EPB was privatized. Schools now choose among various Ministry-approved textbooks.

In short, over a 30-year period, Singapore went full circle in textbook publishing. It began with commercially produced textbooks mostly unsuitable for Singapore schools; transitioned to textbooks developed by education ministry agencies to be consistent with education reforms and complement the shortage of well-trained teachers, but printed by private printers; and then shifted back to

commercially produced textbooks reflecting syllabuses approved by the Ministry. This evolution reflects the maturation of the Singapore education system and economy. The quality of Singaporean textbooks is now recognized internationally, and Singaporean publishers export textbooks and other training materials and help developing countries establish national publishing capacities.

Vietnam has also had a positive experience with respect to textbooks, and learning about this experience was an important part of the study tour program. In particular, the role played by the Education Publishing House in managing the different stages of the “textbook chain” is interesting and highly relevant to African countries—for example, the way textbook manuscripts are developed and tested; the printing and distribution of the books (based on outsourcing through competitive bidding); and the way foreign technical assistance (for example, from Singapore) has supported this process; the way textbooks are financed (about 80 percent of children have to pay for their textbooks, while 20 percent of children living in poor areas get them free).

The financial contribution by parents is facilitated by the fact that Vietnam has managed to develop excellent-quality textbooks at a price (covering all costs) that ranges from the equivalent of one-third to about two-thirds of a U.S. dollar. This compares favorably with the US\$2 to US\$4 textbook price in most Sub-Saharan African countries. The way textbooks are distributed to areas that are difficult to access and how teachers are trained in their use are other valuable techniques. The importance given to textbooks in Vietnam’s education policy is well illustrated by the following statement in chapter 4 of this book: “The replacement of textbooks at all school levels—the most important task of the third education reform and completed in 1996—brought consistency to general education across the nation.”

Wide access to textbooks also formed a key component of Korea’s education development strategy. During the reconstruction period after the Korean War, UNKRA helped Korea publish textbooks for primary education. Later on, Korea developed a system that relied both on textbooks developed by the Ministry of Education and on textbooks developed by individual authors. Each type of textbook reflected the curriculum developed by the Ministry, and each needed Ministry approval before schools could use them. Up to 1980, textbooks developed by the Ministry accounted for the largest share of the textbooks used. Since then, this share has declined, and the role of the Ministry is increasingly limited to review and approval of manuscripts. Commercial publishers also produce a variety of reference materials and workbooks.

## PRICING POLICIES IN EDUCATION

Some of the tour participants were surprised to discover that charging fees for public education is standard practice in East Asia. To protect disadvantaged groups, the

fee policy is invariably coupled with provisions to identify and exempt children from these groups rather than to provide blanket subsidies to all. This seems to be a common attitude among Asian policy makers. Such realism is reflected again in chapter 4 of this book: "people thought that their children's education, even vocational or higher education, should have been subsidized. . . . the people's expectation of state subsidies were inappropriate in a poor and developing country like Vietnam, especially in the context of postwar period and economic crisis."

In East Asia the cost to parents rises with level of education (primary education is now tuition free in most cases). Families are typically expected to pay for textbooks, even at the primary level, on the argument that when families pay for them, children take better care of the books. Compared with the situation in Africa, it is important to note that this policy of charging for textbooks at the primary level is made more affordable to parents by the following factors: (a) the comparatively low costs of textbooks (see above reference to Singapore and Vietnam); (b) the low number of children per family; (c) well-developed systems for targeting subsidies to poor families; and (d) rapid economic growth that has produced much lower poverty levels, including in Vietnam.

In Korea, although primary education was compulsory, parents initially had to buy textbooks and pay supplementary fees to operate the schools. Later, a special scheme was set up to eliminate fees and provide free textbooks to poor families. The fee abolition for primary education started in rural areas before the benefit was spread to urban schools. The 1968 decision to abolish entrance examination to lower-secondary education set the stage for extending the duration of compulsory education to include lower-secondary education as well. As part of this policy, the government again implemented a financial support policy that included the abolition of tuition fees and payment for textbooks for lower-secondary education, starting with remote rural and fishing communities and for low-income families. China has reportedly sent officials to Korea to study this approach and is learning from the experience to inform its own efforts to promote economic development and reduce poverty in rural areas. The Thai and Vietnamese governments have adopted similar approaches to promote schooling in rural areas (for example, free tuition and textbooks, scholarships, secondary boarding schools for ethnic minorities, and so on).

## **PARTICIPANT IMPRESSIONS AND FOLLOW-UP PLANS**

This final section summarizes the impressions formed and reinforced during the study tour among the participants, and considers a tentative agenda for follow-up.

### **PARTICIPANT IMPRESSIONS**

On the last day of the study tour, a structured discussion was organized to allow participants to share the key lessons they drew from the event, particularly

regarding teachers, textbooks, school facilities, education finance, management of the education system, development of postprimary education, and leadership in education. Each national team made a formal presentation based on their team discussion and outlined a plan for post-tour action. Each team's action plan was unique, but a careful review suggests two themes are common in the plans of all six countries:

- Strengthening the link between education and the economy through a variety of mechanisms, among them the diversification of options beyond primary education, focusing on skill development and lifelong learning, and the institutionalization of engagement with key stakeholders from industry, particularly employers, in this effort
- Promoting excellence in schools by paying close attention to teacher training and school management issues, developing curriculum and textbooks, and benchmarking through the use of continuous student assessments.

*On the link between education and the economy*, all of the six African countries face serious concerns about the development trajectories of both general secondary education and TVET. The demand for secondary education is growing as these countries advance toward the EFA goal, and these countries are grappling with issues that most Asian countries have successfully addressed—that is, universalizing lower-secondary education in a fiscally viable manner; managing the inevitable need for selective admission to publicly funded upper-secondary and tertiary education; striking a balance in the curriculum between vocational and general subjects; and so on. With regard to TVET, the depth of concern is evident from the interventions of the country delegations during the tour. Developing appropriate national policies for TVET is perhaps the *single-most difficult education and training challenge facing African countries today*. This is due to the following reasons:

- The economic stagnation in Africa during the 1980s and 1990s has stifled the development of TVET. The systems that exist today in most countries are generally obsolete in terms of equipment and management, and they are poorly positioned to assist with a resumption and acceleration of economic growth
- There is no obvious correct model, the way forward is filled with blind alleys, and the scope for costly mistakes is large
- African countries have limited access to high-quality international expertise in this area to help them evaluate options in TVET and make good policy choices
- The modern sector is nascent in most African countries, making it difficult to match investments in TVET with current and projected labor market demand
- Policy makers sometimes hold a misguided perception that secondary and tertiary graduates can't find jobs *because they lack the "right" technical skills*. This line of reasoning suggests that the employment problem can be "solved"

simply by investing in TVET in an attempt to supply the missing skills. Yet focusing on the supply side alone is unlikely to work. To succeed, supply-side action must match the skill requirements implied by the country's development strategy, as well as by the specific worker characteristics desired by prospective employers. East Asian countries, particularly Singapore, have applied the supply-chain logic to plan their investments in TVET, taking their cue from industry and employers to work out the skills and training implications; and they have been particularly adept at finding effective institutional arrangements to connect the supply and demand sides of the education equation.

*On promoting excellence in schools*, it is striking that the main ingredients for excellence are standard features in practically all World Bank-financed education operations in the Africa Region, including teachers, curriculum, textbooks, management, and student assessments. In budget support operations, these ingredients may remain in the background, but they play an important part in the story, in the sense that such operations transfer resources that eventually fund operating expenditures in education through the sector's claim on the government budget.

The Asia study tour highlighted just how important good management is as a quality-enhancing complement to the more traditional inputs of teachers, books, and classrooms. The plentiful supply of books at affordable cost in Asia was a distressing discovery for tour participants, because the reality in Africa after decades of donor support for textbooks is that school books are limited in choice, expensive, and often unavailable for countless African children. The need for good textbooks and other written pedagogical materials, along with the in-service teacher training to go with them, is clear. But many African countries will need to make a prior decision on what is perhaps a more fundamental issue—that of language of instruction. As long as this issue remains unsettled, it would seem difficult to make significant headway with curriculum reform and textbook development (for further discussion see chapter 2).

The challenges in the above two priority areas identified by the participants are huge. Tackling them will require much stronger national leadership than typically has been observed in Africa in the past. But it will also need catalytic support from Africa's development partners. To offer such support, it is important in each setting to reflect on such fundamental questions as the following: Do we have sufficient knowledge to articulate a time-bound roadmap for tying the education and training system more tightly to the economy, and for fostering excellence in education? Are the basic building blocks for reform in place? Is the implementation plan realistic and well-sequenced? Do we have a good sense of where countries are currently located in the reform agenda? Are we helping countries develop systems

with interconnecting parts, or are we reinforcing silo mentalities? Have we paid sufficient attention to promoting national leadership throughout the system (for example, fostering a culture of learning by doing and being responsive to feedback)? Are we finding ways to help mobilize sustained support for education from the country's top leadership? Are we helping counterparts in the education sector establish an appropriate communications strategy to reach key audiences with information that will engage them and garner their support for education? These are just some of the issues to keep in mind as development partners consider ways of providing more effective assistance.

### AN AGENDA FOR FOLLOW-UP

In the best of circumstances, study tours may generate some impact on the development of education in the participating countries, thanks to follow-up actions taken by committed individuals among the tour participants. More often, however, study tours tend to end up as isolated events with questionable impact in the absence of structured and systematic post-tour action. To avoid this outcome and to take advantage of the ideas stimulated by the tour, various follow-up options were discussed. Interest centered on the following possibilities:

- Support to the participating countries to implement their action plans as developed and presented during the study tour. This includes facilitating direct interaction between the six African countries and countries in East Asia
- A conference to report on progress made in carrying out the national-level action plans and to share related experiences
- Broader dissemination of insights from the study tour

As of this writing, some progress has been made on each of these ideas, as outlined briefly below.

*On the post-tour support to the participating countries*, the Bank education task team leader for each country will manage this work as part of their normal responsibilities, drawing on support where needed and feasible from the broader development community. Several countries on the tour have expressed a desire to develop institutional ties with Asian countries, particularly Singapore, to facilitate continued knowledge exchange and to benefit from support for implementation of their action plans. Accordingly, the Africa Region of the World Bank signed a Memorandum of Understanding (MoU) in December 2006 with the government of Singapore as a framework for continued collaboration following the study tour. Under the terms of the MoU, the Singapore government will host a second workshop in January 2008, this time targeting a larger number of participants from a smaller number of countries, to form a critical mass of policy makers with a shared

exposure to Asia's story in the education sector. The specific purpose of the workshop is to achieve the following:

- Better understand the *nature and scope of the visionary and strategic leadership* required to align the education and training sector to the economy
- Acquire practical ideas to facilitate reforms in the TVET sector now being prepared or implemented in the participating countries that will result in the development of a *high-performance skills development system*
- Gain practical know-how to foster *leadership for excellence in schools*

To translate ideas into action and tangible results, the workshop will enable the participants to achieve the following:

- Prepare an *actionable plan* that crystallizes specific ideas from the workshop for implementation as part of the ongoing education sector programs in their own countries
- Establish *contacts with specific institutions* in Singapore for potential postworkshop collaboration

*On the follow-up conference to report on progress with the national action plans*, this idea was mentioned in the closing remarks to the study tour. The purpose of such a conference would be to create a forum for the national teams to share their experiences with implementation of their action plans and to learn from each other, thereby keeping up the momentum for progress. Given its purpose, the event should be timed to occur after a suitable time lag, to allow a sufficient interval for plans to mature and to be implemented. As a first step toward such a conference, a session on the study tour and the follow-up workshop will be included in the program of the Biennale of the Association for the Development of Education in Africa (ADEA), currently scheduled to take place in Mozambique in May 2008.

*On the broader dissemination of insights from the study tour*, the outcomes of the study tour were presented to World Bank staff and others at the Bank's Human Development Forum (October 30 to November 1, 2006), with the participation of resource persons, particularly those from Singapore. More important, in addition to this publication, another publication is in the pipeline and a video of the visits to Singapore and Vietnam (with an abbreviated and a full-length version) has been completed. The video was shown at the World Bank conference on Secondary Education in Africa (April 1–4, 2007), which was attended by 28 ministers of education and some 300 participants from 36 African countries. As part of the continuing dissemination effort, the video will also be made available to participants at the 2008 ADEA Biennale.

Further learning from Asia's experience in education is both attractive and feasible. The attraction lies in the fact that many East Asian countries started off in



circumstances that were quite similar to those of African countries and yet they have managed to shed the limitations of their colonial heritage and carve a path toward national development and economic prosperity. The feasibility flows from the opening created by the study tour to Singapore and Vietnam, and by the promise of follow-up exchanges and dissemination through print and video. The Asia-Africa comparison does not mean that lessons from Asia can be adopted wholesale for application in Africa, because each African country faces unique challenges that call for custom approaches adapted to local conditions.

An examination of the Asian experience reveals common elements across countries that provide opportunities for reflection. Not surprisingly, a consistent element is visionary leadership at the highest level government—leadership that prioritizes investments in education as an integral part of the strategy for national development, which in turn creates mechanisms to foster productive dialogue and consensus building among the relevant stakeholders, and matches political rhetoric with attention to follow-through in policy implementation. Within the education sector, other commonalities across Asian countries include the use of an integrated approach to policy development across all levels of education and training; the emphasis on TVET; and the mobilization of private resources to supplement public spending on education. Last but not least, East Asian countries have demonstrated the importance of using external resources catalytically to advance their own national goals in education. Hopefully, these lessons from Asia’s experience will prove useful in helping African governments revitalize the education and training systems in their countries.

## NOTES

1. Past study tours organized by the World Bank’s Africa Region Human Development Department include a visit in 2000 to Guatemala and El Salvador for delegations from Benin, Guinea, Madagascar, Mali, and Niger; followed by a second tour in 2001 to India and Bangladesh for delegations from Cameroon, Nigeria, Rwanda, Sierra Leone, and Tanzania. In 2004, the Department sponsored a tour organized by UNESCO’s International Institute for Capacity Building in Africa to Thailand and Malaysia for delegations from The Gambia, Lesotho, Nigeria, Kenya, and Zambia.

2. These countries were chosen for this visit largely because they were all implementing major education sector development programs with external support, and faced issues on which East Asia’s experience offered potentially useful lessons.

3. These included a representative from a bilateral donor (United Kingdom’s Department for International Development, DfID) and the executive secretary of the Association for the Development of Education in Africa (ADEA). One other bilateral donor and UNESCO were invited to send a representative each, but the invitees were eventually unable to participate because of scheduling conflicts.

4. The program was designed through an iterative process of internal consultations with World Bank education sector staff and through them, with the Africa country delegations; and consultations with officials from Singapore and Vietnam. The Singapore government

agreed not only to host the visit, but also to co-sponsor it and finance all the local costs in Singapore, including lodging for the African participants. International Enterprise Singapore (IES) bore responsibility for the logistics of the program in Singapore, while its content was developed in cooperation with the Ministry of Foreign Affairs and the National Institute of Education (NIE). In Vietnam, the staff of the World Bank's team working on education provided the essential link to government counterparts and facilitated collaboration with the relevant government counterparts on the substantive and logistical design of the visit in Vietnam. The quality of the cooperation and the resulting program was truly outstanding in terms of both substance and organization.

5. Throughout this chapter, the term "East Asian countries" refers generally to the countries covered in the presentations made during the study tour. The coverage coincides broadly with what the literature commonly refers to as the "Four East Asian Tigers"—that is, Hong Kong (China), the Republic of Korea, Singapore, and Taiwan (China)—but also includes other newly industrial East Asian countries such as Malaysia and Thailand.

6. See Annex 1 for the study tour program.

7. Many African countries share experiences and challenges in the education sector common to those faced by Asian countries in the early years of their development experience, but African countries also grapple with issues that are unique to their circumstances. The discussion in this chapter is thus offered in the spirit of illustrative information, based on an admittedly limited though rich exchange. It does not replace, but complements, the more in-depth comparative analyses that would be required to paint a more complete picture of the similarities and differences between Asian and African countries in the education sector.

8. A World Bank study of economic growth in East Asia during the three decades ending in the early 1990s concluded that "[t]heir rapid growth had two complementary elements. First, getting the fundamentals right was essential. Without high levels of domestic savings, broadly based human capital, good macro-economic management, and limited price distortions, there would have been no basis for growth and no means by which the gains of rapid productivity change could be realized. . . . Second, very rapid growth . . . has at times benefited from careful policy interventions" (World Bank 1993, 23–24).

9. The figure for Sub-Saharan Africa excludes South Africa.

10. In the 1990s, four of the six countries experienced annual per capita GDP growth: Ethiopia (1 percent), Ghana (1.7 percent), and Lesotho and Mozambique (3 percent), whereas Cameroon and Madagascar saw an average annual *decline* of 1.2 percent and 1.3 percent, respectively. During the period 2000–04, all countries except Madagascar saw growth, ranging from 0.8 percent in Ethiopia to 6.7 percent in Mozambique. The decline in Madagascar continued during this period at an annual rate of –1.8 percent.

11. The following figures on public expenditure on education as percentage of GDP illustrate this point:

	1960	1989	2004
Korea, Rep. of	2.0	3.6	4.6
Singapore	2.8	3.4	3.1 (2005)
Thailand	2.3	3.2	4.3
Vietnam	—	3.5 (1994)	4.6
Sub-Saharan Africa	2.4	4.1	4.6

In Africa, the level of spending varies more widely across countries, ranging from less than 2 percent of GDP to about 9 percent (for example, Lesotho in 2004). Apart from Lesotho, the other five countries participating in the study tour devoted between 3.3 and 4.6 percent of their GDP to education around 2002–04. See World Bank (1993) for 1960 and 1989 data, and UNESCO (2006) for 2004 data. Data for Vietnam are from chapter 4.

12. As will be discussed, in addition to the budgetary constraint resulting from poor economic growth, Sub-Saharan African countries also gave much lower priority to primary education in their education budgets than did East Asia.

13. These mainly included the richer countries: Botswana, Cape Verde, Mauritius, Namibia, the Seychelles, South Africa, and Swaziland. A GER of 100 percent does not indicate universal primary school completion, which is the EFA target.

14. Cameroon, Ghana, Kenya, Madagascar, Nigeria, Republic of Congo, Tanzania, Zambia, and Zimbabwe. Of these countries, all but Congo and Ghana had in 2004 regained a primary GER of 99 percent or above, see UNESCO (2006, Annex Table 5).

15. Examples include land reforms in Korea and massive public housing programs in Singapore and Hong Kong (China).

16. In the mid-1990s, Sub-Saharan Africa's Gini coefficient was estimated at 51.0, as compared with 38.1 for East Asia. The richest 20 percent had 51 percent of national income as compared with 44 percent in East Asia. The poorest 20 percent had 5 percent in Sub-Saharan African countries as compared with 7 percent in East Asia (World Bank 2000, 92–93).

17. These figures refer to the median for Sub-Saharan African countries.

18. Singapore has had particularly rapid changes in its population since its founding in 1819. In the early periods, the growth was rapid (admittedly starting from a low base). For example, the total population increased tenfold between 1891 and 1964, and doubled between 1947 and 1965. When fertility levels started to decline in the mid- to late-1950s, however, the speed of the decline was spectacularly fast (resembling that of postwar Japan). For example, the crude birth rate was almost halved in a little more than a decade, declining from 42.7 in 1957 to 22.1 in 1969 (see Jones 1975, 169).

19. The estimates refer to 1988–89 for Korea and Thailand and 1980–81 for Singapore.

20. This factor has been noted as important for the “takeoff” on sustained economic growth in the Nordic countries. For example, among the favorable “preconditions” for the start of long-term growth around 1830 in Norway was “. . . a rather well-developed bureaucracy staffed with fairly competent and incorruptible officials” (see Fredriksen 1985, 73).

21. The paper on Ireland also stresses the importance of government policy dialogue with labor organizations in helping solve the economic crisis that country faced in the mid-1980s. Such dialogue has become a cornerstone of development in the Nordic countries.

22. At their first regional education conference after gaining independence, organized by UNESCO in Addis Ababa in 1961, Sub-Saharan African countries agreed to reach universal primary education by 1980. At a similar regional conference held in Karachi in 1960, Asian countries agreed on the same target year for this goal. The progress actually achieved by 1980 in reaching this target is reviewed in Fredriksen (1981).

23. As described in the paper on Ireland, curriculum reform was also the first major education reform introduced in Ireland after independence in 1922.

24. The key role of skill development in the transition from school to work is reviewed in Adams (2007).

25. Korea and Singapore's proactive use of foreign aid to strengthen their TVET capacity is further discussed below.

26. In 2004, the enrollment in technical and vocational programs in Sub-Saharan Africa included on average only 6 percent of total secondary school enrollment (3 percent in lower secondary and 11 percent in upper secondary). Only 7 of the 29 countries for which data were available had more than 10 percent of their secondary enrollment in such programs (see UNESCO/Institute for Statistics 2006, 102–104).

27. The situation in Senegal illustrates this point. In 1990, 78 percent of higher education students had scholarships, and public expenditures on scholarships and student food, lodging, and so on, represented 52 percent of the higher education budget, which, in turn, accounted for 25 percent of the education budget. Put a different way, public support for higher education students for scholarships and student support services (that is, excluding all pedagogical costs) amounted to more than three times the GDP per capita and was 16 times the per student public financing in primary education (see World Bank 1992).

28. Moreover, teachers paid by parents received only about one-fourth of the salary of government teachers. This means that these children on average have less qualified teachers than their counterparts in urban areas.

29. Despite the official elimination of school fees in Cameroon in year 2000, low public funding meant that, in 2002, parents still paid for one out of four teachers in public primary schools (mainly in rural areas). Added to this fact, 23 percent of all primary teachers are employed in private schools (only slightly subsidized), not far from half of the total number of primary school teachers are paid by parents.

30. Also Japan—for the first 15 years or so of its modernization process during the Meiji era (starting in 1868)—followed an approach in which it devoted considerable resources to systematically acquiring foreign technical knowledge, mainly through use of foreign experts and through training abroad (see Emi 1968).

31. The “Winsemius Report,” published in 1961, was named after its author, a Dutch economist and industrialist who was closely involved in developing the postwar industrialization program in the Netherlands.

32. “Postsecondary education” in Singapore means education continued after completion of six grades of primary and four grades of secondary education.

33. Lin (2002) describes the deliberate strategy and process followed in setting up these various training facilities to respond to the evolving needs of the economy.

34. Financed by a loan from the World Bank’s International Finance Corporation and contributions from a U.S. philanthropist.

35. An early analysis of reasons why Thailand needed to expand its secondary education is given in Tan (1991).

36. The way this system functioned and evolved is described in Yoon (2001, 29–31).

37. The TIMMS survey is conducted every four years, and Singapore has ranked first in science and mathematics since 1995.

38. Based on Japan’s experience in four African countries, Nagao (2004) assess the extent to which Japan’s approach for reaching excellent results in math and science teaching is “transferable” to the conditions in African countries.

39. The drop was largely due to a sharp decline for Francophone countries, from 11.5 times per capita GDP in 1975 to 4.8 in 2000. By contrast, the ratio for Anglophone countries declined from 4.4 times GDP in 1975 to 3.6 in 1992 and then increased to 4.2 in 2000.

40. The situation in Cameroon illustrates this point well. It also shows that while the 1973 and 1980 “oil-shocks” were a key trigger of Sub-Saharan Africa’s economic stagnation

during the 1980s and early 1990s, the decline also affected education in oil-exporting countries. Cameroon's strong growth during the 1960s and 1970s was followed in the mid-1980s by a severe economic crisis that lasted nearly 10 years, reaching a social climax in 1994 when salaries of civil servants (including teachers) were cut by half. The education system suffered greatly from this economic crisis. Public education spending per child ages 6–15 years old was more than halved between 1990 and 1995, and the 1990 level of spending per child has not yet been regained. The share of the government's budget allocated to education declined from 23.3 percent in 1990 to 12.9 percent in 1995, and was still only 15.2 percent in 2005. The share of the education budget allocated to primary education was just 36 percent in 2003–04.

41. The summary in this and the next paragraph draws on Ang (2006).

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## 40 • An African Exploration of the East Asian Education Experience

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## ANNEX 1

**Asia Education Study Visit for African Policy Makers**  
Singapore and Vietnam, June 18–30, 2006

Sunday, 18 June 2006

Start	End	Duration	Program	Presenters/Panelists	Session Moderator/Chair	Venue
Day	Day	—	Arrival of World Bank and African Delegates in Singapore	NA	NA	Meritus Mandarin
17:30	18:00	0:30	Registration and Informal Cocktail	Study tour organizers		Meritus Mandarin Act 1, Level 35
18:00	19:00	1:00	Study Visit Briefing	Jee-Peng Tan, Birger Fredriksen, and Anna Ng		Meritus Mandarin Act 1, Level 35
Evening			<b>Free Evening; Own Arrangements for Dinner</b>			

Monday, 19 June 2006

## Theme: Education for Growth—Singapore's Experience Over 40 Years

Start	End	Duration	Program	Presenters /Panelists	Session Moderator/Chair	Venue	
9:00	9:10	0:10	Introductory Remarks	Ms. Tan Jee Peng, World Bank	Mr. Dzingai Mutumbuka, World Bank	Meritus Mandarin	
9:10	9:20	0:10	Opening Remarks by World Bank	Mr. Yaw Ansu, World Bank			
9:20	9:30	0:10	Address by Guest of Honour	Mr. Lee Yi Shyan, Minister of State for Trade & Industry		Meritus Mandarin	
9:30	9:45	0:15	Group Photo				
9:45	10:05	0:20	Coffee Break				
10:05	11:05	1:00	Education Challenges in Africa: Overview and Country Perspectives	Six African education ministers & Mr. Mamadou Ndoye, Exec. Sec., ADEA	Mr. Dzingai Mutumbuka, World Bank	Meritus Mandarin	
11:05	11:50	0:45	Development of Education in Singapore since Independence	Prof. Lee Sing Kong and Prof. S. Gopinathan, NIE		Meritus Mandarin	
11:50	12:35	0:45	Discussion			Meritus Mandarin	
12:35	14:05	1:30	<b>Welcome lunch hosted by Mr. Lee Chiong Giam, Deputy Secretary, Ministry of Foreign Affairs</b>			Meritus Mandarin	
14:05	14:50	0:45	Strategic Management of Education Development in Singapore	Dr. David Ng, NIE	Prof. Lee Sing Kong, NIE	Meritus Mandarin	
14:50	15:35	0:45	Discussion			Meritus Mandarin	
15:35	15:55	0:20	Coffee Break			Meritus Mandarin	
15:55	16:55	1:00	Panel Discussion: Singapore's Experience in Education over 40 years	Drs. P.Y. Huang, Wee Heng Tin, Mr. Gerald Pillay	Prof. Lee Sing Kong, NIE	Meritus Mandarin	
16:55	17:55	1:00	Discussion			Meritus Mandarin	
	19:00		<b>Welcome dinner hosted by Mr. Alphonsus Chia, Deputy Chief Executive Officer, International Enterprise Singapore</b>				



**Tuesday, 20 June 2006**

<b>Theme: Successful Teaching and Learning</b>							
<b>Start</b>	<b>End</b>	<b>Duration</b>	<b>Program</b>	<b>Presenters/Panelists</b>	<b>Session Moderator/Chair</b>	<b>Venue</b>	
7:45	8:45	1:00	Meet in Lobby for Departure to NIE				
8:45	9:30	0:45	Singapore Teachers' Pre-service Training and Professional Development	Prof. Lee Sing Kong, NIE	Mourad Ezzine, World Bank	NIE	
9:30	10:15	0:45	Discussion				
10:15	10:35	0:20	Coffee Break				
10:35	11:20	0:45	Curriculum Development & Textbooks in Singapore	Dr. Ang Wai Hoong, former MOE Head of Curriculum Dev. Dept.	Don Taylor, DFID education advisor, Ghana		
11:20	12:00	0:40	Discussion				
12:00	13:30	1:30	<b>Lunch hosted by National Institute of Education (NIE)</b>				NIE
13:30	14:15	0:45	ICT Masterplanning for Education: Singapore's Experience	Dr. Koh Thiam Seng, Director, Ed. Technology Division, MOE	Dzingai Mutumbuka, World Bank	NIE	
14:15	15:15	1:00	Discussion				
15:15	15:35	0:20	Coffee Break				
15:35	16:20	0:45	ICTs Serving Educational Needs in Rural Areas: China's Experience	Prof. Kang Feiyu, Tsinghua University	Gary Theisen, World Bank		
16:20	17:05	0:45	Discussion				
<b>Free Evening: Own Arrangements for Dinner</b>							

**Wednesday, 21 June 2006**

**Theme: Skills for Development**

<b>Start</b>	<b>End</b>	<b>Duration</b>	<b>Program</b>	<b>Presenters/Panelists</b>	<b>Session Moderator/Chair</b>	<b>Venue</b>	
8:15	8:45	0:30	Meet in Lobby for Departure to Suntec				
8:45	9:00	0:15	Study Tour Participants' Arrival at the World Education Forum			Suntec, Ballrooms 1 & 2, Level 2	
9:00	9:10	0:10	Welcome Address by International Enterprise Singapore	Ms. Euleen Goh, Chairman IE Singapore	WEF organizers		
9:10	9:20	0:10	Welcome Address by World Bank	Yaw Ansu, World Bank			
9:20	9:45	0:25	Opening Address by Guest of Honour	Mr. Gan Kim Yong, Min. of State for Education and Manpower			
9:45	10:15	0:30	Welcome Reception				
10:15	11:00	0:45	Education for Growth: Korea's Experience over 40 years	Prof. Chong Jae Lee, Seoul Nat. Univ.	Yaw Ansu, World Bank	Suntec, Rooms 301 & 302, Level 3	
11:00	12:00	1:00	Discussion				
12:00	13:30	1:30	<b>World Education Forum Networking Lunch</b>				Suntec
13:30	16:00	2:30	Site Visit to ITE Balestier Campus	ITE Staff		ITE Balestier Campus	
16:00	16:45	0:45	Thailand's Experience in Addressing the Challenges of Secondary Education Development	Dr. Khunying Kasama Varavarn, Permanent Secretary, Ministry of Education, Thailand	Jacob Bregman, World Bank		
16:45	17:30	0:45	Discussion				
18:00			<b>Visit to the Asian Civilizations Museum</b>				

Thursday, 22 June 2006

**Theme: Skills for Development (contd.)**

Start	End	Duration	Program	Presenters/Panelists	Session Moderator/Chair	Venue	
8:00	9:00	1:00	Meet in Lobby for Departure to ITE Simei Campus				
9:00	9:45	0:45	Tertiary and University Education in Singapore: A 40-Year Perspective	Prof. Leo Tan, NIE		ITE Simei Campus	
9:45	10:30	0:45	Discussion				
10:30	10:50	0:20	Coffee Break		Prof. Lee Sing Kong, NIE		
10:50	11:35	0:45	Technical and Vocational Training in Singapore	Institute of Technical Education (ITE)			
11:35	12:05	0:30	Discussion				
12:05	12:50	0:45	Tour of ITE Simei Campus	ITE staff			
12:50	14:00	1:10	<b>Lunch hosted by Institute of Education (ITE)</b>				ITE Simei Campus
14:00	14:45	0:45	Lessons from Singapore's 40-year Experience with Textbooks	Mr. Sim Wee Chee, Director, Educational Publishing, Pampac	Prof. Lee Sing Kong, NIE	Suntec, Rooms 301 & 302, Level 3	
14:45	15:30	0:45	Discussion				
15:30	15:50	0:20	Coffee Break				
15:50	16:35	0:45	Post-Primary Education: Implications of the Global Economy	Prof. Cheng Kai Ming, Univ. of Hong Kong	Yaw Ansu, World Bank	Suntec, Rooms 301 & 302, Level 3	
16:35	17:20	0:45	Discussion				
Evening			<b>Free Evening: Own Arrangements for Dinner</b>				

## Friday, 23 June 2006

## Theme: Skills for Development (contd.)

Start	End	Duration	Program	Presenters/Panelists	Session Moderator/Chair	Venue
8:00	9:00	1:00	Meet in Lobby for Departure to NYP			
9:00	9:45	0:45	Polytechnic Education: Singapore's Experience	Mr. Lin Cheng Ton, Principal and CEO, Nanyang Polytechnic (NYP)	Prof. Lee Sing Kong, NIE	NYP
9:45	10:30	0:45	Discussion			
10:30	10:50	0:20	Coffee Break			
10:50	12:50	2:00	Site Tour of Nanyang Polytechnic & Departure for IES	NYP staff		
12:50	14:20	1:30	<b>Buffet Lunch at International Enterprise Singapore</b>			IES
14:20	16:20	2:00	Group work by African Delegations to Consolidate Lessons and Prepare Country Reports	N/A	N/A	IES meeting rooms
16:20	16:40	0:20	Depart for Suntec			
16:40	18:10	1:30	Singapore Heritage Tour			
<b>Free Evening: Own Arrangements for Dinner</b>						
Evening						
10:50-12:00: Site Tour of Nanyang Polytechnic						
12:30-13:15: Lunch hosted by Microsoft Corporation (Venue at NIE)						
13:15-14:00: Presentation by Microsoft & NIE						
14:00-14:30: Tour of Classroom of the Future						
15:00-17:00: Group work						
18:00-19:00: Singapore Heritage Tour						

**Saturday, 24 June 2006**

**Rest Day**

<b>Start</b>	<b>End</b>	<b>Duration</b>	<b>Program</b>	<b>Presenters /Panelists</b>	<b>Session Moderator/Chair</b>	<b>Venue</b>
AM	PM		Free/own arrangements			free
Evening			Check out of Hotel and Settle All Personal Bills			

**Sunday, 25 June 2006**

**Transit to Vietnam and cultural activities**

<b>Start</b>	<b>End</b>	<b>Duration</b>	<b>Program</b>	<b>Presenters /Panelists</b>	<b>Session Moderator/Chair</b>	<b>Venue</b>
6:45	10:00	3:15	Check out from hotel and leave for airport			
10:00	12:30	2:30	Flight to Hanoi			
12:30	13:30	1:00	Arrival at Hanoi and transfer to hotel			
13:30	15:00	1:30	Luncheon (own arrangement)			
15:00	18:00	3:00	City tour followed by Theatre			
Evening			Free Evening; Own Arrangements for Dinner			

## Monday, 26 June 2006

## Theme: Vietnam—Overview of Education

Start	End	Duration	Program	Presenters/Panelists	Session Moderator/Chair	Venue	
8:15	9:00	0:45	Audience with Vietnamese Deputy Prime Minister, HE Pham Gia Khiem	African Heads of Delegation; Yaw Ansu, Dzingai Mutumbuka, Jee-Peng Tan; Jeffrey Waite	Mr. Nguyen Ngoc Hung, the Dty Director of International Relations Dept.	Hoi An Room, Hilton Hotel	
8:15	9:00	0:45	Registration				
9:00	9:30	0:30	Welcome by Vietnamese Hosts	Deputy PM & Outgoing Minister of Education and Training (HE Nguyen Minh Hien)	Mr. Nguyen Ngoc Hung, the Dty Director of International Relations Dept.	Hanoi Hilton Hotel	
9:30	9:45	0:15	Welcome by World Bank	Mr. Yaw Ansu, World Bank			
9:45	10:15	0:30	Challenges of Educational Development in Africa	Mr. Mamadou Ndoeye, Exec. Sec. ADEA			
10:15	10:35	0:20	Coffee Break				
10:35	11:20	0:45	Overview of Education in Vietnam	Dr. Nguyen Quang Kinh	Hon. Mohlabi Kenneth TSEKOA, Lesotho	Hanoi Hilton Hotel	
11:20	12:05	0:45	Discussion				
12:05	13:35	1:30	<b>Welcome lunch hosted by the World Bank</b>				
13:35	14:35	1:00	Vietnam's EFA Strategy: Successes and challenges (FSQL, Disadvantaged groups, targeting support)	Dr. Nguyen Quoc Chi, Mr. Dang Tu An, Mr. Truong Thanh Hai and Mr. Bui Hong Quang	Ms. Josiane Rabetokotany, Madagascar	Hanoi Hilton Hotel	
14:35	15:20	0:45	Discussion				
15:20	15:35	0:15	Coffee Break				
15:35	17:05	1:30	Panel Discussion: Vietnam's Experience and its Relevance to Africa	African Ministers, Mamadou Ndoeye and Bridget Crompton, DFID	Mr. Yaw Ansu, World Bank	Hanoi Hilton Hotel	
Evening			<b>Official Reception Hosted by Vietnamese Ministry of Education and Training</b>				

**Tuesday, 27 June 2006**

**Theme: Vietnam—School Education**

<b>Start</b>	<b>End</b>	<b>Duration</b>	<b>Program</b>	<b>Presenters/Panelists</b>	<b>Session Moderator/Chair</b>	<b>Venue</b>	
9:00	9:30	0:30	Teacher Development—Professional competencies	Dr. Nguyen Tri	Hon. Mme. Ana Paulo Samo Gudo Chichava, Mozambique	Hanoi Hilton Hotel	
9:30	10:00	0:30	Panel Discussion by Vietnamese Teachers	Alumni teachers of the assessment program			
10:00	10:30	0:30	Discussion				
10:30	10:45	0:15	Coffee Break				
10:45	11:15	0:30	Student Assessments (Asian and other international experience)	Luis Benveniste, World Bank	Hon. Mme. Hamana Adama, Cameroon	Hanoi Hilton Hotel	
11:15	11:45	0:30	Student Assessments (Vietnam's experience)	Dr. Nguyen Quoc Chi			
11:45	12:15	0:30	Discussion				
12:15	13:30	1:15	<b>Lunch offered by the World Bank</b>				
13:30	14:30	1:00	<b>Press Conference</b>				
13:30	14:30	1:00	<b>World Bank Staff Meeting</b>				
14:30	15:15	0:45	Vietnam's Textbook Program (Publication, distribution, financing etc.,)	Mr. Nguyen Dang Quang, EPH	Hon. Mme. Baiden Amissah, Ghana	Hanoi Hilton Hotel	
15:15	16:00	0:45	Discussion				
16:00	18:00	2:00	Visits to textbook publication facilities	2 parallel groups			
Evening			<b>Free Evening: Own Arrangements for Dinner, Ghana-Brazil Soccer on Large Screen in Hotel (10:00 PM)</b>				
Evening			<b>Settle Hotel Bills &amp; Early Check-Out</b>				

**Wednesday, 28 June 2006**

**Theme: Secondary Education & System Financing**

Start	End	Program	Presenters/Panelists	Session Moderator/Chair	Venue
8:00			Luggage ready for pick-up by hotel bell boys		
8:30	9:00	0:30	Development of Lower and Upper Secondary Education	Hon. Mr. Fuad Ibrahim Oumar, Ethiopia	
9:00	9:30	0:30	Discussion		
9:30	9:45	0:15	Coffee Break		
9:45	10:45	1:00	Panel Discussion: Education System Financing in Vietnam	Overview: Mr. Nguyen Van Ngu, MoET; External Financing: Mrs. Nguyen Hong Yen, MoF; Sector budget implementation: Mr. Truong Thanh Hai, MoET	
10:45	11:45	1:00	Discussion		
11:45	12:15	0:30	Preparation for departure		
12:15	13:15	1:00	<b>Bus Departs for Airport—Box Lunch Provided on Bus</b>		
13:15	15:15	2:00	Airport Check-in		
15:15	17:15	2:00	Flight to HCMC		
17:15			Hotel Check-in		Park Hyatt Hotel
Evening			<b>Free Evening: Own Arrangements for Dinner</b>		



<b>Thursday, 29 June 2006</b>					
<b>Theme: Visits in HCMC—Technical and Vocational Skill Development</b>					
<b>Start</b>	<b>End</b>	<b>Program</b>	<b>Presenters/Panelists</b>	<b>Session Moderator/Chair</b>	<b>Venue</b>
7:30	11:45	4:15	Parallel visits to TVET institutions: (a) Singapore-Vietnam Technical Training Centre	MOET official	
9:00	11:45	2:45	Parallel visits to TVET institutions: (b) HCMC Industrial Univ; (c) HCMC Nat. Univ (IT campus); or (d) RMIT-Vietnam	MOET officials	
11:45	13:15	1:30	<b>Lunch hosted by each institution</b>		
2:30	3:30	1:00	Debriefing of Site Visits to the TVET institutions	Rapportuers for each group	Mr. Dzingai Mutumbuka, World Bank
3:30	3:45	0:15	Coffee Break		
3:45	5:45	2:00	Country delegations prepare their reports for the Friday presentations		
Evening		<b>Free Evening: Own Arrangements for Dinner</b>			
					Park Hyatt Hotel

## Friday, 30 June 2006

## Reflections on Asia's Experience and Its Relevance to African Countries

Start	End	Program	Presenters /Panelists	Session Moderator/Chair	Venue
8:00	8:10	Introduction	Jee-Peng Tan, World Bank	Yaw Ansu, World Bank	Park Hyatt Hotel
8:10	8:15	Key Ideas from the Study Tour: Session A			
8:15	9:15	Discussion	Country delegates and other study tour participants		Park Hyatt Hotel
9:15	9:30	Coffee Break			
9:30	9:35	Key Ideas from the Study Tour: Session B		Yaw Ansu, World Bank	
9:35	10:35	Discussion	Country delegates and other study tour participants		
10:35	11:35	Country Presentations (10 mins for each country)	Representative from each country delegation	Birger Fredriksen, World Bank	
11:35	12:35	Discussion & Comment on Country Presentations	Study tour participants		
12:35	12:45	Wrap up & Evaluation	Jee-Peng Tan, World Bank		
12:45	12:55	Closing Remarks by Sponsors	One representative each from Singapore and Vietnam		
12:55	13:10	Closing Remarks by World Bank	Yaw Ansu, World Bank		Hotel
13:10	14:10	Lunch			
14:10		Free Time			
18:30		Departure for Dinner			Park Hyatt Hotel
19:00		End-of-Tour Dinner Hosted by Mayor of HCMC			

## Saturday, 1 July 2006

Start	End	Program	Presenters /Panelists	Session Moderator/Chair	Venue
Day		Departure of Study Tour Participants	NA	NA	Hotel

<b>Key Ideas: Session A</b>	Teachers	Pre-Service Education and In-Service Development Teacher Profiles Teacher Motivation Pedagogical method (e.g. multi-grade; use of ICTs in schools)
	Textbooks	Publishing, distribution and pricing Affordability/availability to the poor Language of instruction, curriculum design (e.g. moral ed/cvics)
	School facilities	Construction costs Double shifting
	Education finance	Funding formula for allocation of resources to schools Stretching/Targeting government subsidies to achieve equity goals Aligning ODA behind achieve national goals; dependency on external funding
<b>Key Ideas: Session B</b>	Management of education system	Teacher deployment (e.g. incentives to teach in remote areas) Organizational effectiveness (e.g. decentralization; school-based management) Student assessment as a management tool Min. standards for inputs & standardized procedures and processes (e.g. FSQI) Equalizing conditions for teaching and learning across schools Quality assurance (e.g. self-evaluation and external evaluation)
	Development of post-primary	Universalizing lower secondary education Diversifying options for learning & skills development (e.g. "ladders & bridges") Addressing "image" problems and issues in TVET Institutional structures to engage non-education players Link between education and the labor market
	Leadership in education	High level commitment to mass basic education of good quality Setting long term goals and implementing short-term plans Sequencing of major reforms in education Coherence and integration of policies across ministries Seeking out and learning from the best in the world in specific fields Community mobilization (e.g. student competitions, institutional awards for excellence, etc.)

**ASIA EDUCATION STUDY VISIT FOR AFRICAN POLICYMAKERS**  
Singapore and Vietnam  
June 18–30, 2006

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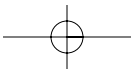
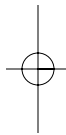
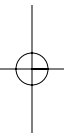
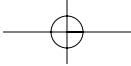
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